STATE OF CONNECTICUT
DEPARTMENT OF ENERGY AND ENVIRONMENTAL PROTECTION

IN THE MATTER OF

THE CITY OF NORWALK WATER POLLUTION CONTROL AUTHORITY NATIONAL POLLUTION DISCHARGE ELIMINATION SYSTEM PERMIT RENEWAL APPLICATION NO. 201812006	))))))	APPLICANT'S RESPONSE TO PUBLIC INFORMATIONAL HEARING COMMENTS AND POST-HEARING COMMENTS

The Water Pollution Control Authority ("WPCA") of the City of Norwalk ("City" or "Norwalk") submits the following response to comments made at the Public Informational Hearing held on January 14, 2021 ("Hearing"), as well as to post-Hearing comments filed with the Connecticut Department of Energy and Environmental Protection ("DEEP"). The comprehensive and detailed presentation made by Ralph K. Kolb, PE, Supervisory Environmental Engineer for the WPCA, and Anthony R. Carr, the Chief of Operations and Public Works for the City, supported by a forty-eight page informational slide deck, collectively address a majority of the issues raised during the Public Informational Hearing and in post-Hearing comments. However, some of the questions raised or comments made at the Hearing, as well as those submitted after the Hearing, would benefit from a response, clarification or reemphasis of key information, which is provided below.

I. CLARIFICATIONS TO THE RECORD

As mentioned above, the WPCA would like to take this opportunity to clarify some items raised either at the Public Informational Hearing or in the post-Hearing comments filed with DEEP.

A. Only 2% Of Norwalk's Collection System Operates As A Combined System

While Norwalk technically operates a combined wastewater system, it is important to note that Norwalk has separated nearly its entire wastewater collection system from its stormwater collection infrastructure. In fact, only 2% of Norwalk's collection system remains combined. While DEEP's general overview of combined systems was likely helpful for members of the public not familiar with collection systems, the WPCA wants to ensure that members of the public understand that stormwater and wastewater are, in fact, separate in nearly all of Norwalk's collection system.[1] The WPCA also wants to reemphasize that except in very rare circumstances, all flows within Norwalk's collection system, regardless of weather, receive treatment at the City's wastewater facility.[2]

B. The Emergency Outfall At Ann Street Does Not Function Like A Combined Sewer Outfall

The WPCA also wishes to reemphasize that the emergency outfall at Ann Street does not function like traditional combined sewer outfalls existing in other collection systems in the state.[3] The emergency outfall is not a simple weir or regulation gate that allows flows to overtop during high-volume rain events.[4] Instead, the emergency outfall is a technical piece of equipment that the WPCA and its operator can carefully regulate based upon real-time level and flow data.[5] Recently upgraded administrative and engineering controls put in place by the WPCA have further refined its use, making it exceedingly rare that the outfall will be used again in the future.[6] As mentioned

[1] DEEP's background discussion, in terms of both its commentary and through its visual presentation, focused primarily on combined wastewater collection systems. See CT DEEP's presentation made at the January 14, 2021 Public Informational Hearing regarding application # 201812006 ("DEEP Presentation") at slides 6-7; audio recording 1:05:45-1:07:02.
[2] *See* the City of Norwalk WPCA's presentation made at the January 14, 2021 Public Informational Hearing regarding application # 201812006 ("WPCA Presentation") at slides 4-6.
[3] WPCA Presentation at slide 18.
[4] *Id.*
[5] *Id.*
[6] *Id.*

during the WPCA's presentation, the emergency outfall has not been used since 2018 and only then as a result of operator error.[7] While DEEP's presentation indicated that the emergency outfall at Ann Street had been "upgraded," the WPCA wants to ensure that these specific details have not been overlooked by anyone not as familiar with the system as DEEP and the WPCA.[8]

As discussed during the WPCA's presentation, the City and WPCA keep the outfall in place in order to avert an emergency condition that would cause catastrophic damage to the wastewater treatment facility, the collection system, and/or local homes and businesses.[9] Without the emergency outfall, such catastrophic damage could lead to a prolonged, high-volume discharge of untreated or partially treated wastewater into the environment.[10] The WPCA is willing to assess the long-term control of the outfall within its Collection System Master Plan, however, in so doing, it is important that all parties fully consider the real-time controls in place to foster a fully informed discussion. The emergency outfall is not analogous to other combined sewer outfalls within the state and eliminating a critical component of collection system equipment would create more risk to human health and the environment than the careful long-term refinement of its use, which is currently in place.[11]

C. The WPCA's Standard Practice Is To Maximize Flows Through Full Treatment

The WPCA's standard practice has always been to utilize the full capacity of the treatment facility to ensure that the largest volume of wastewater receives full treatment.[12] More specifically, and in response to the question raised by the petitioner, Save the Sound,[13] the WPCA monitors

[7] *Id.*
[8] *See* DEEP's Presentation at slide 7; audio recording 1:06:40.
[9] *See* WPCA Presentation at slide 18.
[10] *Id.* It is also important to note that while the WPCA appreciates that this reality is unfortunate, during the type of catastrophic storm events that could potentially trigger use of the outfall, water quality within the Norwalk River would likely be worse than the highly diluted discharge from the emergency outfall.
[11] *Id.*
[12] *See* WPCA Presentation at slides 36-37.
[13] Save the Sound comments made during the Public Informational Hearing at 1:23:20-1:24:05.

flows through Outfall 002-01 at three intervals to maximize full treatment potential. First, the WPCA only diverts flows through Outfall 002-01's treatment process after the facility receives flows above 30 million gallons per day ("MGD") and not before. This standard practice gives the WPCA the ability to store significant volumes of wastewater within Outfall 002-01's treatment process prior to utilization of the outfall. Next, while Outfall 002-01's treatment process is activated, the WPCA and its operators closely monitor flows and storm intensity so that wastewater can be returned or bled back to the headworks building for full treatment as soon as plant volumes make redirection possible. Finally, as soon as flows to the facility drop below 30 MGD, Outfall 002-01 is immediately closed and any remaining volume is once again redirected back through full treatment.

In addition to maximizing full treatment potential through Outfall 002-01, the WPCA also utilizes storage capacity within its collection system to ensure that the largest volume of wastewater moving through the system during storm events receives full treatment.[14] More specifically, in 2017, the WPCA installed automated sluice gates on the eastern portion of the Ann Street Siphon chamber and connected the equipment to its real-time SCADA monitoring system.[15] This upgrade provides the treatment plant operator with the ability to carefully store and monitor wastewater within the collection system and release flows to the treatment plant when volumes are below the 30 MGD threshold.[16] This maximization eliminates the need to activate Outfall 002-1 and ensures that the greatest volume of wastewater at the facility receives full treatment.[17]

[14] *See* WPCA Presentation at slide 18.
[15] *Id.*
[16] *Id.*
[17] *Id.*

D. The WPCA Is Highly Responsive To Community Feedback

The WPCA is dedicated to responding to any concerns raised by community members including those related to odor. The WPCA works diligently at its wastewater treatment facility and collection system to control all odors and has multiple administrative and engineering controls in place to do so. In 2020, SUEZ, the WPCA's new operator installed odor blocks at targeted pump stations to reduce sulfide levels in wet wells. SUEZ is also upgrading the solids handling facilities at the wastewater treatment facility, which includes installation of new odor control systems that will significantly enhance odor control capabilities.

II. RESPONSE TO COMMENTS

A. The WPCA Is Well Below The Capacity Standard Within The Draft Permit

As noted by the WPCA in its presentation, flows to the treatment facility have continuously declined over the past five years despite significant commercial and residential development within the City during that period.[18] This decline is attributable to the WPCA's diligent efforts to clean and rehabilitate its collection system, all of which were detailed during its presentation.[19] Also included in the WPCA's presentation were additional future improvements and planned upgrades to the collection system that should result in a continued decline in flow.[20]

To ensure that there is sufficient capacity at treatment plants, DEEP has historically included conditions within National Pollution Discharge Elimination System ("NPDES") permits requiring facilities to assess treatment capacity when flows reach a certain numeric threshold.[21] In the current draft NPDES permit, the capacity-ensuring provision can be found at Section 4(M).[22]

[18] The specific decrease illustrated was from 2015 through October 2020. WPCA Presentation at slides 5 and 37.
[19] *See* WPCA Presentation at slides 7-24.
[20] *See* WPCA Presentation at slide 19.
[21] City of Norwalk NPDES Permit ID # CT0101249, at Section 4(Q) in the effective version of permit. The provision is included at Section 4(M) in the current draft version of the permit.
[22] City of Norwalk NPDES Permit No. CT201812006 Renewal draft at Section 4(M).

Section 4(M) requires the WPCA to develop and submit for the review and approval of the DEEP Commissioner, a plan for financing necessary capacity improvements when daily flow to the facility during the previous 180 days exceeds 90% of the design load rate.[23] In addition, the WPCA's current and proposed NPDES permit prohibits new discharges of domestic wastewater from a single source in excess of 50,000 gallons per day to the treatment plant unless DEEP is provided prior written notification.[24]

Currently, the WPCA's facility has a design flow capacity of 18 MGD.[25] For Section 4(M) to be triggered, flows for a 180-day period would need to reach 16.2 MGD.[26] As pointed out by Mr. Kolb, current one-year average flows to the treatment facility are 11.7 MGD.[27] As a result, current flows are well below the threshold criteria set forth by DEEP in Section 4(M) of both the WPCA's existing and proposed NPDES Permit.

The WPCA has been and remains dedicated to ensuring that its treatment facility has the capacity to handle the City's growth and maintains that its treatment plant continues to be well positioned to accommodate this growth.[28] The WPCA's consistent record of compliance with Section 4(M) and 4(B) demonstrates this commitment. To the extent that any capacity-related questions or comments made at the Public Informational Hearing or in post-Hearing comments are intended to regulate the City's overall growth through this NPDES permit process, such comments are misplaced. During its presentation, as well as when requested in other forums,[29]

[23] *Id.*
[24] City of Norwalk NPDES Permit ID # CT0101249, at Section 4(B) of the effective and draft version of the permit.
[25] WPCA Presentation at slide 35.
[26] *See* draft NPDES Permit Section 4(M).
[27] WPCA Presentation at slide 35.
[28] *See* WPCA Presentation at slides 35-47.
[29] The WPCA previously responded to an inquiry from the Norwalk Harbor Management Commission in the fall of 2020 addressing the same or similar questions.

the WPCA has formally commented on its ability to handle current capacity associated with Norwalk's growth, and will continue to be transparent and diligent in its efforts to do so.

B. The WPCA Currently Dedicates Significant Resources To Eliminating Inflow And Infiltration And Its Efforts Are Already Achieving Substantial Results

The WPCA is currently dedicating significant resources to eliminate both inflow and infiltration into its collection system.[30] Recently, the WPCA's efforts have focused primarily on identifying and eliminating significant sources of infiltration.[31] As with all of its work, the WPCA has based its decision to focus on infiltration on its internal analyses that have indicated that removing infiltration is the most effective way to eliminate unwanted flows into the collection system.[32] In addition, when the WPCA has experienced overflows within its collection system, the data demonstrates that the large majority of these bypasses are related to infrastructure failure and not wet weather capacity issues.[33] This data further confirms that addressing infiltration is the best way to eliminate unwanted flow into the collection system and to reduce any potential overflows.[34]

As a result, the WPCA works with its contract operator to aggressively advance collection system cleaning and assessment of assets using closed-circuit television ("CCTV") technology and scoring of pipe in accordance with the National Association of Sewer Service Companies Pipeline Assessment Certification Program ("PACP").[35] At a minimum the WPCA's contract operator must clean, CCTV and PACP score two miles of collection system pipe per month.[36] Pipes receiving the highest PACP scores are scheduled for rehabilitation with cured-in-place pipe

[30] WPCA Presentation at slides 7-24.
[31] WPCA Presentation at slides 7-16; 19-24.
[32] *See* WPCA Presentation at slide 7.
[33] *See* WPCA Presentation at slides 7-16.
[34] *Id.*
[35] WPCA Presentation at slides 7-16; 19-24.
[36] WPCA Presentation at slide 7.

("CIPP") lining technology.[37] CIPP lining both eliminates the possibility of infrastructure failure and also eliminates infiltration into the system.[38]

The WPCA also takes steps to eliminate inflow into its collection system.[39] The WPCA addresses removal of private inflow sources during sewershed-wide rehabilitation projects.[40] Where necessary, smoke testing and dye testing are used to identify and eliminate sources of private inflow into the system.[41] In 2020, the WPCA also continued it efforts to address inflow by disconnecting two catch basins, a practice it intends to continue where feasible and significant inflow volumes are identified.[42] Starting in 2018, the WPCA developed and launched a webpage on its website dedicated to the issue of private inflow.[43] The webpage explains the issue, discusses removal options and offers the WPCA's assistance to property owners evaluating inflow elimination options.[44] The WPCA will continue to identify and eliminate significant sources of public and private inflow into its system.

As discussed during the Public Informational Hearing, the WPCA is excited about the launch of its upcoming system-wide collection system engineering assessment.[45] The WPCA recently selected two highly qualified consultants to perform the assessment starting in spring 2021.[46]

The first task for the primary consultant will be to update the WPCA's Sanitary Sewer Collection System Master Plan.[47] The task will include assessing and updating the WPCA's

[37] *Id.*
[38] *See* WPCA Presentation at slides 7-16; 19-24.
[39] WPCA Presentation at slides 7; 14-15.
[40] WPCA Presentation at slide 14.
[41] *Id.*
[42] *Id.*
[43] *Id.*
[44] *Id.*
[45] WPCA Presentation at slide 24.
[46] *Id.*
[47] WPCA Presentation at slide 24.

collection system hydraulic model by conducting system-wide flow monitoring.[48] The contractor will review and assess available information including, but not limited to, the following items:

- Interceptors (large diameter pipes) - verify list and assess condition;
- Identify gravity pipe assets of a NASSCO PACP score rating of a 4 or greater;
- Hot spots (i.e., roots, grease, etc.);
- Force mains - assess integrity;
- Manhole rehabilitation;
- Hydraulic bottlenecks including analysis of potential infiltration and inflow;
- Evaluate future development projects and impacts on collection system; and
- SUEZ Data – Review new CCTV, PACP scoring, SL RAT data.[49]

The updated Sanitary Sewer Collection System Master Plan will identify long-term capital improvement projects and estimated costs for planning and implementation.[50] Among other improvements, the assessment should be a critical tool to assist the WPCA achieve even greater reductions of inflow and infiltration going forward.

C. The WPCA Is Committed To Minimizing Activation Of Outfall 002-01

The WPCA's strategy and upgrades within its collection system have been highly successful.[51] Three key data points demonstrate this success:

- Despite significant growth within the City, flows to the treatment facility are declining and are currently at a five year low;
- The WPCA's collection system experienced just seven bypasses in 2020—an all-time low; and

[48] *Id.*
[49] *Id.*
[50] *Id.*
[51] *See* WPCA Presentation at slides 4-24.

- Outfall 002-01 discharged *just once* during the entirety of 2020.[52]

During the Public Informational Hearing, DEEP discussed the need for the WPCA to replace the drum screen technology currently inoperable at the treatment facility.[53] While the WPCA acknowledges the drum screen technology is currently out of service,[54] it is important to note that an in-kind replacement of the equipment would not create a significant benefit to water quality within the Norwalk River and Long Island Sound.

The WPCA's outside engineering consultant estimates that new equipment and installation of the drum screen technology would cost approximately $10 million. For reference, Outfall 002-01 activated just once in 2020 and for only 45 minutes.[55] Put another way, replacing the drum screens would mean spending $10 million of taxpayer money on equipment that may sit entirely idle for all but less than one hour within an entire year. Given the success of recent collection system projects, the WPCA strongly supports funding upgrades that realize benefits 24 hours a day, 365 days a year, such as critical CIPP lining projects or upgrades within the treatment facility's full treatment process. Both of these upgrades would realize significantly greater benefits for the Norwalk River and Long Island Sound.

Furthermore, since the drum screens were installed in 1980, there have been other upgrades at the treatment facility that have made some aspects of that technology redundant.[56] For example, prior to 2012, preliminary treatment at the treatment facility included mechanically-cleaned

[52] WPCA Presentation at slide 48.
[53] DEEP comments made during Public Informational Hearing at 1:14:00-1:15:05. It should also be noted for clarification that commenters during the Public Informational Hearing process as well as the draft permit comment period did not specifically mention the drum screens. DEEP mentioned the drum screens as background pertaining to Outfall 002-01, but it was not a topic raised in any of the public comments.
[54] Pursuant to its NPDES permit, the WPCA timely notified both DEEP and the U.S. Environmental Protection Agency of the equipment's failure.
[55] WPCA Presentation at slide 48.
[56] *See* WPCA Presentation at slides 35-47.

catenary bar screens with 1-inch spacing, each rated for 47.5 MGD, for all flow entering the plant (up to 95 MGD) and a grit removal system for flows up to 30 MGD.[57] Grit removal included two horizontal grit settling chambers which collected settled grit via counter-current bucket elevators.[58] Flows above 30 MGD were redirected prior to grit removal and pumped to the Supplemental Treatment Facility (rotary drum screens and chlorine contact tank no. 2) and discharged through Outfall 002-01.[59]

The 2012 Headworks Upgrade replaced the existing bar screens with three 1/2-inch mechanically-cleaned catenary bar screens (each rated for 47.5 MGD).[60] The upgrade also replaced the existing grit tanks with two new aerated grit tanks (each rated for 47.5 MGD).[61] The new bar screens, a 50% reduction in bar spacing, have visibly improved the capture of solids such as rags, plastics, and other large diameter items.[62] The upgrade also provided redundancy for the bar screen process.[63] Since the upgrade, all influent flow (up to 95 MGD) is now treated with 1/2-inch screening and aerated grit removal, significantly improving water quality moving through the Outfall 002-01 system.[64]

The WPCA is fully committed to minimizing activation of Outfall 002-01 and the three points above demonstrate the results of its efforts.[65] Going forward, the WPCA is excited about the comprehensive, collection system-wide, flow assessment it plans to conduct in the spring of

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[57] *Id.*
[58] *Id.*
[59] *Id.*
[60] *See* WPCA Presentation at slides 35-47.
[61] *Id.*
[62] *Id.*
[63] *Id.*
[64] *Id.*
[65] It is important to clarify that Outfall 002-01 is not a combined sewer outfall or a collection or treatment plant bypass, as some of the commenters in the Public Informational Hearing suggested. Instead, flows from Outfall 002-01, when activated, currently receive screening, grit removal, chlorination and dechlorination prior to discharge, which is significantly greater treatment than standard combined sewer outfalls or bypasses.

2021. The results of that assessment will help the WPCA further target the most critical projects within its collection system, reducing inflow and infiltration, and minimizing flow to the treatment plant during storm events.

The WPCA strongly believes that it would achieve a significantly greater benefit for the environment by having access to the maximum funding available to address the forthcoming recommendations of its system-wide flow assessment as opposed to spending the funds on technology that could be used for as little as 45 minutes within a year. Advancing the flow assessment recommendations would help prevent activation of Outfall 002-01 rather than installing equipment that at best, sits idle for nearly the entire year and at worst, reinforces the long-term reliance on Outfall 002-01—an outcome all parties hope to be able to one day eliminate.

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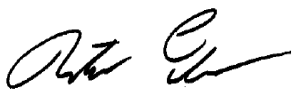
The City of Norwalk and the WPCA remain dedicated to improving all aspects of its wastewater treatment system to further enhance water quality in the Norwalk River and Long Island Sound. We sincerely appreciate the opportunity to provide this information responsive to comments made at and following the Public Informational Hearing.

Dated: February 5, 2021

Respectfully submitted,



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