

**Federal Emergency Management Agency
FINDING OF NO SIGNIFICANT IMPACT
Middlesex County Utilities Authority Restoration, Upgrade, and Flood Mitigation of The
Edison Pump Station
Edison, Middlesex County, New Jersey
Public Assistance Program 4086-DR-NJ**

BACKGROUND

From October 26, 2012 to November 8, 2012, Hurricane Sandy adversely impacted many communities including the Township of Woodbridge, Middlesex County, NJ. The Middlesex County Utilities Authority's (MCUA) Edison Pump Station (EPS) at the intersection of Sweetwater Lane and Cattail Way in Woodbridge Township was severely flooded during this presidentially declared disaster. The MCUAEPS pumps approximately 85 million gallons per day (MGD) of average daily dry weather sanitary flow from Carteret, Perth Amboy, Edison, and Woodbridge to its Central Treatment Plant (CTP). To reduce the potential of similar damage from future flooding and storm occurrences and to fully restore the plant facilities and operations post-Hurricane Sandy, the MCUA (i.e., Subgrantee) requested Public Assistance Program funding assistance from the Federal Emergency Management Agency (FEMA) pursuant to section 406(a) of the Robert T. Stafford Disaster Relief and Emergency Assistance Act of 1974 (42 U.S.C. 5172), as amended. The Grantee for the proposed action is the New Jersey State Office of Emergency Management. The FEMA project worksheet reference number is 4086-DR-NJ PW#05075.

The MCUA proposed to construct a perimeter floodwall around the pump station's critical infrastructure and improvements designed to minimize disruption to the EPS in the event of a flood or power failure. The floodwall would be designed to hold back a 500-year flood event. The proposed action would serve as risk reduction measures to avoid or minimize potential future flood damages, associated costs of storm damage and reduce risk of future interruption of services that this critical utility provides. The project also involves construction of an isolation vault, bypass pumping system, and northwest tunnel access shaft riser ring. The hazard risk reduction measures proposed to make the SPS more resilient would in turn protect the health, safety, and welfare of the surrounding community and the residents of municipalities serviced by the utility.

An Environmental Assessment (EA) was prepared by FEMA with grantee and subgrantee participation to assess the proposed project's impacts on the human environment in accordance with the National Environmental Policy Act (NEPA), the Council on Environmental Quality regulations for implementing NEPA (40 CFR Parts 1500-1508), and FEMA regulations for environmental consideration pertaining to NEPA compliance (44 CFR Part 10).

The EA included alternative analysis for three alternatives: A No Action Alternative, and a Proposed Action Alternative involving a perimeter floodwall, restoration and upgrades. It also includes construction of an on-site standby power system in the event of power failure. Other alternatives were identified and dismissed due to ineffectiveness or prohibitive costs that would be involved: (1) separate mitigation measures for the two MCUAEPS, (2) wet flood-proofing, (3) dry flood-proofing, and (4) facility relocation to a new site outside the 500-year floodplain. The No Action Alternative and Restoration to Pre-Disaster Condition were considered and dismissed, since these alternatives would not fulfill purpose and need. The alternatives to wet

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and dry flood-proof individual components were not selected as the preferred alternative, as this alternative would be costly and would not provide the site-wide holistic flood damage risk reduction that the proposed action would deliver to fulfill project purpose and need. The relocation alternative was also dismissed as costly and not feasible due to pre-existing infrastructure considerations.

PROJECT DESCRIPTION

Repairs will be completed for storm-damaged infrastructure at the plant. A proposed perimeter floodwall will be constructed with a designed top elevation of 23.0 feet which is above the 500-year floodplain elevation and accounts for wave run-up. The wall will be constructed using cast-in-place concrete supported by piles and underlain with a steel sheet pile cutoff wall. The components of the system would include an isolation sluice gate chamber and a stormwater pump station to prevent internal flooding from the influent gravity sewer pipeline. This would prevent surcharge conditions from outside the perimeter flood wall during flood events. A stormwater collection and pumping system would pump water out of the site under high rainfall conditions. A new reinforced concrete exterior wall will be constructed on top of the existing top slab of the northwest tunnel access shaft, and a new top slab would then be constructed at elevation 23.0 feet.

SUMMARY OF POTENTIAL IMPACTS AND MITIGATION

The proposed action is located within the 100-year floodplain. FEMA conducted an Eight-Step Decision-making process in accordance with Executive Order 11988 and 44 CFR Part 9 and determined that there are no practicable alternatives to relocate the facility outside the 500-year floodplain. The project purpose is to reduce risk of future flood damage and would provide risk reduction to the 500-year floodplain elevation as a critical action. The risks of federal investment in the floodplain are outweighed by the public benefits that the project implementation would provide. The potential impact of the floodwall on the floodplain was reviewed and was determined that the project would not increase the water surface elevation of the base flood more than one foot at any point within the community. This action will require a NJDEP Individual Flood Hazard Area permit and coordination with the local floodplain administrator. Impact to the riparian zone approved under an NJDEP Flood Hazard Area Individual Permit will require mitigation. The project will be designed to minimize and mitigate impacts to these areas to the extent practicable.

The facility site is located on the Raritan Bay, a coastal water body, and within New Jersey's defined coastal zone and is subject to review in accordance with the Coastal Zone Management Act and State Coastal Zone Management Rules at N.J.A.C 7:7E. A Federal Coastal Zone Consistency Determination was submitted to the NJDEP on May 1, 2015.

A wetlands delineation identified the presence of tidal wetlands and freshwater wetlands adjacent

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to the project site. MCUA has applied for Tidal and Freshwater wetlands permits from NJDEP. Executive Order 11990 Wetlands Protection analysis determined that no practicable alternatives were available to avoid direct impact to wetlands. It is anticipated that any State and/or Federal land use permitting (e.g. NJDEP waterfront development permit and NJDEP Individual Freshwater Wetlands Permit) will require the preparation of a wetlands mitigation plan demonstrating no net loss of wetlands functions and values. Restoration of the wetlands that may be disturbed during construction will be restored to original conditions with appropriate vegetation.

The proposed project was reviewed in accordance with the Clean Air Act. Based on the proposed emissions controls and proposed maximum annual operation of the standby power system, annual emissions for the proposed action will be in compliance with all applicable NJDEP and U.S. Environmental Protection Agency (EPA) requirements. The construction emissions were estimated to be below threshold levels.

Noise, dust and potential traffic disruptions associated with construction will be avoided and minimized to the extent practicable through adherence to work hours, adherence to noise ordinance and regulation and through use of best management practices during construction.

PUBLIC INVOLVEMENT

The initial public comment period for the federal agency's EA was from July 21st, 2015 to August 4th, 2015. A public notice was issued in New Jersey Star Ledger on July 17th 2015. No public comments were received. The Final EA will be posted to the FEMA website at: <http://www.fema.gov/media-library/assets/documents/107666> If the interested public has any additional comments, comments can be submitted to FEMA4086Comment@fema.dhs.gov or via mail to: FEMA Sandy Recovery Office-NJ, Attn: EHP, 260 Industrial Way West, Eatontown, NJ 07724 for consideration through August 19th, 2015, fifteen days from the date of the FONSI signature in accordance with 44 CFR Part 9.12 (Floodplain Management and Protection of Wetlands) final notice requirement.

CONDITIONS

The Subgrantee is responsible to obtain all applicable Federal, state, and local permits for project implementation prior to construction and to adhere to all permit conditions. Permit requirements and other authorizations include:

- NJDEP Freshwater Wetlands Permit
- NJDEP Flood Hazard Area Permit
- NJDEP Waterfront Development Permit\
- NJDEP Coastal Wetlands Permit
- NJDEP Treatment Works Approval

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- NDJEP Air Permit (Title V Modification)
- NJDEP Green Acres (NJ Statehouse Approval) for Temporary Construction Easements
- Freehold Soil Conservation District Soil Erosion and Sediment Control Certification
- Township of Woodbridge Planning Board Review

Any substantive change to the approved scope of work will require re-evaluation by FEMA for compliance with NEPA and other laws and executive orders.

The grantee must also adhere to the following conditions during project implementation:

1. The Best Available Data (BAD) must be used to determine the 500-year floodplain elevation for final engineering design in accordance with 44 CFR Part 9. At the time of this publication, BAD is obtainable at www.region2coastal.com/sandy/abfe.
2. Any proposed construction in the floodplain must be coordinated with the local floodplain administrator and must comply with Federal, state, and local floodplain laws and regulations.
3. Excavated soil and waste materials shall be managed and disposed of in accordance with applicable Federal, state, and local regulations.
4. In the event that unmarked graves, burials, human remains, or archaeological deposits are uncovered, the Subgrantee and its contractors will immediately halt construction activities in the vicinity of the discovery, secure the site, and take reasonable measures to avoid or minimize harm to the finds. The Subgrantee will inform the Grantee, NJ State Historic Preservation Office (NJSHPO) and FEMA immediately. The Subgrantee must secure all archaeological findings and shall restrict access to the area. Work in sensitive areas may not resume until consultations are completed or until an archaeologist who meets the Secretary of the Interior's Professional Qualification Standards determines the extent and historical significance of the discovery. Work may not resume at or around the delineated archaeological deposit until the Subgrantee is notified by the Grantee to proceed.
5. The Subgrantee must submit to Grantee and FEMA a copy of the wetland mitigation plan for review and comment concurrent with its submission to NJDEP.
6. The Subgrantee shall submit copies of all obtained permits to the Grantee/FEMA at or prior to final closeout of the public assistance grant.
7. Occupational Safety and Health Administration (OSHA) standards shall be followed during construction to avoid adverse impacts to worker health and safety.
8. It is recommended that the Subgrantee restore disturbed construction areas of the site with native seed and/or plant species to minimize soil erosion and sedimentation, as well as enhance environmental habitat quality of project site. It is recommended that disturbed soil areas be planted with native plant material, as soon as practicable after exposure, to avoid or minimize growth of undesired and potentially invasive plant species that can potentially take hold without competition of native plant materials. Local landscape plant nurseries and soil conservation offices can assist with identification of

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suitable native plants for site location type. The following websites may assist in identification of native plant material for the proposed project site:

- <http://plants.usda.gov/java/>
- www.nrcs.usda.gov/wps/portal/nrcs/main/national/plantsanimals/plants/
- www.fs.fed.us/wildflowers/nativeplantmaterials/rightmaterials.shtml

Landscape plans should also take into consideration appropriate buffers from floodwalls. USACE guidance recommends a 15-foot vegetation free zone around floodwalls (w/exception to non-woody grasses/herbaceous materials). Refer to USAE Engineering Technical Letter 1110-2-571.

9. The Subgrantee is recommended to consider sustainability for final design and construction practices. The Leadership and Energy and Environmental Design, NJDEP Sustainability and Green Energy and EPA websites below are available for reference:
 - www.usgbc.org/leed/rating-systems/core-shell
 - www.nj.gov/dep/sage/index.html
 - www.epa.gov/retailindustry/energy/buildings/sustainability.html
10. The Subgrantee shall not initiate construction activities until fifteen (15) days after the date that the FONSI has been signed as "APPROVED."

FINDING

Based on the attached environmental assessment and other above described sources, in accordance with the National Environmental Policy Act (NEPA), FEMA's regulations (44 CFR, Part 10) for environmental considerations, and Executive Orders addressing floodplains (EO 11988), wetlands (EO 11990), and environmental justice (EO 12898), it is found that the proposed action will have no significant impact on the human environment. As a result of this Finding of No Significant Impact, an Environmental Impact Statement will not be prepared and the proposed project as described in the attached environmental assessment may proceed.

APPROVED:



Michael Grisham
Acting Regional Environmental Officer Rep
Federal Emergency Management Agency
Region II

August 5, 2015