



DISTRICT OF COLUMBIA WATER AND SEWER AUTHORITY

BOARD OF DIRECTORS 234th MEETING THURSDAY, SEPTEMBER 7, 2017

MINUTES

Present Directors

Nicholas A. Majett, First Vice Chairman, Prince George's County
Anthony Giancola, Alternate for Ellen Boardman, District of Columbia
Rachna Butani Bhatt, District of Columbia
David Lake, Alternate for Elisabeth Feldt, Montgomery County
James Patteson, Fairfax County
David Franco, District of Columbia (By Teleconference)
Bradley Frome, Prince George's County
Emile Thompson, District of Columbia
Bonnie Kirkland, Alternate for Timothy Firestine, Montgomery County

Present Alternate Directors

Howard Gibbs, District of Columbia
Sarah Motsch, Fairfax County
Rev. Kendrick E. Curry, District of Columbia
Adam Ortiz, Prince George's County
Shirley Branch, Prince George's County
Ivan Frishberg, District of Columbia

DC Water Staff

George S. Hawkins, CEO/General Manager
Henderson J. Brown, General Counsel
Matthew Brown, Chief Financial Officer
Linda R. Manley, Board Secretary

First Vice Chairman Majett called the 234th meeting of the District of Columbia Water and Sewer Authority's Board of Directors to order at 9:32 a.m. Ms. Manley called the role and a quorum was established.

Approval of the July 6, 2017 Minutes

First Vice Chairman Majett asked for a motion to approve the July 6, 2017 minutes. The motion to approve the July 6, 2017 minutes was moved, seconded, and unanimously approved by the Board of Directors.

Chairman's Overview

First Vice Chairman Majett announced that he was sitting in the Chairman's seat because Matthew Brown, former Chairman, had accepted the position of Chief Financial Officer. He stated that Chairman Brown had served with distinction he has always found him to be fair and well-reasoned—a consummate professional. Now that Mr. Brown has taken over as Chief Financial Officer, First Vice Chairman Majett believes that everyone will continue to benefit because of his qualifications and experience.

First Vice Chairman Majett bid him farewell from the Board and welcomed Mr. Brown as Chief Financial Officer. Board members Patteson, Butani Bhatt, and Lake also congratulated Mr. Brown and made comments.

Governance Committee

Reported by: Nicholas Majett, Committee Chair

Mr. Majett stated that the Committee met on Wednesday, July 12, 2017. Korey Gray, Contract Compliance Officer, provided the Fiscal Year 2016 update on the D.C. Water Works Program. Since October 31, 2016, 85 new positions have been filled on D.C. Water projects, 43 by D.C. Water Works and 42 directly by contractors. Of the positions, 92 percent were filled by residents of the user jurisdiction, including 60 percent by D.C. residents.

Mr. Gray also provided an update on the Green Infrastructure Initiative which has completed two training courses as part of the National Green Infrastructure Program Examination in January and June 2017. Sixteen participants passed. As a leader of the examination program, D.C. Water met with the University of the District of Columbia and the Washington Parks and People organization who provided training for the exams, to review lessons learned and pass rates.

Mr. Majett reported that Biju George, Chief Operating Officer, presented an update on D.C. Water's intellectual property (IP) monetization plans. At the 2016 Board Retreat, three revenue strategies were developed: (1) leveraging innovation to create more revenue with existing assets, (2) leveraging intellectual capital, and (3) creating a new brand of Blue Drop and leveraging it for more revenue opportunities. Mr. George focused his presentation on the second strategy of using the IP for the wastewater treatment process and developing new products and services from IP. He provided a brief description of the steps and extended time line it takes to commercialize IP in the wastewater treatment market.

Mr. George emphasized that the Board's guidance will drive how D.C. Water manages the marketing of IP. The Board then went into executive session to discuss the IP monetization issues raised by Mr. George. The Committee went back into open session and recommended that the Board establish an ad hoc committee with members from certain standing committees, for example, Governance, Finance and Budget, and Strategic Planning Committees. The ad hoc committee will oversee the IP monetization efforts by establishing policy and strategy derived from Blue Horizon 2020 and Board recommendations. First Vice Chairman Majett stated that the purpose of the ad hoc committee would not be to undertake operational functions

connected to the IP monetization efforts. The Governance Committee asked General Counsel Brown to draft a short mission statement for the new ad hoc committee for consideration by the Board Chairman. Mr. George was directed to continue exploration of business opportunities and update the full Board at the September Board meeting.

Mr. Majett stated that before the meeting was adjourned, Mr. Giancola wanted to know under D.C. Water Works how many veterans were hired and the breakdown by ward in D.C. This will be provided.

Rev. Curry asked for the targeted demographics for the program and the pass/fail rate for D.C. residents. He also asked for clarification on what was meant by less skilled since that would mean that the program would be less likely to reach the national average. Mr. Hawkins stated that they will provide the answers to the Board members questions. He added that some participating cities and states have higher examination pass rates because their enrollees have more work experience in areas which better equip them to pass the examination. D.C.'s enrollees may be under or unemployed and therefore have a lower base of knowledge and experience. Rev. Curry wanted to know what it will take to ensure that more D.C. enrollees reach the examination's passing average.

Environmental Quality and Operations Committee

Reported by: James Patteson, Chair

Mr. Patteson stated that the Committee met on July 20, 2016. Aklile Tesfaye reported on the performance of the Blue Plains Advanced Wastewater Treatment Plant. He indicated that all parameters are excellent and all permit requirements are being met.

Mr. Tesfaye provided an update on the Combined Heat and Power Facility. The energy consumed at Blue Plains was an average of 642 megawatt hours per day. For this reporting period, the Facility generated 87 of those megawatt hours per day or 14 percent. In the past megawatt hours generated were about 30 to 33 percent, so Mr. Tesfaye explained why the remaining hours had to be purchased from Pepco. The Facility has two functions: (1) To generate the high-pressure steam for the Cambi process (2) To generate electricity to produce the Class A biosolids. Problems have been identified with the steam generators and they will continue to study the problems, identify the root cause, and develop solutions. There is a potential financial impact of the four-megawatt loss of power equating to approximately \$3 to \$4 million annually. However, there are performance requirements with the Facility's design build contract. Mr. Patteson stated that the Committee will keep the full Board updated on the progress to solve these problems.

Mr. Patteson reported that John Bosley, Chief Procurement Officer, provided a briefing on policies and regulations concerning D.C. Water's Business Development Plan for the Local and Small Business Enterprise Preference Program that was started based on policies created by the D.C. Council. D.C. Water is making reasonable efforts to increase participation of local and small business enterprises, and pursuant to federal grant requirements will implement programs designed to increase participation. There are two such programs that D.C. Water will implement which will require approval by the Board. They are the Local Business Enterprise and Local Small Business Enterprise Preference Program which is applied to large purchases over \$100,000 in value to non-federal procurement in construction and goods and services contracts. A preference process provides utilization of additional points in the evaluation of proposals. The second is the Fair Share Objective Program for minority women business enterprise utilization goals which are applied to EPA funded projects, the EPA funded eligible projects, and

construction E type contracts. Fair Share Objective also requires bidding contractors to make good faith efforts to comply with minority business enterprise, women business enterprise (MBEWBE) participation goals for subcontractors.

Mr. Bosley stated that audits and management reports are submitted to the Governance Committee annually and that the Environmental Quality and Operations Committee has also asked for reports concerning their contracts

Three actions items were presented to the Committee for recommendation to the Board for approval. The first was extension of a tier option or option two for the delivery of dry polymer to D.C. Water. The second was a request to exercise option year three for the contract to provide janitorial services to D.C. Water for office space and facilities cleaning. Third was a change order of the design build operate contract to provide final design, construction, and operation of the biosolids management program for combined heat and power.

Mr. Patteson reported that an update was provided by Craig Fricke, Director of the Department of Engineering and Technical Services, on the successful completion of repair work to the Northeast Boundary Sewer. The repair project was completed ahead of schedule and under budget. He notified the Committee of the defects faced and how they were resolved.

Mr. Lake raised a question concerning the Combined Heat and Power Facility and the \$3 to \$4 million annual loss. He wanted to know if the revenue is being lost and therefore there is a resulting additional expenditure of \$3 to \$4 million. Mr. Patteson replied that it is his understanding that D.C. Water must purchase additional energy because the Facility is not supplying the energy needed. Under the contract there is a means of recovering some of these costs and that is currently being pursued. Mr. Hawkins added for further clarification that D.C. Water is not losing revenue but spending more revenue because of increased expenses. He added that even though the issue has not been resolved, they do not believe there will be an annual loss on that scale.

D.C. Retail Water and Sewer Rates Committee

Reported by: Rachna Butani Bhatt, Chair

Ms. Butani Bhatt stated that the Committee met on Tuesday, July 25, 2017, and first received a presentation from Charles Kiely, Assistant General Manager for Customer Care and Operations, on the Water System Replacement Fee (WSRF). The Fee is a result of the unbundling of the volumetric water rate and is expected to generate funding to recover the costs of 1 percent of the renewal and replacement program for the aging water infrastructure which is an average median age of 78 years. The Fee is based on the capacity to serve with the meter size as a surrogate measure of capacity.

Mr. Khalil presented the action items considered by the Committee and recommended to the full Board for approval. The first was a recommendation for approval to amend regulations for customer classifications and definitions. The second was a recommendation for approval to amend regulations for the WSRF to add requirements for multi-family WSRF adjustment.

Ms. Butani Bhatt indicated that Mr. Kiley provided an overview of the new VertexOne Customer Information System and billing system. The project to implement the new system is called Project Triton. Mr. Kiely gave a brief background on the current system, its limitations, and explained that it has a very high cost of maintenance for new and ongoing support. It cannot adapt readily to more complex rate structures without significant reprogramming costs.

Mr. Kiely explained the capabilities of the new system and the fact that it will greatly enhance communication between D.C. Water and its customers. The system is scheduled to go live on November 28, 2017. All efforts are being made to ensure that the system is totally ready before formally rolling it out.

A presentation was made by Mr. Kiely on the Fiscal Year 2014 flyover which was done as part of the Clean Rivers Impervious Area Charge. The fee was implemented in May 2009 and has become a major part of most customer bills. D.C. Water uses the data generated by the flyover to map out how much pervious and impervious land is in the District. The D.C. Department of Energy and the Environment defines what impervious surface areas are, not D.C. Water.

Ms. Butani Bhatt reported that the discussion then turned to the D. C. Municipal Regulations (DCMR) and its challenges to how D.C. Water defines public versus private property. Customers challenge the Impervious fee and are advised to go to the D.C. Office of Tax and Revenue who defines property boundaries.

Audit Committee

Reported by: Nicholas Majett, Chair

Chairman Majett stated that the Committee met on July 27, 2017 at 9:30 a.m. KPMG, external auditor contractor, updated the Committee on the Authority's FY 2017 External Audit Plan. Richard McLean reported that KPMG had completed the in-test work for risk management and the planning activities. No significant risks were identified, but they did find a potential fraud risk which was management's ability to override controls. This is present in any entity, so it is an acceptable practice. Mr. McLean discussed the implementation of the new accounting pronouncements, including KPMG responsibilities for evaluating the overall presentation of financial statements. He detailed the uniform guidance audit, and outlined the responsibilities of management, the Audit Committee, and KPMG. A timeline was presented on the audit approach flow from engagement setup, to risk management, to testing, and to completion.

Dan Whelan, partner in RSM, the Internal Auditor contractor, and his staff presented the status of internal audits. From audits prior to FY 2015, there were five action deferred items related to union approval of policy, four open items including for water services, GIS mapping, and warehouse operations. D.C. Water's Labor Relations Manager Beth Stachura reported that the unions had been notified of the new policies but before closing the items out, methods for enforcing the policies must be determined.

For FY 2015's audit, there are three action deferred items relating to union approval of policy and three IT follow-up items.

The FY 2016 audit findings status is that there are 13 items closed, 19 items pending testing (scheduled for September), and 19 items still open.

Contract Officer Representation/Contract Officer's Technical Representative training is progressing. Phase Two, session training, was planned for completion by mid-August. Phase Three consists of implementing the automated vendor performance and compliance monitoring application and is expected to go live in September 2017.

Jill Reyes provided an update on the implementation of RSM's web-based issue tracker. All observations are updated and tracked in real-time. She spoke about the controls in place to ensure that procedures are followed. Ms. Reyes also spoke about the second iteration of the AMR Implementation Progress Report. They are still working to determine for billing adjustments which are related to the AMR Project.

Mr. Barley continued with the AMR Implementation Progress Report and provided information on the IT side and the current health of the project. Project Manager John Wujek and Customer Services Manager April Bingham provided a project management update, the responsibilities and activity of the AMR Oversight Committee, an explanation of the forced-march workflow approach for the actual installation of the meters, all of which are operated by handheld devices, and other installation information. The project is on track and continued success is expected.

Ms. Rodriguez of RSM provided a presentation on the internal audit of the Intermunicipal Agreement (IMA) at D.C. Water in the areas of billing, capital billing, and operating and maintenance. They reviewed the classifications of the FY 16 capital billing expenditure allocated funds to validate them, the true-up to match estimated costs against actual costs incurred. Operating and maintenance costs for FY 2016 were roughly \$322 million, with \$74 million allocated to intermunicipal jurisdictions. D.C. Water may owe the jurisdictions money if they are found to have been overbilled, or if underbilling occurred, D.C. Water will be owed additional money. A graph was presented which showed by year the funds returned to the jurisdictions which were in the past large amounts. After D.C. Water determined that this issue was important and needed to be addressed through the new billing system, the amounts grew smaller.

Ms. Reyes provided an analysis on the fraud, waste, and abuse hotline. Twelve cases have been closed this quarter, and seven are open. The Committee requested a semi-annual update on the hotline analysis and the quarterly status update will continue.

Mr. Lake asked a question about which acronym was correct, AMR system or AMI system, since he had noticed a reference to the AMR implementation process. Mr. Hawkins stated that AMR was the old system which is being replaced by AMI, so he was not quite sure why the internal auditors selected the phrase for the prior system. Mr. Lake asked that acronyms be explained in the minutes. Mr. Hawkins assured him that this issue would be addressed.

Mr. Giancola indicated that he had a concern about the follow-on actions section of the report and the fact that some action deferred items from the prior to FY 2015 audit findings were still in that status. He urged that items be resolved one way or the other and not be carried over from one year to the other.

ISSUES OF GENERAL INTEREST: INTELLECTUAL PROPERTY (IP)

Mr. Hawkins stated that the Governance Committee discussed the Intellectual Property (IP) Report and he wanted to provide a visual presentation to the full Board of one of the devices that D.C. Water had created and is still developing. A transmission unit has been installed in the drinking water fountain in the back of the board room. It is being developed in concert with the company GrayMatters which is comprised mostly of thinkers and designers partnered up with D.C. Water's experts in drinking water quality and who operate the drinking water system. It can be either installed in the fountain or in the wall behind a fountain. Particulate matter filters are being installed in water fountains that operate continuously for a million-gallon length of time before being replaced or can be backwashed like pool filters to extend their usefulness. The

transmission unit monitor the filters and the data generated can provide notification that the filter should be checked. Also, use of transmission units decrease the monitoring of the water fountain by maintenance staffs. Mr. Hawkins reported that people have installed thousands of filters.

Mr. Hawkins reported that the IP is jointly owned by D.C. Water and GrayMatters. This is also true with many of D.C. Waters IP's through partnerships with other enterprises, universities, and private firms. Three model installations are now underway. Tom Kuczynski, Director of Information Technology, stated that one is located outside the board room and one at Bryant Street. They are working with the District on installing nine as proof of concept. Mr. Hawkins noted that this is a first-generation device and that the next generation is now being developed. They are working on lowering the manufacturing costs by a third and also the price.

It was further noted that D.C. Water is seeking IP in areas that are useful to D.C. Water. In this instance, it is monitoring and protecting drinking water. Bloom, the Class A biosolids product, is another example of this. It is mammoth in scale and could be sold to the world. Mr. Hawkins stated that the transmission unit could be used in schools around the country that are trying to address the lead problem. They are looking at that market.

Ms. Butani Bhatt commended them, especially about the schools. She stated that she works with the District Government a lot and she suggested that in addition to the email notification of a suspected problem, they should also have a localized indicator that states a problem. Ms. Butani Bhatt also suggested that based on her work with the Department of Parks and Recreation they should look at having an outdoor model of the transmission unit. Mr. Hawkins replied that if there is a problem that arrives, as a failsafe the water fountain shuts itself off automatically instead of relying solely on human intervention.

Rev. Curry asked if this unit was a chemical IP or just a process IP. Mr. Kuczynski indicated that it is a process IP and will work with any filter. Rev. Curry wanted to know how much it would cost to replace a unit during operation. Mr. Hawkins stated that they did not have those numbers yet. He noted that they are trying to drive the manufacturing costs down and have succeeded in that it has gone down from \$600 to \$400.

Mr. Giancola suggested that they add D.C. public libraries in the pilot. He noted that he thought the water was safe without filtering particulates. Mr. Hawkins reported that they had tested the unit extensively in a lot of water quality divisions. They cannot guarantee any particular drinking water fountain or other faucet. He stated that if a school does not want to tear out all of the pipes leading to the fountains and replace them, these units will be very valuable. Mr. Hawkins indicated that they are continuing with business planning.

Mr. Hawkins assured the Board that they would present more information on the unit in the future.

General Manager's Report

Reported by: George Hawkins, CEO/General Manager

Mr. Hawkins commended Matthew Brown, former Board Chairman and now Chief Financial Officer, for the job he did as Board Chairman. He stated that Mr. Brown worked very hard and that sometimes it appeared he was full-time since he attended numerous meetings of the committees. Mr. Hawkins stated that his level of commitment was tremendous. Mr. Hawkins

reported that Mr. Brown started his career at the Metropolitan Wastewater District of Milwaukee and has now come back to his roots.

Mr. Hawkins mentioned that D.C. Water was one of three agencies asked to mobilize personnel to Florida and that they are ready to go. They had been prepared to go to Texas but were not asked. He thanked Aklile Tesfaye, Maureen McGowan, and others for being on top of preparing to address flooding and other issues associated with dangerous weather. Wastewater treatment plants are built in a low part of cities because they want sewage to flow by gravity instead of pumps. They have been building a 500- year flood wall at the end of the Blue Plains Plant and will continue to harden all of D.C. Water's sites. The new headquarters building is being built with a 200-year flood in mind which is far greater than zoning or planning requires. Mr. Hawkins stated that even though you prepare to face these great weather events, there is nothing you can do for a Hurricane Harvey or Irma. Storm water management is critical and must continue. He stated that among the issues are protecting wetland, ensuring continuity of operations, and ensuring effective communication. Mr. Hawkins assured everyone that they were taking the storm water management issues seriously and would continue to work to protect all of D.C. Water's facilities and infrastructure.

Mr. Hawkins announced awards recently received by D.C. Water. The first award was the Certificate of Achievement and Excellence for D.C. Water's Comprehensive Annual Financial Report. D.C. Water employee Chen Shi Chang received the Water Environmental Federation's Volunteer Service Recognition Program Award. He has spearheaded the Chesapeake Bay Water Environment Association and has done tremendous work. The Blue Plains Tunnel got the Tunnel Achievement Award for Project Excellence. D.C. Water has been nominated for the International Federation of Consulting Engineers award for its biosolids management system.

Mr. Hawkins also reported that D.C. Water has undergone a voluntary audit by the American Water Works Association and was compared to other water utilities that participated in the audit for benchmarking. D.C. Water has improved in every category from the last audit. The overall score went from 87 to 90 and 90 is great out of 100. D.C. Water was in the top quartile of the 100 best utilities. Mr. Hawkins stated that he wants to keep improving and congratulated Charles Kiely, Assistant General Manager for Customer Care and Operation, and his whole team for the great report.

Mr. Giancola thanked Mr. Hawkins for sending representatives to the job fair held by the D.C. Office Veterans Affairs. He wants to get a report on whether anyone was hired. Mr. Giancola encouraged the other jurisdictions who had similar events to invite D.C. Water.

Mr. Frishberg stated that earlier in the year they toured the 500-year wall being built along the south side of the Plant. He is concerned that the 500-year wall will be insufficient based on Hurricane Harvey, a 1,000-year storm. Mr. Frishberg believes the notion of a 1,000-year storm is antiquated and backward looking. He wanted to know if the plans were finalized. Mr. Hawkins replied that they are now working on a blog post based on a 100-year storm which means that there is a 1 to 100 chance in a given year that a storm of that magnitude would occur. It is just a probability. He stated that whatever those measures were created from, past hydrologic analysis is not relevant. Mr. Hawkins indicated that they are using this measurement because of a lack of having new ones. Storms are happening more intensely at every level, 10-year, 20-year, 100-year, 500-year. Even though they have decided to build at the 500-year level, they continue to look at what else should be done. When they started this project, they thought 500-year was way beyond what they had ever thought would happen. Mr. Hawkins stated that the question remains about how much it would cost to get the Blue Plains facility

back up and running if it was affected by one of these storms. They will continue to evaluate and develop steps D.C. Water can take to further protect all facilities, especially the Plant.

Mr. Frishberg indicated that he is suggesting that D.C. Water consider using some kind of academic resources to develop a better way of at this and its science, and not just use the X-year flood or what the Federal Government says.

Consent Items (Joint Use)

First Vice Chairman Majett asked for a motion to approve joint use contract action items. Mr. Giancola moved to approve Resolutions No. 17-49 through 17-51, and it was seconded. The motion to approve Resolutions No. 17-49 through 17-51 was unanimously approved by the members of the Board.

Consent Items (Non-Joint Use)

First Vice Chairman Majett asked for a motion to approve non-joint use action items. Ms. Butani Bhatt moved to approve Resolution No. 17-52 and it was seconded. The motion to approve Resolution No. 17-52 was unanimously approved by the District members of the Board.

Executive Session

First Vice Chairman Majett asked for a motion to move into Executive Session pursuant to the Open Meetings Amendment Act of 2010, to discuss legal, confidential, or privileged matters under Section 2-575(b) (10) of the D.C. Official Code. It was so moved and seconded and approved unanimously. A roll call vote was conducted. The Board went into Executive Session at 10:47 a.m. The public meeting was resumed at 11:30 a.m.

There being no further business, First Vice Chairman Majett adjourned the meeting at 11:30 a.m.


Secretary to the Board of Directors