Suffolk County Water Authority
Emergency Power Generator Project

Environmental Information Document

1. Description of the Project and the Action

Suffolk County Water Authority (SCWA) proposes to install emergency power generators at 52 SCWA well field and pump stations (the Project). The generators will be used on an emergency basis to provide energy to the pump station and well fields during power outages.

SCWA is submitting an application to the New York State Environmental Facilities Corporation for grant funding to pay, on a reimbursement basis, 25% of the Project's costs and for a no interest loan to be used to pay for the remaining 75% of the Project's costs. SCWA will repay the loan over a period of time not to exceed the Project's period of probable life.

SCWA will install one emergency backup generator at each of 14 well field and pump stations that currently do not have generators. The remaining 38 well field and pump stations will receive replacement emergency back up generators. The old generators will be removed from service. Despite being one submission for EFC funding purposes, these two components are functionally independent from each other and are unrelated.

Installation of generators at the 14 well field and pump stations currently without emergency generator back up capacity is being classified as a Type I Action under the State Environmental Quality Review Act (SEQRA) and is designated the "Action." Replacing generators at the remaining 38 is defined as a Type II action under SEQRA and as such does not require a SEQRA review. SCWA must obtain a New York State Department of Environmental Conservation Tidal Wetlands Permit prior to installing a generator at its Sandy Walk, Dunewood, Fire Island well field and pump station which does not have a backup generator.

SCWA has prepared 14 Part 1s of the Long Environmental Assessment Form (LEAF) for the Action. Each LEAF analyzes the environmental impact, if any, of installing an emergency generator at each of the 14 well field and pump stations currently without a back up generator.

2. Background, Purpose and Need

SCWA uses electrically powered pumps used to produce water from approximately 600 wells. PSEGLI provides electrical power to SCWA's 235 well field and pumping stations located throughout Suffolk County. Electricity is also used to power treatment and filtration systems at the well field and pump stations. Dependence on one source of power places SCW's operations at risk during electric power outages. To mitigate this risk, SCWA has installed 112 standby power generators. SCWA proposes to modernize 38 of these generators by replacing

them with state of the art diesel powered generators. The Action consists of installing new generators at 14 well field and pump stations. The goal of the Project is to install 52 new generators at SCWA well field and pump stations so that forty percent of SCWA's total well field capacity is supported by modern generators. Implementation of the Project will increase the residency and redundancy of SCWA's system and its ability to withstand either regional or localized power outages without a significant loss in its ability to provide water to its customers.

3. Description of Project Planning Area

SCWA service territory as shown on the attached map. SCWA is the largest water supplier on Long Island with over 390,000 customer connections and serving over 1.3 million people. All the water provided by SCWA is derived from a sole source aquifer through a network of approximately 600 wells located on 235 pumping stations located throughout Suffolk County that are connected via approximately 6,000 miles of water main.

4. Existing and Projected Service Area Population

The Project will serve SCWA's customers, who are provided water through over 390,000 customer connections, throughout its service territory. Over 1.3 million people within Suffolk County receive water through these customer connections.

5. Evaluation of Alternatives, Including the No Action Alternative

Due to the design of SCWA system, there are few viable alternatives to the Action. SCWA examined whether power produced by either wind turbines or photovoltaic cells could function as a reliable source of back up power that would be available during regional or localized power failures. Upon further investigation both alternatives were discounted. Solar generation would only provide power when the solar energy is sufficient. However, on cloudy days or at night, no power would be produced. However, demand for water does not correlate with whether it is day or night, cloudy or sunny. As a sole source of emergency back up power, solar power is too unreliable.

SCWA also discounted wind power for many of the same reasons - rather than reliance on sunny conditions, wind power requires the presence of windy conditions. These winds turn the blades of a turbine which creates energy. The energy is converted to electrical energy which is available for use or can be stored. Counter intuitively wind turbines may be inoperable during storms. Typically when the weather forecast calls for a significant storm, wind turbines are taken off line and in some instances their blades may be removed so that the storm does not damage the turbine, the blades or cause the blades to spin too quickly. These periods of time correlate well with the periods of time when electrical back up power would be required. Thus the back up source of power would be unavailable when needed most.

Theoretically, power generated by either source could be stored in batteries then used as needed. SCWA examined this option but it is not viable because of the large of number of batteries that would be required to store enough energy for pump starter loads. SCWA also determined that installing diesel generators would be less expensive than installing solar systems at all of the sites. Generators would also be less costly to install at all but the Sandy Walk and Edison Drive facilities.

The No Action Alternative is not a viable option either. Absent implementation of the Action SCWA may not be able to provide water to all areas of its distribution system during regional or localized power outages that may cause public health and safety risks.

6. Detailed Description of the Selected Alternative

SCWA will install diesel powered generators at fourteen public water supply well field and pump stations. The facilities are located at Edison Drive in Montauk in the Town of East Hampton; at Fairmount Drive in Medford in the Town of Brookhaven; at Fresh Pond Road in Amagansett in the Town of East Hampton; at Kings Park Road in Commack in the Town of Smithtown; at Lumber Lane in Bridgehampton in the Town of Southampton; Mayfair Drive in Cold Spring Harbor in the Town of Huntington; at New Mill Road in Smithtown in the Town of Smithtown; at Old North Road in Southold in the Town of Southold; at Pierson Street in Nesconset in the Town of Smithtown; at Radio Avenue in Miller Place in the Town of Brookhaven; at Sandy Walk in Dunewood in the Town of Islip; at Seatuck Avenue in Eastport in the Town of Brookhaven; at Sunken Meadow in Kings Park in the Town of Smithown; and West Prospect Street in Southampton in the Village of Southampton as more particularly described in the Long Environmental Assessment Forms completed for this Action.

7. Estimated Costs of the Action

The estimated cost of the Action is $17,319,818.

8. Environmental Consequences of the Selected Plan in accordance with EAF questions

To analyze the anticipated environmental impacts of the Action, SCWA prepared a Long Environmental Assessment Form, Part 1 for each of the fourteen well field and pump stations at which back up emergency generators will be installed for the first time. It is not anticipated that the Action will generate significant adverse environmental impacts. There may be localized, minor impacts associated with clearing of trees and associated understory at the Mayfair Drive, New Mill Lane, Pierson Street, Seatuck Avenue and West Prospect Street well field and pump stations. Likewise, there may be localized, temporary noise impacts caused when the generators are operating. While in use the generators will produce 57decibel noise level at a distance of 100 feet. The noise level will decrease as the distance from the generator increases. Such noise will be produced intermittently while the generators are use during an emergency and during their 1-2 hour monthly testing period. Extra sound deadening material will be added to the generators at

Sandy Walk and Pierson Avenue to further reduce the audible noise level because of their proximity to adjoining residential uses.

Due to its proximity to regulated tidal wetlands, SCWA must obtain a Tidal Wetlands permit from the New York State Department of Environmental Conservation to authorize the installation of the Sandy Walk generator. Although the generator at the Sandy Walk well field and pump station will be located within 300 feet of a regulated tidal wetland no significant adverse impact to the wetland is anticipated. The generator will be more than 100 feet from the wetland and will be landward of the existing buildings on the site. In addition, there will be minimal land disturbance. The generator will be located on a wooden platform approximately 4 feet 2 inches by 8 foot 6 inches. A deck will surround the platform. In total, the total area covered by the generator and its platform will be 121 square feet. No permanent structures will be installed on the site, rather the platform will be installed on wooden piers without concrete footings. Operation of the generator will not create septage or increase runoff. Construction activities will occur at a distance of more than 200 feet southerly from the shoreline. There is residential development on both sides of the Sandy Walk parcel and there are numerous residential uses located northerly - closer to the shoreline - on the adjacent parcels than the proposed location of the generator on the Sandy Walk parcel.

The New York Natural Heritage Program, by letter dated November 14, 2014, informed SCWA that the NHP's database has no records of rare or state-listed animals or plants, or significant natural communities, at any of the 14 well field sites. The Action does not involve the removal or destruction of large quantities of vegetation or fauna, or the substantial interference with the movement of any resident or migratory fish or wildlife species, impacts on significant habitat areas, substantial adverse impacts on a threatened or endangered species of animal or plant, or the habitat of such a species, or other significant adverse impacts to natural resources. Therefore, no adverse impacts to natural resources will occur as a result of the proposed Action.

While four of the sites, Radio Avenue, Seatuck Avenue, Lumber Lane, and Fresh Pond Avenue are within designated Critical Environmental Areas (CEA) no adverse impacts will occur on a CEAs as a result of the proposed Action for the reasons set forth in this Negative Declaration.

The Action will not result in the impairment of the character or quality of important architectural or aesthetic resources or of existing community or neighborhood character. According to correspondence dated November 12, 2014 from the Division for Historic Preservation, the "Action will have no impact on archaeological and/or historic resources listed in or eligible for the New York State and National Registers of Historic Places."

9. Maps

Please see each LEAF for maps of the 14 well field and pump stations to receive generators under the Action.

10. Mitigation Measures Proposed

To mitigate noise impacts, the generators will be wholly enclosed within sound attenuating shelters to reduce audible noise levels. At a distance of 100 feet, the decibel level produced by the generators will be 57 db. The noise level will decrease as the distance from the generator increases. Such noise will be produced intermittently while the generators are use during an emergency and during their 1-2 hour monthly testing period. Extra sound deadening material will be added to the generators at Sandy Walk and Pierson Avenue to further reduce the audible noise level because of their proximity to adjoining residential uses. To mitigate the potential for fuel leaks, fuel for the generators will be stored within an integral fuel tank built into the shelter, with interior baffles. Moreover, to further reduce for fuel spills or overfill events, within each shelter with a Article 12 of the Suffolk County Sanitary Code compliant containment vessel with an overfill alarm/leak detection system.

11. Contact List

a. New York State Department of Environmental Conservation, New York Natural Heritage Program

b. New York State Department of Environmental Conservation Region 1

c. New York State Department of Health, Bureau of Water Supply Protection

d. New York State Office of Parks, Recreation, & Historic Preservation, Division for Historic Preservation

12. Reference List

a. Federal Emergency Management Agency - Flood Map Service Center, https://msc.fema.gov

b. New York State Department of Environmental Conservation, Certified CEHA Communities, http://www.dec.ny.gov/lands/86552.html

c. New York State Department of Environmental Conservation, Critical Environmental Areas in Suffolk County, http://www.dec.ny.gov/permits/25153.html

d. New York State Department of Environmental Conservation, Wild Scenic and Recreational Rivers Article 15, Title 27, http://www.dec.ny.gov/permits/6033.html

e. New York State Department of Environmental Conservation, EAF Mapping Tool, http://www.dec.ny.gov/eafmapper/

f. New York State Department of Environmental Conservation, "Ecological Communities of New York State," Second Edition, March 2014, New York Natural Heritage Program, http://www.dec.ny.gov/docs/wildlife_pdf/ecocomm2014.pdf

g. New York State Department of Environmental Conservation, Freshwater Wetlands Article 24 ,http://www.dec.ny.gov/permits/6058.html

h. New York State Department of Environmental Conservation, "New York State Breeding Bird Atlas," www.dec.ny.gov/animals/7312.html

i. New York State Department of Environmental Conservation, Tidal Wetlands Article 25, http://www.dec.ny.gov/permits/6039.html

j. New York State Office of Parks, Recreation, and Historic Preservation Online Tools GIS-Public Access, http://pwa.parks.ny.gov/nr/

k. New York State Department of State, Coastal Management Program, http://www.dos.ny.gov/opd/programs/consistency/state.html

l. New York State Department of State, Office of Planning and Development, http://appext20.dos.ny.gov/coastal_map_public/map.aspx

m. New York State Department of State, Local Waterfront Revitalization Programs, http://www.dos.ny.gov/opd/programs/WFRevitalization/LWRP_status.html

n. New York State Department of State, Office of Planning and Development, New York State Coastal Management Program and Final Environmental Impact Statement, http://www.dos.ny.gov/opd/publications.html

o. New York State Department of State, Office of Planning and Development, Coastal Boundary Map, http://appext20.dos.ny.gov/coastal_map_public/map.aspx

p. New York State Department of State, Office of Planning and Development, Scenic Areas of Statewide Significance (SASS), http://www.dos.ny.gov/opd/programs/consistency/scenicass.html

q. Suffolk County; http://gis2.suffolkcountyny.gov/GISViewer

r. Town of Brookhaven, e-code

s. Town of East Hampton, e-code

t. Town of Huntington, e-code

u. Town of Islip, e-code

v. Town of Smithtown, e-code

w. Town of Southold, e-code

x. Village of Southampton, e-code

y. SCWA Interoffice Correspondence, "Alternatives to Fossil-Fuel Generators as Emergency back-up Power," November 17, 2014

13. For Further Information:

Contact: Joseph M. Pokorny, P.E., Deputy CEO for Operations

Address: Suffolk County Water Authority
P.O. Box 38
4060 Sunrise Highway
Oakdale, New York 11769

Telephone Number: (631) 563-0202

Email: joe.pokorny@scwa.com

SCWA Service Areas

Current and potential service areas.