



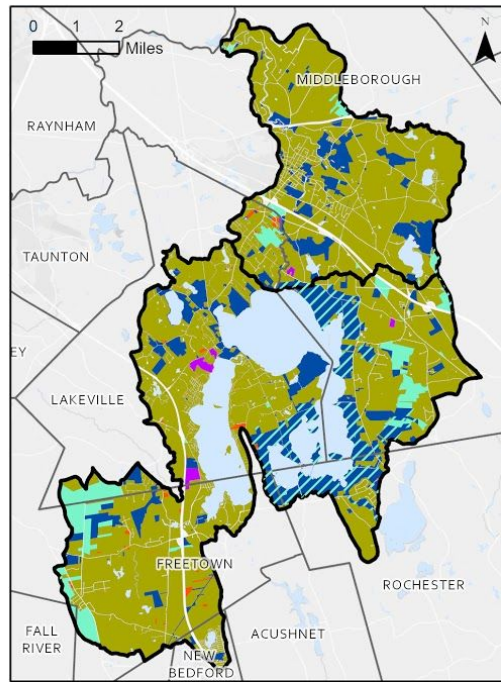
Assawompset Pond Complex Floodwater Management Program 2020

ASSAWOMPSET POND COMPLEX MANAGEMENT PLAN

Priority Action Next Steps Summary

Where: The entire Assawompset Pond Complex (APC) and its watershed, including Long, Assawompset, Pocksha, Great Quittacas, and Little Quittacas Ponds, and the Nemasket River.

What's the problem: The state's largest natural pond system, the APC provides drinking water for around 250,000 people in the cities of New Bedford and Taunton, and portions of nearby towns. It is a significant habitat area for fish, birds, wetlands, and mammal species. It is a scenic residential and recreation area for surrounding communities. Water quality and flow through the APC and Nemasket is affected by the land use in their combined 44,900-acre watersheds, where land is owned and maintained by many individual households and larger entities (75% of land in private ownership, 18% in municipal ownership, 5% in state ownership, 1% in non-profit land conservation ownership, and less than 1% in federal ownership or ownership unknown).



- Sub-watershed Boundaries (HUC12) - APC and Nemasket River
- Land Owner Type
 - Private
 - Municipal
 - State
 - Federal
 - Conservation Non-Profit
 - Unknown
- State CR
- Lakes and Ponds
- Town Boundary

Sources: Esri, HERE, Garmin, (c) OpenStreetMap contributors, and the GIS user community, MassGIS

Recently, excessive flooding has caused significant issues for the APC and surrounding communities, particularly in 2010 when heavy and prolonged rainfall and resultant flooding caused evacuations, property damage, failures of septic systems, and interruption of critical utility and transportation infrastructure. Runoff with excess nutrients degrades water quality and encourages invasive plant overgrowth. The system has also experienced serious drought, most recently in 2016. Climate trends elevate the urgency for considering these issues.

What's the solution: Develop a comprehensive management plan that targets floodwater mitigation throughout the APC while also equally addressing water supply and quality, preserving critical habitat, maintaining recreational access that does not impede natural function of the land, and improving resilience of the Ponds and surrounding communities.

The plan would consider the APC and Nemasket systems as a whole, and identify known data, missing data points, and best practices for managing infrastructure, sedimentation, fisheries, aquatic invasives, floodplain areas, and water quality, supply, and flow. A coordinated and balanced set of goals and strategies will ensure all stakeholders work together to implement nature-based solutions that protect critical green infrastructure, encourage low impact development, enhance floodplain storage, reduce the amount of nutrients and sediments entering the ponds, and adopt consistent local regulations compatible with regional goals for protecting the APC.

Who: All property owners within the APC and its watershed; the Towns of Lakeville, Freetown, Middleborough, and Rochester; water suppliers; state and local regulatory agencies; the Assawompset Ponds Committee; local environmental groups; environmental engineers; and regional planning agencies. All have relevant knowledge for an effective management plan.

Steps to complete work:

- Design an inclusive stakeholder engagement process including identification of communications networks between stakeholder groups.
- Outline the contents of the management plan and determine data needs (ex: water levels and flows, vegetation, wildlife populations, water quality, pollutant levels, land use).
- Collect data by: (1) research existing sources and documents; (2) desktop data analysis (land cover, ownership, etc); and (3) field assessments.
- As a specific portion of data collection, determine best climate change predictions for the area and what impacts they will have on water levels, habitat types, and other conditions in the APC.
- As a specific portion of data collection, determine the additional information that will be necessary for completing a hydrological study.
- Review surrounding communities' bylaws for opportunities to standardize land use approaches across the region that support management plan goals.
- Draft management plan (including ongoing stakeholder engagement).
- Include a schedule of implementation and benchmarks for tracking success.
- Update plan periodically with new data and updated action recommendations.

Permits required: Perhaps Con Comm Notices of Intent or Access Permits for fieldwork.

Assets and barriers: Assets in plan development include existing data on the APC, the results of the planned hydrologic study, and the regular coordination of the Assawompset Ponds Committee as the nucleus of continued stakeholder cooperation. Barriers include securing funding and coordinating a diversity of stakeholder groups and interests.

When would we see results: Developing a management plan: one to two years. Implementing the plan and seeing improvements is a long-term (decades-long) process.

How much (ballpark costs): \$125k

Potential funding sources: MVP Action Grant Funds

Similar Example: Taunton River Watershed Management Plan

Competing Interests: Identify integrated project timeline and prioritize next steps. The Management Plan might compete with the Hydrological Study for this round of MVP Action Grant funding, and it is unlikely both could be completed under one project. The Management Plan may be a necessary first step to lay the foundation for a path forward for completing future studies and taking action.