

CHARLES RIVER NATURAL VALLEY STORAGE AREA

DRAFT MASTER PLAN PUBLIC MEETING
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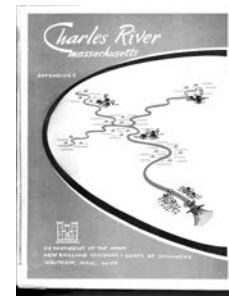
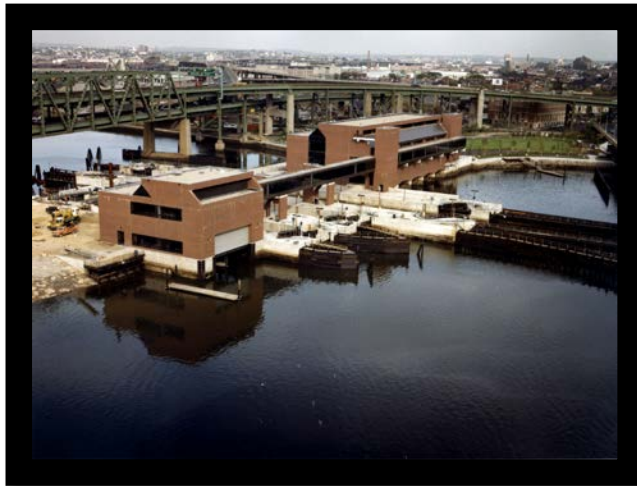


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BRIEF HISTORY

- **1965: US Congress authorizes a 5 year study, related to flooding, on the Charles River in Eastern Massachusetts.**
- **1966: Creation of the Charles River Study Coordinating Committee with Federal, State, Local representatives and Citizen advisory members from the surrounding communities.**
- **1968: Interim report released, identified the need for a multi purpose flood control dam to be constructed on the lower Charles River in Boston.**
- **1971: Final Report released, identifying the need to protect the Upper and Middle Watershed from further development.**
- **Acquisition of project lands began in May 1977 and was completed in September 1983 at a cost of \$8,300,000.**

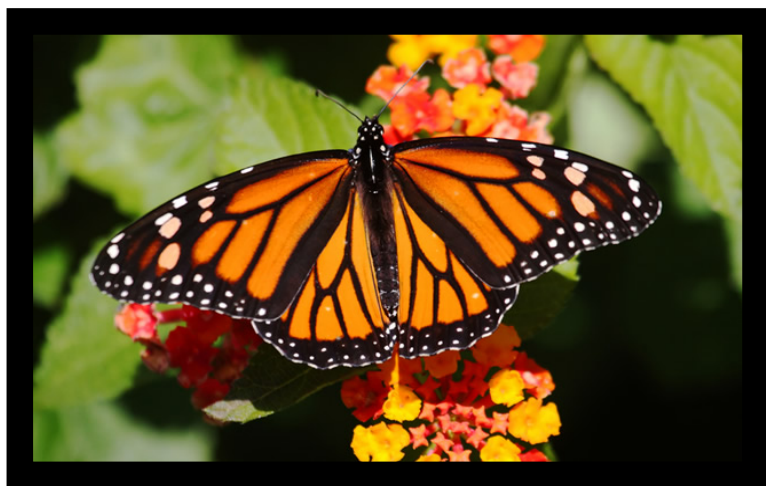


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PROJECT AUTHORIZATION

- Authorization of the project is contained in the Water Resources Development Act of 1974 (Public Law 93-251).
- The project was authorized as a multi-purpose project for flood control, recreation and natural resources management.



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PURPOSE AND INTENT OF MASTER PLANS

The Corps defines a Master Plan as...

“ The strategic land use management document that guides the comprehensive management and development of all project recreational, natural and cultural resources throughout the life of the water resource development project.”

Source: Chapter 3 of EP 1130-2-550 available at www.usace.army.mil/library/publications



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CRNVSA MASTER PLAN

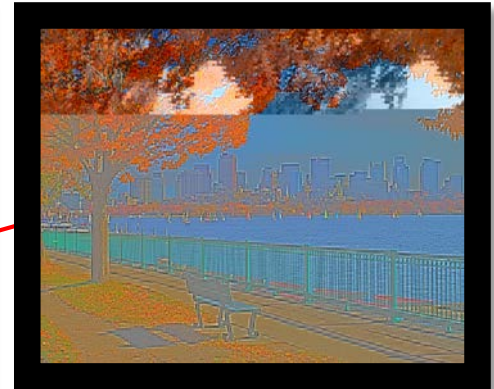
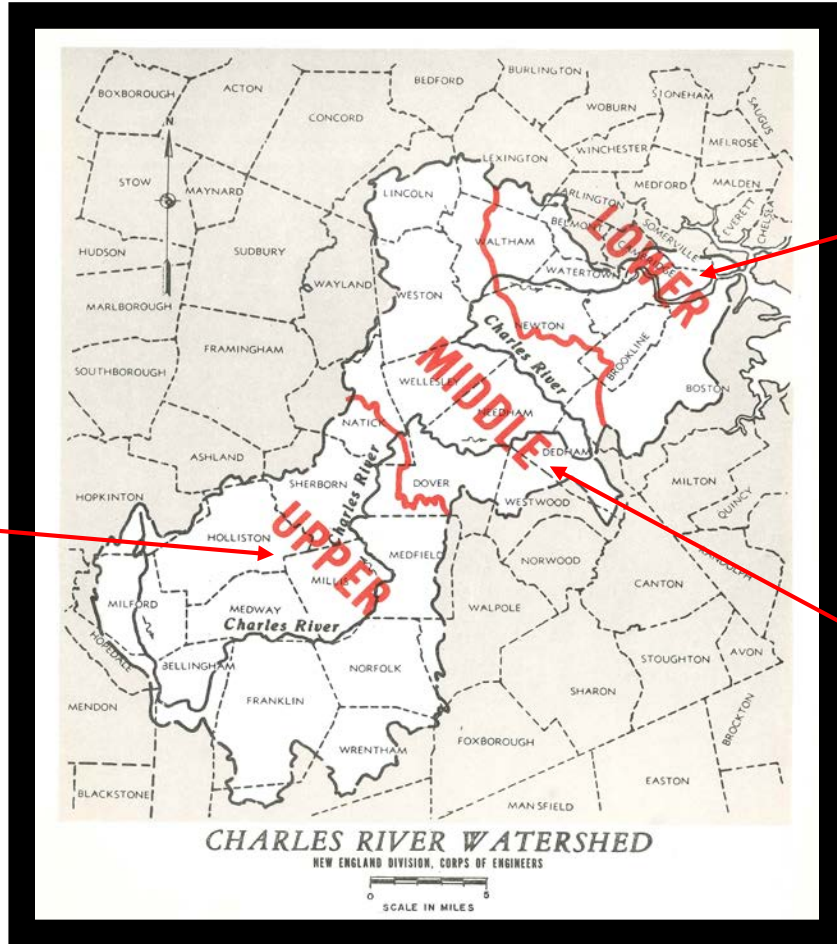
- **Update to previous plan done in 1984**
- **Provides best management practices to respond to regional needs, resource capability and sustainability**
- **Protect and manage project natural and cultural resources through sustainable environmental stewardship programs**
- **Provide public outdoor recreation opportunities that support project and public demands**
- **Recognize the particular qualities, characteristics and potentials of the project**
- **Provide consistency and compatibility with national objectives, and other state and regional goals and programs**



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CHARLES RIVER FLOOD RISK REDUCTION

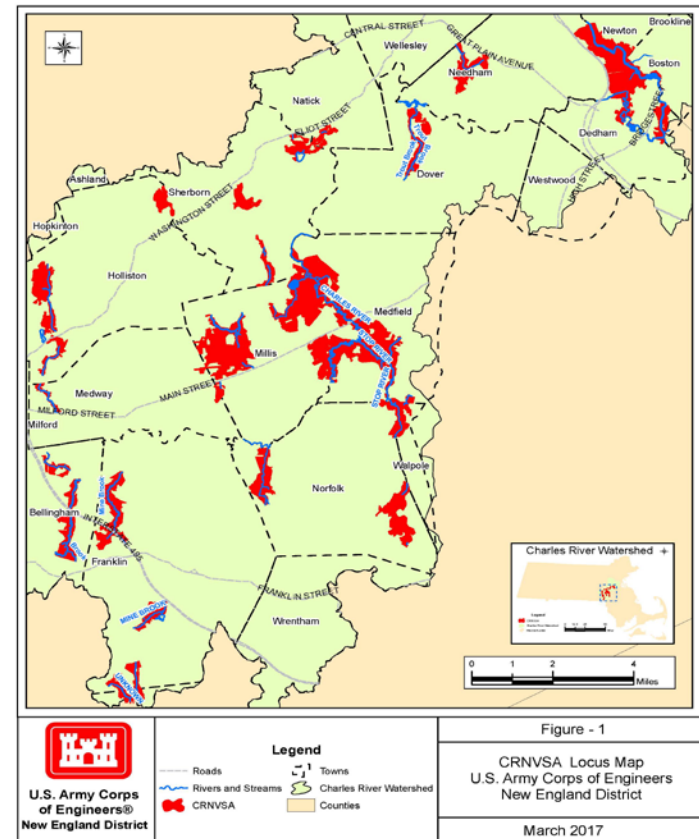


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CRNVSA PROJECT LANDS

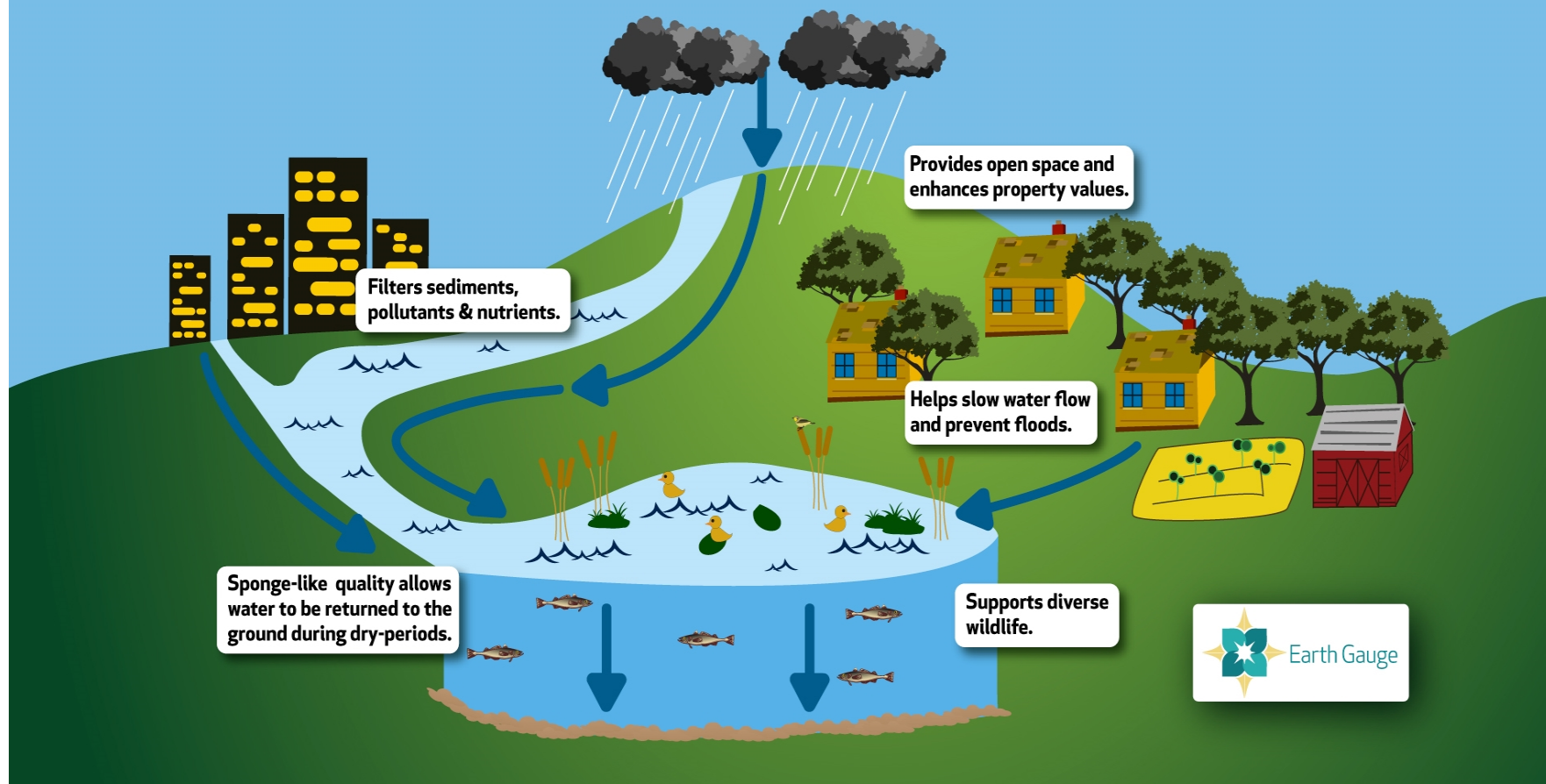
- The Charles River Natural Valley Storage Area totals 8,095 acres.
- Fee acreage totals 3,229 acres and Easement acreage totals 4,865 acres.
- Fee and Easement acquired in 16 communities. Millis, Medfield, Norfolk, Franklin, Holliston, Needham, Sherborn, Bellingham, Dedham, Dover, Medway, Newton, Wrentham, Walpole, Natick, and Boston.



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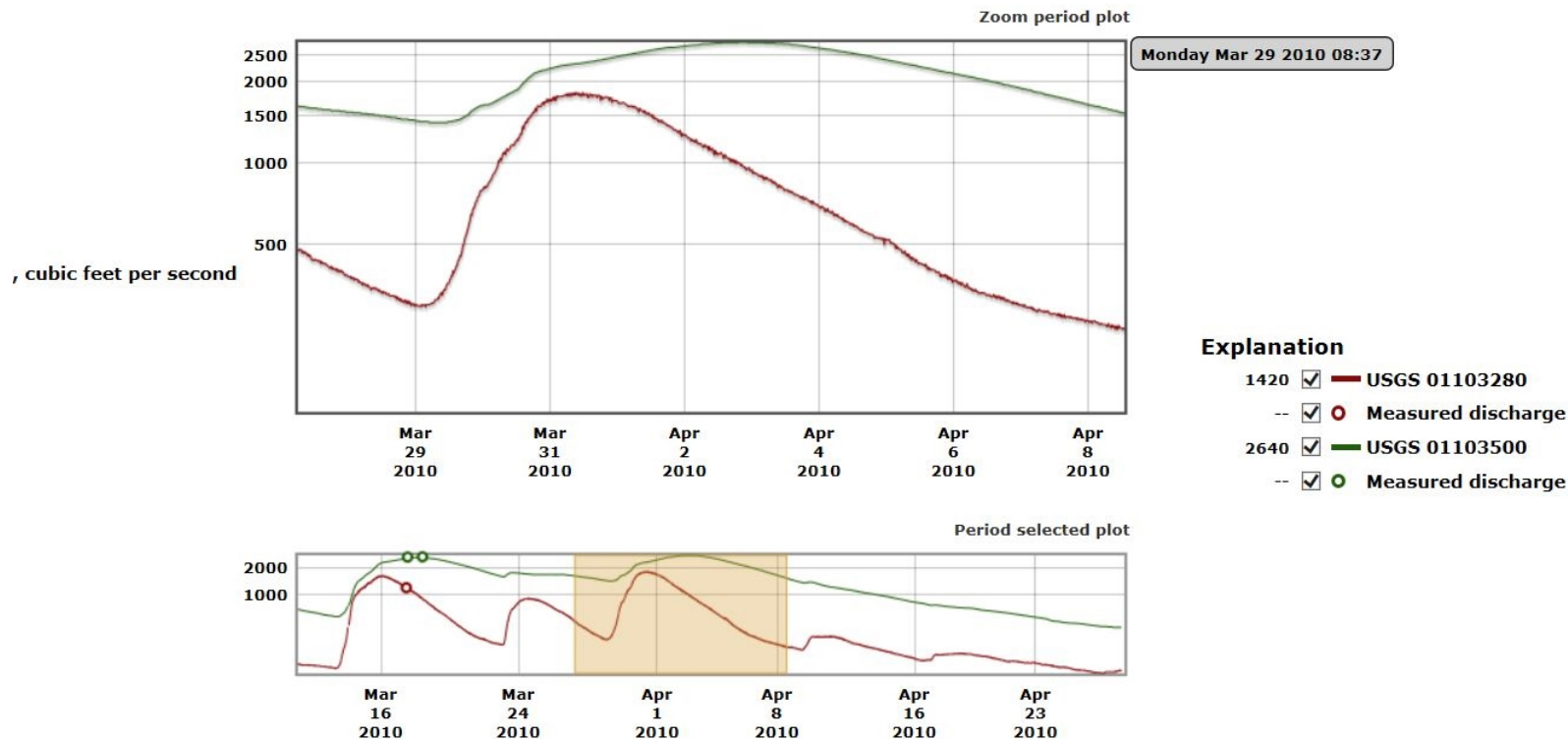
Benefits of Wetlands



Source: <http://saveoursodus.com/wetlands/>

CRNVSA HYDROLOGY

USGS 01103280 CHARLES RIVER AT MEDWAY, MA
USGS 01103500 CHARLES RIVER AT DOVER, MA

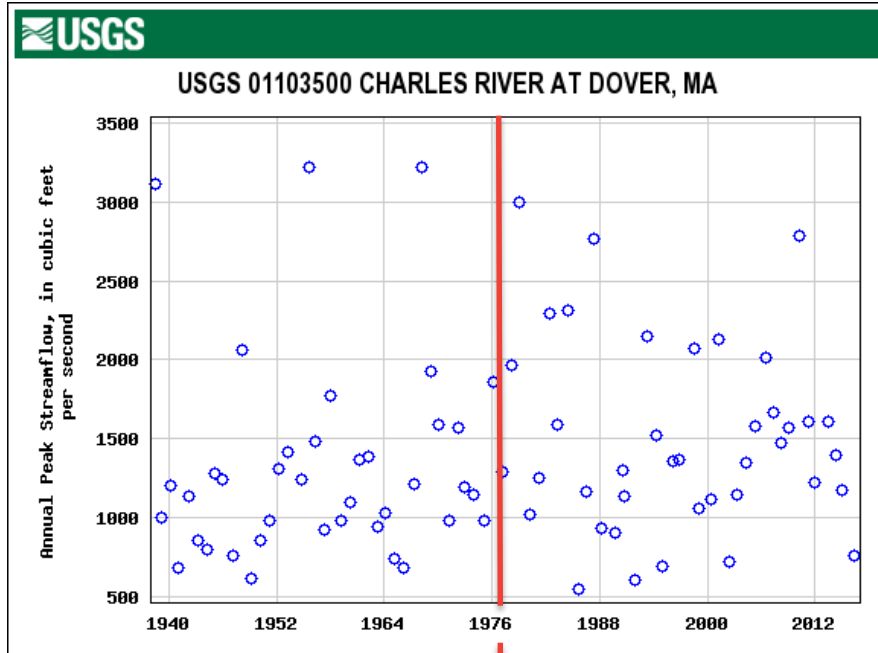


ATTENUATION OF FLOWS IN THE CHARLES RIVER

4TH HIGHEST PEAK IN 76 YEARS OF RECORD



CRNVSA HYDROLOGY



1977 First Land Acquisition

Water Year	Date	Gage Height (feet)	Stream-flow (cfs)
1955	Aug. 23, 1955	9.24	3,220 ⁵
1968	Mar. 22, 1968	8.72	3,220 ⁵
1938	Jul. 27, 1938	9.00	3,110 ⁵
1979	Jan. 28, 1979	8.36	3,000 ⁵
2010	Apr. 02, 2010	8.05	2,790 ⁵
1987	Apr. 08, 1987	8.03	2,770 ⁵
1984	Jun. 04, 1984	7.36	2,310 ⁵
1982	Jun. 09, 1982	7.32	2,290 ⁵
1993	Apr. 02, 1993	7.03	2,150 ⁵
2001	Mar. 25, 2001	6.97	2,130 ⁵

PEAK FLOWS



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CRNVSA FLOOD RISK REDUCTION

- Through 30 September 2016, the project has prevented almost \$12,000,000 in flood damages.
- This amount does not take into account for inflation.



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PUBLIC ACCESS

- Although there are no developed recreation areas or formal trails, CRNVSA federal lands are opened to passive recreational use.
- Which include walking, hiking, paddling, fishing, cross-country skiing and hunting (in accordance with state and local laws and restrictions).

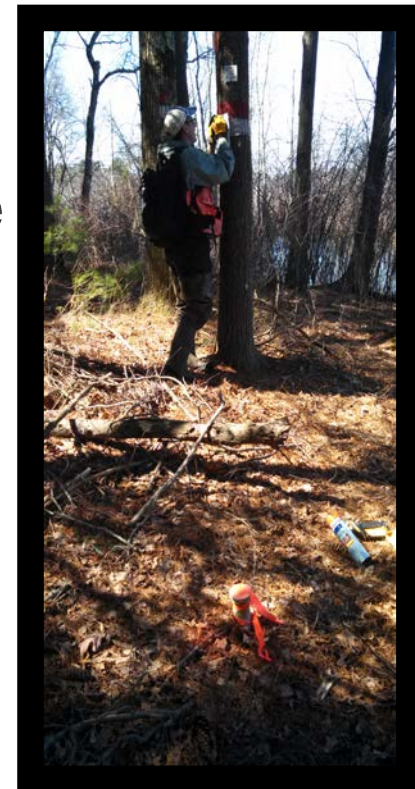


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CRNVSA OPERATION MANAGEMENT PLAN

- Flood Reduction Protection:
Boundary Inspection and Maintenance
- Land Management:
Outgrants
Natural Resource Management
Access



FLOOD REDUCTION PROTECTION: BOUNDARY INSPECTION AND MAINTENANCE



LAND MANAGEMENT: OUTGRANTS

Consent-32

Easement- 24

License-3

Lease-1

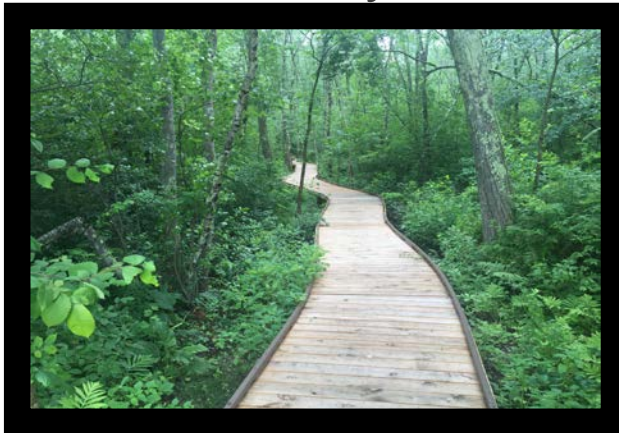
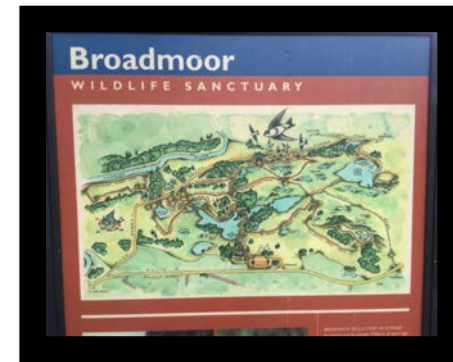


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LAND MANAGEMENT: OUTGRANTS CONSENT (32)

- Gas Pipelines
- Sewer Lines
- Stream Gage Station
- Sewer Pump Station
- Public Supply Wells
- Gravel Roadway



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LAND MANAGEMENT: OUTGRANTS EASEMENT (24)

- Sewer Pipeline
- Gas Pipeline
- Road Widening
- Gas Transmission Rectifier
- Sewer Pump Station
- Water Supply Well

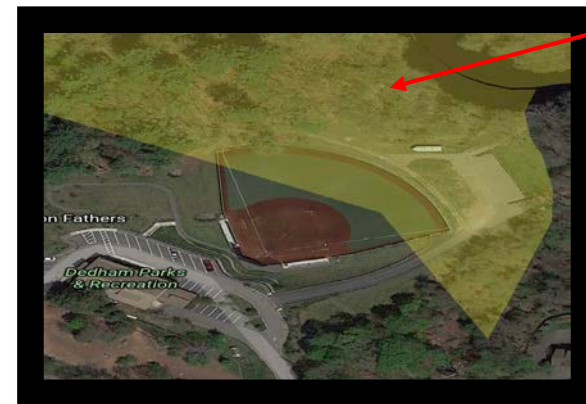


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LAND MANAGEMENT: OUTGRANTS LICENSE AND LEASE (3/1)

- Commonwealth of Massachusetts, Division of Mass Fisheries and Wildlife has a license to lease U.S. Army Corps land.
- Division of Fisheries and Wildlife manages 2,640 acres for fish and wildlife activities.
- License number DACW-33-3-96-22



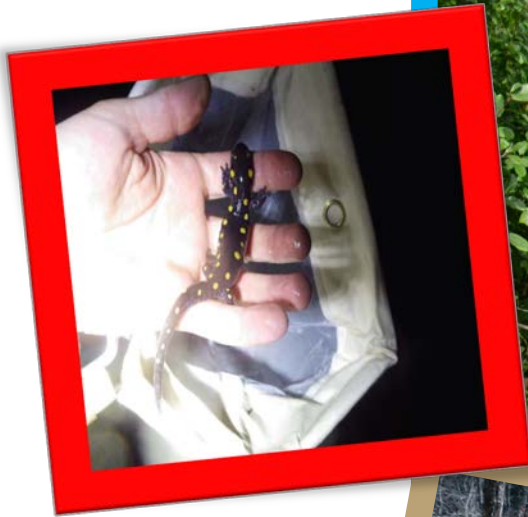
Flowage
Easement



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LAND MANAGEMENT: NATURAL RESOURCE MANAGEMENT



LOOKING FORWARD

- Future potential partnerships with various Charles River organizations
- Potentially have more canoe/kayak access points
- Invasive species monitoring
- Endangered/threatened species monitoring
- Look into updating the CRNVSA informational brochure
- Increase public awareness of the importance of the CRNVSA through potential future programs



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COMMENTS



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