



# Town of Sudbury

## Community Preservation Committee

Flynn Building  
278 Old Sudbury Road  
Sudbury, MA 01776  
978-639-3387  
Fax: 978-639-3314

cpc@sudbury.ma.us

www.sudbury.ma.us/cpc

### PROJECT SUBMISSION FORM

Applicant:

Submission Date:

Group or Committee Affiliation (if any):

Applicant Address:

Purpose (please select all that apply):

Open Space & Recreation

Community Housing

Historic Resource

Applicant Email:

Applicant Phone:

Project Manager Email:

Project Manager Phone:

Project Name:

Project Description:

Costs:

Fiscal Year	Total Project Cost	CPC Funds Requested	Other Funding Sources (Amount and Source)
2025			
2026			
2027			
2028			
2029			
<b>Total</b>			

How does this project meet the General Criteria and Category Specific Criteria for Community Preservation Committee projects (see attached)?

Does this project fall within the jurisdiction or interest of other Town Boards, Committees, Commissions, or Departments? If so, please list the boards, committees, commissions, or departments, whether applications and/or presentations have been made, and what input or recommendations have been given.

For Community Preservation Committee Use:

Form Received On: \_\_\_\_\_

Project Presented to CPC On: \_\_\_\_\_

Reviewed By: \_\_\_\_\_

Determination: \_\_\_\_\_

Project Name: Watershed Based Plan: Restoring water quality in Hop Brook

Categories: Open Space & Recreation, Historic Resource

Background: Hop Brook is the largest tributary of the Sudbury River, and drains more than half of the land area of Sudbury. Dozens of homes, recreational and historical areas, Town wells and Town property are along this waterway and associated ponds. Until the 1970s, Hop Brook was a major recreational and natural asset - with multiple locations for swimming, fishing, ice skating and canoeing, and supported a diverse ecosystem with many species of birds and fish. Recorded Sudbury history features activities along Hop Brook since the 1700s, including fishing, saw and grain mills, canoeing, and swimming. However, nutrient pollution – primarily from the Marlborough Easterly wastewater treatment plant - has caused severe degradation of water quality, and overgrowth of invasive plants and toxic algae. As a result, the Hop Brook waterway and associated ponds become very unpleasant in the summer, are no longer attractive for recreational use, and require increasingly intensive management to reduce unwanted plants. More detail on the causes and consequences of nutrient pollution in Hop Brook is available upon request.

Goal of the project: Our goal is to restore water quality in the Hop Brook watershed, and thus reclaim an important recreational and historical asset for all Sudbury citizens. We have collected extensive data on sources and variations in pollutant levels throughout Hop Brook, and have collaborated extensively with scientists at OARS (Organization for the Assabet, Sudbury and Concord Rivers) to better understand how these pollutants, especially phosphorus, created the current situation. OARS has completed an in-depth evaluation that is available upon request.

A watershed-based plan (WBP) is a necessary step in assembling and evaluating the existing data with the purpose of determining what approaches are most likely to successfully restore acceptable water quality. A well-developed WBP is also necessary to obtain Federal (Section 319) and state grant funding for specific remediation strategies (such as the ones recommended by the WBP). Framingham, Westboro, Andover and other towns have used their WBPs to successfully obtain government funding that ultimately led to pollution reduction and improved water quality (examples can be provided upon request).

The Hop Brook Protection Association, in partnership with the Sudbury Conservation Coordinator and OARS, is well-prepared to successfully manage the process to produce an optimal WBP. Over the past three years, we have developed and managed a successful program to reduce invasive water chestnut plants, and have partnered with OARS and our Conservation Commission to obtain two grants that supported water quality sampling and community education.

However, our research shows that there are many other options for the next steps, each with varying return on investment. To ensure that we take the right actions, we need expert consultation to develop a concrete plan that HBPA and our community partners can then execute with high confidence of good results.

Progress so far: Under the auspices of our prior grant, we identified five organizations who had expertise in developing watershed-based plans, had a track record of developing WBPs in New England, and were familiar with the types and sources of pollutants that we have in Hop Brook. We asked them to provide a scope of services and quote in response to our RFP for developing a WBP. Three well-regarded consulting firms responded in September, 2022 (GeoSyntec, SWCA, CEI). We chose CEI, and worked with them through the early

stages of the watershed-based plan development process. This work included multiple site visits, analysis of 40+ years of archived data, and development and refining initial models for nutrient sources and flow.

However, we then hit a roadblock. Between ourselves, OARS, and CEI, there were differing theories as to the causes of phosphorus buildup in the ponds. This was a problem because the chosen theory would dictate the direction of the rest of the WBP effort. Although we could not agree on a theory, we all did agree that more data collection (analysis of water samples periodically taken from key locations in Hop Brook), would reduce or eliminate our disagreements and allow us to proceed with a consensus approach.

So we stopped watershed-based plan development, and plan to spend 2024, and possibly 2025, collecting and analyzing data. For this project we have engaged OARS to take the lead in data collection and analysis, supported by HBPA volunteer efforts for sampling and related tasks. After this process is completed, we will restart the watershed-based plan with CEI or a different vendor. Because of the elapsed time and possible change of direction, the new WBP will have to start from the beginning. However, we don't feel the work performed on the original one was a loss because of all we learned.

Our original grant is insufficient to fund our current plan, and so we are requesting a supplemental grant to get us to the finish line. By the time we meet with CPC at the end of this year, we will know whether we need a 2<sup>nd</sup> year of sampling or will be able to proceed with the WBP, and will be able to update our supplemental request accordingly.

#### Our approach and proposal:

- originally received the support and endorsement of Lori Capone (Conservation Coordinator) as well as the ConComm. We have kept Lori updated with our progress and updated plan and retain her support.
- are instrumental to the preservation of the essential character of the town (specifically, the preservation and restoration of the Hop Brook Watershed and Ponds as recreational waterways).
- preserve resources that would otherwise be threatened by pollution and decay (the Hop Brook Watershed and Ponds).

have as their primary purpose insuring that any further funds spent on remediation are used in the most efficient and advantageous way possible. (That's why we're taking a pause to collect enough data to get it right).

- will help preserve and utilize Town assets (as the Town, and Sudbury conservation groups, are the largest landowners abutting the Hop Brook and its ponds).
- serve a significant number of residents (many dozens of abutters, as well as trail-walkers, canoers, and visitors to the Wayside Inn).
- expand the range of recreational opportunities (by providing attractive recreational waterways for the public) .

As the purpose of the WBP is no more than to engage experts to research, generate, assess, and rank action recommendations, we do not foresee any objections from any parties.

Also:

- The current Open Space and Recreation Plan calls for remediation of Hop Brook as a priority to restore a prime recreational asset (p33).
- The recently completed Town Master Plan specifically calls for a "watershed approach to water resource planning and management" (p42) and cites the increasing importance of these water resources to the economic, social and environmental health of the region. Action Items C2 (implement strategies in the Ponds and waterways master plan) and C3 (participate in regional planning and management efforts in the SuAsCo basin) address local water quality issues in Hop Brook.
- The most recent Sudbury Ponds and Waterways Committee Master plan identifies restoration of water quality in the Hop Brook watershed as a top priority.

Cost Breakdown:

Original Grant:	\$78,600
OARS support for original WBP process:	(2,772)
Original WBP contract (now terminated):	(19,000)
OARS sampling & Analysis Support, FY24:	(6,600)
OARS sampling & Analysis Support, FY25 (est.*):	(8,600)
WBP Plan preparation estimate (FY25 or FY26 est.*):	(130,000)
<u>Margin for additional or unexpected costs*:</u>	<u>( 1,828)</u>
Supplemental amount requested:	<b><u>\$90,000</u></b>

\*These are "not-to-exceed" numbers, we expect the actual amounts to be less, and hope to provide better estimates when we meet with you later this year.

A WBP is the universally recommended next step in pond remediation, restoring a significant historical asset to the unpolluted state that it was in for all the years prior to the 1970s. We hope CPC will support our efforts towards getting one that is appropriate to our needs.

-HBPA Board of Directors

Shannon Hache,  
Glenn Pransky,  
Chris Moran,  
Lori Moran,  
Elyse Rayney,  
Terry Snyder,  
Jeff Winston,  
Kathy Winston