



Massachusetts Department of Environmental Protection  
Bureau of Resource Protection - Wetlands

Bedford  
City/Town

**WPA Form 1- Request for Determination of Applicability**  
Massachusetts Wetlands Protection Act M.G.L. c. 131, §40

**A. General Information**

**Important:**  
When filling out forms on the computer, use only the tab key to move your cursor - do not use the return key.



1. Applicant:

Paula Gilarde/Rotary Club of Bedford

bedford.rotary@gmail.com

Name

E-Mail Address

18 Paul Revere Rd

Mailing Address

Bedford

MA

01730

City/Town

State

Zip Code

781 572 6117

Phone Number

Fax Number (if applicable)

2. Representative (if any):

Firm

Contact Name

E-Mail Address

Mailing Address

City/Town

State

Zip Code

Phone Number

Fax Number (if applicable)

**B. Determinations**

1. I request the Bedford make the following determination(s). Check any that apply:  
Conservation Commission

- ☒ a. whether the **area** depicted on plan(s) and/or map(s) referenced below is an area subject to jurisdiction of the Wetlands Protection Act.
- ☒ b. whether the **boundaries** of resource area(s) depicted on plan(s) and/or map(s) referenced below are accurately delineated.
- ☒ c. whether the **work** depicted on plan(s) referenced below is subject to the Wetlands Protection Act.
- ☒ d. whether the area and/or work depicted on plan(s) referenced below is subject to the jurisdiction of any **municipal wetlands ordinance** or **bylaw** of:

Bedford

Name of Municipality

- ☐ e. whether the following **scope of alternatives** is adequate for work in the Riverfront Area as depicted on referenced plan(s).

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**C. Project Description**

1. a. Project Location (use maps and plans to identify the location of the area subject to this request):

151 Great Rd

Street Address

063

Assessors Map/Plat Number

Bedford

City/Town

0108

Parcel/Lot Number

- b. Area Description (use additional paper, if necessary):

The project, which is the creation of a natural pollination preservation garden, comprises an area east of Bacon Rd and the Narrow Gauge Rail Trail, south of Great Rd and Veterans Memorial Park, and directly adjacent to the northerly end of the Page Pond wetlands. - The area, approximately 400 sq. ft. (10-ft. x 40-ft.), wraps the northwest corner of the area, roughly follows the 25-ft. wetland contour, and falls between the higher berm of vegetation and the mowed, grass pedestrian pathway.

- c. Plan and/or Map Reference(s):

Title

Date

Title

Date

Title

Date

2. a. Work Description (use additional paper and/or provide plan(s) of work, if necessary):

(1) Soil Preparation – Eliminating invasive and undesirable vegetation.

- a.Existing vegetation must be cut to as close to ground level as possible.
- b.Certain adjacent vegetation may be selectively removed to inhibit overgrowth and spread.
- c.Silt barriers will be put in place to prevent any runoff from the site into the wetland area.
- d.The entire area will be covered with biodegradable cardboard to block sunlight and inhibit plant growth.
- e.Natural wood chips will blanket the cardboard, to hold it in place and help retain moisture in the soil.
- f.The soil will remain covered for 9-12 months.

(2) Design, Layout & Planting – Establishing the garden.

- a.The design will essentially maintain the existing topography of the site. To prevent the possible spread of undesired plant seeds post-soil prep, little, if any, soil will be excavated or cultivated.
- b.Topography elements, such as separation or minor elevation of individual planting areas will be achieved using natural materials, i.e., rocks.
- c.Selected native plants will be grouped in approximate 3-ft. x 3-ft. spaces within the area.
- d.The designed planting group layout will be translated from paper to identification demarcations on the site following the completion of soil preparation.
- e.Planting will be initiated when the soil preparation and site design are complete.

(3) Garden Protection & Enhancements – Communication & Education

- a.If required, to prevent destruction of plantings by animals (e.g., deer) or people, temporary barriers or covers may be employed. (continued on another page)

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## C. Project Description (cont.)

b. Identify provisions of the Wetlands Protection Act or regulations which may exempt the applicant from having to file a Notice of Intent for all or part of the described work (use additional paper, if necessary).

3. a. If this application is a Request for Determination of Scope of Alternatives for work in the Riverfront Area, indicate the one classification below that best describes the project.

- ☐ Single family house on a lot recorded on or before 8/1/96
- ☐ Single family house on a lot recorded after 8/1/96
- ☐ Expansion of an existing structure on a lot recorded after 8/1/96
- ☐ Project, other than a single-family house or public project, where the applicant owned the lot before 8/7/96
- ☐ New agriculture or aquaculture project
- ☐ Public project where funds were appropriated prior to 8/7/96
- ☐ Project on a lot shown on an approved, definitive subdivision plan where there is a recorded deed restriction limiting total alteration of the Riverfront Area for the entire subdivision
- ☐ Residential subdivision; institutional, industrial, or commercial project
- ☐ Municipal project
- ☐ District, county, state, or federal government project
- ☐ Project required to evaluate off-site alternatives in more than one municipality in an Environmental Impact Report under MEPA or in an alternatives analysis pursuant to an application for a 404 permit from the U.S. Army Corps of Engineers or 401 Water Quality Certification from the Department of Environmental Protection.

b. Provide evidence (e.g., record of date subdivision lot was recorded) supporting the classification above (use additional paper and/or attach appropriate documents, if necessary.)

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**D. Signatures and Submittal Requirements**

I hereby certify under the penalties of perjury that the foregoing Request for Determination of Applicability and accompanying plans, documents, and supporting data are true and complete to the best of my knowledge.

I further certify that the property owner, if different from the applicant, and the appropriate DEP Regional Office were sent a complete copy of this Request (including all appropriate documentation) simultaneously with the submittal of this Request to the Conservation Commission.

Failure by the applicant to send copies in a timely manner may result in dismissal of the Request for Determination of Applicability.

Name and address of the property owner:

Town of Bedford

Name

10 Mudge Way

Mailing Address

Bedford

City/Town

MA

State

01730

Zip Code

Signatures:

I also understand that notification of this Request will be placed in a local newspaper at my expense in accordance with Section 10.05(3)(b)(1) of the Wetlands Protection Act regulations.



Signature of Applicant

8/1/2022

Date

Signature of Representative (if any)

Date



## Work Description continued

### 3 Garden Protection & Enhancements – Communication & Education

- b. To promote the pollination preservation goal of the garden, and to acknowledge the organization, individuals and partnerships that participated in its creation, a memorial site sign will be installed at the north end of the garden.
- c. To explain and education about native plant species that are intended to preserve native pollinators, individual signage will identify plant groups throughout the garden area.

At this very early stage of the development of the Pollinator Preservation Garden we do not have a finalized signage selected, but we do have an initial conceptual signage plan. The principal "dedication/recognition" signage has two goals - (a) to memorialize this environmental garden in honor of Robert Mead, a life-long Bedford resident and founder of the Rotary Club of Bedford, and (b) to provide an interpretative guide to the purpose, design and composition of the garden. The intent is to marry these goals into a single sign if possible. Conceptually it would be a single-pedestal sign placed at the "head" of the garden area. The type of sign under consideration (not the model depicted) is shown in the first image below.



The type of signage under consideration for the "plant species indicators" is shown in images #2 and #3. The material, color, height, width, and how it will be secured to the ground have not yet been determined. However, material selection will heavily take into account weather resistance, durability, and maintenance. Sizing will be in keeping with the nature of the location and will not be unlike the interpretative signage displayed in national park areas. Mounting options that will be considered are depicted in the attachment #4 Installations & Mounting Options.

This project is an outgrowth and reflection of Rotary's strong embrace and commitment to the environment and the club will take responsibility for the maintenance of the garden. Our plan is for it to be a community effort and we plan to host volunteers recruited within town to help (this will also be part of our education effort). We have observed a great deal of interest in pollination systems among residents in town. The maintenance plan will include specific days scheduled in the spring and the fall for this work - these will be Rotary event days, involving the Rotary club and interested parties.

Native pollinators are vital to creating and maintaining the habitats and ecosystems that most animals rely on for food and shelter — including humans. What happens (or doesn't happen) at the pollination scale has repercussions all the way up the food chain. Over 80% of the flowering plants on Earth depend upon insect-mediated pollination; bees alone pollinate 45% of the food crops grown in Massachusetts, and one-third of the food grown in the United States.

In a study that was published in June 2020, researchers determined that habitat loss from expanding agriculture and development as well as climate change were the primary drivers for a 94% loss of plant-pollinator networks across northern New England over the past 125 years. Multiple wild bee species presently in decline were found to have historic ties to plant species which are presently threatened or endangered. Because many of these plant species are no longer found in most of their historic range, the scientists concluded that conservation efforts specifically on habitat restoration for declining wild bee and plant species are fundamental to the preservation of regional biodiversity. In many cases plant-pollinator relationships have been disrupted directly as a result of invasive plants replacing natives in their historic range.

Pollination Ecologist and Conservation Biologist Robert Gegear, Ph.D. has been studying the ecology, evolution and conservation of pollination systems native to eastern North America for over 25 years. An Assistant Professor of Biology at the University of Massachusetts-Dartmouth as well as Founder and Director of the New England Beecology Project, Dr Gegear has compiled a list research-based native plants to support native-pollinators at risk: <https://gegearlab.weebly.com/plant-list.html>. The list primarily focuses on native plants to support MA bumblebees at risk but also includes plants supporting butterflies and other bee species at risk. Lincoln Land Conservation Trust, along with Dr Gegear developed Toolkits to create pollinator-supporting sites in the area. The Toolkits have been created to specifically target and support bee and butterfly species which are threatened or at risk in Northeastern Massachusetts. The study format is based upon years of intensive field and lab observations by Dr. Gegear, which correlate at-risk bee and butterfly species with particular pollen, nectar and host plants, as well as nesting preferences.

The area in Page field that we would like to use receives full sun throughout most of the day which is suitable for most pollinator-friendly native plants. Our plan is to choose a wide-variety of plants with over-lapping and sequential bloom periods to provide food for pollinators throughout the season. We will use native species over cultivars. We will plant densely, using native groundcovers as "green mulch," leaving some bare soil for the 70 percent of native bees that nest in the ground. We will plant in drifts of 3 or more plants to be noticed by pollinators - each plant will cover at least a 3x3ft area, some more. We have received guidance from the Sudbury Valley Trustees Native Pollination Systems Task Force and Southborough's Open Space Preservation Commission chair Freddie Gillespie. They have experience developing and maintaining multiple Pollination Preservation Gardens in that town and work directly with Dr Gegear. We have also been talking to Bedford residents who worked on the implementation of native pollination gardens in Lincoln (specifically the Birches school, part of the Lincoln Pollinator Action Plan & Lincoln Land Conservation Trust's work).

Resources:

MCA Native Pollinator Task Force: <https://www.svtweb.org/mca-native-pollinator-task-force>

Dr Gegear Lab at UMass Dartmouth: <https://gegearlab.weebly.com/>

Lincoln Land Conservation Trust Toolkit: [https://lincolnconservation.org/wp-content/uploads/2021/03/LandscapeInteractions\\_LincolnPollinatorActionPlan\\_web\\_final.pdf](https://lincolnconservation.org/wp-content/uploads/2021/03/LandscapeInteractions_LincolnPollinatorActionPlan_web_final.pdf)





ROTARY CLUB OF BEDFORD  
POLLINATOR PRESERVATION GARDEN  
400± S.F.

SIGN



10'

40'

Veterans Memorial Park

PAGE POND

The information displayed on this or any other map produced by the Town of Bedford is for reference purposes only. The Town of Bedford does not guarantee the accuracy of the data. Users are responsible for determining the suitability for their own individual needs.

All information is from the Town of Bedford's Geographical Information System (GIS) database. Any questions or concerns should be addressed to the Town GIS Analyst.

0 20 40 ft

Printed on 07/26/2022 at 12:01 PM

Abutting Town Names

Parcels

Vegetation  
Shrub  
Tree Cover  
Brush, Field

Buildings

Building  
Canopy  
Deck  
Patio  
Steps

Paint Stripes - Sports

Sports

Sports Field, Go  
Pool  
Playground  
Basketball Court  
Other

Overpass

Overpass - Shadow M

Overpass Shadow

Paint Stripes

Road Centerline  
Other Road  
Crosswalk  
Parking  
Sharrow  
Other

Sidewalks

Other Impervious

Paths

Paved  
Stone Dust  
Dirt

Driveways & Parking

Unpaved Dirt P  
Unpaved Grave  
Asphalt Parking  
Concrete Parkin  
Reinforced Turf

Roads

Paved Road  
Unpaved Road

Bridge Polygon

Rights-of-Way

Private ROW  
Rail Trail

Abutting Town Names

MA Highways

Interstate  
US Highway  
Numbered Rout

Town Boundary

Abutting Towns

Road Centerlines

Drainage Culverts

Streams and Ditches

Perennial Strea  
Intermittent Stre  
Ditch  
Headwall  
Dam

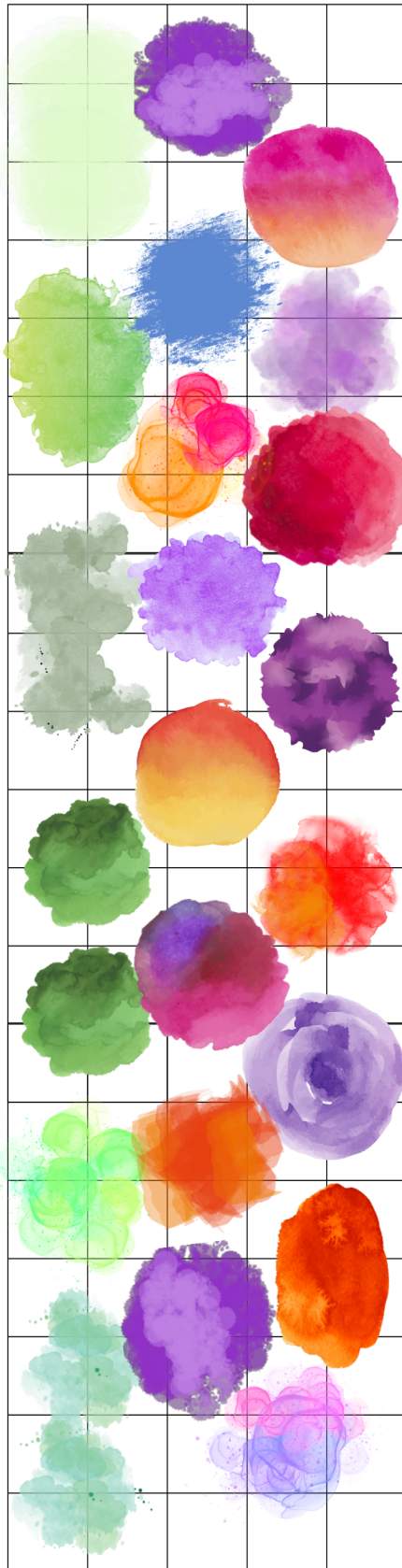
Rivers Streams And F

River, Perennia  
Intermittent Stre  
Detention Basin  
Wet Area  
Forested Wet A



↑ Towards Page Field

Wetlands/Page Pond



Towards Memorial Park ↓

# Native Pollination Systems Garden Planting Plan

Assuming Wet/Medium Soil in Full/Part Sun

Each square is a 2ftx2ft area - the colors representing areas filled with multiple plants of a single species. Space will be left in-between for a path to allow weeding.

## Early (March/April/May):

- 1 Salix discolor Pussy willow (male): Pollen
- 2 Bebb willow (male): Pollen
- 3 Pedicularis canadensis Wood betony: Nectar
- 4 Salix occidentalis Dwarf prairie willow: Nectar
- 5 Salix lucida -Shining Willow: Host plants (butterflies)
- 6 Salix petiolaris -Meadow Willow: Nectar/pollen sources for other bees

## Middle (June/July)

- 1 Rosa nitida - Shining rose: Pollen
- 2 Spirea Alba - White Meadowsweet: Pollen
- 3 Asclepias syriaca - common milkweed: Nectar
- 4 Yellow Wild Indigo: Nectar
- 5 Hypericum prolificum Shrubby St. John's Wort: Host plants (butterflies)
- 6 Monarda didyma Scarlet Bee Balm: Host plants (butterflies)
- 7 Penstemon digitalis Foxglove beardtongue: Nectar/pollen sources for other bees
- 8 Zizia aurea Golden alexander: Nectar/pollen sources for other bees

## Late (Aug/Sept)

- 1 Hypericum majus Greater St. John's-wort: Pollen
- 2 Spiraea tomentosa Steeplebush: Pollen
- 3 Agastache scrophulariaefolia Purple giant hyssop: Nectar
- 4 Solidago speciosa Showy Goldenrod: Nectar
- 5 Symphyotrichum lateriflorum Calico Aster: Host plants (butterflies)
- 6 Scutellaria lateriflora Mad dog skullcap: Host plants (butterflies)
- 7 Lobelia siphilitica Blue lobelia: Nectar/pollen sources for other bees (time overlaps)





View of the area from Memorial Park/Narrow Gauge Rail Trail side - wetlands is to the left of the tree

View of the area with tape marking the area:







View looking towards Memorial Park (from the baseball field side). Wetlands are on the right side.

Another view, looking towards Memorial Park from the side. Wetlands are straight ahead.

