



FEMA

FINDING OF NO SIGNIFICANT IMPACT

Miller St., Cross St., and Furnace Ave. Area Flood Control and Furnace Brook Restoration Project
Quincy, Norfolk County, MA
Hazard Mitigation Grant Program
Project Number DR-4051-MA-51
Major Disaster FEMA-4051-DR-MA

INTRODUCTION

The President declared a major disaster under the Robert T. Stafford Disaster Relief and Emergency Assistance Act (Stafford Act) on January 6, 2012 for the Commonwealth of Massachusetts as a result of a severe winter storm and snowstorm that occurred from October 29-30. The declaration, designated FEMA-4051-DR-MA, authorized the Hazard Mitigation Grant Program (HMGP) statewide. The Massachusetts Emergency Management Agency submitted a HMGP application to FEMA on behalf of the City of Quincy. The scope of work in the project application is to implement a series of drainage infrastructure improvements and ecological restoration measures to mitigate flooding in the flood prone West Quincy neighborhood at Miller Street, Cross Street, and Furnace Avenue.

The National Environmental Policy Act (NEPA) requires FEMA to follow a specific planning process to ensure that it has considered, and the general public is fully informed about the consequences of a proposed federal action, such as the approval of a mitigation project under the HMGP grant for a Stafford Act major disaster declaration. To meet its NEPA requirements, FEMA has prepared an Environmental Assessment for the Miller St., Cross St., and Furnace Ave. Area Flood Control and Furnace Brook Restoration Project to analyze potential effects of the Proposed Action and Alternatives on the human environment, and to determine whether the proposed project warrants preparation of an Environmental Impact Statement or a FONSI (Finding of No Significant Impact).

PROPOSED ACTION AND ALTERNATIVES NOT CHOSEN

The Proposed Action involves drainage infrastructure improvements within the Miller Street, Cross Street, and Furnace Avenue neighborhood drainage area including construction of a pump station with a force main at 20 Furnace Avenue. The force main would extend downstream from the pump station to the open channel section of Furnace Brook, ultimately discharging into a plunge pool and then into Furnace Brook between Cross Street and Reardon Street. The project would also involve repairs to deteriorating segments of the Furnace Brook channel walls between Cross Street and Reardon Street and comprehensive ecological restoration to approximately 900 linear feet of Furnace Brook between Reardon Street and Quarry Street.

Drainage infrastructure improvements in the neighborhood drainage area would consist of replacing existing subsurface drainage pipes, manholes and catch basins (i.e. the stormwater collection system) and install new subsurface drainage pipes, catch basins, water quality chambers and build the new pump station to upgrade the functionality of the system and improve water quality by redirecting stormwater from the subsurface closed conduit section of Furnace Brook to the proposed pump station and improve the quality of stormwater. New four-foot-deep catch basins would be installed throughout the Miller Street, Cross Street, and Furnace Avenue neighborhood area. These catch basins would provide a Total Suspended Solid (TSS) removal rate of 25%.

Granite block wall repairs totaling approximately 200 linear feet are proposed to Furnace Brook between Cross Street and Reardon Street. This work would consist of repairing sections of the wall that have collapsed into the stream by removing the granite blocks and re-setting them in the wall. Additional blocks from the 80-foot-long segment of wall that would be removed for the force main connection would be utilized to repair collapsed sections as necessary.

The project would also include ecological restoration on an approximately 900-foot long segment of Furnace Brook between Reardon Street and Quarry Street. The ecological restoration of Furnace Brook is designed to convert the

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existing linear, manmade stream channel to a sinuous watercourse with sloped earthen embankments providing additional flood storage and a diverse native plant community.

Alternative 1 Not Chosen:

Redirect or pump flood waters to other watersheds or waterways. This alternative was ruled out due to construction costs and/or existing flood capacities in adjacent watersheds.

Alternative 2 Not Chosen:

Remove privately-owned structures from within the flood-prone area to eliminate potential future damage to property. This alternative was determined to be cost prohibitive because of the combined costs incurred by the city because of the need to purchase and demolish an extensive number of privately-owned residential and commercial structures in the flood-prone area.

Alternative 3 Not Chosen:

Construction of an underground stormwater detention system and pump station with associated infrastructure improvements and a force main discharging into Furnace Brook at a reduced rate. The underground stormwater detention system creates significant complications because of the cost to construct and because of the lack of city-owned land within the drainage basin that could accommodate such a large system. This alternative was deemed impractical and cost prohibitive.

Alternative 4 Not Chosen:

Repair sections of the existing vertical granite walls without any stream restoration. This alternative would result in very minor improvements to flow within the stream from the removal of the fallen stones in the stream bed. The stream would continue to flow in the existing linear channel, rapidly conveying stormwater downstream and contributing to flooding issues downstream. This alternative was dismissed as it would have limited improvement to flood storage capacity and ecological health and function of the stream and floodplain.

Alternative 5 Not Chosen:

Remove the existing vertical stone wall and earthen berms and restore the embankments of the existing channel with new slopes between Cross Street and Quarry Street. This option was dismissed because the linear configuration of the channel would remain, and the floodwaters would continue to quickly pass through the area at the current velocity without any significant improvement to the flood storage capacity or ecological health and function of the stream and floodplain.

No Action Alternative – Not Chosen:

The No Action Alternative would result in no significant changes to the existing flooding problem in the subject neighborhood. The existing antiquated drainage infrastructure and closed conduit section of Furnace Brook would continue to be ineffective in its capacity to accommodate significant precipitation events. Under the No Action Alternative, the downstream ecological restoration activities would not proceed, and the degraded streams existing characteristics would not be changed.

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ENVIRONMENTAL IMPACT EVALUATION

FEMA collaborated with the City and their consultants Woodward & Curran Consulting and LEC Environmental Consultants, Inc to prepare the environmental assessment. FEMA Early Public Notice was part of the Disaster Cumulative Public Notice published in the Boston Globe in January 2012. Final public notice to announce availability of the draft environmental assessment for review during a 15-day comment period was posted in the Patriot Ledger on October 10, 2020 before this Finding of No Significant Impact (FONSI) was signed. No comments were received by FEMA during the 15-day public comment period.

This FONSI is not biased by potential beneficial effects of the proposed action and is based on conclusions derived from the environmental assessment and any comments resulting from public notification. For this project, FEMA finds that:

- There would be no significant impact on public health and safety;
- There would be no significant impact on unique characteristics of the area;
- The resource impact analysis showed that no impact involves a unique or unknown risk;
- The project is not likely to establish a precedent for future actions with significant impacts;
- Cumulative impacts would not be significant;
- There would be no significant impact to cultural resources;
- The project would not adversely affect endangered or threatened species, or critical habitat;
- No impact from the project would likely be highly controversial; and
- The project would not violate Federal, State and local laws or requirements for the protection of the environment.

MITIGATION COMMITMENTS AND PROJECT CONDITIONS

This FONSI for FEMA HMGP Project Number DR-4051-MA-51, Miller St., Cross St. and Furnace Ave. Area Flood Control and Furnace Brook Restoration Project, is contingent on mitigating actions described in standard and special conditions listed in FEMA's Record of Environmental Consideration which will be shared with the City and the Massachusetts Emergency Management Agency. An applicant's failure to comply with the FEMA Project standard and special conditions may jeopardize Federal funding. For this FEMA Project, standard and special conditions will include, but are not limited to, the following:

- Obtain all applicable Federal, State, and local permits and other authorizations before the start of construction and comply with each throughout project implementation, including any project completion reporting requirements (e.g. certificates of compliance) required by the U.S. Army Corps of Engineers, Massachusetts state agencies, the City of Quincy and others.
- Notify FEMA about any proposed substantive change to the approved scope of work before the start of construction to provide for re-evaluation of compliance requirements with the NEPA and other laws and Executive Orders.
- To avoid and minimize effects to American eel, FEMA affirms the time of year restriction on any in-water silt producing work from March 15 - June 30, per recommendation by the Massachusetts Division of Marine Fisheries and included as a special permit condition by USACE.
- Develop an Archaeological Site Avoidance and Protection Plan (ASAPP) to avoid any inadvertent ground disturbances (e.g., equipment access along Furnace Brook, tree removal).
- In the event of the discovery of archaeological deposits (artifacts) and/or human remains, the subrecipient shall stop work immediately, notify both FEMA and the Massachusetts Emergency Management Agency and secure the site to avoid further harm to the find. FEMA will determine next steps. Full text of condition and Points of Contact included in FEMA's Record of Environmental Consideration (REC).
- Within six months after project completion, submit to FEMA an application to initiate a Letter of [Flood] Map Revision (LOMR).

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FEMA has determined that the project will have no significant impact on the quality of the human environment in accordance with the NEPA, FEMA Instruction 108-1-1, and the City’s anticipated adherence to prescribed standard and special conditions for the proposed project. Therefore, FEMA will not prepare an Environmental Impact Statement and the FEMA environmental assessment for the Proposed Action completes the environmental and historic preservation review.

FEMA APPROVAL AUTHORITY:

David E. Robbins, FEMA Region 1 Regional Environmental Officer

HAZARD MITIGATION ASSISTANCE PROGRAM ENDORSEMENT:

Richard Verville, FEMA Region 1 Hazard Mitigation Branch Chief