

# Growing Wild Movement

A DCR/DAR collaboration



Photo: Cecropia moth caterpillar, *Hyalophora cecropia* – cc. Ale Echandi

# Agenda



Photo: Candy striped leafhopper on Milkweed cc. A.Echandi

- **Background**

- Previous efforts
- EEA Leading by Example

- **Pollinators as a Catalyst**

- Benefits and Challenges

- **Growing Wild Movement**

- Promoting DCR/DAR pollinator efforts
- Public Involvement
- Proposed Implementation
  - Earth Week Launch/Park Serve Day Virtual Activities
  - Partnerships with Nurseries for Distribution
- Engaging Everyone – EJ communities

- **Questions & Next Steps**



# Background

## DCR

- Pollinator habitat established at DCR properties
- Pollinator Habitat Best Management Practices

## DAR

- Agriculture relies on pollinators
- Apiary specialist inspection team
- Pollinator educational materials

## Opportunity

- People spending more time connecting with nature in parks and at home – seize on opportunity to get public involved in promoting shared stewardship
- Public lands, alone, can't provide enough habitat
- Pollinators are an excellent catalyst to educate public about native habitat

# Benefits of Pollinators

- Pollinators support biodiversity and contribute to healthy ecosystems
- Pollinators are essential for the survival and distribution for a vast number of plant and wildlife species
- Many crops cannot produce fruits or vegetables without pollinators
- Developing pollinator habitats increases soil moisture, carbon sequestration, flood resilience, water quality, biodiversity and species richness

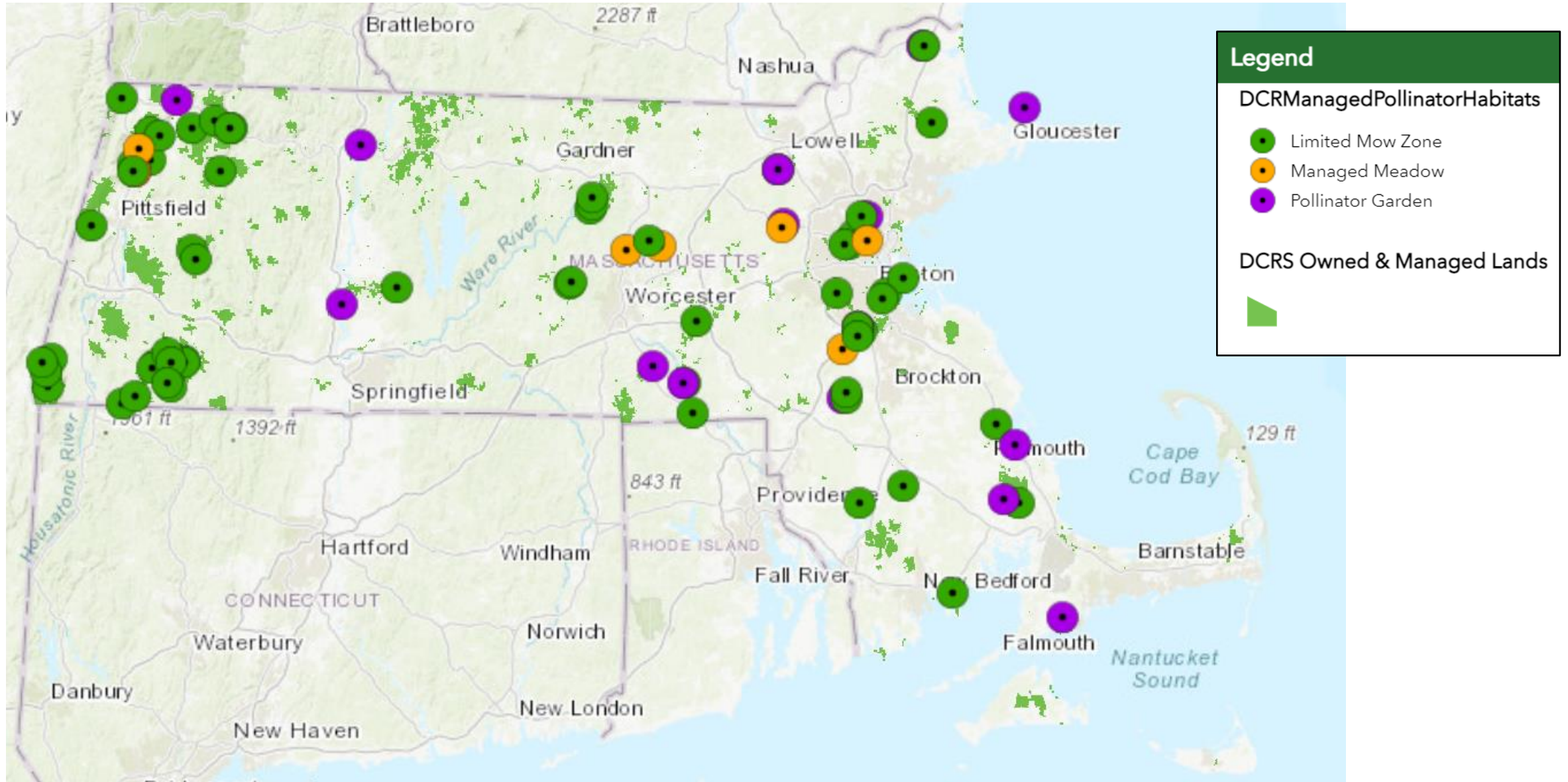


# Challenges Facing Pollinators

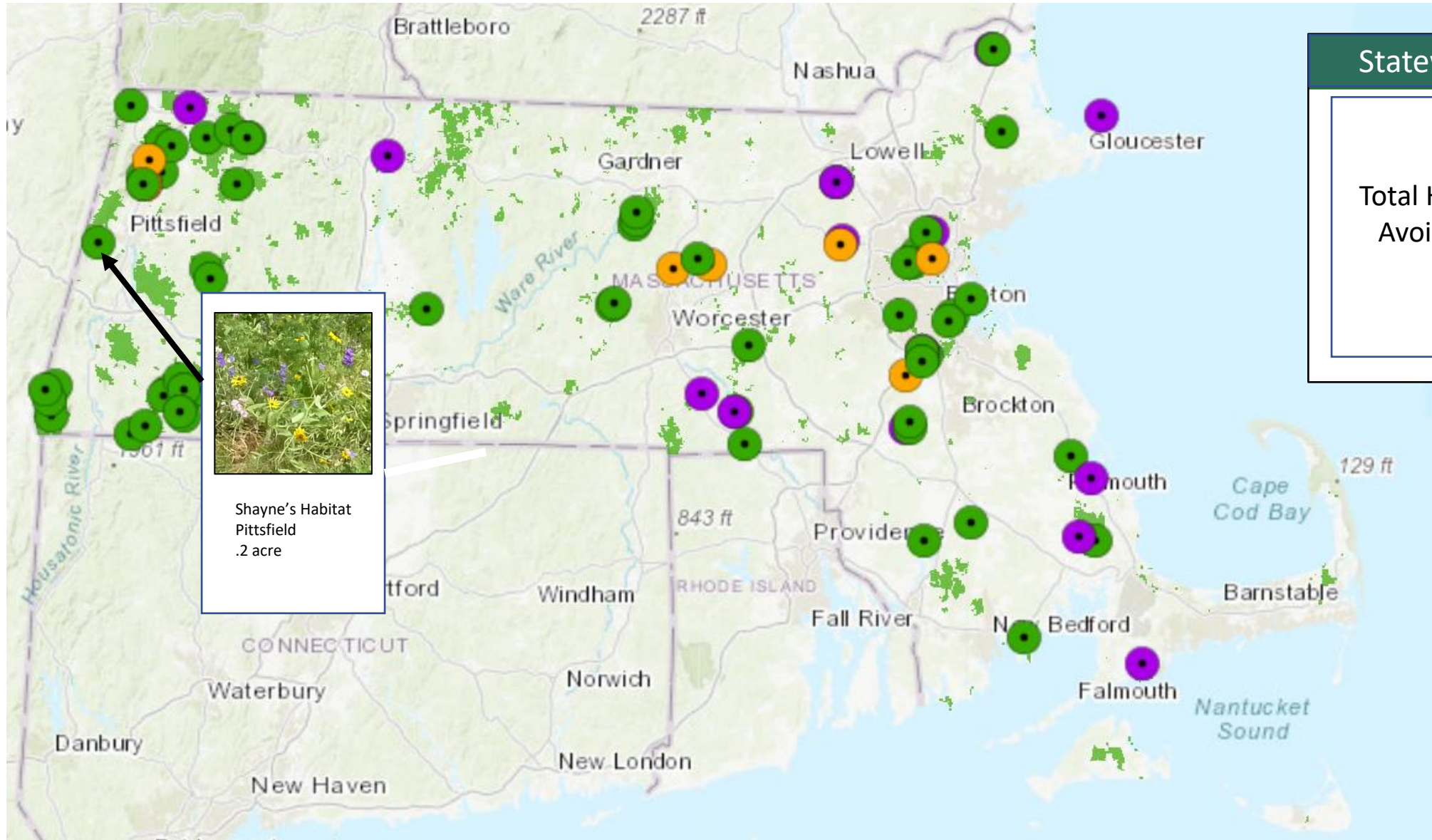
*Species are in decline across the globe*

- Habitat degradation
- Habitat loss/ habitat conversion
- Climate change
- Invasive species
- Disease
- Pesticide Exposure
- Pollution

# Pollinator Habitats in DCR Facilities



# Pollinator Habitats Across Massachusetts



## Statewide Statistics

Total Habitat: 85 acres  
Avoided Emissions:

# Pollinator Habitats



Photo: Purgatory Chasm State Reservation pollinator garden cc. Renee Lachapelle

## Growing Wild for Pollinators

Enjoy this pollinator habitat!  
Insects and birds are vital to Massachusetts' native wildlife and plants.  
Pollinators are also essential in the production of fruits and vegetables we eat.  
What if your world had no fruits or wildflowers?

Partners: MassWildlife, MassDCR, MDAR, MassDOT, Mass Audubon, MassDMH, MADOC



Photo: Middlesex Fells pollinator garden with rain barrel cc. Gillian Lay



# Growing Wild Movement

## Leading by Example

- Showcase DCR properties with pollinator habitat to educate public; Growing Wild branding signs
- Provide technical support to DCR properties to create additional habitat; BMP training
- Disseminate DAR educational materials and promote movement through State Apiary and other venues

## Foster Public Involvement

- Leverage DAR Marketing connections to partner with Massachusetts nurseries to provide native plants and seeds to public and promote "Growing Wild" movement
- Tap DAR and DCR professionals to develop educational materials and conduct seasonal public workshops about creating and maintaining habitat and benefits; both on-line and in person (when viable)
- Provide participants journal to chart seasonal changes, develop nature observation skills and foster stewardship
- Connect public to interactive pollinator map and benefits calculator



## Low Mow Zone

Photo: Jones Nose, Mount Greylock State Reservation cc. J. C. Gambardella  
[www.taconichiking.com](http://www.taconichiking.com)

OFFERED BY [Massachusetts Grown...and Fresher!](#) [Massachusetts Department of Agricultural Resources](#)

[www.mass.gov/service-details/garden-centers-and-nurseries](http://www.mass.gov/service-details/garden-centers-and-nurseries)

# Garden Centers and Nurseries

Massachusetts Flower and Nursery Growers



With over 30,000 acres of land in production, Massachusetts flower and nursery growers are the largest agricultural sector in the state, critical for our local and state economy.

Find family owned flower, greenhouses and garden centers across Massachusetts. You'll be surprised and delighted with the varieties of flora available throughout the season featuring locally grown flowers, shrubs, and trees, as well as advice to give you confidence that you have the perfect plant for your garden. Many also offer gardening supplies, special events, seminars and florist services throughout the year. [Map of locations here.](#)

Gardening activities provide beauty, relaxation, accomplishment, education and fun for the whole family! UMass offers over 150 online [facts sheets](#) to help you with your lawn and garden.

If you are looking to create a pollinator-friendly landscapes using native plant species, [click here for options.](#)

## CONTACT

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## RELATED

[Find a Garden Center/Nursery near you!](#)

[Pet Safe Plants](#)

[Choosing Pollinator-Friendly Native Plants in Home Gardening or Landscaping](#)



[www.mass.gov/MassGrown](http://www.mass.gov/MassGrown)

HOME CALENDAR CRAFT BEVERAGES

**MassGrown Map**  
Your gateway to Massachusetts farms, farmers markets, and fun ag-tivities!

Found 153 places statewide

Map Satellite

Map data ©2021 Google Terms of Use Report a map error

- Farm Stands
- Agricultural Fairs
- Farmers' Markets
- Farm Stays (Bed & Breakfast)
- Dairy Farms
- Christmas Trees
- Green-houses / Nurseries
- Pick Your Own
- Equine/ Riding Stables
- Maple Sugar Houses
- Honey Producers
- Livestock
- Organic Farms
- CSA Farms

# Bringing it Home – Promoting Shared Stewardship

**Budget (\$75,000 from EEA Stewardship Budget)** Hire Consultant to coordinate with nurseries, develop marketing materials and produce Growing Wild Starter Kits.

Deliverables:

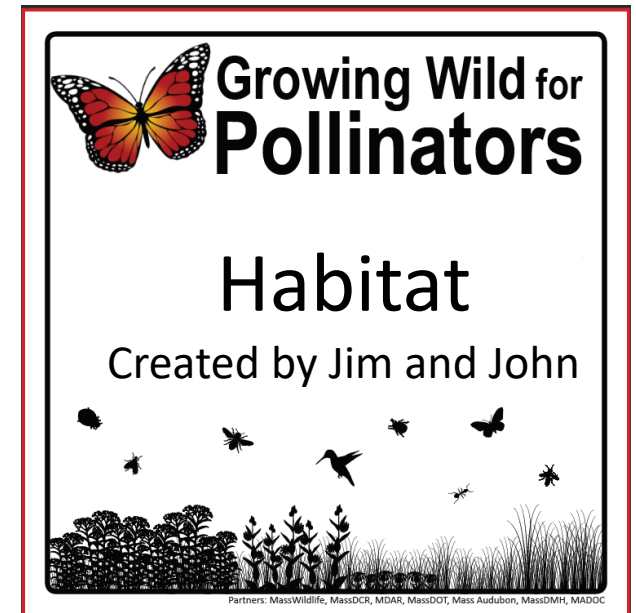
Posters/Signs

Nurseries/Garden Centers (Participating in Growing Wild)  
Parks (encouraging public to Grow Wild); sign shop makes for DCR  
Participants (sign included in kit)

Growing Wild Starter Kit

Live Plants  
Seed Packet  
Growing Wild Journal  
Growing Wild sign for habitat (branded)  
Trowel (sturdy) (branded)  
Materials from DCR and DAR

Coordination of Distribution



OFFERED BY [Massachusetts Department of Agricultural Resources](#) [Massachusetts Grown...and Fresher!](#)

# Choosing Pollinator-Friendly Native Plants in Home Gardening or Landscaping

Tools for developing pollinator-friendly landscapes using native plant species



Whether you are interested in improving pollinator resources on your own property, looking for guidance developing a landscaping plan, or trying to determine which native plant species to stock for sale, these curated lists of native, pollinator-friendly container plants and seeds will help you make the right decisions.

## Downloadable Resources


- [Creating Pollinator-Friendly Gardens with Native Plants: Locally Available Options](#)
- [Native Pollinator Plants Seed List](#)
- **New** - [Garden Centers and Nurseries who sell Native Plants](#)
- **New** - [Massachusetts Native Plants and Pollinators Poster](#)

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### RELATED

[Apiary Program \(honey bees\) →](#)

[Pollinator Protection Plan →](#)

[Honey Producers and Beekeepers →](#)

[Map of Greenhouse/Nursery Growers →](#)

[UMass - Native Pollinators and Conservation →](#)



[www.mass.gov/service-  
details/choosing-  
pollinator-friendly-native-  
plants-in-home-  
gardening-or-landscaping](http://www.mass.gov/service-details/choosing-pollinator-friendly-native-plants-in-home-gardening-or-landscaping)

# Pollinator Habitat Savings Calculator: Input

Do not make edits to cells that are gray

Step 1: Site Details	Data Input
Parcel Size (acres)	1
Baseline # of Mows (annually)	12
Fuel Type for Mower	gasoline
Type of Change	limited mow
Include mowing labor costs in calculations?	yes

Step 1a: Till & Seed Upfront Capital (Setup) Costs		
Do not fill below. No capital (upfront setup) costs for limited-mow.		

<b>Est. Annual Savings</b>	<b>\$ 749</b>
<b>Annual Avoided Emissions (lb CO2)</b>	<b>534</b>
<b>Payback of Upfront Capital Costs</b>	<b>Year 1</b>

Step 2: Site Management Logistics	Default Data	Use Default Data?
Mowing Time (hours per mow)	1.5	yes
Fuel Cost (per gallon)	\$2.58	yes
Fuel Usage (gallons per mow)	2.48	yes
Annual Amortized Mower Maintenance Cost	\$30.60	yes
Mowing Labor Cost (per hour)	\$37.11	yes

Business as Usual Mowed Turf Costs	
Site Preparation Costs	\$ -
Annual Fuel Cost	\$ 76.63
Annual Labor Cost	\$ 720.00
Annual Amortized Maintenance Cost	\$ 20.40
<b>Total Year 1 Cost</b>	<b>\$ 817.03</b>
<b>Total Annual Upkeep Cost</b>	<b>\$ 817.03</b>
<b>Greenhouse Gas Emissions (lb CO2)</b>	<b>582.09</b>
<b>Annual Mowing Time (hrs)</b>	<b>18</b>

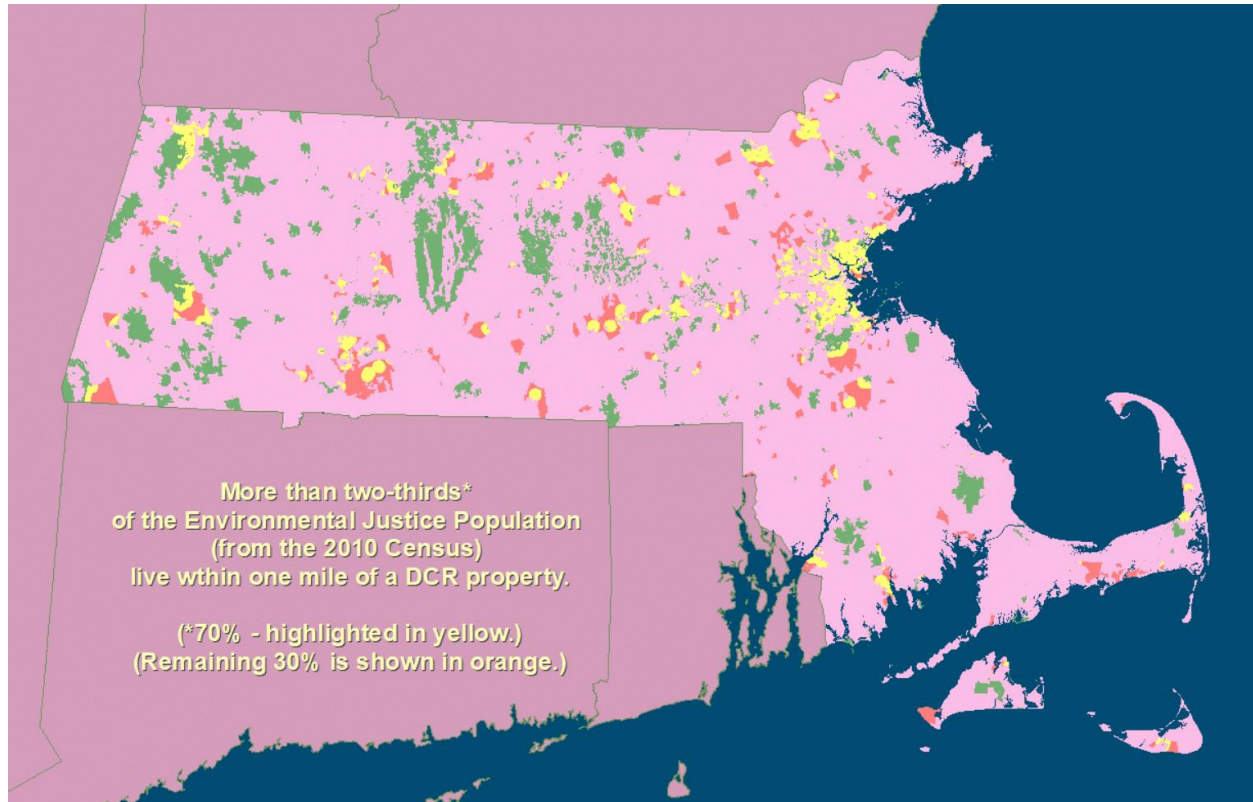


Pollinator Habitat Costs: No Mow	
Site Preparation Costs	\$ -
Annual Fuel Cost	\$ 6.39
Annual Labor Cost	\$ 60.00
Annual Amortized Maintenance Cost	\$ 1.70
<b>Total Year 1 Cost</b>	<b>\$ 68.09</b>
<b>Total Annual Upkeep Cost</b>	<b>\$ 68.09</b>
<b>Greenhouse Gas Emissions (lb CO2)</b>	<b>48.51</b>
<b>Annual Mowing Time (hrs)</b>	<b>1.5</b>



Estimated Pollinator Habitat Savings		
	Annual	Lifetime (8 years)
Year 1 Site Preparation Cost	\$ -	\$ -
Fuel Cost Savings	\$ 70	\$ 562
Labor Cost Savings	\$ 660	\$ 5,280
Amortized Maintenance Cost Savings	\$ 19	\$ 150
<b>Total Gross Savings</b>	<b>\$ 749</b>	<b>\$ 5,992</b>
<b>Net Savings Over Lifetime</b>	<b>- \$</b>	<b>\$ 5,992</b>
<b>Avoided GHG Emissions (lb CO2)</b>	<b>534</b>	<b>4,269</b>
<b>Mowing Time Savings (hrs)</b>	<b>17</b>	<b>132</b>
Annual Upkeep: Percent Cost Reduction	91.67%	
Payback of Upfront Capital (Setup) Cost	Year 1	

# ENGAGING EVERYONE!



## School/Town Participation – Proposed Fall

- Focus on EJ Communities
- Invite elementary schools, public libraries, urban and community gardens and cities/towns to plant habitat, on school/town property
- Select communities or establish competitive process in spring for fall planting
- Requires plan for ongoing stewardship

Partnering with the Lowell School District and Lowell Food Security non-Profit Mill City Grows to restore and create 2 pollinator gardens on school grounds and provide landscape consultation services for the other 14 school gardens in the city. Image below is of the Stoklosa Middle School garden.



Abraham Lincoln School garden. Proposed pollinator garden will be created on the slope of the hill to the right







Photo: European honey bee *Apis mellifera* on New England Aster *Symphyotrichum novae-angliae*. Late blooming flowers, such as those in the Asteraceae family are important pollinator resources cc. Ale Echandi

# Questions?