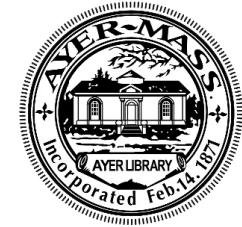


# Ayer Devens Main Street Pocket Forest Project



What feelings arise for you when you consider the physical landscape near where you live?



# Project Overview and Goals



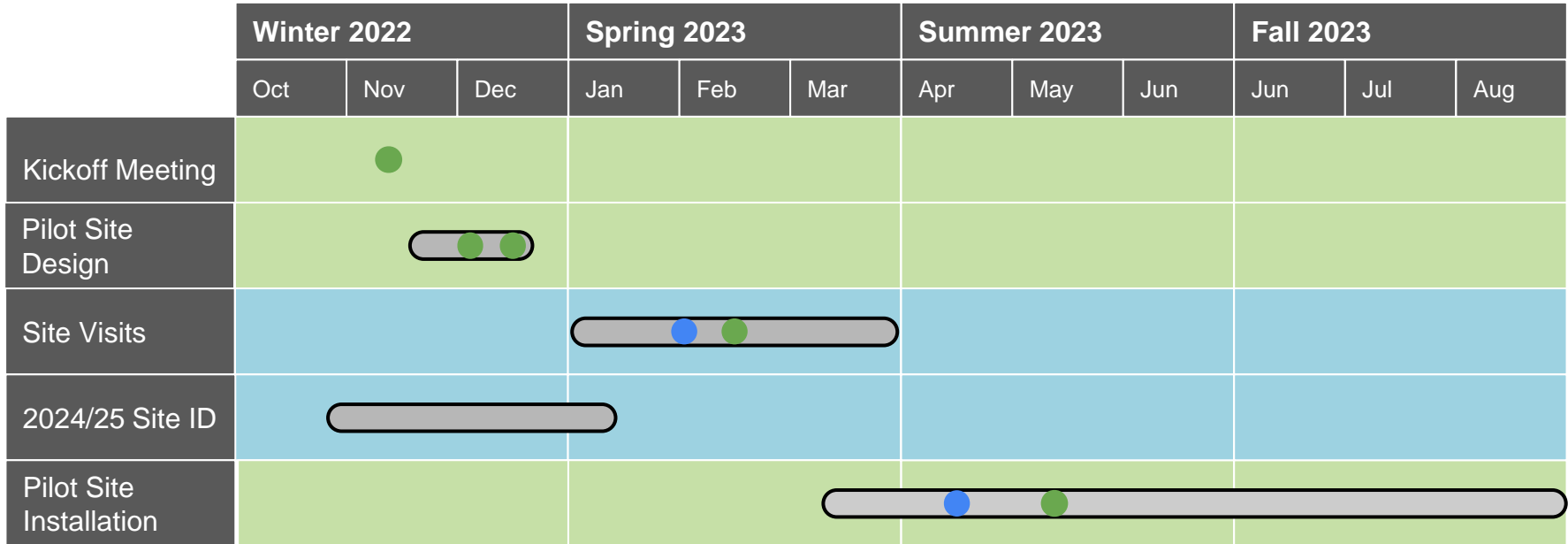
## Year 1:

- Design and install a pilot pocket forest project
- Populate list of potential sites for second round funding proposal
- Establish monitoring and maintenance team and documentation
- Outreach for education and community participation

## Year 2 & 3:

- Design and install a pocket forests on selected sites
- Additional educational participation opportunities
- Follow-up care and monitoring of sites

# Project Overview and Goals



● = Meetings      ● = Student Activities

▲  
Ongoing Maintenance and monitoring

# What is a Pocket Forest?



## Composition:

- **Trees:** seed, nectar, and larval host, and soil building species
- **High Forage:** understory trees, shrubs, and woody groundcover
- Wild annuals/biennials
- **Soil:** fungal inoculation

A small designed, curated, and managed patch of forest in an urban or suburban space.

# What are the benefits of a Pocket Forest?

## Benefits:

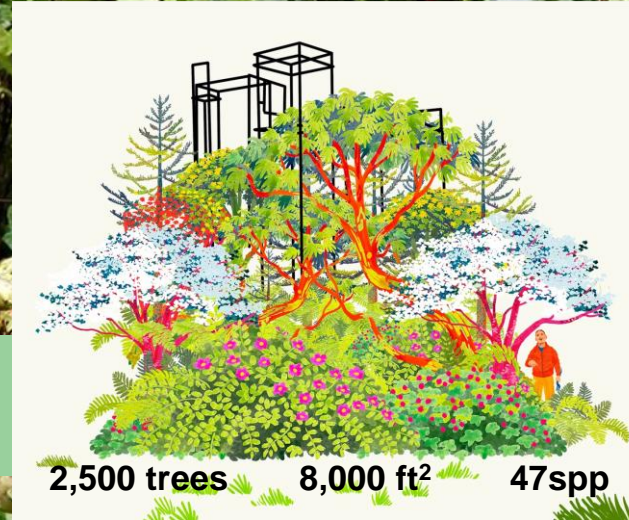
- Biodiversity
- Water Quality
- Air Quality
- Pollution Control
- Cooling
- Culture + Community
- Economics

*Danehy Park Miyawaki Forest. Cambridge, MA. Photo: D. Kuznik*

# What are the benefits of a Pocket Forest?



**Biodiversity**



*Ethan Bryson in the 3-yr old Franconia Pocket Forest he planted. Credit: SUGi.com*

# What are the benefits of a Pocket Forest?

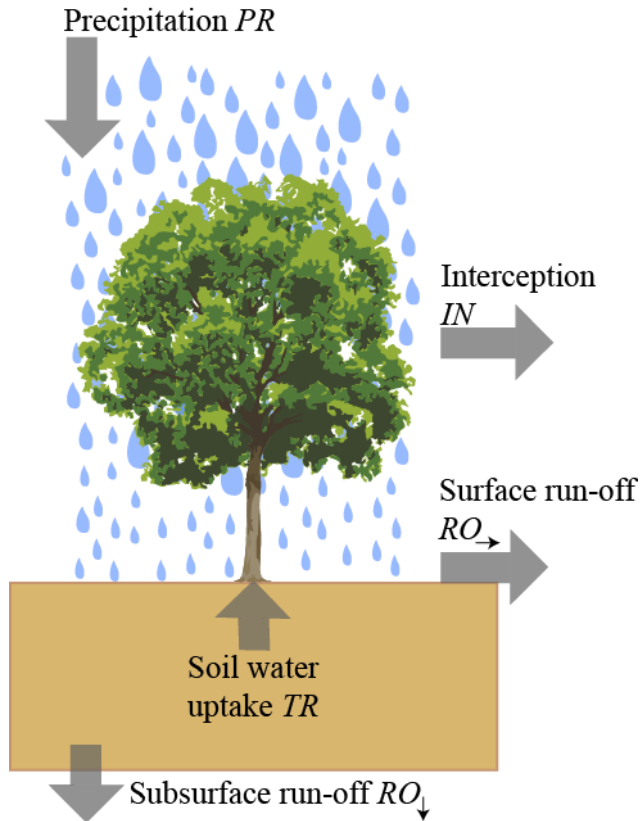


**Biodiversity**

*A Magnolia Warbler hunts insects in the catkins of a Box Elder. Photo: Dennis Derby*



# What are the benefits of a Pocket Forest?



# What are the benefits of a Pocket Forest?

A scanning electron micrograph (SEM) showing the intricate, wavy, and textured surface of a birch leaf. Several vertical, ribbed structures, likely leaf veins or stems, are visible. Small, irregular white particles, identified as diesel particles, are scattered across the leaf's surface, particularly concentrated around the veins and in the recessed areas of the leaf's texture.

**Air Quality +  
Pollution Control**

*Diesel particles adhere to a birch leaf. Photo: Chemical & Engineering News*

TREES shade buildings reducing the need for air conditioning which reduces fossil fuel consumption

TREES absorb small particulate matter from the air

LARGE, HEALTHY TREES have the greatest per tree effects at pollution removal

REDUCED HEART ATTACKS, STROKES AND ASTHMA

HEALTHIER PEOPLE

IMPROVED NEIGHBORHOOD AIR QUALITY

Air Quality + Pollution Control

Credit: The Nature Conservancy



HEAT is reflected off of buildings and paved surfaces where there is little vegetation

URBAN TREES provide shade which cools localized areas

DECREASED DEATHS FROM HEAT

COOLER CITIES

VEGETATED AREAS around cities stay cooler

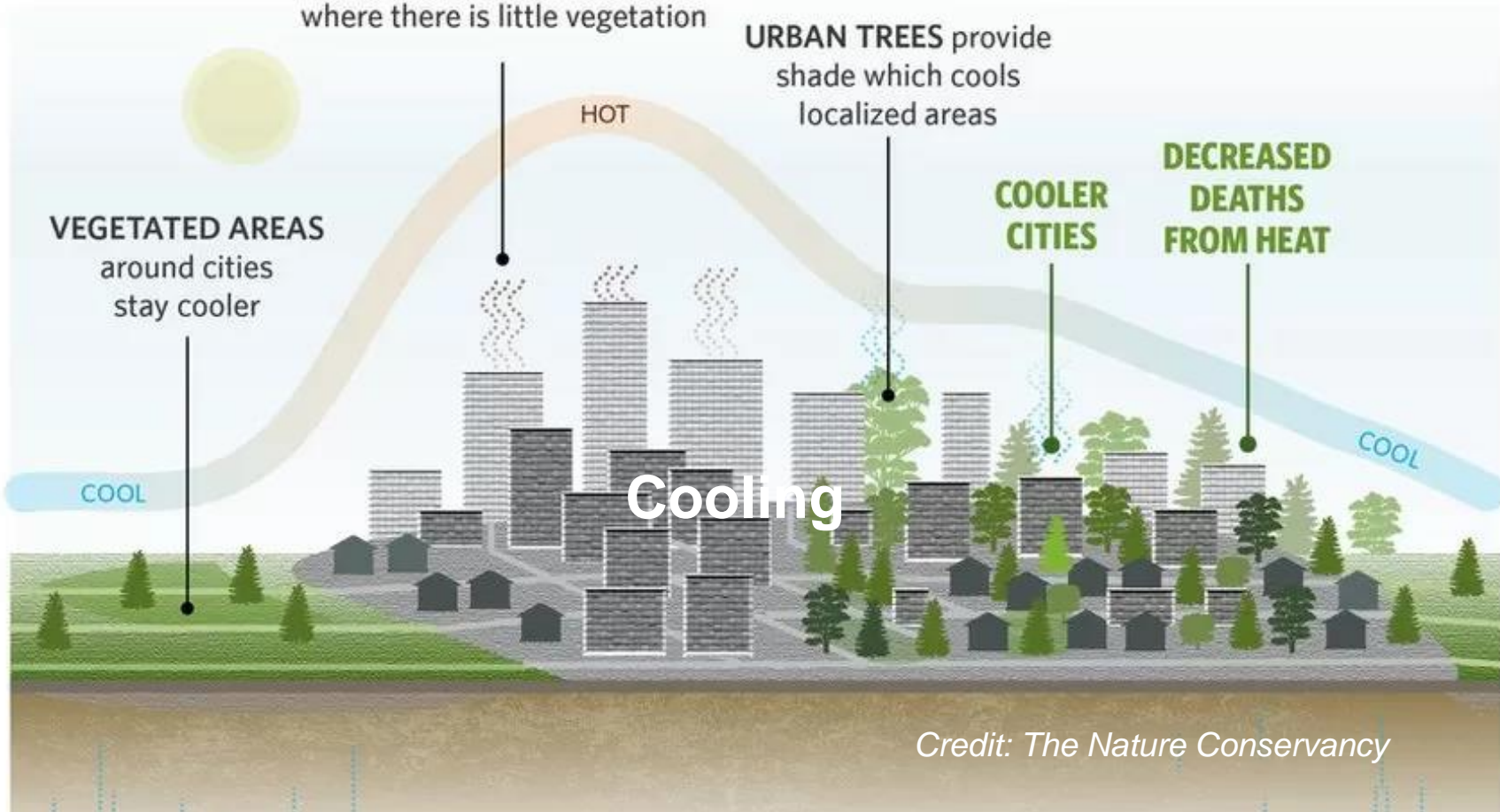
HOT

COOL

COOL

Cooling

*Credit: The Nature Conservancy*



# What are the benefits of a Pocket Forest?



**Economics**

*Credit: natgeo.com*

# What are the benefits of a Pocket Forest?

May 2018

June 2021

Culture +  
Community

*3 years old urban forest in a school created with the Miyawaki method.  
Photo Credit: Urban Forests.com*



# What are the benefits of a Pocket Forest?



# Choosing Pocket Forest Sites

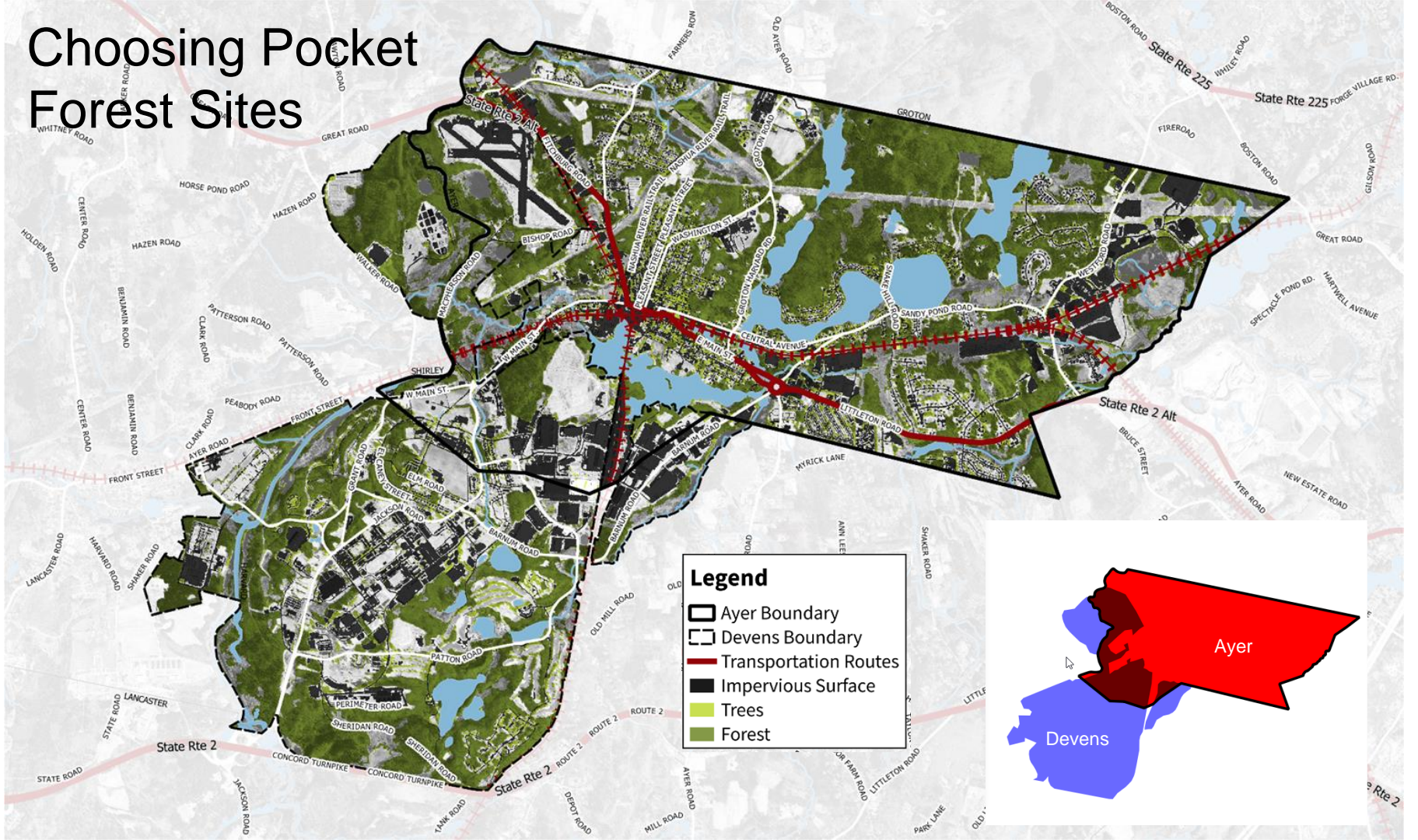
## Criteria:

- Air Quality
- Water Quality
- Cooling
- Aesthetic & Cultural





# Choosing Pocket Forest Sites



# How to Pocket Forest

1. Site Clearing
2. Landwork and Site Access
3. Soil Building
4. Water and Ground Cover
5. Planting
6. Monitoring and Maintenance





Pocket Forest design and work days



## Immediate Next Steps

1. Populate list of potential sites
2. Site visits 12/3 and 12/10
3. Site selection process



## Opportunities to Participate

1. Pilot project design Charrette
2. Harvesting/planting days
3. Educational activities



# Opportunities to Participate



## Ayer Devens | Pocket Forests

Home

Project Story

Data Viewer

Forests

Soils

Global Context

Contact

### SAVE THE DATES!

#### Site Walks of

#### Potential Pocket Forest Locations

Saturday, December 3rd

10:00am - 3:00pm

##### **Ayer Walking Tour**

Meeting Location TBD

Contact: Alan Manóian  
[amanoian@ayer.ma.us](mailto:amanoian@ayer.ma.us)

Saturday, December 10th

10:00am - 3:00pm

##### **Devens Walking Tour**

Meeting Location TBD

Contact: Neil Angus  
[neilangus@devensec.com](mailto:neilangus@devensec.com)

<https://climateresilient.wixsite.com/ayerdevens>