WESTCHESTER COUNTY BOARD OF LEGISLATORS
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Benjamin Boykin II
Chairman of the Board
Legislator, 5th District

TO: Ruth Walter, Chair, Committee on Appointments

Sunday Vanderberg, Clerk of the Board of Legislators

FROM: Ben Boykin, Chairman of the Board of Legislators

DATE: November 24, 2020

RE: Storm Water Advisory Board Appointment

I hereby recommend the appointment of Thomas McEnerney, P.E., to the Westchester County Storm Water Advisory Board for a term to commence on January 1, 2021 and to expire on December 31, 2022.

Mr. McEnerney comes highly recommended by Legislator Walter. His resume is attached.

Mr. McEnerney's appointment is subject to the approval of the Board of Legislators.

Please place this memo on the December 8, 2020 Westchester County Board of Legislators meeting agenda for referral to the Appointments Committee.

Thank you.

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Thomas J. McEnerney, P.E.

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- **Nominee for Bronx River Watershed Advisory Board**
  - Civil/Environmental Engineer with 37 years of water supply, wastewater and water resources consulting engineering experience
  - Professional experience includes work on many of the highest profile issues in the metropolitan area including NYC water system reliability, LI Sound nitrogen limits, potential impacts of natural gas development and numerous wastewater and water system upgrades and evaluations
  - Resident of Yonkers and Bronx River Watershed since 1994
  - Registered Professional Engineer in NY State since 1987

EMPLOYMENT

Hazen and Sawyer	Senior Associate	New York & White Plains, NY	1983-85, 1987–present
H2M Engineers	Staff Engineer	Melville, NY	1985-86

EDUCATION

University of Maine	Orono, ME	M.S., Environmental Engineering	1983
Cooper Union	New York, NY	B.E., Civil Engineering	1981

PROFESSIONAL AFFILIATIONS

Westchester Water Works Conference
American Society of Civil Engineers
NY Water Environment Association
American Water Works Association
NY-NJ Storm Surge Working Group

REPRESENTATIVE PROFESSIONAL EXPERIENCE

Kensico-Eastview Connection (KEC), NYCDEP. Facility planning and evaluation of alternatives to provide a new connection between Kensico Reservoir and treatment facilities at Eastview. (Facility Planning, 2013-2014; Basis of Design, 2017-2018)

Water Supply Dependability Program, NYCDEP. Task Lead for evaluation of alternatives to enable NYCDEP to maintain water supply service during extended aqueduct shutdowns. Developed and assessed regional supply alternatives, including NJ interconnections, inter-basin transfers, Hudson River diversions and the supply potential of abandoned Westchester water supplies. (2004-2010)

East River Water Quality Facility Plan, NYCDEP. Task leader for evaluation of alternatives to advanced treatment for nitrogen removal to meet Long Island Sound nitrogen load targets and upgrade of the Newtown Creek WPCP. Lead author of task report that provided technical basis for relief from percent removal requirements of treatment regulations and critical support to Consent Order renegotiation efforts. Coordinated alternatives analyses and simulations of various water quality management scenarios using regional water quality models. (1995-2003)

Wastewater Treatment Plant (WWTP) Flow Reporting, NYCDEP. Performed detailed plant-specific evaluations of flow reporting accuracy at several of NYC's largest wastewater facilities. (1989-2000)

- ***Wards Island*** – Identification of significant over-reporting of influent flow avoided threatened moratorium on new building permits for the east side of Manhattan and half of the Bronx.
- ***Coney Island*** – Detailed evaluation of flow reporting accuracy confirmed need to pursue re-rating of dry weather flow capacity from 100 million gallons per day (mgd) to 110 mgd
- ***Newtown Creek*** – Identified flow reporting inaccuracies that supported reduction in Consent Order-required dry weather capacity upgrade of NYC's largest treatment plant from 360 mgd to 310 mgd.
- ***Manhattan Pump Station*** – Innovative approach to evaluation of tunnel capacity overcame access limits and established the adequacy of existing tunnel to convey increased wet weather design flow.

Lower Catskill Repair and Rehabilitation, NYCDEP. Developed summaries of anticipated backup supply needs and capabilities of Westchester communities that draw supply from the NYC's system for purposes of aqueduct shutdown planning and concept-level plans for aqueduct dewatering. (2016-2019)

Westchester Joint Water Works. Mamaroneck, NY. Hydraulic evaluations of Rye Lake intake and pumping station for Rye Lake Filtration Facility Basis of Design Report (2020), concept planning and hydraulic analyses for Upper High Service Zone (1992), distribution system modeling and technical support of utilities' in-house distribution system model development (1989).

Catskill Water Supply Program, Village of Briarcliff Manor (NY). Project manager for evaluation of an existing raw water transmission shared with two other villages to make Catskill Aqueduct water available as a new source of supply to Briarcliff Manor. Concept level facility plan, field tests, hydraulic analysis and coordination with three village water systems. (2005-2006)

Review of Safe Yield Determinations for Byram Lake. Mount Kisco, NY. Provided expert review that identified source of inconsistencies in prior safe yield determinations. (2014)

Impact of Natural Gas Production in the NYC Water Supply Watershed, NYCDEP: Co-author of high-profile evaluation of potential impacts of modern natural gas production techniques (horizontal drilling and high-volume hydraulic fracturing, "fracking") for development in the Marcellus Shale on water quality and reliability of the NYC water supply system. Major activities included research on rates and densities of gas well deveopment; assessment of risks to subsurface infrastructure and potential for drinking water quality contamination; and review of wastewater characteristics and regional treatment capacity. (2009-2011)

Staten Island Wastewater Facilities Improvement Project, NYCDEP. Project Manager for island-wide assessment of wastewater facilities, including 40 mgd and 60 mgd treatment plants, pumping stations, and drainage plans. Project identified Priority Rehabilitation needs at treatment plants and pump stations; assessed an 8-mile long sludge force main and prepared a Facility Plan for improvement of the 38 mgd-capacity Hannah Street Pump Station; infiltration/inflow (I/I) and sewer system evaluation work for the Oakwood Beach WPCP service area. (2001-2005)

Water Pollution Control Plant Flow Projections, NYCDEP. Evaluated flow reporting accuracy for all 14 NYC water pollution control plants and established the first direct link between citywide water supply and wastewater facilities flow projections and capacity planning. (1991-1993)

Catskill Aqueduct Capacity Optimization, NYCDEP. Project manager and technical lead of evaluation of alternatives to restore capacity of the Upper Catskill Aqueduct. Project included hydraulic gradient surveys over the length of the 74-mile aqueduct; flow and level monitoring; development of a hydraulic model; and interior inspection of a 2.2-mile aqueduct segment. (2008-2011)

Rondout-West Branch Tunnel Leak Stabilization, NYCDEP. Identified water chemistry as an important parameter relevant to aqueduct leakage and originated and developed conceptual plans for a novel leak mitigation strategy. Pilot-scale evaluation demonstrated proof-of-concept.

Ashokan Test Loops, Shokan, NY, NYCDEP: Developed test loop pilot study to evaluate hydraulic effects of biofilm development and chemical addition alternatives to mitigate adverse hydraulic effects of biofilm development in New York's Upper Catskill Aqueduct. (2012-2014)

Wards Island Sewer System Evaluation Study, NYCDEP. Set up and managed project database linking over 17,000 tax lot records with census data, occupancy records, field flow measurements, and television inspection data for individual sewer reaches, and prepared analyses of field data and the final project report. (1988-1989)

Hydraulic Modeling of Water Distribution Systems: Performed hydraulic analyses for several local systems, including New Castle-Stanwood Consolidated Water District, Westchester Joint Water Works, NY, New Rochelle, Briarcliff Manor and Mount Kisco, NY; as well as East Brunswick and Bayonne, NJ and and Managua, Nicaragua. Experience includes hydrant and pump field tests, data analysis, model development, calibration and field verification, fire flow analyses, pipe sizing, and pump selection.

Other Project Experience. Experience also includes assessment of water supply interconnection potential for the City of White Plains (2020); concept planning for addition of UV treatment to NJ American Water Raritan Millstone water filtration plant (2019-20);assessment of water supply alternatives for Aquarion Water, Fairfield County, CT (2016); water conservation program support, NYCDEP (2012); Southeast Queens Drainage Improvements Study (2017); Bowery Bay WWTP Master Plan (2016); Outer Harbor CSO planning, NYCDEP (1993); and set up of a database for a statewide study of water system vulnerability and interconnection needs in New Jersey (NJDEP, 1985).

TECHNICAL PUBLICATIONS

- "Evaluating and Optimizing New York City's Catskill Aqueduct", presented at NYS AWWA Annual Conference, 2009, Saratoga Springs, NY and AWWA Annual Conference, 2010, Chicago, IL.

- "Point-of-Entry Removal of Radon from Drinking Water," co-author, AWWA Journal, April 1987; awarded 1988 American Water Works Association Research Division Best Paper Award.