Lake Hayward Lake & Watershed Management Plan

Stakeholders Meeting
January 31, 2015



Today's Facilitators

Randy Miller – Project Leader

- Lake Hayward Resident
- Lake Quality Improvement Committee member
- East Haddam Lakes Association

Rick Canavan – Technical Advisor

- Environmental Scientist at CME Associates
- Vice-President, CT Federation of Lakes





Agenda

Lake Hayward Info

Watershed Plan Overview

Project Goals

Lake Water Quality Monitoring & Restoration

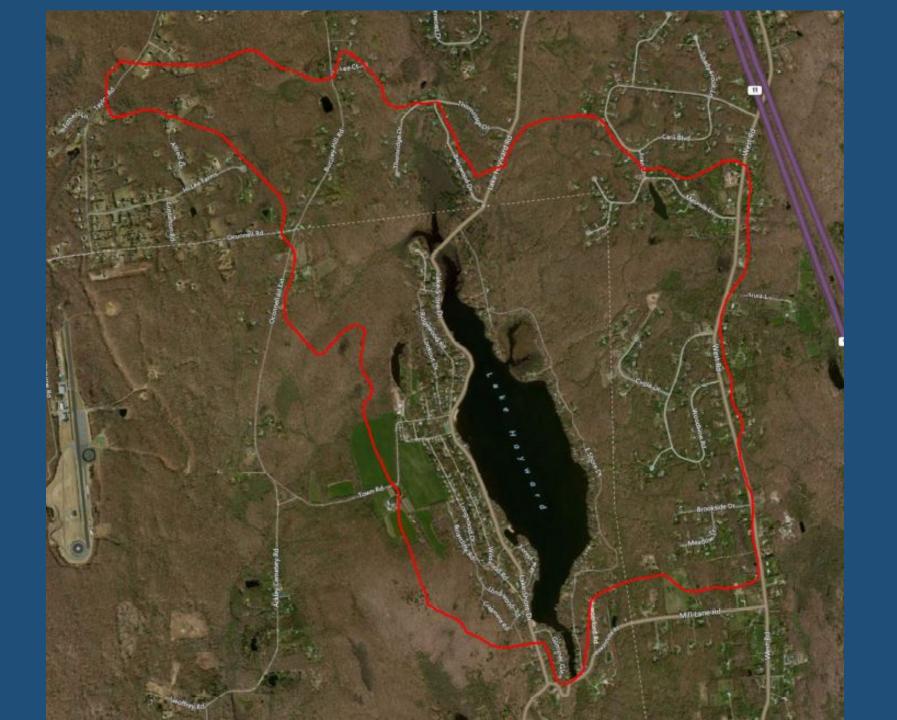
Education

Threats

Stakeholder Introductions

Stakeholders' Discussion





Watershed Area 1,500 acres

Lake Area 174 acres

Northern boundary of Eightmile River Watershed

Most densely populated area in Eightmile River Watershed

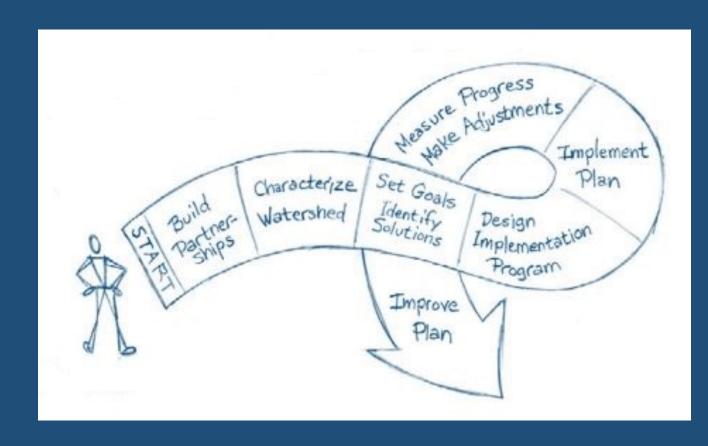
Lake Hayward Info

- West Side Property owners' association (POALH), 394 residences
- East Side 80 unincorporated residences
- Lake Quality Improvement Committee (LQIC) east and west side residents
- Active recreational lake
- Public access at State boat launch
- No internal combustion motors permitted
- Mesotrophic (moderate biological productivity)



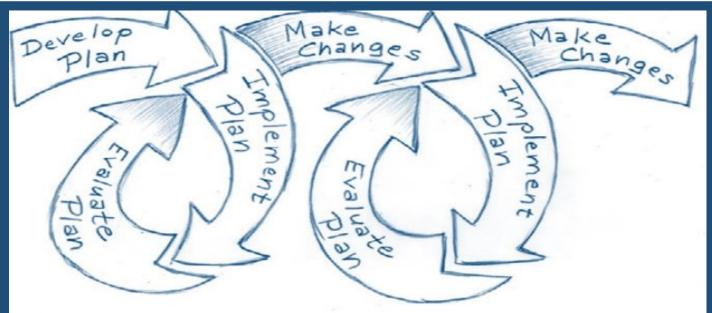
Why does Lake Hayward need a LWMP?

- Protect and maintain water quality
- Prioritize resources
- Coordinate on-going efforts
- Document actions
- Support funding requests



LWMP strengths and weaknesses

Successful Plans	Unsuccessful Plans
Bring stakeholders together	Technical analysis with little local involvement
Utilize existing information	Actions items that can not be completed based on available resources
Continued involvement through implementation	Lack of continued involvement from Plan Team
Iterative review and revision of goals	No review of success or Plan direction



Project Goals

- Start the LWMP process
- Engage with non resident and resident stakeholders
- Identify areas to be included in the Plan
- Develop the next steps for Plan development



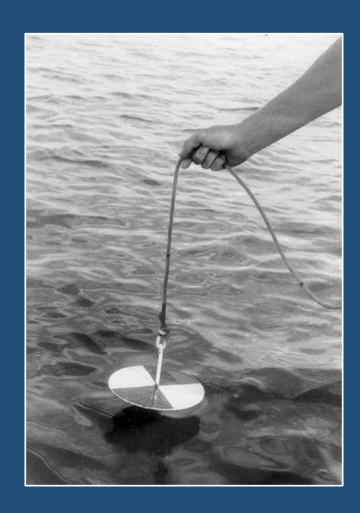
Lake Water Quality Monitoring & Restoration

Monitoring

- Native and invasive aquatic plants
- Water Clarity
- Cyanobacteria
- E.coli
- Phosphorus (eff. 2015)

Restoration

- Herbicide treatment of invasives
- Suction dredge project (2014)



Education

- Workshops
- Newsletters
- Award-winning demonstration riparian buffer
- Website
- Pamphlets





THREATS



- Impervious surfaces
- Insufficient riparian buffers / Suburban lawns / Insufficient tree cover
- Lack of knowledge of property owners / Inadequate septic systems and maintenance
- Habitat fragmentation
- Insufficient boating regulation enforcement and State boat launch monitoring
- Invasive aquatic species
- Nonpoint source pollution
- Poor stormwater management / Catch basin failure

Aquatic Invasive Plants

 POALH has worked with Aquatic Control Technology since 2003 for control of fanwort (*Cabomba caroliniana*) and variable leaf milfoil (*Myriophyllum heterophyllum*) through herbicide applications

 Entry point for invasives: unmonitored public boat launch



Fanwort

- Three Lake Hayward stormwater outfalls are in the top 6 "really bad" list for East Haddam, per Regional study (LISS)
- More detailed assessment of these sites
- Colchester not included in LISS
- Street sweeping/Catch basin cleanout
- Road salt



Support for this project provided by the Long Island Sound Study



Stormwater Management Priorities: Roadmap for Rural Towns Study

Funded by the Long Island Sound Futures Fund 2010

Coordinated by the Eightmile River Wild & Scenic Coordinating Committee
ERWSCC in partnership with
Eastern Connecticut Resource Conservation and Development, Inc.
and the Towns of East Haddam, Lyme and Salem

February 2012



Nathan L. Jacobson & Associates, Inc., Civil and Environmental Consulting Engineer.



Outfall Priority No. 2 - Outfall No. 60

Southerly Outfall Proximal to Lake Hayward Pavilion - Pipe, Severe Sedimentation

Recommendations: Provide Upgradient Hydrodynamic Separators and Pipe to Allow for Free Discharge Conditions

Pre-Schematic Order of Magnitude Construction Cost Range: \$50,000 to \$75,000



Outfall Priority No. 5 - Outfall No. 59

Northerly Outfall Proximal to Lake Hayward Pavilion - Pipe, Severe Sedimentation

Recommendations: Provide Upgradient Hydrodynamic Separators and Pipe to Allow for Free Discharge Conditions

Pre-Schematic Order of Magnitude Construction Cost Range: \$25,000 to \$50,000



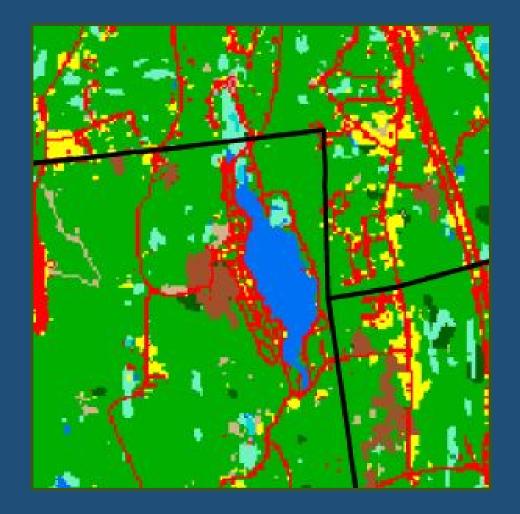
Outfall Priority No. 6 - Outfall No. 77

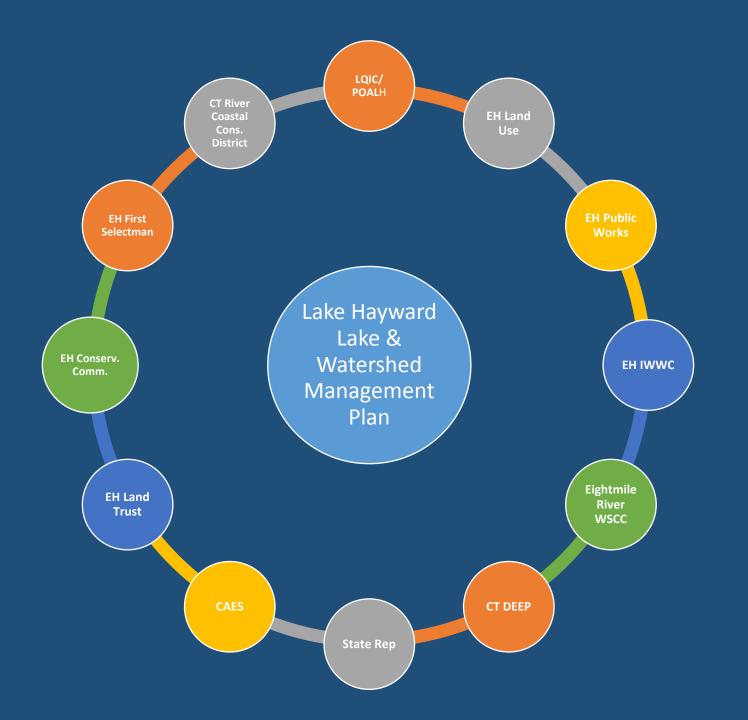
Outfall on Southwesterly Shore of Lake Hayward - Large Impervious Area, Sedimentation Recommendations: Provide Hydrodynamic Separator

Pre-Schematic Order of Magnitude Construction Cost Range: \$10,000 to \$20,000

Watershed Land Use

- Forest cover
- Conservation
- Agriculture





Stakeholders' Discussion

- Threats overlooked?
- Suggested watershed plan goals
- How can we work together?

If you had a blank check, what would you do?

Next Steps

- CME will continue to work with LQIC to develop a Plan outline
- LQIC will seek additional assessment and improvements to priority drainage outfalls (coordination with East Haddam)
- LQIC will expand Plan elements with stakeholders and possibly hire additional technical assistance
- Please contact LQIC with additional ideas and information: Randy Miller at rm.ehla@yahoo.com

Thank You!

