

Commonwealth of Massachusetts
 Executive Office of Environmental Affairs ■ MEPA Office

ENF Environmental Notification Form

For Office Use Only
 Executive Office of Environmental Affairs
 EOEA No.: 12980R
 MEPA Analyst: Arthur Pugsley
 Phone: 617-626-1029

The information requested on this form must be completed to begin MEPA Review in accordance with the provisions of the Massachusetts Environmental Policy Act, 301 CMR 11.00.

| | | |
|---|---|---|
| Project Name: <i>Improvements to Brewster Gardens and Appurtenant Work</i> | | |
| Street: <i>Water Street</i> | | |
| Municipality: <i>Plymouth</i> | Watershed: <i>Town Brook</i> | |
| Universal Transverse Mercator Coordinates: <i>N 15243050, E 1187919 (UTM 27 US feet)</i> | Latitude: <i>41-57'-24"</i> | Longitude: <i>70-39'-51"</i> |
| Estimated commencement date: <i>10/03</i> | Estimated completion date: <i>6/04</i> | |
| Approximate cost: <i>\$500,000</i> | Status of project design: | <i>95</i> %complete |
| Proponent: <i>Town of Plymouth – DPW, Parks & Forestry Division</i> | | |
| Street: <i>11 Lincoln Street</i> | | |
| Municipality: <i>Plymouth</i> | State: <i>MA</i> | Zip Code: <i>02360</i> |
| Name of Contact Person From Whom Copies of this ENF May Be Obtained: <i>Richard S. Johnson, P.E.</i> | | |
| Firm/Agency: <i>Amory Engineers, P.C.</i> | Street: <i>PO Box 1768, 25 Depot Street</i> | |
| Municipality: <i>Duxbury</i> | State: <i>MA</i> | Zip Code: <i>02331</i> |
| Phone: <i>(781) 934-0178</i> | Fax: <i>(781) 934-6499</i> | E-mail: <i>rjohnson@amoryengineers.com</i> |

- Does this project meet or exceed a mandatory EIR threshold (see 301 CMR 11.03)?
 Yes No
- Has this project been filed with MEPA before?
 Yes (EOEA No. 12980) No
- Has any project on this site been filed with MEPA before?
 Yes (EOEA No. _____) No
- Is this an Expanded ENF (see 301 CMR 11.05(7)) requesting:
- a Single EIR? (see 301 CMR 11.06(8)) Yes No
 - a Special Review Procedure? (see 301CMR 11.09) Yes No
 - a Waiver of mandatory EIR? (see 301 CMR 11.11) Yes No
 - a Phase I Waiver? (see 301 CMR 11.11) Yes No

Identify any financial assistance or land transfer from an agency of the Commonwealth, including the agency name and the amount of funding or land area (in acres):

Are you requesting coordinated review with any other federal, state, regional, or local agency?
 Yes (Specify: Plymouth Conservation Commission, ACOE, DEP, MCZM) No

List Local or Federal Permits and Approvals: Submitted a Notice of Intent, plan to submit Chapter 91 License Application and an ACOE Permit Application. Also sending letter to MCZM for consistency review.

Which ENF or EIR review threshold(s) does the project meet or exceed (see 301 CMR 11.03):

- | | | |
|---------------------------------|---------------------------------------|---|
| <input type="checkbox"/> Land | <input type="checkbox"/> Rare Species | <input checked="" type="checkbox"/> Wetlands, Waterways, & Tidelands |
| <input type="checkbox"/> Water | <input type="checkbox"/> Wastewater | <input type="checkbox"/> Transportation |
| <input type="checkbox"/> Energy | <input type="checkbox"/> Air | <input type="checkbox"/> Solid & Hazardous Waste |
| <input type="checkbox"/> ACEC | <input type="checkbox"/> Regulations | <input checked="" type="checkbox"/> Historical & Archaeological Resources |

| Summary of Project Size & Environmental Impacts | Existing | Change | Total | State Permits & Approvals |
|--|----------|------------------------|-------|---|
| LAND | | | | <input checked="" type="checkbox"/> Order of Conditions <input type="checkbox"/> Superseding Order of Conditions <input checked="" type="checkbox"/> Chapter 91 License <input type="checkbox"/> 401 Water Quality Certification <input type="checkbox"/> MHD or MDC Access Permit <input type="checkbox"/> Water Management Act Permit <input type="checkbox"/> New Source Approval <input type="checkbox"/> DEP or MWRA Sewer Connection/ Extension Permit <input checked="" type="checkbox"/> Other Permits <i>(including Legislative Approvals) – Specify:</i> ACOE – Department of the Army Permit |
| Total site acreage | 2.69± | | | |
| New acres of land altered | | 1.94± | | |
| Acres of impervious area | 0 | 0 | 0 | |
| Square feet of new bordering vegetated wetlands alteration | | 1,350 | | |
| Square feet of new other wetland alteration | | 7,945 land under water | | |
| Acres of new non-water dependent use of tidelands or waterways | | 0 | | |
| STRUCTURES | | | | |
| Gross square footage | N/A | N/A | N/A | |
| Number of housing units | N/A | N/A | N/A | |
| Maximum height (in feet) | N/A | N/A | N/A | |
| TRANSPORTATION | | | | |
| Vehicle trips per day | N/A | N/A | N/A | |
| Parking spaces | N/A | N/A | N/A | |
| WATER/WASTEWATER | | | | |
| Gallons/day (GPD) of water use | N/A | N/A | N/A | |
| GPD water withdrawal | N/A | N/A | N/A | |
| GPD wastewater generation/ treatment | N/A | N/A | N/A | |
| Length of water/sewer mains (in miles) | N/A | N/A | N/A | |

CONSERVATION LAND: Will the project involve the conversion of public parkland or other Article 97 public natural resources to any purpose not in accordance with Article 97?

Yes (Specify _____) No

Will it involve the release of any conservation restriction, preservation restriction, agricultural preservation restriction, or watershed preservation restriction?

Yes (Specify _____) No

RARE SPECIES: Does the project site include Estimated Habitat of Rare Species, Vernal Pools, Priority Sites of Rare Species, or Exemplary Natural Communities?

Yes (Specify _____) No

HISTORICAL /ARCHAEOLOGICAL RESOURCES: Does the project site include any structure, site or district listed in the State Register of Historic Place or the inventory of Historic and Archaeological Assets of the Commonwealth?

Yes (*Plymouth Village Historic District (listed October 12, 1995) and the Town Brook Historic and Archeological District (listed June 2, 1982)*) No

If yes, does the project involve any demolition or destruction of any listed or inventoried historic or archaeological resources?

Yes (Specify _____) No

AREAS OF CRITICAL ENVIRONMENTAL CONCERN: Is the project in or adjacent to an Area of Critical Environmental Concern?

Yes (Specify _____) No

PROJECT DESCRIPTION: The project description should include (a) a description of the project site, (b) a description of both on-site and off-site alternatives and the impacts associated with each alternative, and (c) potential on-site and off-site mitigation measures for each alternative (*You may attach one additional page, if necessary.*)

The project has two main objectives: 1) to revitalize Brewster Gardens by correcting the erosion that has deteriorated the park to an almost unusable open space and 2) to improve fish habitat and passage within Brewster Gardens and Town Brook.

In order to correct and prevent further erosion, subsurface geotextiles will be used to stabilize the banks of Town Brook and the land within the park. The banks of the brook will be reshaped, and when completed will contain a geocellular confinement system overlain with wetland plant species and/or riprap to stop lateral land movement into the brook. The ground landward of the banks will be covered with a geogrid matting system and the grade of the park will be raised with gravel, loam and seed to varying depths. A new subsurface drainage system will be installed to intercept surface runoff and groundwater flow from within the park and the side hill slopes around it. The drainage will be routed through the "Maiden Pond" to eliminate stagnant pond water conditions and improve the overall water quality of the pond. The pond currently is partially spring fed but also collects runoff from the surrounding slopes. The project will direct more of the runoff from the slopes into the pond. The pond will be cleaned out and its banks will be reinforced similar to the banks of Town Brook. The drainage ditch that drains the pond into Town Brook will also be cleaned out, widened and have the banks reinforced. Overgrown shrubs around the pond and drainage ditch will be removed and replaced with smaller vegetation that is better suited for the area. A wetland area will also be created west of the drainage ditch to compensate for wetland areas filled at the base of the slopes. The wetland will be adjacent to Town Brook and a mild 6:1 vegetated slope will become the bank of the brook in this area.

To improve upstream fish migration the existing weir at Water Street will be lowered to create a longer window during the tidal cycle through which fish will be able to pass over the weir. Lowering the weir will also increase velocities in the brook, which combined with installing random boulder clusters, rock "J-hook vane" and "vortex rock weir" should extend the riffle/pool conditions that exist west of Route 3A into Brewster Gardens. All of this work is being proposed at the suggestion of representatives of the various marine fisheries agencies to improve fish passage and habitat. To prevent transport of sediment into Plymouth Bay, approximately 40 cubic yards of sediment will be removed from Town Brook. We are working with representatives from marine fisheries to determine the proper method of sediment removal.

The stone wall bank on the south side of the brook from Route 3A to Market Street is deteriorated and will be reinforced with riprap placed along its face. The brook's gravel bottom in this area is stable and can support the riprap without a geotextile support system. Placing the riprap should also help expand the riffle/pool habitat in this section of the brook. Some grading and subsurface drainage improvements are also proposed for this area of the park.

The area west of Market Street will see some minor improvements limited to loaming and seeding some overgrown and eroded areas.

Stone dust footpaths throughout Brewster Gardens will remain in approximately the same locations but will be rebuilt to allow for better access throughout the park.

All proposed improvements are shown on the attached plans entitled "Improvements to Brewster Gardens Park and Appurtenant Work."

Alternatives:

1. Dredge Town Brook from Water Street to Route 3A and leave the height of the Water Street weir at its present elevation. This was the previously submitted alternative, which was met with strong opposition from marine fisheries.
2. Install riprap along the banks of the brook from Water Street to Route 3A. Again, this was included as part of the previously submitted proposal and was met with strong opposition. Marine fisheries suggested a combination of riprap and vegetated banks. Where riprap is proposed, the riprap will extend from the bottom of the brook to about elevation 7.0 and wetland vegetation from elevation 7.0 to the granite block. This is proposed along the entire southern bank from Water Street to Route 3A and a short portion (105 l.f.) of the northern bank. The remainder of the northern bank (265 l.f.) will be "soft," vegetated banks with a mild 6-on-1 slope. The riprap is necessary to prevent erosion from the increased velocities expected with lowering the weir but two areas will be more protected and wetland vegetation should be adequate to stabilize the banks.
3. No work. This alternative is not viable because of the significant historical and recreational importance of Brewster Gardens Park. If nothing is done, maintenance and use of the park will eventually be impossible.

Mitigation:

1. One mitigation measure proposed for this project is the creation of the wetland area west of the drainage ditch that leads from the pond to Town Brook. This is being created to replicate any wetland areas that will be lost to filling areas of the park.
2. Another mitigation measure proposed is the lowering of the Water Street weir. Lowering of the weir will create a longer time window during which fish may pass over the weir. It will also lower the normal water elevation of the brook within Brewster Gardens which will help to offset loss of flood storage due to filling of the park.
3. A third mitigation measure is the creation of "soft," vegetated banks along the northern side of the brook.