



The New York Water Environment Association, Inc.
The Water Quality Management Professionals

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Draft Scoping Plan Comments
New York State Energy Research and Development Authority (NYSERDA)
17 Columbia Circle
Albany, New York 12203-6399

Re.: Comments – New York State Climate Action Council Draft Scoping Plan

Dear Climate Action Council members,

The New York Water Environment Association (NYWEA) is a professional nonprofit organization, founded in 1929, with over 2,500 members dedicated to protecting and improving New York's waterways. Many NYWEA members work at or support water resource recovery facilities (WRRFs) – formerly referred to as wastewater treatment facilities – that serve millions of New Yorkers and protect water quality, protect public health, and support local economies 24-hours a day, 7-days a week.

Numerous WRRFs, pumping stations, and other sewer infrastructure have been impacted by flooding and similar effects of climate change. As an environmental organization, NYWEA applauds New York State's leadership on climate action and therefore supports many of the "New York State Climate Action Council Draft Scoping Plan" ("Plan") recommendations to decrease greenhouse gas emissions. To balance the Plan goals with the need to maintain the resiliency of the critical services WRRFs and sewer utilities provide, NYWEA offers the following comments / suggestions:

It is imperative that the Plan maintain flexibility in managing the disposal of biosolids from WRRFs

Chapter 16 of the Plan addresses biosolids from WRRFs and correctly notes the generation of biosolids is "unavoidable." WRRFs accept the sewage and septage produced by New Yorkers across the State and manage that wastewater by properly processing it to protect public health and protect the environment. Biosolids are a byproduct of this vital service that WRRFs provide to society.

There are currently only three (3) USEPA approved ways to dispose of biosolids: landfilling, beneficial reuse through land application/composting, and thermal destruction using incineration, pyrolysis, or similar methods. NYWEA agrees with the Plan recommendations to support beneficial reuse of biosolids; however, NYWEA also believes it is very important to maintain flexibility with biosolids disposal options.

While being the preferred method, beneficial reuse has significant limitations – specifically the lack of viable reuse locations or markets. To state it plainly, NYWEA does not believe there presently are enough land application sites available for WRRFs across New York. Further, hundreds of WRRFs are not setup to produce a land applicable, “Class A” biosolids. It is critical that the State follow through with Strategy W.8 from the Plan and conduct an organics roadmap study to specifically address the availability of biosolids beneficial reuse.

The lack of viable reuse locations or markets is in part driven by some negative perceptions associated with biosolids. There have been municipalities in New York State that have passed (or have attempted to pass) local laws prohibiting land application within their borders. The State of Maine recently enacted a law banning biosolids land application and the sale of biosolids-based fertilizer/compost products¹, largely due to concerns that biosolids contain per- and polyfluoroalkyl substances (PFAS). To that end, Strategy W.4 references the need to research the extent and impact of co-pollutants such as emerging contaminants and NYWEA fully supports this proposal.

Chapter 16 of the Plan appears to acknowledge the need for flexibility in the waste sector, noting the “strategies recognize that combustion and landfilling of some components of the waste stream will continue beyond 2050.” NYWEA firmly believes biosolids fit this need for flexibility – particularly when considering the aforementioned limitations with land application.

There are ancillary benefits to some of the other biosolids disposal methods. Some WRRFs have partnered with local landfills to implement optimized biogas production/capture protocols to generate clean energy. Thermal destruction of biosolids works well in certain applications, providing significant decreases in the volume of materials to be transported and disposed. There is research² indicating thermal destruction may be a method to address some concerns with PFAS and other emerging contaminants. Air discharges from biosolids incinerators are highly regulated with advanced scrubber systems. Therefore, disposal methods other than land application can be beneficial in managing this “unavoidable” byproduct of society’s need for safe and clean water.

Anaerobic digestion and renewable biogas should continue to be promoted in the Plan, including to the utility grid

Anaerobic digestion and management of biogas is rightly a key component of the Plan with specific references for WRRFs in Chapter 16, Strategies W.4, W.6, and W.9. Several WRRFs in New York have been leaders in the operation of anaerobic digesters and utilizing the biogas to produce heat, electricity, and sometimes both. A number of sewer utilities have installed boilers for heating needs, cogeneration systems to produce combined heat/power, and even pumps driven by biogas engines. NYWEA agrees with the recommendations in the Plan prioritizing the use of biogas onsite, optimizing existing digesters through co-digestion and other means, and promoting the evaluation of fugitive emissions from existing units. It is strongly encouraged that the State follow through on investments noted in the Plan to fully utilize and optimize existing anaerobic digesters. NYWEA believes the Plan could further the State’s goals by also promoting

¹ State of Maine, H.P. 1417, L.D. 1911, “An Act To Prohibit 10 the Contamination of Clean Soils with So-called Forever Chemicals”

² Winchell, Lloyd et al, (2020) *Per- and polyfluoroalkyl substances thermal destruction at water resource recovery facilities: A state of the science review*, Water Environment Federation

biogas to utility grid strategies. There are applications where this approach would be of great benefit during the transition to electrification – particularly if co-digestion is implemented at additional sites and biogas yields increase. Utilizing renewable natural gas (RNG) for this purpose will decrease fossil fuel use and hence is an overall benefit to meet the State’s greenhouse gas emission goals.

Anaerobic digestion is not feasible at all WRRFs

It is important to note it is not feasible to install anaerobic digesters at all WRRFs in New York State. Several facilities do not have the space, infrastructure, and / or financial resources to construct anaerobic digesters on their sites. A recent NYSEERDA study³ optimistically assumed RNG could be produced at 50% of WRRFs with a design capacity greater than 3.3 million gallons per day (MGD). In the “achievable deployment” scenario presented in the same study, it was assumed RNG could be produced at 40% of WRRFs with a capacity greater than 7.25 MGD. To put these data in context, 85% of WRRFs in New York are smaller than the 3.3 MGD threshold, meaning roughly 7.5% of WRRFs Statewide were RNG candidates in the study’s optimistic scenario. Anaerobic digesters can also affect the wastewater treatment process by producing ammonia and other byproducts that may adversely impact the ability of facilities to meet their discharge limitations. As a result, NYWEA recommends that the Plan continue to promote anaerobic digestion, but also explicitly state it is not applicable to all WRRFs.

The resiliency of the utility systems and the electrical grid is critically important to WRRFs and must be accounted for in the Plan

NYWEA agrees electrification should remain as a critical component of the Plan to help to reduce overall greenhouse gas emissions in New York State. However, there are components of WRRFs – specifically those associated with the processing of biosolids – that presently require the use of natural gas and do not have viable electric options. This must be considered during the implementation of the Plan.

WRRFs cannot function properly without pumping systems, aeration blowers, and numerous other electrically driven equipment. The New York Independent System Operator (NYISO) recently noted the margins to maintain reliability in the electrical system are narrowing and may be eliminated in the next decade⁴. In the interest of public health and water quality, it is imperative that the reliability of electrical utilities be maintained/improved as loads increase due to electrification strategies and the sources of the State’s energy evolve. This is of great concern as sewer service providers must maintain continuous operations and they rely on the electrical grid or backup generators to do so. NYWEA agrees with the State’s goals regarding the further transition to renewable electrical sources; with this transition it is important that the grid be bolstered and short-term energy source flexibility be maintained to insure the critical needs of those served by the electrical grid are not adversely impacted.

³ New York State Energy Research and Development Authority (April 2022), “Potential of Renewable Natural Gas in New York State (Final Report)”

⁴ New York Independent System Operator (December 2021), “2021-2030 Comprehensive Reliability Plan”

State assistance is essential for WRRFs to implement Plan strategies

NYWEA cannot reiterate enough the need for State technical and financial assistance for WRRFs to implement a number of the Plan strategies. WRRFs and the personnel who operate and maintain these utilities cannot advance the items outlined in the Plan on their own. Additional study / analysis is required. The financial resources to move ahead with many of these strategies are non-existent.

Chapter 16 of the Plan correctly notes “the funding for WRRFs is tied to municipal water and sewer rates, is generally constrained, and is largely dedicated to improving water quality, making it difficult to self-fund beneficial reuse projects.” The difficulty of self-funding goes beyond beneficial reuse and touches almost any aspect of WRRF operations. Sewer service providers across the State face increasing challenges to upgrade facilities to meet regulatory requirements. Resiliency measures are being implemented to address the effects of climate change. Aging infrastructure must be replaced to extend service life of these assets.

By no means are WRRFs in a status quo; upgrades are occurring on a continuous basis across New York and at increasing prices, often due to unfunded mandates. Further, operational costs associated with treatment chemicals, fuel, utilities, biosolids disposal, personnel, and more are increasing at a fast rate. Unfortunately, rising costs are primarily the burden of local ratepayers even with historic investments by the State and Federal governments, for which both levels of government should be commended. There are increasing concerns regarding the affordability of these critical services – particularly in environmental justice and disadvantaged areas.


At a minimum, WRRFs will need technical and financial support from the State on the following items:

- All components of Strategy W.4, including funding programs to advance anaerobic digestion and researching beneficial reuse markets/co-pollutants
- The maintenance and monitoring components of Strategy W.6
- All components of Strategy W.7
- All components of Strategy W.9

Without the State’s support, it will be very difficult for WRRFs to assist in meeting the Plan’s goals in a reasonable timeframe and meet their core mission of protecting public health and water quality, without adversely impacting local ratepayers.

Thank you for your consideration of these comments and suggestions. NYWEA would welcome the opportunity to further discuss how we may assist the Climate Action Council in balancing the Plan goals with the need to maintain the resiliency of WRRFs and the vital services sewer utilities provide.

Respectfully submitted,



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