

**MINUTES OF THE MEETING OF THE
NEW YORK CITY WATER BOARD**

September 11, 2023

A meeting of the New York City Water Board (the “Board”) was held on Monday September 11, 2023 at 255 Greenwich Street, Manhattan, New York in the 8th floor conference room, beginning at approximately 9:15 a.m. The following members of the Board attended the meeting:

Alfonso Carney,

Evelyn Fernandez-Ketcham,

Adam Freed,

Jonathan Goldin,

Jukay Hsu, and

Daniel Zarrilli

constituting a quorum. Mr. Carney chaired the meeting and Treasurer Omar Nazem served as Acting Secretary of the meeting, who along with Executive Director Joseph Murin were the Board officers in attendance. Several representatives from the Department of Environmental Protection were in attendance, including Commissioner Rohit Aggarwala, Jennifer Garigliano from the Bureau of Water Supply, April Weeks from the Office of the Chief Contracting Officer, Ruth Burney from the Bureau of Engineering Design and Construction, and Nerissa Moray from the Commissioner’s office. Ed Markus from the Amawalk Consulting Group was also in attendance, in addition to Jen Ivey and Scot Davis from Carollo Engineers.

Approval of the Minutes

The first item on the agenda was approval of the minutes of the Board’s previous meeting held on June 6, 2023. Upon motion duly made and seconded, the minutes of the meeting held on June 6, 2023 were put to the members for a vote. The members in attendance unanimously approved the minutes by a voice vote.

Department of Environmental Protection Update on Revenues and Customer Programs

Treasurer Nazem provided a financial update on the Board's affordability programs, noting that the Board's affordability program expansion had been popular and had resulted in \$105 million of additional revenues as a result of customers deciding to make payments toward past due account balances in order to obtain an affordability benefit, with the total affordability benefit under the Board's amnesty program having resulted in \$22 million of adjustments to the accumulated late interest charges on participating accounts. Mr. Nazem further noted that DEP, through its partnership with the New York State Office of Temporary Disability Assistance (OTDA), had obtained an additional \$28 million of Federally-funded account benefits through the Low Income Household Water Assistance Program (LIHWAP), adding that the Board's top-up fund for verified LIHWAP program participants had resulted in an additional \$7 million of account benefits to customers verified through OTDA. Member Freed asked if the Board had a sense of how effective the program was in reaching eligible customers, to which Mr. Nazem explained that while it was likely that some eligible customers chose not to participate due to the documentation and verification process involved in working with the state, the Board believed that the program had been effective in reaching a high percentage of the eligible accounts. Member Fernandez-Ketcham inquired if the program continues to be available, to which Mr. Nazem replied that the Board's office continues to see some new applications being submitted, although the availability of the program into 2024 was uncertain.

Next, Mr. Nazem provided a summary of the water shut-off notices that DEP had resumed issuing, a practice that had resulted in an additional \$2 million of revenues as customers receiving water shut-off notices made payments to remove their accounts from the notification list. Member Zarrilli requested an explanation of how exemptions were involved in the shut-off process, to which Mr. Nazem explained that DEP issues shut-off notices based on the billing information and type of properties, but does not always have information about the occupants of a building, for which reason accounts receiving shut-off notices are provided with a time period to resolve the issue, whether through payment, appealing the notice, or providing evidence of an exemption. Commissioner Aggarwala added that approximately half a dozen properties receiving shut-off notices ultimately experienced a water shut-off, and that all of the properties experiencing a water shut-off were vacant properties.

The final piece of the customer update provided by Treasurer Nazem described the Board's Autopay enrollment incentive, which had to-date enrolled 2,500 accounts and resulted in enrollment bill credits to each participating account. Member Freed asked for some context about the 2,500 accounts, which Executive Director Murin explained DEP estimated to involve 37,000 accounts that were potentially eligible, with Mr. Nazem adding that DEP had prioritized launching the amnesty and affordability programs, and that since the Autopay program had launched later, it was too early to predict what the final Autopay enrollment number would be.

Mr. Nazem proceeded to give the Board an update on revenues, noting that fiscal year 2023 revenues on a preliminary, unaudited cash revenue basis reached \$4.095 billion, which was 7% ahead of plan for the year, or nearly a quarter-billion dollars of revenue ahead of the revenue goal for the year, and nearly \$350 million ahead of fiscal year 2022. As a result of the revenues for the year, the Board was able to deliver approximately \$300 million of additional revenues to the Water Authority, which the Authority will use to repay or prepay debt, or to use to pay for construction work instead of issuing debt. Member Goldin asked about the options for using the year-end cash balance, and whether part of the cash balance could be retained at the Water Board, in addition to the amount transferred to the Water Authority. Executive Director Murin and Treasurer Nazem explained that when the cash is transferred to the Authority, it becomes available for several different purposes that provide financial benefit to the water and wastewater system, whereas saved funds held by the Board are held in a restricted fund. Member Goldin further inquired if fund retained at the Board could be used to mitigate future rate increases, to which Mr. Murin and Mr. Nazem explained that when money is transferred to the Authority, it remains part of the system and is used for purposes that provide an economic benefit to the system and serve to offset rate increases. Commissioner Aggarwala summarized the discussion as a need to ensure that the right level of optionality is maintained in terms of how the system is financially balanced between the Board and the Authority, and Executive Director Murin concurred that the allocation of any surplus funds between the Board and the Authority involves the administrators of the two authorities agreeing to an approach. Member Freed clarified whether the Board, as it looks at rate increases for future years, would be able to retain some optionality in terms of how funds are allocated between purposes

such as debt prepayment and expanded customer programs, to which Mr. Murin affirmed that the Board would retain some optionality.

Mr. Nazem proceeded to provide the Board with an update on fiscal year 2024 revenues which, on a preliminary, unaudited cash revenue basis, reached \$1.37 billion through September 7, which Mr. Nazem noted was an amount that was sufficient to have funded the Board's entire debt service obligation for the fiscal year, also noting that the number was somewhat lower than the Board's revenues at the same time as the prior year by approximately two-fifths of one percent and was lower than the Board's revenue forecast through September 7 by approximately two percent, adding that it was early in the fiscal year to draw conclusions based on two months of data, and that part of the current revenue trend was attributable to the timing of payments by large accounts and to some revenues that would otherwise have been recorded during fiscal year 2024 being recorded during fiscal year 2023 instead, as customers made amnesty program payments during fiscal year 2023.

Member Freed asked if any information was available about the City's program to eliminate the gap (PEG) that had received recent news coverage. Commissioner Aggarwala replied that water and sewer expenses would be included in the PEG, and that the hiring freeze would apply to DEP. Member Hsu asked for the percent of DEP positions currently unfilled and the agency's attrition rate, which Mr. Murin stated was approximately 700 vacancies, or 12 percent, further noting that attrition was typically 30-50 staff per month, which Commissioner Aggarwala and Executive Director Murin noted was an improvement, with the agency having had approximately 1,000 vacancies a year earlier.

Approval of Amawalk Consulting Group and Carollo Engineers as Co-Rate Advisors

Turning to the next agenda item, Mr. Nazem described the purposes of the Board's rate advisor and the process used to identify the firms. Explaining that an RFP process had resulted in two firms receiving high scores, and that Board staff believed there was value in selecting two firms to work in a co-advisory role, Mr. Nazem introduced Ed Markus from the Amawalk Consulting Group and Jen Ivey and Scott Davis from Carollo Engineers. Mr. Nazem explained that the proposed approach involved a peer review format, where the two firms would provide input on the analysis and recommendations arrived at by the other firm, and noted that the Water Authority's board had already met to approve a similar co-rate consultant model with both Amawalk

and Carollo for its rate consulting services.

Ms. Ivey, Mr. Davis, and Mr. Markus were each asked to introduce themselves and their firm. Ms. Ivey and Mr. Davis each introduced themselves, Ms. Ivey as the firm's national rate consulting lead and Mr. Davis as the head of Carollo's business in New York, New Jersey, and Philadelphia, and each provided a short description of the firm and its credentials. Mr. Markus then introduced himself, and briefly described his long association with the Board and the qualifications of he and his firm.

Chairman Carney requested more detail about the services that Carollo would provide alongside Amawalk; Mr. Nazem explained that both firms are capable of performing the entire scope of work, and that Amawalk had the benefit of continuity and familiarity with the System, while Carollo had the perspective of a large civil engineering firm, as well as experience with some of the rate setting innovations used in western states with greater water scarcity issues. Mr. Markus added that Amawalk had discussed the co-advisor model with the Authority, and that he believed the two firms would work together without being duplicative. Chairman Carney asked if it was fair to say that the co-advisor role was not unusual, with Mr. Markus indicating that it was a common approach in the industry, and that Amawalk had previously worked with a peer review format for other clients. Mr. Murin added that he expected that DEP's customer services and billing system teams would benefit from Carollo's expertise, and that DEP would likely be relying on Carollo in those areas and, in response to a second question from Chairman Carney, further indicating that he believed the contract prices were adequate and that if further price adjustments were required, that staff would consult with the Board. Member Zarrilli asked if retaining two firms would involve duplicate sets of costs; Mr. Murin indicated that there would be an added cost as a result of retaining two firms. Mr. Goldin and Mr. Murin agreed that there was a degree of key man risk with Amawalk, and that the redundancy of a second firm would be of value to the Board. Member Fernandez-Ketcham requested that the Board receive an assessment of the return on investment of retaining two rate advisory firms.

Upon motion duly made and seconded, a motion to retain two rate advisory firms was put to the members for a vote. The members in attendance unanimously approved the hiring of both firms by a voice vote.

RESOLUTION

WHEREAS, pursuant to Sections 1045-b and 1045-g of the New York City Municipal Water Finance Authority Act (the "Act"), the Board is authorized to enter into contracts and to retain private consultants for the purpose of obtaining professional or technical services to assist the Board in carrying out its responsibilities, including tasks relating to the planning, development, financing, or construction of the water and wastewater system of the City of New York; and

WHEREAS, the Board's duties under the Act include establishing and collecting water and wastewater rates and charges in an amount sufficient to place the City's water supply and wastewater system (the "System") on a financially self-sustaining basis; and

WHEREAS, the New York City Municipal Water Finance Authority (the "Authority") finances capital projects for the System through the issuance of bonds and notes; and

WHEREAS, the Board seeks to obtain the services of one or more qualified firms to serve as a rate advisor to the Board; and

WHEREAS, on December 5, 2022, professional staff of the Board and the Authority jointly commenced a solicitation process to obtain services in connection with water and wastewater rates through a public Request for Proposals ("RFP"), which included publishing a notice of the RFP in the New York Daily News, the Engineering News-Record, Minority Commerce Weekly, and the New York State Contract Reporter, as well as placing an online posting of the RFP on the water and sewer system's website; and

WHEREAS, a Technical Evaluation Committee (the "Committee"), consisting of members drawn from both the Board and the Authority, reviewed each technical proposal and statement of qualification, and provided an evaluation and assessment of the proposal to the other committee members; and

WHEREAS, four proposals were received for consideration and review, each of which was invited to interview with the Committee; and

WHEREAS, the Committee determined that the interests of both the Board and the Authority would be best served by retaining the services of two firms, each of which would provide services to the Board and the Authority, and each of which would participate in a peer review process of the other firm's work; and

WHEREAS, the proposal and presentations by Amawalk Consulting Group, LLC ("Amawalk") and Carollo Engineers, P.C. ("Carollo") were identified by the Committee as offering the best combination of technical approach, utility rate setting expertise in the environmental services sector, professional qualifications, and the most fair and reasonable overall economic value to the Board and the Authority from among the four proposals provided to the Committee; and

WHEREAS, in accordance with the Water Board's Policy on the Procurement of Goods and Services, in particular, Section 4 (selection based on the best combination of technical merit and price) and Section 5.i (prior approval of contracts where the cumulative value exceeds \$100,000), the Board finds it reasonable and appropriate, and in the Board's best interest, to retain the services of two firms, Amawalk and Carollo; and

WHEREAS, at its August 3, 2023 meeting, the Authority's board of directors voted to approve resolutions authorizing the retention of each of Amawalk and Carollo under separate contracts for purposes of providing rate consulting services to the Authority; and

WHEREAS, the Board has reviewed a memorandum dated August 31, 2023 from the Board's professional staff, including Executive Director Joseph Murin and Treasurer Omar Nazem, who participated as the Board's representatives on the Committee, that summarizes the RFP and evaluation process and includes a recommendation that the Board authorize the Executive Director to enter into two Board contracts, one with Amawalk, and a second contract with Carollo, to provide rate advisory services to the Board; it is therefore

RESOLVED, that the Executive Director is hereby authorized and directed to execute two professional services agreements, one agreement with Amawalk and a second agreement with Carollo, in each instance to provide rate advisory services to the

Board, for a five-year term, with each of the agreements to include two optional one-year extensions at the Board’s discretion, upon such terms and conditions as the Executive Director may deem reasonable and appropriate; and be it further

RESOLVED, that each agreement shall have its own distinct dollar maximum specific to the agreement, stating the amount of total compensation for services to be performed during the initial five-year term of each agreement, and payable at the hourly rates set forth within each agreement, and stating further that (i) the seven-year aggregate dollar threshold of the Board’s agreement with Amawalk shall not exceed \$1,250,000 of Board funds, of which not more than \$850,000 in aggregate would be expended during the initial five-year term of the agreement, and (ii) the five-year aggregate dollar threshold of the Board’s agreement with Carollo shall not exceed \$950,000 of Board funds, of which not more than \$675,000 in aggregate shall be expended during the initial five-year term of the agreement.

Extension of Agreement with the Board’s Design-Build Project Advisor

The next item on the agenda was a request for a time and funding extension for the Board’s design-build project advisor, and was presented by April Weeks and Ruth Burney from DEP. Ms. Weeks provided a short summary of the contract’s history to-date, as well as some of the legislative background involving design-build construction in New York State, reminding the Board that the New York Public Works Investment Act passed in December 2019 authorized DEP to use design-build project approaches, and that the legislation’s original sunset date of December 2022 had been extended for an additional five-years. Ms. Weeks explained that DEP had focused on three project groups for the design-build pilot, with the three project groups comprising six individual capital projects within those groups – one project group including three different upstate roadway improvement projects, the second including a power distribution project at the Port Richmond wastewater plant, and the third including sludge dock improvements at both the Port Richmond and Far Rockaway wastewater plants.

In terms of the process for advancing these projects, Ms. Weeks explained that DEP had issued two

requests for qualifications earlier in 2023, with a third request for qualifications and a first request for proposals expected to be issued later in September 2023, with the second and third RFPs expected to be released in December 2023 and February 2024, and with contract registrations expected to begin later in 2024. Ms. Weeks added that DEP would benefit from extending the timeline due to the time required to complete field investigations, the availability of subcontractors, and as a result of DEP determining that complete environmental reviews would need to be finalized prior to awarding design-build agreements. Ms. Weeks proceeded to describe DEP's request to extend the contract, explaining to the Board that a one-year extension until November 2024 and an additional \$200,000 of funding in addition to the original \$998 thousand contract authorization would support the agency's efforts to work with the vendor to complete the full scope of work. Member Zarrilli asked if Arup was providing any design work and if the firm faced any restrictions as a result of serving as the design-build advisor; Ms. Weeks explained that Arup's focus was on the program management side and that the firm could not bid on the design work resulting from any of the projects that Arup worked on under the agreement. Mr. Zarrilli then asked how Arup was identifying projects to include and how much of the capital program could be covered by design-build. Ms. Weeks explained that projects were selected using an evaluation rubric, which involved focusing on projects without complex land use and without complex permitting needs. Ms. Burney further explained that the three project groups that were the initial focus included \$300 million of project cost, and that the next group of capital projects could also include a larger project in the \$100 million to \$300 million range, and that the total project value of the next group of capital projects could reach \$500 million, with Nerissa Moray from the Commissioner's office adding that \$300 million was approximately 10% of the \$3 billion of annual capital commitments included in DEP's capital plan. Mr. Burney added that DEP would track capital project timeline and expense savings as a result of using design-build work, in response to a question from Member Zarrilli.

Upon motion duly made and seconded, a motion to extend Arup's contract with additional funding was put to the members for a vote. The members in attendance unanimously approved to amend the Arup contract by a voice vote.

RESOLUTION

WHEREAS, pursuant to Sections 1045-b and 1045-g of the New York City Municipal Water Finance Authority Act (the "Act"), the New York City Water Board (the "Board") is authorized to enter into contracts and to retain private consultants on a contract basis for the purpose of obtaining professional or technical services to assist the Board in carrying out its responsibilities; and

WHEREAS, the Board's primary duty under the Act is to establish and collect water and wastewater rates and charges in an amount sufficient to place the water supply and wastewater systems of the City of New York on a self-sustaining basis; and

WHEREAS, the safe and reliable operation of the City's water and wastewater system by the New York City Department of Environmental Protection (DEP) is a prerequisite to providing the water and wastewater service that generates the revenues used to fund the system; and

WHEREAS, under the New York City Public Works Investment Act, signed into law on December 31, 2019, and reauthorized and extended in April 2022 until December 31, 2027, DEP received authorization to undertake water and wastewater capital construction projects using a design-build project methodology on a provisional basis; and

WHEREAS, by resolution adopted by the Board at its March 23, 2021 meeting, the Board authorized up to \$1,000,000 of Board funds in connection with retaining a consultant to provide design-build construction advisory services to the Board; and

WHEREAS, by agreement dated November 1, 2021, the Board retained Ove Arup and Partners, P.C. as its design-build consulting advisor, with compensation authorized under the agreement not to exceed \$998,267; and

WHEREAS, the Board has identified six capital construction projects that are well-suited for completion using a design-build project methodology, each of which is anticipated to undergo an RFQ/RFP process overseen by DEP; and

WHEREAS, the extension of the legislation until 2027, the identification of six projects, as compared to the up to five projects originally contemplated, and identification

of the need to complete CEQR environmental review prior to awarding final design-build contracts had created the need to add additional project funds and time to the original agreement; it is therefore

RESOLVED, that the Executive Director is hereby authorized and directed to negotiate an amendment to the November 1, 2021 agreement, in order to effectuate (i) the addition of one additional year to the agreement’s term, extending prospectively until no later than November 1, 2024, and (ii) the addition of up to \$200,000 of additional Board funds to the amount authorized pursuant to the March 23, 2021 resolution, with the amended amount of Board funds authorized for expenditure under the agreement not to exceed \$1,200,000.

Approval of Consulting Agreement with the Center for Western Weather and Water Extremes at the Scripps Institute, University of California at San Diego

Commissioner Aggarwala introduced Jennifer Garigliano from DEP’s Bureau of Water Supply, and provided introductory comments, explaining that as a result of climate change, DEP was interested in obtaining additional forecasting tools, adding that the agency’s work on the Delaware Aqueduct had also highlighted the benefits of an academic partnership and finding ways to add to the agency’s knowledge base of the scientific topics involved in climate assessments.

Ms. Garigliano described the wide reach of the Bureau of Water Supply’s mission of ensuring water supply to DEP’s customers, explaining that the key task of ensuring the reservoirs are drawn down in such a way as to ensure appropriate reservoir refill, and identifying the role of weather in influencing water levels in reservoirs. Ms. Garigliano described DEP’s efforts to expand the range of water supply management and reservoir tools available to the Bureau, highlighting the Operations Support Tool software package, which the Bureau added to its decision-making toolkit in 2014. The Bureau incorporates weather forecasting into management of the water supply through its use of National Weather Service data, which allows the Bureau to forecast water flows and key water quality variables. Ms. Garigliano highlighted the importance of the forecasting function to DEP’s operations, and explained that the forecasting tools developed by the Scripps

Institute at the University of California, San Diego where both sophisticated and complementary to the forecasting tools used by DEP. Ms. Garigliano further explained that the need for accurate forecasting tools would be especially important during repair work on the Delaware Aqueduct, when water supply into the City would be reduced compared to normal levels, and that expanding the tools available to DEP would allow more reliable management of water supply during the Aqueduct. Ms. Garigliano stated that in the Bureau's opinion, the Center for Western Weather and Water Extremes at the Scripps Institute was a uniquely qualified scientific partner for DEP to work with.

Member Freed asked if the forecasting tool would be useful for managing in-City flooding, in addition to making forecasts for use in the watershed. Ms. Garigliano indicated that the software would be able to make forecasts across regions, and would not be limited to the watershed area. In response to a question by Member Zarrilli, Ms. Garigliano described the challenges DEP faced when making climate and reservoir forecasts over different time intervals, and noted that water systems in California had incorporated the Scripps/UCSD tools into water supply management on the West Coast. Commissioner Aggarwala added that the timing of the Delaware Aqueduct work and Scripps/UCSD's status as the inventor of the forecasting technology DEP had interest in, were the reasons that DEP was requested approval to negotiate with UCSD on a one-to-one basis, and that the skill set was sufficiently unique that selecting a single firm to negotiate with was the preferred procurement approach.

Upon motion duly made and seconded, a motion to approve funding and authority to negotiate an agreement with Scripps/UCSD was put to the members for a vote. The members in attendance unanimously approved the authority by a voice vote.

RESOLUTION

WHEREAS, pursuant to Sections 1045-b and 1045-g of the New York City Municipal Water Finance Authority Act (the "Act"), the Board is authorized to enter into contracts and to retain private consultants for the purpose of obtaining professional or technical services to assist the Board in carrying out its responsibilities, including tasks relating to the planning, development, financing, or construction of the water and

wastewater system of the City of New York; and

WHEREAS, the Board’s duties under the Act include establishing and collecting water and wastewater rates and charges in an amount sufficient to place the City’s water supply and wastewater system (the “System”) on a financially self-sustaining basis; and

WHEREAS, the safe and reliable operation of the City’s water and wastewater system by the New York City Department of Environmental Protection (DEP) is a prerequisite to providing the water and wastewater service that generates the revenues used to fund the system; and

WHEREAS, the Board seeks to obtain the services of a qualified technical advisor and research partner to provide scientifically-informed operational decision support and to undertake a research partnership to tailor existing climate and weather models for use in the New York City watershed area in order to further such scientifically-informed operational decision-making for purposes of making such advice and support available to assist repair work on the Delaware Aqueduct, the Ashokan Reservoir, and other critical water supply projects; and

WHEREAS, the Board has reviewed presentation materials and received a verbal presentation of the business case from DEP and its Bureau of Water Supply explaining the need to retain the Center for Western Weather and Water Extremes at the Scripps Institution of Oceanography at the University of California, San Diego (the “University”); and

WHEREAS, the Department of Environmental Protection’s Bureau of Water Supply has presented the University’s credentials to the Board and described the unique intellectual property and software available through the University, along with the technical expertise, climate forecasting, and the research partnership that the University intends to undertake in collaboration with DEP, the Bureau of Water Supply, and partner-collaborators including the University of Albany as subcontractor to the University for purposes of making available such scientifically-informed decision-making; and

WHEREAS, DEP and its Bureau of Water Supply view the University as uniquely qualified and as possessing unique knowledge and capabilities with respect to the management and analysis of climate systems as relevant to the management of water

supply systems, and wish to authorize the Board's Executive Director to negotiate suitable and mutually agreeable terms with the University, conducted in accordance with the Water Board's Policy on the Procurement of Goods and Services, in particular, Section 5.i and Section 6, it is therefore

RESOLVED, that the Executive Director is hereby authorized and directed to negotiate a definitive legal agreement with the University for a three-year term, upon such other terms and conditions as the Executive Director may deem reasonable and appropriate; and be it further

RESOLVED, that the aggregate compensation authorized and payable to the University pursuant to this agreement shall not exceed \$4,800,000 during the term of the agreement.

Adjournment

There being no further business to come before the Board, upon motion duly made and seconded, the meeting was adjourned.

/S/
SECRETARY