APPENDIX E: SOLE SOURCE AQUIFER SCREENING
Non-Housing/Project Activity Initial Screen Criteria
Sole Source Aquifer Checklist
New York Governor's Office of Storm Recovery
Village of Patchogue Out-of-District Sewer Extension
Daniel Greene, Certifying Environmental Officer
June 4, 2015

The following list of criteria questions are to be used as an initial screen to determine which nonhousing projects/activities should be forwarded to the Environmental Protection Agency (EPA) for Preliminary Sole Source Aquifer (SSA) Review. If any of the questions are answered affirmatively, Attachment 3, SSA Preliminary Review Requirements, should also be completed. The application/final statement, this Attachment, Attachment 3, and any other pertinent information should then be forwarded to EPA at the address below. Any project/activity not meeting the criteria in this Attachment, but suspected of having a potential adverse effect on the Sole Source Aquifer should also be forwarded.

Chief, Environmental Impacts Branch
USEPA Region II
26 Federal Plaza, Room 500
New York, New York 10278
(212) 264-1840

<table>
<thead>
<tr>
<th>CRITERIA QUESTIONS</th>
<th>Yes</th>
<th>No</th>
<th>Maybe</th>
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<tr>
<td>Is the project/activity located within a currently designated or proposed groundwater sensitive area such as a special Ground Water Protection Area, Critical Supply Area, Wellhead Protection Area etc.? [This information can be obtained from the County or Regional planning board, the local health department, the State health department or the State environmental agency]</td>
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<td>Is the project/activity located within a one half mile radius (2,640 feet) of a current or proposed public water supply well or wellfield? [This information can be obtained from the local health department, the State health department or the State environmental agency.]</td>
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<td>Will the project/activity include or directly cause: (check appropriate items)</td>
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<td>- construction or expansion of solid waste disposal, recycling or conversion facilities</td>
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<td>- construction or expansion or closure of landfills</td>
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<td>- construction or expansion of water supply facilities [define]</td>
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<td>- construction or expansion of on-site wastewater treatment plants or sewage trunk lines [define]</td>
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<td>- construction or expansion of gas or petroleum trunk lines</td>
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greater than 1320 feet
- construction or expansion of gas or petroleum trunk lines
greater than 1320 feet
- construction or expansion of railroad spurs or similar
extensions
- construction or expansion of municipal sewage treatment
plants

Will the project/activity include storage or handling of any
hazardous constituents as listed in Attachment 4, Hazardous
Constituents?

Will the project/activity include bulk storage of petroleum in
underground or above ground tanks in excess of 1100 gallons?
(Please give what assurance they are done in a proper manner)

Will the project/activity require a federal or state discharge
elimination permit or modification of an existing permit?

This attachment was completed by:

Name: Daniel Greene
Title: Certifying Environmental Officer
Address: 25 Beaver Street, 5th Floor
New York, NY 10004
Telephone: (212) 480-4644
Date: June 4, 2015

Signature of Certifying Officer 6/4/2015
Date

Revised: August 18, 2015
Where currently available, the information in this Attachment should be provided to the Environmental Protection Agency (see address below) along with the application/final statement; Attachment 2.A, Non-Housing Initial Screen Criteria or Attachment 2.B, Housing Initial Screen Criteria; and any other information which may be pertinent to a Sole Source Aquifer review. Where applicable, indicate the source of your information.

Chief, Environmental Impacts Branch
USEPA Region II
26 Federal Plaza, Room 500
New York, New York 10278
(212) 264-1840

I. Project/Activity Location
   1. Provide the geographic location and total acreage of the project/activity site. Include a site location map which identifies the site in relation to the surrounding area. [Examples of maps which can be used include: 1:24,000 or 1:25,000 U.S. Geological Survey quadrangle sheet, Hagstroms Street Map.]
   2. If applicable, identify which groundwater sensitive areas (Special Ground Water Protection Area, Critical Supply Area, Wellhead Protection Area etc.) the project/activity is located within or adjacent to. [This information may be obtained from the County or Regional planning board, the local health department, the State health department or the State environmental agency.]

II. Nature of Project Activity
   3. Provide a general narrative describing the project/activity including but not limited to: type of facility; type of activities to be conducted; number and type of units; number of residents etc. Provide the general layout of the project/activity site and a site-plan if available.

III. Public Water Supply
   4. Provide a description of plans to provide water supply.
   5. Provide the location of nearby existing or proposed public water supply wells or wellfields within a one half mile radius (2640 feet) of the project/activity. Provide the name of the supplier(s) of those wells or wellfields. This information should be available from the local health department, State health department or the State environmental agency.

IV. Wastewater and Sewage Disposal
   6. Provide a description of plans to handle wastewater and sewage disposal.
If the project/activity is to be served by existing public sanitary sewers provide the name of the sewer district.

7. Provide a description of plans to handle storm water runoff.

8. Identify the location, design, size of any on-site recharge basins, dry wells, leaching fields, retention ponds etc.

V. Use, Storage, Transport of Hazardous or Toxic Materials

(Appplies only to non-housing projects/activities)

9. Identify any products listed in Attachment 4, Hazardous Constituents, of the Housing and Urban Development-Environmental Protection Agency Memorandum of Understanding which may be used, stored, transported, or released as a result of the project not related to construction.

10. Identify the number and capacity of underground storage tanks at the project/activity site. Identify the products and volume to be stored, and the location on the site.

11. Identify the number and capacity of above ground storage tanks at the project/activity site. Identify the products and volume to be stored, and the location on the site.

This form was completed by:

Name: Daniel Greene

Title: Certifying Environmental Officer

Address: 25 Beaver Street, 5th Floor
New York, NY 10004

Telephone: (212) 480-4644

Date: June 4, 2015

Signature of Certifying Officer 6/4/2015 Date
I. Project/Activity Location
   1. Provide the geographic location and total acreage of the project/activity site. Include a site location map which identifies the site in relation to the surrounding area. [Examples of maps which can be used include: 1:24,000 or 1:25,000 U.S. Geological Survey quadrangle sheet, Hagstroms Street Map.]

   The proposed sewer expansion area (“project area”) comprises 648 parcels that encompass approximately 270 acres outside the existing boundary of the Village of Patchogue Sewer District. The Patchogue River meets Patchogue Bay on Long Island’s South Shore about 17 miles east of the Fire Island Inlet and 14 miles west of the Moriches Bay Inlet. It runs through the Village of Patchogue which has a population of 11,798.

   See Figure 1. Project Area and Figure 2. Project Location.

   2. If applicable, identify which groundwater sensitive areas (Special Ground Water Protection Area, Critical Supply Area, Wellhead Protection Area etc.) the project/activity is located within or adjacent to. [This information may be obtained from the County or Regional planning board, the local health department, the State health department or the State environmental agency.]

   The Suffolk County Department of Health Services (SCDHS) enacted Article 4, Article 6, Article 7 and Article 12 of the Suffolk County Sanitary Code to form rules and regulations on which to protect groundwater and public health in Suffolk County. Article 6 of the Suffolk County Sanitary Code separates the County into eight groundwater management zones (GMZ) based on differences in hydrogeology and groundwater quality, and establishes flow limitations for parcels within each GMZ based on maintaining a maximum total nitrogen concentration in groundwater of 10 mg/L. The project area is located within GMZ VI, in which the sanitary flow limitation is 300 gpd/acre. Given that significant development within the Village of Patchogue occurred prior to Article 6, the build-out of the Village in many areas exceeds this sanitary flow limitation, equal to approximately one-acre lot for each single family residence.

II. Nature of Project Activity
   3. Provide a general narrative describing the project/activity including but not limited to: type of facility; type of activities to be conducted; number and type of units; number of residents etc. Provide the general layout of the project/activity site and a site-plan if available.

   The Proposed Alternative consists of the construction of upgrades to the existing sewer collection system and the extension of sanitary sewer service to approximately 648 parcels outside the existing boundary of the Patchogue Sewer District. The Proposed Alternative includes three main components.

   1) Collection System Extension: A detailed hydraulic evaluation found that the existing low pressure sewer system located south of Division Street does not have sufficient capacity to connect the additional unserved properties. The project would re-route existing sewer mains and install new bypass mains to convey flow around areas where existing capacity is limited. The total project includes approximately 19,225 linear feet of 2 to 4-inch diameter high-density polyethylene (HDPE) piping within existing paved public rights-of-way. The
following system improvements are proposed to provide sufficient capacity:

- Disconnect the existing 4-inch diameter low pressure sewer main servicing all properties south of Laurel Street from the parallel 3-inch diameter low pressure sewer mains located at the intersection of West Avenue and Laurel Street.

- Install new parallel 4-inch diameter low pressure sewer mains north along Cedar Avenue then west on Division Street to West Avenue to intercept all flow generated from the existing connections and proposed new connections located along Laurel Street and south of Laurel Street.

- Install new 2-inch, 3-inch and 4-inch diameter low pressure sewer mains, service laterals and onsite house connection piping and low pressure sewer grinder pump stations (LPSGPS) to connect all flow from the proposed 648 additional properties.

- Install a new cross-connection manifold at the intersection of Division Street and West Avenue to connect the parallel 3-inch and 4-inch diameter low pressure sewer mains servicing properties on the west side of Patchogue River to the new parallel 4-inch diameter low pressure sewer mains routed north along Cedar Avenue and west along Division Street.

- From the new cross-connection manifold, extend three (3) 4-inch diameter low pressure mains north (jacked under the LIRR tracks) and connect to the existing West Avenue low pressure sewer bypass mains.

2) **Individual Sewer Connections:** Approximately 648 individual on-site grinder pump stations and new home service laterals ranging in length from 25 feet to 100 feet, totaling approximately 38,500 linear feet of 1 to 2-inch diameter HDPE piping would be installed to connect the unsewered parcels to the system. These are the pipes that connect the home plumbing system to the on-site low pressure sewer grinder pump stations and the grinder pump stations to the main line sewer. On-site grinder pump stations would be located on or near the Village right-of-way, as close to where the existing gravity lateral pipe exits from the home and within 25 feet from the building. They cannot be located under driveways as they are not traffic rated, and are typically installed in a lawn area. Grinder stations would be installed through an easement agreement with the property owner, and the Village would maintain the grinder pump stations for the life of the easement agreement.

3) **Pump Station Upgrades:** The Patchogue Village Advanced Wastewater Treatment Facility (AWTF) has available capacity to accept additional flow; however, the project would upgrade the West Avenue Pump Station to accommodate the additional 300,000 gallons per day (GPD) flow conveyed through the sewer infrastructure when all parcels with extended infrastructure are connected to the collection system. Upgrades to the West Avenue Pump Station include the replacement of the existing submersible sewage pumps to provide pumping capacity for the increased sanitary flows, and the in-kind replacement of the existing 60kW diesel emergency generator.
III. Public Water Supply

4. Provide a description of plans to provide water supply.

The proposed project would not require or provide a water supply.

5. Provide the location of nearby existing or proposed public water supply wells or wellfields within a one half mile radius (2,640 feet) of the project/activity. Provide the name of the supplier(s) of those wells or wellfields. This information should be available from the local health department, State health department or the State environmental agency.

The proposed project is located within one half-mile radius of a public drinking water well known as “Suffolk County Water Authority Facility 2564681.”

See Figure 3. GOSR – Patchogue River Sewer Area and ½ Mile Buffer.

IV. Wastewater and Sewage Disposal

6. Provide a description of plans to handle wastewater and sewage disposal. If the project/activity is to be served by existing public sanitary sewers provide the name of the sewer district.

The existing Village of Patchogue Sewer District sewer district encompasses approximately 90 acres of densely developed land centered on Main Street. The project would extend sanitary sewer service to approximately 648 parcels outside the existing boundary of the Patchogue Sewer District as out-of-district connections. Among these parcels, approximately 50 percent have available service laterals already connected to sewer mains that were installed as part of the previous sewer extension projects, while the remaining parcels do not have sewer availability and require additional sewer infrastructure to be installed to facilitate their connection. Sewage would be collected from individual parcels through on-site grinder pump stations to low pressure sewer mains which would flow to the Patchogue Advanced Wastewater Treatment Facility (AWTF). The AWTF was upgraded in 2011 to provide advanced nitrogen removal and expand the flow capacity. The flow expansion allocated flow to the very same areas now being proposed under this project, and can accommodate the estimated 300 gpd in additional flow that would be generated when all 648 parcels are connected to the system. Therefore, expansion of the Patchogue plant is not required under this proposed project. The Village of Patchogue AWTF operates under the State Pollutant Discharge Elimination System (SPDES) permit number NY0023922, which stipulates a maximum effluent flow of 800,000 gallons per day (gpd) from the facility, with a total nitrogen limit of <10 mg/L. The AWTF currently treats an average daily flow of approximately 300,000 gpd, with a current available capacity of 500,000 gpd.

7. Provide a description of plans to handle storm water runoff.

The project is not anticipated to result in an increase in stormwater runoff because the development footprint would not result in an increase in impervious cover, as all structures
would be located below ground except the West Avenue Pump Station upgrades, which would be located within the existing development footprint. Best management practices, including soil and erosion control measures, would be employed during construction to minimize potential, temporary soil erosion effects. These measures would be specified as part of the New York State Department of Environmental Conservation (NYSDEC) State Pollutant Discharge Elimination System (SPDES) General Permit for Stormwater Discharges from Construction Activity permit application, which would also include an Erosion and Sediment Control Plan and Stormwater Pollution Prevention Plan (SWPPP).

8. Identify the location, design, size of any on-site recharge basins, dry wells, leaching fields, retention ponds etc.

No recharge basins, dry wells, leaching fields, or retention ponds are included in the proposed project.

V. Use, Storage, Transport of Hazardous or Toxic Materials
(Applies only to non-housing projects/activities)

9. Identify any products listed in Attachment 4, Hazardous Constituents, of the Housing and Urban Development-Environmental Protection Agency Memorandum of Understanding which may be used, stored, transported, or released as a result of the project not related to construction.

The proposed project would transport wastewater through low pressure sewer mains to the Patchogue Advanced Wastewater Treatment Facility. Prior to treatment, wastewater transported through the proposed sewer collection system may contain products listed in Attachment 4, Hazardous Constituents, however the concentrations of any hazardous constituents would be below the allowable discharge limits. Metals are some of the more likely contaminants because of corrosion of piping systems for delivery of potable water. Lead and zinc in particular may be present if the drinking water is corrosive.

10. Identify the number and capacity of underground storage tanks at the project/activity site. Identify the products and volume to be stored, and the location on the site.

Underground storage tanks are not included in the proposed project, however the proposed project would require the construction of approximately 648 on-site underground grinder pump stations. These grinder stations would be located on or near the Village right-of-way, as close to where the existing gravity lateral pipe exits from the home and within 25 feet from the building. They cannot be located under driveways as they are not traffic rated, and are typically installed in a lawn area.

11. Identify the number and capacity of above ground storage tanks at the project/activity site. Identify the products and volume to be stored, and the location on the site.

No above ground storage tanks are included in the proposed project.

June 5, 2015

Ms. Grace Musemeci  
Chief of the Environmental Review Section  
U.S. Environmental Protection Agency  
Region 2 Main Regional Office  
290 Broadway  
New York, NY 10007-1866

Re: Sole Source Aquifer Analysis – CDBG-DR Funding Application  
Village of Patchogue Out-of-District Sewer Extension (Village of Patchogue, Suffolk County, NY)

Dear Ms. Musemeci:

The New York State Governor’s Office of Storm Recovery ("GOSR") received a funding application for the proposed “Village of Patchogue Out-of-District Sewer Extension” project located in the Village of Patchogue, Suffolk County, New York. The project area encompasses approximately 270 acres outside the existing boundary of the Village of Patchogue Sewer District, as illustrated in Figure 1. Project Area. The Proposed Action consists of the construction of upgrades to the existing sewer collection system and the extension of sanitary sewer service to approximately 616 parcels outside the existing boundary of the Patchogue Sewer District. It would connect unsewered properties in low-lying areas that suffer from recurring tidal flooding, and address nitrogen and pathogen pollution by reducing the total net nitrogen load into the South Shore Estuary from existing on-site sanitary disposal systems.

Pursuant to the Disaster Relief Appropriations Act, 2013 (Public Law 113-2) and the Housing and Community Development Act (42 U.S.C. § 5301 et seq.), GOSR is acting under the auspices of New York State Homes and Community Renewal’s Housing Trust Fund Corporation as a recipient of Community Development Block Grant – Disaster Recovery ("CDBG-DR") funds from the United States Department of Housing and Urban Development ("HUD") and is the entity responsible for compliance with the HUD NEPA environmental review procedures set forth in 24 C.F.R. Part 58. 24 C.F.R. Part 58 requires GOSR to review projects for conformance with the Safe Drinking Water Act of 1974 (42 U.S.C. 201, 300(f) et seq., and 21 U.S.C. 349) as amended, and Environmental Protection Agency ("EPA") regulations pertaining to Sole Source Aquifers found at 40 C.F.R. Part 149.

In accordance with the Memorandum of Understanding ("MOU") between EPA and HUD dated August 24, 1990, GOSR hereby requests an Initial Screen/Preliminary Review for the Village of Patchogue Out-of-District Sewer Extension project. Please review the attached documentation, including Attachment 2.B and 3 to the MOU. Responses can be sent to me via email at Daniel.Greene@stormrecovery.ny.gov. In accordance with the MOU, a non-response within fifteen days shall constitute a favorable review of the project/activity. If you have any questions, please feel free to contact me at (212) 480-4644. Thank you for your consideration and cooperation.

Sincerely,

Daniel Greene  
Deputy General Counsel and Certifying Officer  

Encl.
Mr. Daniel Greene  
Deputy General Counsel and Certifying Officer  
Governor’s Office of Storm Recovery  
25 Beaver Street  
New York, NY 10004  

Dear Mr. Greene:

This is in response to your letter dated June 5, 2015 requesting a Sole Source Aquifer review of the proposed “Village of Patchogue Out-of-District Sewer Extension” project located in the Village of Patchogue, Suffolk County, New York. While we have since agreed that the Environmental Protection Agency (EPA) will now be performing its sole source aquifer (SSA) reviews as part of its National Environmental Policy Act (NEPA) review, EPA is providing this review separately because we had completed the SSA review prior to reaching the agreement.

The project is to receive funding from the U.S. Department of Housing and Urban Development’s Community Development Block Grant-Disaster Recovery program. The proposed project is located in the Long Island Nassau/Suffolk Aquifer System, designated by the EPA as a Sole Source Aquifer on June 21, 1978 (citation 43 FR 26611). Therefore, our review has been conducted in accordance with Section 1424(e) of the Safe Drinking Water Act (SDWA).

The proposed action involves the construction of upgrades to the existing sewer collection system and the extension of sanitary sewer service to approximately 616 parcels outside the existing boundary of the Patchogue Sewer District. The project area consists of approximately 270 acres within the Village of Patchogue but outside its sewer district. The New York State Department of Environmental Conservation is not requiring the establishment of a separate sewer district because the additional wastewater flow will not exceed the existing permitted flow of the Patchogue wastewater treatment facility. The project area is located within Suffolk County’s Groundwater Management Zone #6, within which sanitary flow is limited to 300 gallons per day per acre. The existing sewer system south of Division Street does not have the capacity to accommodate the extension of sewer service to the additional parcels. Therefore, the existing sewer mains will be re-routed and new bypass mains will be installed to convey flow around the areas of limited capacity.

The project will require approximately 18,672 linear feet of 2 to 4-inch diameter high-density polyethylene (HDPE) piping within existing, paved public rights-of-way. HDPE piping segments will be joined by fusion. The placement of the sewer piping will adhere to the Ten State
Standards, which require a 10-foot horizontal and a 1.5-foot vertical separation between sewer and potable water lines.

Soil and erosion control will be implemented as part of the Stormwater Pollution Prevention Plan that will be in place. The completed project will not entail any additional stormwater runoff because the footprint of impervious surfaces will not be changed. The contractor will provide a Health and Safety Plan that will describe the procedure to be followed if unforeseen soil contamination is encountered during excavation. Financial arrangements will be in place to cover the removal and proper disposal of contaminated soil and replacement by clean backfill. We recommend the planting of native vegetation to the extent feasible upon project completion. Please see our recommendations below on environmentally-friendly landscaping.

Based on the information provided, the project satisfies the requirements of Section 1424(e) of the SDWA. Please be advised that meeting the requirements of 1424(e) does not preclude the need to meet National Environmental Policy Act (NEPA) requirements to address direct, indirect, and cumulative impacts. This review does not constitute a review under Section 309 of the Clean Air Act; EPA therefore reserves the right to review additional environmental documents on this project.

At this time, EPA offers the following additional comments to minimize environmental impacts and create a more sustainable project.

**Clean Diesel:**
Implement diesel controls, cleaner fuel, and cleaner construction practices for on-road and off-road equipment used for transportation, soil movement, or other construction activities, including:

- Strategies and technologies that reduce unnecessary idling, including auxiliary power units, the use of electric equipment, and strict enforcement of idling limits; and
- Use of clean diesel through add-on control technologies like diesel particulate filters and diesel oxidation catalysts, repowers, or newer, cleaner equipment.


**Stormwater:**
We emphasize the importance of Low Impact Development (LID) principles such as minimizing effective imperviousness to create site drainage, and the planting of native and non-invasive vegetation on the project site for stormwater management purposes. Other LID practices can include bioretention facilities, rain gardens, vegetated rooftops, rain barrels, and permeable pavements. For further information, please see the following website:
[http://water.epa.gov/powaste/green/](http://water.epa.gov/powaste/green/)

**Encourage cost-efficient, environmentally friendly landscaping:**
EPA's GreenScapes program provides cost-efficient and environmentally friendly solutions for landscaping. For additional information, please see:
If you have any questions concerning this matter or would like additional information, please feel free to contact Rajini Ramakrishnan of my staff at (212) 637-3731.

Sincerely yours,

Grace Musumeci, Chief
Environmental Review Section
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