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NY's clean water advocate

Sent via email (GowanusCanalComments.Region2@epa.gov)

April 27, 2013

Christos Tsiamis
Project Manager
Central New York Remediation Section
U.S. Environmental Protection Agency
290 Broadway, 20th Floor
New York, New York 10007-1866

RE: Riverkeeper, Inc. Comments on Gowanus Canal Superfund Site, Brooklyn, NY (EPA ID#: NYN000206222) Proposed Remedial Action Plan.

Dear Mr. Tsiamis,

Riverkeeper, Inc. ("Riverkeeper") respectfully submits the following comments on the Proposed Remedial Action Plan ("PRAP") for the Gowanus Canal Superfund Site, Brooklyn, NY (EPA ID#: NYN000206222) which was released for comment on December 27, 2012[1].

Organizational Background and Involvement with Gowanus Cleanup

Riverkeeper is a member-supported, not-for-profit organization, dedicated to protecting the Hudson River and its tributaries, and to safeguarding the drinking water supply for New York City. Since 1966, Riverkeeper has used litigation, science, advocacy, and public education to end pollution, restore ecological health, and revitalize waterfront use and access.[2] Many of

[1] EPA press release announcing availability of Gowanus PRAP and establishing comment period, *available at:* *http://yosemite.epa.gov/opa/admpress.nsf/d10ed0d99d826b068525735900400c2a/40b44a89e9d3b36885257ae100707518!OpenDocument*

[2] For additional information on Riverkeeper's mission and work, go to www.riverkeeper.org.

Riverkeeper's members live in the communities surrounding the Canal including members of the Brooklyn Riverkeeper Action Group ("BRAG").

The Gowanus Canal, located in Brooklyn, NY is one of the most heavily contaminated water bodies in the nation. This 1.8 mile long, 100 foot wide, canal was built in the 19th century and historically was home to many industries including manufactured gas plants, cement factories, oil refineries, tanneries, and chemical plants. After nearly 150 years of use, the canal has become heavily contaminated with PCBs, heavy metals, pesticides, volatile organic compounds, sewage solids from combined sewer overflows, and polycyclic aromatic hydrocarbons ("PAHs").

Riverkeeper is an organizational member of the Gowanus Canal Superfund Community Advisory Group (CAG) and has been actively involved with the Gowanus Canal Superfund site since the Canal was nominated for inclusion on the National Priorities List ("NPL") in 2009. Riverkeeper supported the listing of the Canal and called upon the EPA to undertake a comprehensive cleanup to address the decades of historic contamination in the Canal, ongoing sources of pollution from properties upland of the Canal, and discharges from Combined Sewer Overflows ("CSOs") following the Canal's NPL listing proposal.[3]

In addition to Riverkeeper's involvement with the CAG our Water Quality testing program conducts regular sampling of the Gowanus Canal[4] and our Gowanus Canal Pollution Enforcement Initiative has worked with the New York State Department of Environmental

[3] Riverkeeper Comments on Gowanus Canal NPL listing, *available at* www.riverkeeper.org/wp-content/uploads/2009/07/RvK_Comments_Gowanus_Canal_NPL_Listing.pdf
[4] Riverkeeper Water Quality Testing Locations: Gowanus Canal www.riverkeeper.org/water-quality/locations/nyc-hudson-bergen/gowanus-canal/

Conservation as well as other federal, state, and local agencies to bring environmental law breakers to justice.[5]

Comments on Gowanus Canal Proposed Remedial Action Plan

Riverkeeper supports the PRAP issued by the EPA for the Gowanus Canal Superfund site and commends the Agency for putting forth a comprehensive plan to address multiple sources of legacy and ongoing pollution. The PRAP addresses the many decades' worth of toxic sludge at the Canal's bottom, ongoing pollution from upland sites, and toxic discharges from CSOs. Also critically important to the success of the cleanup is ongoing coordination with the New York State supervised cleanups of the Fulton, Citizen's, and Metropolitan Manufactured Gas Plant ("MGP") sites and other contaminated properties along the canal, coordination with the United States Army Corps on shoreline and bulkhead restoration post cleanup, and Citywide CSO control efforts under the Clean Water Act and the 2012 CSO administrative consent order ("CSO Order") between New York City and the New York State Department of Environmental Conservation ("DEC").

While the EPA's plan takes the critical step of calling for CSO retention for two of the Canal's worst outfalls, many details will not be solidified until the design phase of the Superfund Cleanup and when New York City submits their CSO Long Term Control Plan ("LTCP") in 2015.[6] It is critical for the EPA, New York State, and New York City to work together towards the eventual goal of 100% elimination of CSOs from the Canal and for the EPA to require

[5] http://www.riverkeeper.org/news-events/news/stop-polluters/pollution-enforcement/victory-in-gowanus-canal/
[6] Gowanus Canal Proposed Remedial Action Plan (herein after "PRAP") at 19-20.

sufficient interim CSO control measures to protect the Superfund Remedy once construction begins if prior to implementation of the LTCP.

Since the EPA proposed the Canal for listing on the NPL in 2009 Riverkeeper has been gratified by the Agency's extraordinary level of engagement with the community. Over the course of the past four years the staff of EPA Region 2 has gone to great lengths to work with and educate the community on the Superfund process, while responding to community concerns and desire for a comprehensive cleanup that fully addresses not only legacy contamination, but ongoing discharges from CSOs. The comprehensive nature of the remediation plan set forth in the PRAP reflects this level of engagement. Riverkeeper is also gratified to see the Agency adhere to the timeline for conducting the RI/FS and issuance of a PRAP that was promised to the community when the Canal was added to the NPL in 2010. Riverkeeper looks forward to continuing to work closely with the Agency and other members of the Gowanus CAG during the upcoming Remedial Design and the implementation of the Remedy.

The PRAP addresses contamination of the bottom of the Canal, ongoing contamination from upland sources of pollution, and discusses disposal options for the dredged material. Riverkeeper's comments on each element of the PRAP follow.

1. Remediation of Historic contamination within the Canal

During ongoing patrols of the Gowanus Canal conducted between 2009 and 2012 Riverkeeper staff has documented the extent of ongoing and historic pollution of the canal. Aerial patrols have revealed oil sheens near the canal's head, floating debris, and patches of floating coal tar wastes. Boat patrols have confirmed that the water in the canal is often a toxic cocktail of sewage, coal tar waste, and other pollutants. Furthermore boat patrols have yielded

evidence of collapsing bulkheads, ongoing dumping of waste and debris, and the continued leaching of pollutants from sediments and the canal's bulkheads.

Through the studies conducted as part of the RI/FS the EPA has confirmed high levels of toxic contamination permeating the length and depth of the Canal from historic and ongoing sources of pollution. The FS presented seven alternatives for remediation of the sediment and fully analyzed the Agency's two preferred alternatives, both of which require the dredging of the entire soft layer of sediment in the bottom of the Canal and the construction of a multi-layered and armored cap.[7]

The PRAP proposes the use of Alternative 7 for the Upper and Middle sections of the Canal (labeled as Remediation Target Areas ("RTA") 1 and 2[8]). This alternative involves dredging of the soft sediment column, targeted use of in-situ stabilization ("ISS") of native sediment in areas with potential for upward nonaqueous phase liquid ("NAPL") migration, and construction of a cap with treatment, isolation and armor layers. The EPA is proposing Alternative 5 (dredge entire soft sediment column and cap with treatment, isolation and armor layers) for the Lower Reach of the Canal (RTA 3).[9]

Given the extent and pervasive nature of the contamination in the bottom of the Canal, Riverkeeper supports the EPA's determination to dredge the entire layer of accumulated "soft sediments" which have built up to as much as 10 feet thick on top of the native sediments that formed the original Gowanus Creek. PAHs, metals and PCBs are only found in the soft sediment at concentrations that pose a threat to human health and the environment.[10] In addition

[7] PRAP at 18.
[8] *Id.* at 30.
[9] *Id.*
[10] *Id.* at 31.

given that the NAPL contamination extends into the native sediment to a depth of 100 feet in certain areas the total remediation of the historic NAPL contamination is not technically feasible.

The PRAP will remove the pervasive and highly contaminated soft sediment layer and will prevent future NAPL recontamination through the use of stabilization agents and a multilayer armored cap. In conjunction with long term monitoring to ensure that the integrity of the cap is maintained and the permanent measures to protect the remedy from recontamination from upland sources and CSOs (as discussed below), the Remedy proposed by the EPA in the PRAP will be effective in meeting the goals of remediating the 150 years of historic and ongoing contamination in the Canal and returning this long neglected waterway to the community.

2. Control of Upland sources of pollution

The long term success of the Remedy set forth in the PRAP is closely tied with efforts to halt ongoing sources of contamination that have the potential to recontaminate the Canal. The RI/FS found that the greatest sources of ongoing contamination are the three former Manufactured Gas Plant ("MGP") sites, toxic discharges from CSOs, leaching of contamination from other properties along the Canal, and unpermitted discharge pipes.[11]

a. Remediation of the Manufactured Gas Plant Sites

Riverkeeper has been encouraged by the efforts that the DEC and National Grid have made to coordinate the remediation schedules and work at the three MGP sites with the Superfund cleanup. Many details are still in development regarding interim pollution control measures and the long term cleanup of these sites so it is crucial for the EPA to take the lead on continued coordination between the federal and state cleanups as Remedial Design progresses. The EPA must also reserve all rights to add the MGP cleanups under the umbrella of the

[11] *Id.* at 19.

Superfund cleanup if progress on these sites begins to lag behind what is needed to achieve the full timely implementation of the Superfund Remedy.

b. Combined Sewer Overflows

Riverkeeper along with our partners such as the Natural Resources Defense Council and the SWIM Coalition have been involved for many years in citywide efforts to ensure that New York City lives up to the requirements of the Clean Water Act and takes critical measures to reduce the more than 30 billion gallons per year of sewage that overflows into waterways that surround the City. Riverkeeper supports to 2012 CSO administrative consent order ("CSO Order") between New York City and DEC which mandates the development of the LTCPs as well as specific requirements for grey and green infrastructure projects.[12] Riverkeeper strongly believes that nothing in the CSO order precludes New York City from implementing additional CSO controls beyond what is mandated through the LTCP development process or in any way diminishes EPA's authority under Superfund to address toxics being discharged to the Canal and protect the long term viability of the selected Remedy.

The PRAP and Feasibility Study Report addendum present scientifically and legally sound reasoning for why it is crucial for the Superfund Remedy to include measures to reduce toxic CSO discharges from outfalls RH-034 and OH-007 (which represent 97% of overall CSO discharges into the Canal[13]). When combined with CSO reductions and infrastructure upgrades required under the CSO LTCP the overall reductions in CSOs are projected to be significant (approximately 58 – 74%).[14]

[12] *See*, www.riverkeeper.org/news-events/news/stop-polluters/nyc-cso-order-1203/
[13]Currently 4 CSOs contribute 95% of all discharges to the Canal. Following the infrastructure upgrades required under the Gowanus Canal Waterbody Watershed Plan OH-007 and RH-034 will account for 97% of all discharges. PRAP at 4.
[14] PRAP at 30-31

The studies conducted as part of the Remedial Investigation and Feasibility Study (RI/FS) found that wet weather CSO discharges contained VOCs, PAHs, PCBs, pesticides and metals. In addition residual sediment samples collected from the CSO pipes contained VOCs, PAHs, PCBs, pesticides and metals that could be mobilized and discharged to the canal during CSO overflow events.[15] The two outfalls identified by the EPA for the installation of control measures also contribute significantly to the sedimentation of the Canal.[16] Significant reductions in discharges from these outfalls are crucial to ensuring the integrity of the remedy.

Riverkeeper strongly supports the EPA's continued position that controlling CSOs is an essential part of the Gowanus canal cleanup. Development of the additional controls that would reduce CSOs by 58 – 74% is a significant step forward, but many details are still unknown and it is essential for the EPA to insist upon retention as the primary means of meeting the EPAs defined remedial performance goals[17] during the Remedial Design and the development of the Gowanus LTCP.

As detailed in the PRAP the Agency screened out various CSO control measures for CSOs OH-007 and RH-034 (including no action; optimization of existing trap chamber in CSO OH-007; constructing a CSO sediment trap at CSO RH-034; silt curtains and/or netting facilities, maintenance dredging; sewer cleaning and CSO storage[18]). The PRAP concluded that to ensure continued protection of the Superfund Remedy that permanent CSO sediment controls would be required to capture twice the amount of the "first flush".[19] It is estimated that this would capture 40% of the overall discharge volume and 60%-120% of the PAH load of the baseline storm event.

[15] PRAP at 9
[16] *Id.* at 11.
[17] *Id.* at 20.
[18] *Id.* at 19.
[19] *Id.*

Although the PRAP details the PAH load reductions that would be achieved through the capture of twice the "first flush" there are no estimates of reductions in the other contaminants contained in the discharge such as VOCs, PAHs, PCBs, pesticides and metals. Riverkeeper suggests that the EPA quantify the reductions in these additional contaminants and analyze whether additional CSO capture may be required to fully protect the remedy from discharges of these toxics.

In the PRAP that EPA has committed to work with New York City and the DEC as part of the development of the LTCP to achieve remedial goals in a cost-effective manner that is both protective of the Superfund Remedy and the Clean Water Act's requirement to meet Water Quality Standards for the waterbody's "highest attainable use." With the implementation of the Superfund Remedy it is anticipated that greater recreational and ecological uses of the Canal will be attainable beyond the current classification under the State's water quality classification system.

Riverkeeper commends the EPA for their stated commitment to require significant CSO reductions that will be protective of the Superfund Remedy while working with NYC and the DEC to integrate Remedy design and planning with the development of the LTCP.

3. Proposed Confined Disposal Facility and other disposal issues

Because of the varying levels of contamination within the sediments proposed to be dredged from the Canal, the PRAP proposes the use of several methods to treat and dispose of contaminated sediments from RTAs 1-3.

a. Proposed Red Hook CDF

One of the options that the Agency has proposed is for the least contaminated sediments from RTA 3 to be treated and disposed of utilizing a Confined Disposal Facility ("CDF") constructed in Red Hook. The EPA has stated that any proposal to utilize such a facility would be subject to acceptance by the community.[20] Although it appears that the construction of a CDF would be technically feasible and likely protective of the environment the EPA has not presented enough detailed information on the design of any potential CDF for Riverkeeper to fully evaluate any potential impacts. In addition many members of the Red Hook community have expressed opposition to the proposed CDF and significant concern regarding potential impacts to the community.

Although there has been some support within Red Hook for the CDF, with a significant level of opposition it cannot be said that the community accepts this proposal. The EPA should not construct the CDF given the lack of community acceptance.

b. Dewatering and offsite treatment and disposal of dredge material

The PRAP proposes offsite incineration (thermal desorption) and beneficial reuse for NAPL impacted sediments from RTAs 1 and 2 and offsite stabilization and beneficial reuse for non-NAPL impacted sediments from RTA 1 and 3 (if no CDF is constructed).[21] For all options dredge material would need to be dewatered prior to disposal.

EPA staff has stated during public meetings that the details of any required dredge material dewatering will be addressed during Remedial Design. Riverkeeper looks forward to engaging with EPA staff during the Remedial Design to further define how this will be

[20] PRAP at 30.
[21] *Id.*

accomplished in a way that achieves design goals while minimizing community impact, and addressing community concerns.

Conclusion

As set forth in the comments above Riverkeeper supports that EPA's plan to remediate the historic contamination in the Canal's sediments, and proposed measures to halt ongoing pollution from upland sources, and significantly reduce toxic CSO overflows.

Riverkeeper appreciates this opportunity to submit comments. If I may provide any clarification regarding the above, or additional information, please contact me at jverleun@riverkeeper.org or 914-478-4501 x 247.

Respectfully Submitted,

/s/ Joshua Verleun/

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