



# State of the Ponds of Craigville



October 23, 2023

# A brief presentation about



- Status of construction projects aimed at restoring herring to Lake Elizabeth and Red Lily Pond
- Community efforts to clear vegetation from the ponds, herring run, and embankment
- Commitments from the community required to proceed

# Really Good News!



- The Town of Barnstable, in meetings on 4/27/23 and 8/13/23, approved expenditure of \$255,000 toward the Fish Ladder Project, which includes construction of a new dam and fish ladder. The funds are for design and permitting of the dam and fish ladder and the replacement of three culverts – one under Lake Elizabeth Drive, one under the Causeway, and one at Sandy Lane (by Birdland).
- One of the highest priorities to restore Lake Elizabeth is to build a replacement dam to raise water levels to those present before the old dam broke, about 15 years ago.
- Another priority is to bring spawning herring back into Lake Elizabeth (there used to be hundreds; now there are only a handful)



# Why Are Herring So Important?



River herring (alewife and blueback herring) are migratory fish that range along the East Coast from Florida to Maine. They spend most of their life cycle in the marine environment, returning every four to five years to their natal rivers to spawn. Juvenile river herring typically migrate back to the marine environment in the fall. Once out of the river, they may use the estuary for extended periods before migrating in the open ocean.


Historically, river herring populations reached into hundreds of millions. Returning to coastal rivers every spring, these fish supported some of the oldest fisheries in the United States.

*Source: NOAA*

# Even Better News!



- The Town of Barnstable has signed an agreement with the Natural Resources Conservation Service (NRCS) under which NRCS has committed \$625,000 to design, permitting and construction of the fish ladder, and replacement of the three culverts.
  - NRCS is an agency of the U.S. Department of Agriculture, and the funding for this commitment was approved as part of the Infrastructure Package proposed by President Biden and approved by Congress
- So, a total of \$880,000!!!!

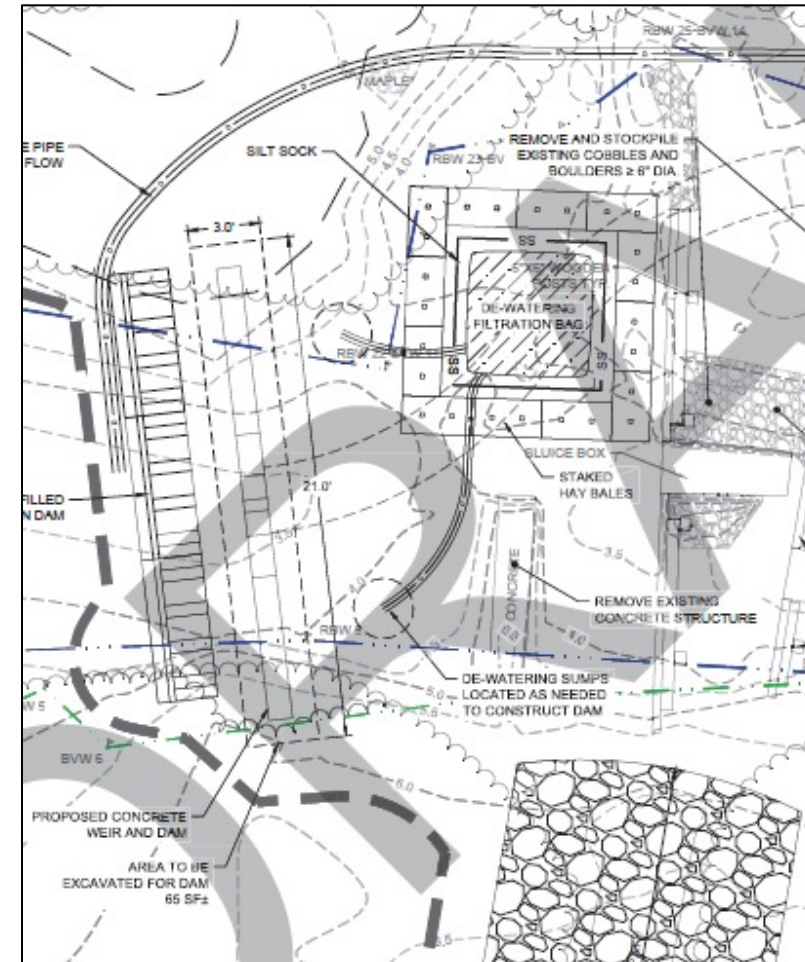
 U.S. Department of Agriculture Natural Resources Conservation Service		NRCS-ADS-093	
NOTICE OF GRANT AND AGREEMENT AWARD			
1. Award Identifying Number NR231320XXXXC020	2. Amendment Number	3. Award /Project Period Date of Final Signature - 12/31/2026	4. Type of award instrument: Cooperative Agreement
5. Agency (Name and Address) Natural Resources Conservation Service 451 West Street Amhers, MA 01002-2953		6. Recipient Organization (Name and Address) BARNSTABLE, THE TOWN OF CH, INC. 230 SOUTH STREET HYANNIS MA 02601-3935  UEI Number / DUNS Number: WQJTL6UZD8X5 / 079530747 EIN:	
7. NRCS Program Contact Name: Deron Davis Phone: (413) 253-4352 Email: deron.davis@usda.gov	8. NRCS Administrative Contact Name: DENNIS WILT Phone: (614) 255-2444 Email: Dennis.Wilt@usda.gov	9. Recipient Program Contact Name: Amber Unruh Phone: 508-737-3198 Email: amber.unruh@town.barnstable.ma.us	10. Recipient Administrative Contact Name: Bonny Ross Phone: 508-790-6400 X 4936 Email: Bonny.Ross@town.barnstable.ma.us
11. CFDA 10.904	12. Authority 16 U.S.C. 1001-1009 33 U.S.C. 701b-1 68 Stat. 666, as amended	13. Type of Action New Agreement	14. Program Director Name: Griffin Beaudoin Phone: 508-790-6400 Email: gbeaudoin@town

250	
15. Project Title/ Description: Design of replacement fish ladder and 3 culverts to restore migratory fish passage to spawning habitat in Lake Elizabeth, Barnstable, MA. Installation of the fish ladder and 1 culvert per design.	
16. Entity Type: C = City or township Government	
17. Select Funding Type	
Select funding type:	<input checked="" type="checkbox"/> Federal <input checked="" type="checkbox"/> Non-Federal
Original funds total	\$625,000.00 <span style="float: right;">\$125,000.00</span>

# Did You Notice What Is Missing?



- Federal funds cannot be used to finance any portion of costs for permit or design of the Dam, so those costs will have to be funded by the Town and/or private donations

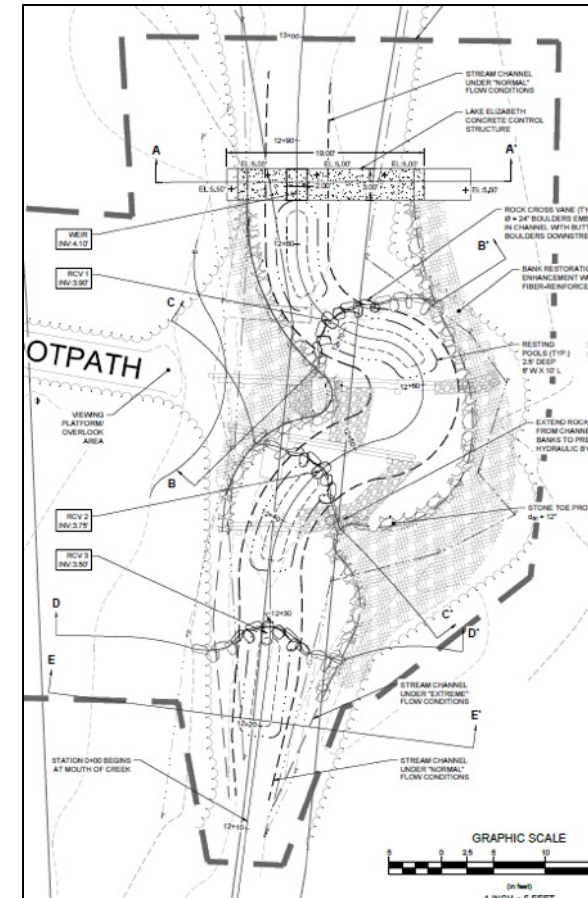


# But . . .

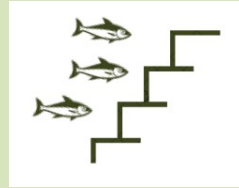


The Town Project Administrator told us last month that the Town is committed to ensuring that the dam is constructed

- Of the \$255,000 allocated by the Town to this project, \$130,000 is designated to provide the Town's 25% share of the construction of the fish ladder and culverts
- This leaves \$125,000 of Town money that could be used to construct the dam
- If the dam construction costs more, the Town may come up with the additional funds, or we may need to propose a public/private partnership



## Fish Ladder & Replacement of 3 Culverts



**\$625,000**

Town of Barnstable signed agreement with the Natural Resources Conservation Service (NRCS) ***NRCS awarded funds***

**\$130,000**

Designated to provide the ***Town of Barnstable awarded 25% share*** of the construction of the fish ladder and culverts

## Design & Rebuild of Dam



**\$125,000**

***Remaining Town of Barnstable awarded money*** that could be used to construct the dam

**\$ TBD**

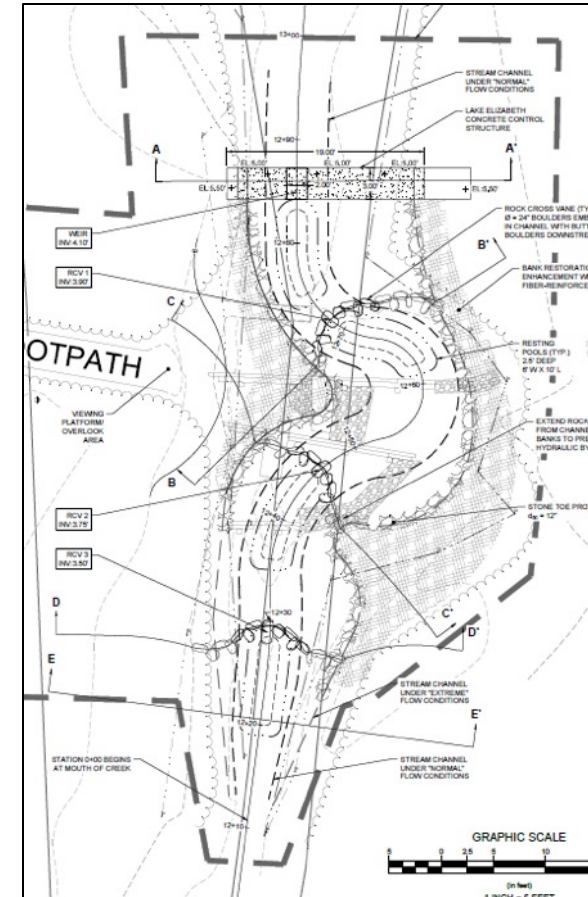
Additional funds required to rebuild dam





# Status of the Dam/Fish Ladder

- Using generous **contributions** from the Village and from neighbors, RLPPA retained engineers to prepare the “75%” plans and to file a Notice of Intent to build the project with the Barnstable Conservation Commission
- The Conservation Commission was scheduled to decide whether to grant the dam/fish ladder construction permit (called an Order of Conditions) at its meeting in July 2023, but the Town asked us to postpone the hearing because it seemed federal funding was forthcoming, and the federal agency involved wants to participate earlier in the planning process.
- The same engineering firm that prepared the dam/fish ladder plans will probably prepare plans for the culverts.



# Design of the Dam/Fish Ladder



- To help control erosion (previously constructed dams and fish ladders for Lake Elizabeth were undermined and circumvented by waters exiting Lake Elizabeth), we are proposing a Riffle and Pool design, instead of the traditional ramp with baffles.



Photos of Riffle and Pool design on the Acushnet River.



# What Do We Ask the Community To Do?

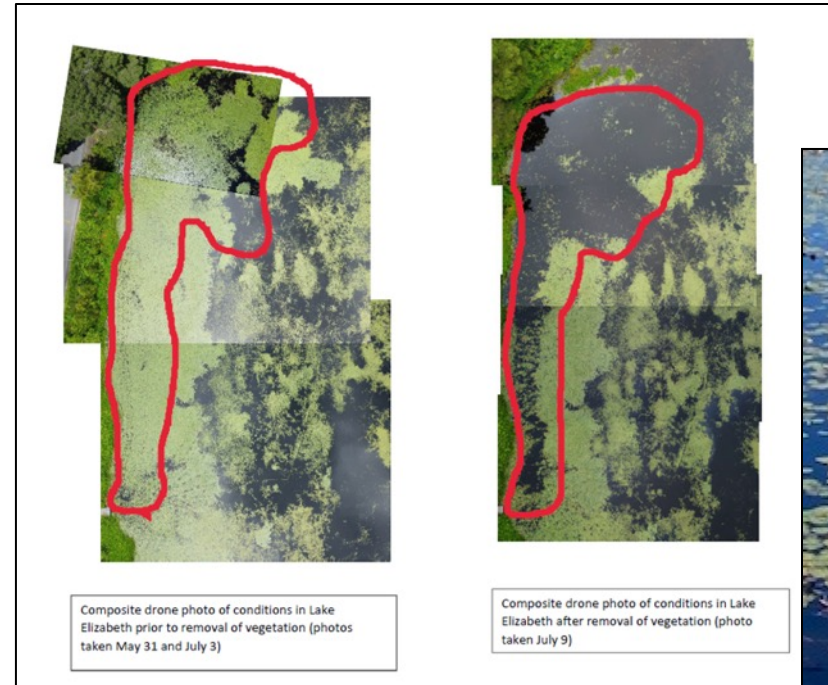
- Support the applications for Notices of Intent at Barnstable Conservation Commission hearings.
- Educate property owners about necessary easements
- Commit to keeping the herring run open (remove invasive plants) for at least 50 years
- Potentially, financially contribute to dam construction costs



# What Else Has RLPPA Been Doing?



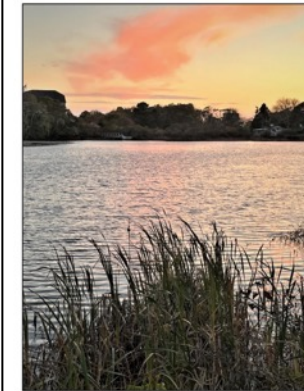
- Vegetation clearance from Lake Elizabeth and Red Lily Pond
- Vista pruning and removal of invasive species from the embankment of Lake Elizabeth
- Supporting replacement of dilapidated wooden public dock accessed from Lake Elizabeth Drive
- Annually counting the number of herring spawning into Lake Elizabeth





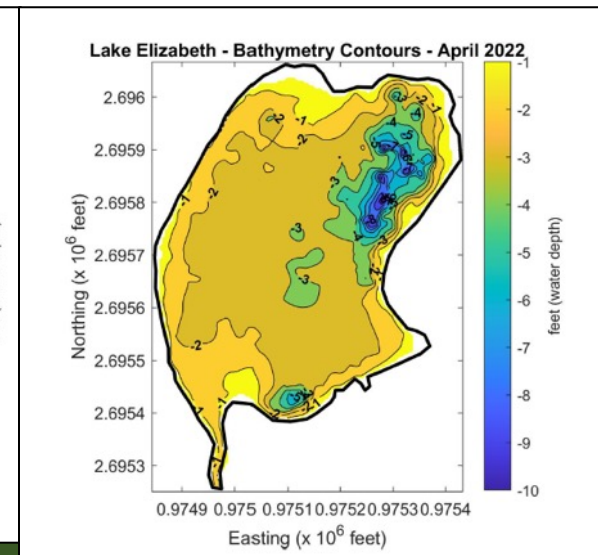
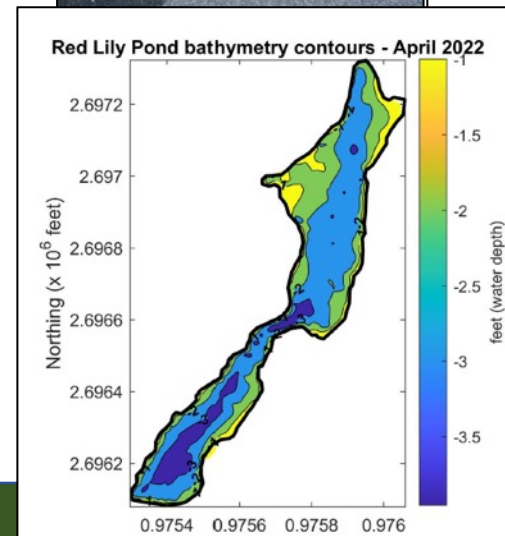
# What Else Has RLPPA Been Doing?

- Removal of phragmites from herring run
- Raising public awareness of and support for the ponds
- Preparing and amending long range plan for the ponds
- Ensuring that drywells are properly maintained
- Trying to educate public to stop fertilizing (except with compost or mulch)



Long-Range  
Pond Management Plan  
For Lake Elizabeth and  
The Red Lily Pond

Craigville,  
Massachusetts





# What Will RLPPA Also Be Doing?

- An RLPPA project team (Patricia Deyton, Doug Farquhar, and Paul Schumaker) will monitor and support the Town in permitting and construction of dam, fish ladder, and culverts; first meeting scheduled 1/2024
- Applying for permission to drop a “benthic barrier” on portions of Lake Elizabeth and Red Lily Pond that will prevent plant growth/regrowth in certain portions of the lakes
- Monitoring water quality
- Considering addition of solar-powered water recirculating devices to increase dissolved oxygen



# What Are Your Questions and Concerns?



See also the Red Lily Pond Project Association Website  
[www.redlilypondproject.org](http://www.redlilypondproject.org)

