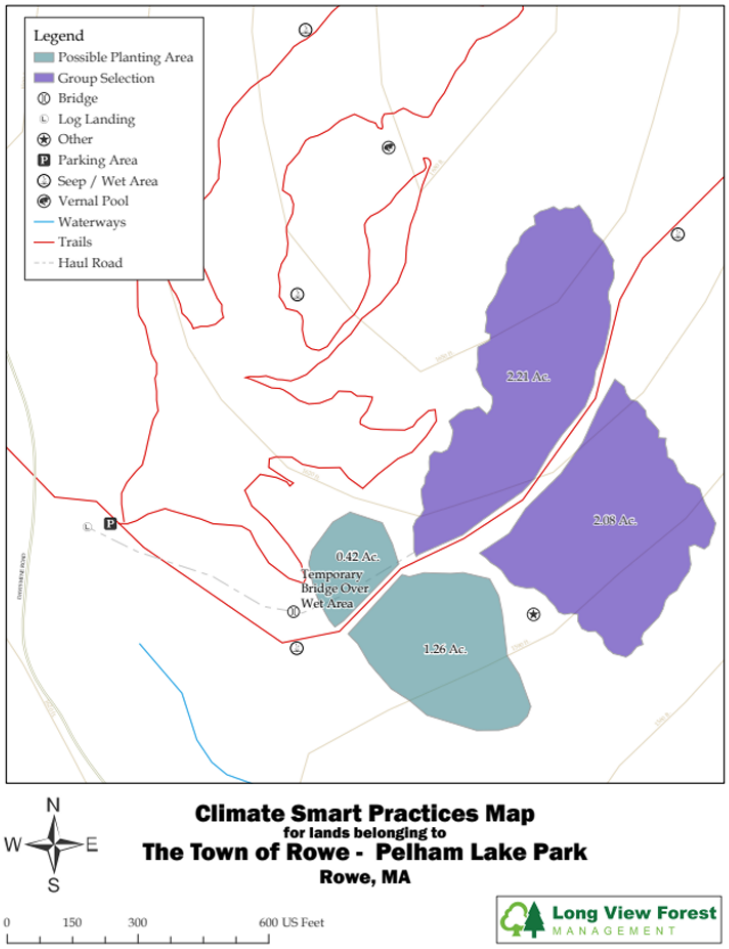
Forest Health & Resilience at Pelham Lake Park

Rowe's Proposed Climate-Smart Forestry Demonstration Project

Summary

Rowe's Park Commission, in partnership with the Forest Climate Resilience Program and the Town's forester Alex Barrett, have proposed a climate-smart forestry demonstration project at Pelham Lake Park. Demonstration forests are managed areas (either passively, actively, or both) that allow land stewards to implement proven climate and wildlife friendly practices in support of community goals while supporting recreational, educational, and monitoring activities. Demonstration forests showcase best practices in the fields of forestry and land stewardship for the purpose of educating both the public and those who steward land on behalf of the public. This project will address forest health threats and climate vulnerabilities identified in Pelham Lake Park's Forest Stewardship Climate Plan while also supporting temporary, early successional habitat.

Project and Practices Map



Updated 12/11/2025

Project Description

The Town of Rowe has been engaged in a multi-year forest management planning process for the Town's Pelham Lake Park. A community of stakeholders including park managers, consultants, residents, and elected officials identified and embraced a set of guiding management principles with the central goal of protecting, maintaining, and enhancing the overall resilience of the town's forest to the threats posed by climate change. The 2022 Park's Forest Stewardship Climate Plan, prepared by Alex Barrett of Long View and informed by the stakeholder process, identifies long-term management strategies that support these collective principles.

One of Pelham Lake Park's primary vulnerabilities to climate change is a lack of established young trees (regeneration). The proposed project will address this vulnerability by conducting a small resilience harvest that will focus on removing trees (while retaining a few trees that are well adapted to climate change as a seed source) to create space for the establishment of young trees and improve forest diversity. Costs associated with the project will be covered by grants and the small amount of timber revenue that is generated.

The harvest will consist of 2, side by side, 2-acre patch cuts with reserves, meaning strategically retaining specific trees in an otherwise clear-cut patch. The patches will be on either side of the Davis Mine Trail, close to the parking lot on Davis Mine Road. This resilience harvest will be partnered with an innovative strategy called a slash wall, a large wall of woody material designed to exclude deer and protect young trees. The wall will slowly biodegrade over time and will not need to be rebuilt or removed. A slash wall will help address the impact deer are having on our forest's ability to adapt to climate change, while demonstrating innovative solutions to these challenges. The 2-acre patch created to the northwest of the trail will contain two 1-acre sub-units. One sub-unit will be regenerated with saplings protected by tree tubes, and the other sub-unit will be left to regenerate naturally.

A slash wall in Arnot Research Forest. Benefits include deer exclusion, wildlife habitat, climate resilience, and improved soil quality. *Photo Credit: Cornell University, Forest Connect Program, Arnot Teaching and Research Forest*

The proposed demonstration project builds upon the success of ongoing climate-smart forest stewardship projects at Pelham Lake Park.

- establishing an old-growth trail
- treating-white ash (*Fraxinus americana)* trees to reduce the risk of emerald ash borer infestation (*Agrilus planipennis*),
- monitoring eastern hemlock (*Tsuga canadensis*) for hemlock woolly adelgid (*Adelges tsugae*),
- planting climate-adapted oak (*Quercus*) species.
- Maintaining nearly half the park in permanent forest reserves

When combined, all these practices work together to help the forest cope with changing conditions and an increased level of stress.

Residents can find a more detailed discussion of the forest stewardship project on Rowe's website, https://bit.ly/PLPOP2.

Project Timeline

This project will take place over the next 1-2 years with outreach, education, and community engagement continuing beyond the active project timeline.

1. **Public Input and Consideration:** Fall 2023 - Spring 2024
2. **Secure Grant Funding:** Spring 2024
3. **Contracting & Signage Development:** Summer 2024
4. **Beech Control:** Summer 2024
5. **Harvest & Slash Wall Construction:** Winter 2025
6. **Assisted Natural Regeneration:** Spring 2026 & 2027
7. **Monitoring:** Ongoing

Rowe Climate Smart Forestry Demonstration Project FAQ's

What are Demonstration Forests?

Demonstration forests are managed areas that show best practices for research, practice development, and education. These areas simultaneously help to improve the condition of the forest while advancing the fields of forestry and conservation. The proposed project can help promote climate adaptation at Pelham Like Park while providing opportunities for the public to learn about climate-smart forestry and its resilience benefits. In addition to physical signage and maps installed at the sites, digital approaches including StoryMaps and mobile app-enabled audio tours are being examined to provide additional learning experiences for the community.

Can't the Forest Just Care for Itself?

Forests face many human-driven threats including past land use, development, invasive species, loss of apex predators, and climate change. Considering the scope and scale of these past and ongoing human impacts, unimpeded nature would take millennia to recover from past land-use and adapt to the impacts of climate change. Ensuring a future forest that continues to provide our communities with the ecological, health, and cultural benefits we currently depend on will require a diversity of stewardship approaches. Through carefully designed forest stewardship practices, we can increase the resilience of our conserved forests while optimizing carbon sequestration, storage, and habitat quality.

Why is a Slash Wall Beneficial?

Slash walls are becoming an increasingly popular way to protect a regenerating forest from hungry deer

that browse young trees. Deer populations are high in our area (in part due to the loss of their natural predators) and warmer winters with less snow are likely allowing their populations to thrive. Also, less snow leaves tree seedlings more vulnerable to browse in the winter. Research efforts at Cornell University, and on State and Watershed lands in CT and MA, shows that slash walls can be economically constructed in the woods and are often a better option than large scale metal or plastic fencing. More information on these walls can be found at: https://blogs.cornell.edu/slashwall/

Why are you Putting Tree Tubes around Trees?

Just like a slash wall tree tubes help to keep out hungry animals, like deer. Tree tubes protect individual plants rather than an entire area. These tubes have the added advantage of protecting them from small mammal browse as well (think rabbits and chipmunks). These tubes also offer a greenhouse effect, allowing each tree to grow faster. This helps less competitive species get a leg up over faster growing species, supporting the Park's biodiversity goals. At the end of the day, it's best to use many strategies instead of just one. Pelham Lake Park has focused on implementing a broad suite of practices in order to prepare the park for the challenges of climate change.

How Will this Harvest Impact the Site?

All harvests have impacts on a site. Some common concerns include changes to the aesthetics/look of the forest, impacts to the recreational use of the site, soil erosion and compaction, and losses of forest carbon. These concerns are addressed below:

- **Aesthetics:** This project will remove most trees within a specific area to create a patch where young trees can establish. The slash wall will be large, both tall and wide, and will break down over time. These actions can support more wildlife sightings in the immediate future (by supporting wildlife that depend on patches of young forest) and over the mid-to-long term can enhance forest beauty by increasing biodiversity and promoting the next generation of forest. Sustaining forests through climate change is key to our continued enjoyment of them.
- **Recreation:** Specific operational requirements have been established in the project operational plan (https://bit.ly/PLPOP2) to protect the recreational infrastructure on site. During the project, the trail that bisects the two areas will be closed. At the project's completion, the trail will be restored and improved, a benefit for park patrons. The establishment of a Demonstration Forest can further enhance the recreational experience by providing educational opportunities.

- **Soils and Carbon:** To maximize potential climate benefits, including reducing soil carbon losses, this harvest will employ a set of Climate Informed Forest Access and Forestry Operations Practices described in the project operational plan (https://bit.ly/plpopps). These practices begin with good site selection; the project is proposed for an area well away from streams and wetlands that has good drainage and is easily accessed by an existing trail wide enough for forestry equipment. Operations will minimize soil disturbance and use equipment that will complete the job efficiently with a minimum of impact on the site. Most of the wood harvested will be retained onsite in the slash wall where it will release carbon slowly to soil and atmosphere while providing benefits to regeneration and wildlife habitat. Some of these practices are standard for high-quality harvest jobs; others are novel and will be documented here to demonstrate their climate benefits.