

**CALLED MEETING OF THE BOARD OF WATER WORKS TRUSTEES  
HELD AT THE OFFICE OF THE DES MOINES WATER WORKS  
PURSUANT TO NOTICE, TUESDAY,  
December 15, 2015  
3:30pm**

Present: Mr. Graham R. Gillette, presiding; Ms. Leslie A. Gearhart and Ms. Susan R. Huppert. Staff members attending were: Pat Bruner, Ted Corrigan, Peggy Freese, Doug Garnett, Amy Kahler, Mike McCurnin, Laura Sarcone, Bill Stowe, Jennifer Terry and Michelle Watson. Also in attendance was Rick Malm, legal counsel and Dr. Larry Weber, University of Iowa – IIHR. Mr. David A. Carlson and Mr. Marc R. Wallace joined the meeting while progress as noted below.

Consent Agenda – A motion was made by Mrs. Huppert, seconded by Ms. Gearhart, to approve Consent Items A, B, C, D, and E (approval of the minutes, November 24, 2015, Board of Water Works Trustees meeting; minutes, December 1, 2015, Planning Committee meeting; minutes, December 8, 2015, Finance and Audit Committee meeting; filing of the financial statements for audit purposes; approval of payments for November 2015; summary of CEO-Approved Expenditures in Excess of \$20,000; and approval of January 26, 2016, as the next meeting of the Board of Water Works Trustees). Mr. Stowe brought attention to graphs of financial information included in the Board packet. Questions may be directed to him or Ms. Freese. Upon vote, the motion was adopted, with Mr. Gillette, Ms. Gearhart and Ms. Huppert voting in favor of the motion.

David Carlson joined the meeting at 3:35 p.m.

Public Comment Period – No comments presented.

Review and Approve Selection of Board Members' Representation on External Boards – Chairperson Gillette has recommended the appointments of Board members to the following external Boards: Greater Des Moines Botanical Garden – Ms. Leslie Gearhart; Des Moines Water Works Park Foundation – Representatives: Mr. David Carlson and Mr. Marc Wallace, Ex-Officio: Mr. Bill Stowe. A motion was made by Ms. Huppert, seconded by Mr. Carlson, to appoint such persons to represent Des Moines Water Works on its behalf on the Boards of the Greater Des Moines Botanical Garden and Des Moines Water Works Park Foundation for the calendar year 2016. Upon vote, the motion was adopted, with Mr. Carlson, Mr. Gillette, Ms. Gearhart and Ms. Huppert voting in favor of the motion. Mr. Stowe pointed out that these external Board appointments are done annually, whereas the Chair and Vice-Chair appointments are a two-year term.

Request Permission to Establish the Date of the Public Hearing for Underground Electric Line Easement at Shared East Elevated Water Storage Tank as the Date of the January 2016 Board Meeting – As part of the DBP Mitigation – Shared East Elevated Water Storage Tank Contract, upgrades to the electrical service was necessary. In order for MidAmerican Energy to extend the

high voltage electric service, DMWW must grant an easement to MidAmerican Energy for the underground service line. A motion was made by Ms. Huppert, and seconded by Mr. Carlson, to establish the date of the January 2016 Board meeting as the date of Public Hearing for the Underground Electric Line Easement at Shared East Elevated Water Storage Tank, and direct staff to publish notice as provided by law. Mr. Stowe commented on the importance of the relationship with MidAmerican Energy. Upon vote, the motion was adopted, with Mr. Carlson, Mr. Gillette, Ms. Gearhart and Ms. Huppert voting in favor of the motion.

Mr. Marc Wallace joined meeting at 3:39pm.

Request Authorization to Issue Purchase Order for RO Membranes to Replace Existing RO Membranes at Saylorville Water Treatment Plant – Mr. Stowe noted that this purchase of manufactured materials is to be made as a purchase order after an RFP. Existing reverse osmosis (RO) membranes at Saylorville Water Treatment Plant (SWTP) are approaching the five year warranty date. In addition, staff has observed a decrease in RO membrane performance. Improving the production of the RO membranes has become an operational necessity. Additional production at SWTP aids in efforts to combat disinfection by-product and nitrate challenges at the other two treatment plants. In addition, Johnston, Polk City and Ankeny will benefit greatly with a restoration in production capacity to meet peak demand needs. Three separate proposals were received for the purchase of 882 RO membranes. Staff recommends issuing purchase order to Wigen Water Technologies for the same membranes installed as originally at the treatment plant. A motion was made by Ms. Gearhart, and seconded by Mr. Wallace to authorize staff to issue a Purchase Order in the amount of \$415,412.00 to Wigen Water Technologies. Ms. Huppert questioned variance between 3 and 5 year warranty options and if it would be advantageous go with the longer warranty. Mr. Stowe explained the staff's cost benefit analysis does not justify the higher cost for the longer duration. Upon vote, the motion was adopted, with each member of the Board, who is identified above as present, voting in favor of the motion.

Award 2016 Water Service Line Repairs Contract – The 2016 contract for customer service line repairs was considered. The estimated quantities for 2016 water service line repairs continue to be lower, as a result of customers enrolling in the HomeServe service line program. Three bids were received. The engineer's estimate was \$200,000. Mr. Stowe explained this is an annual contract awarded to repair customer lines connecting to the DMWW water mains when such repairs need to be made on behalf of customers by DMWW. A motion was made by Mr. Wallace, and seconded by Ms. Huppert, to award the 2016 Water Service Line Repairs to Todd Torgerson, DBA: Todd Torgerson Excavation, in the amount of \$193,755.00. Upon vote, the motion was adopted, with each member of the Board, who is identified above as present, voting in favor of the motion.

2016 Labor Agreement between DMWW and AFSCME Iowa Council 61, Local 3861 – It was reported that negotiations with AFSCME on a three year labor agreement are complete. The changes include a new provision for certification incentive pay and a 2.75% across the board wage increase in each of the three years. The total estimated cost increase for 2016 is \$571,652. Mr. Stowe thanked the negotiations committee for its efforts in the process. A motion was made by Ms. Huppert, and seconded by Mr. Carlson, to approve and authorize Chairperson to Execute

the Agreement between the Des Moines Water Works and AFSCME, Council 61 and its Affiliated Local 3861, effective January 1, 2016 through December 31, 2018. Ms. Gearhart, Ms. Huppert, and Mr. Gillette all commended the negotiations committee on success for the contract. Mr. Stowe acknowledged the importance of supervisors and management continuing to promote a constructive relationship with bargaining-unit employees. Mr. Wallace commended staff on the level of respect between AFSCME employees and other DMWW staff. Upon vote, the motion was adopted, with each member of the Board, who is identified above as present, voting in favor of the motion.

#### Board Committee Reports –

Mr. Gillette thanked Board members for their work throughout the year and that it is a pleasure to be a part of this organization. The following reports were provided:

- Mr. Wallace noted that the Planning Committee met on December 1, 2015, which included a good discussion of the Disinfection Byproduct Mitigation Report.
- Ms. Gearhart stated that the Finance and Audit Committee met on December 8, 2015, and discussed the Disinfection Byproduct Mitigation Report and how to address violations and cost involved in remedying issues, which are a necessity. Mr. Gillette shared that he appreciated the thoroughness of information provided for the DBP report, and brought up the importance for long range planning for capital improvements. Mr. Stowe noted that staff will be presenting the five year capital improvement plan in January at the Finance and Audit Committee.
- Ms. Gearhart reported on the Greater Des Moines Botanical Garden Board, and stated they are raising funds, and that attendance and special activities are increasing. Mr. Gillette suggested Ms. Gearhart and Mr. Wallace propose a joint meeting between Greater Des Moines Botanical Garden and Des Moines Water Works Park Foundation Boards to share ideas on fundraising.
- Mr. Wallace noted the Des Moines Water Works Park Foundation Board has \$2 million in pledge commitments. . New Board President and Vice Presidents for in 2016 were announced. He mentioned the need for legal counsel on the Park Foundation Board. Mr. Gillette stated the next presentation by the Park Foundation will include plan improvements and how funds will be used. Mr. Stowe expressed the need for alignment between the Park Master Plan and DMWW functionality and that the DMWW Board will be made aware of ideas as they are put motion. Mr. Gillette also echoes concern to have full understanding of the Master Plan. Mr. Carlson noted how important it is that a DMWW Staff member is present on Foundation Board. Mr. Wallace commented that communication is most important.
- Mr. Gillette mentioned the importance of supporting the Make-A-Wish Foundation in view of the shorter Jolly Holiday Lights season caused by flooding.
- Ms. Huppert stated the Greater Des Moines Partnership’s Iowa Water Future Task Force has met and had informative presentations, including Dr. Larry Weber who will be presenting at the conclusion of this meeting.

#### CEO and General Manager’s Comments –

- Mr. Stowe explained that DMWW is operating three of our eight nitrate removal units now. There has been dilution of nitrate concentration in Sac County due to recent rains.

- Staff is currently working on de-nitrification and flood recovery, including working with Make-A-Wish Foundation to salvage light displays in Water Works Park. No major DMWW property or personal damage occurred. Mr. Stowe thanked staff for their work.

Mr. Gillette noted the Contract Status Spreadsheet, November 2015 Lien Certification and Reversals, and Outreach Summary included in the Board's packet.

Adjournment – Meeting adjourned at 4:19 p.m.

**MEETING OF THE BOARD OF WATER WORKS TRUSTEES  
AS TRUSTEES OF THE DES MOINES WATER WORKS  
and  
AS TRUSTEE FOR THE DES MOINES WATER WORKS PENSION PLAN  
Held December 15, 2015**

Present: Mr. Graham R. Gillette, presiding; Mr. David A. Carlson, Ms. Leslie A. Gearhart, Ms. Susan R. Huppert, and Mr. Marc R. Wallace. Staff members attending were: Pat Bruner, Ted Corrigan, Peggy Freese, Doug Garnett, Donna Heckman, Amy Kahler, Dan Klopfer, Mike McCurnin, Laura Sarcone and Bill Stowe. Also in attendance was Rick Malm, legal counsel.

Mr. Gillette called the meeting to order at 4:22 p.m.

Approve Minutes of the December 15, 2015, Meeting – A motion was made by Mr. Wallace, seconded by Ms. Huppert, to approve the minutes of December 15, 2015, meeting of the Board of Water Works Trustees of the Des Moines Water Works Pension Plan. Upon vote, the motion was adopted, with each member of the Board, who is identified above as present, voting in favor of the motion.

Public Comment Period – No public comments were received.

Amendment to Des Moines Water Works' Pension Plan – Ms. Gearhart made a motion, seconded by Ms. Huppert, to approve and adopt the Amendment to Des Moines Water Works' Pension Plan. Upon vote, the motion was adopted, with each member of the Board, who is identified above as present, voting in favor of the motion.

Adjournment – A motion to adjourn was made by Ms. Huppert and seconded by Mr. Wallace. Upon vote, the motion was adopted, with each member of the Board, who is identified above as present, voting in favor of the motion.

Meeting adjourned at: 4:22 p.m.

Presentation by Larry Weber of University of Iowa IIHR – Hydroscience and Engineering presenting on Water Quality Information System – Mr. Stowe introduced Mr. Weber from University of Iowa IIHR – Hydroscience and Engineering. Mr. Weber founded and is the

Director of Iowa Flood Center. In 2013, he also founded Iowa Nutrient Research Center, in response to Iowa Nutrient Reduction Strategy. His nutrient focus is on monitoring and modeling the fate and transport of nutrients in rivers, lakes and streams. Mr. Weber's group deploys a network of real-time (every 15 minutes) sensors monitoring nitrate (as nitrogen), turbidity, temp, and pH, and makes this and other information available to the public by means which include a web site. Mr. Weber gave a demonstration of the Iowa Water Quality Information System.– available to the public online at <http://iwqis.iowawis.org>. A discussion of water quality issues also occurred.

Meeting ended at 5:14 p.m.

**PLANNING COMMITTEE  
OF THE BOARD OF WATER WORKS TRUSTEES  
HELD AT THE OFFICE OF DES MOINES WATER WORKS  
PURSUANT TO NOTICE**

Tuesday, January 5, 2016  
3:30 p.m.

Present:

Board Members: Dave Carlson, Marc Wallace

Staff Members: Nathan Casey, Ted Corrigan, Amy Kahler, Dan Klopfer, Mike McCurnin, Laura Sarcone, Bill Stowe and Jennifer Terry

1. Wetland Pilot – Mr. Stowe said Engineering staff will soon receive a nitrate removal study from consultant, CH2M Hill, with several recommendations for managing the effects of rising nitrate levels in the Des Moines and Raccoon Rivers. One of the recommended measures will be a constructed wetland in Water Works Park for natural denitrification. Constructed wetlands are a conservation practice for landowners to implement for nutrient management. Mr. Casey noted that DMWW operated the nitrate removal facility for a record 177 days in 2015. The consultant has concluded, based on nitrate trends, DMWW will need an additional 9 million gallons per day (mgd) of denitrified water capacity from the Fleur Drive Treatment Plant by 2020, and an additional 19 mgd of denitrified water capacity from the Fleur Drive Treatment Plant by 2035. At the McMullen Treatment Plant, the “Chain of Lakes” will provide the additional low nitrate water needed. The treatment process – reverse osmosis – at the Saylorville Water Treatment Plant will provide low nitrate water needed. Mr. Casey stated a proposed 80 acre constructed wetland in Water Works Park could provide the additional low nitrate water needed at Fleur Drive to meet customer demand and drinking water standards. Because constructed wetlands are typically not used for pre-treatment in the drinking water industry, a two-year pilot study will be conducted before the wetland is constructed. Two side-by-side half-acre pilot wetlands will be constructed in 2016 in order to confirm size required, carbon addition, temperature dependence, other pollutants of concern and reaction to flooding. Staff is recommending a professional service agreement with CH2M Hill for \$155,942 for designing of the pilot wetland. The cost for construction of the 1 acre was estimated to be \$350,000; however, staff will construct the pilot project to save costs. Preliminary cost estimate for the 80 acre wetland is \$32.1 million, which will be included in the five year capital improvement plan. Half way through the two-year pilot, if findings appear to be favorable, the consultant will begin plans for the proposed 80-acre wetland. Mr. Stowe stated that the constructed wetland is just one of many in a combination of nitrate removal measures that the consultant is recommending, including expanding the current ion exchange denitrification facility. With regard to the plans for the Des Moines Water Works Park Foundation, Mr. Wallace said he will recommend making the circuit and relocating George Flagg Parkway a higher priority for Foundation Board, in order to accommodate the progress needed to move forward with the 80 acre denitrification wetland.
  
2. CEO and General Manager’s Comments – Mr. Stowe reiterated that the nitrate removal facility operated for 177 days in 2015, at a cost of \$1.5 million. At the close of 2015, Des Moines Water Works was 7% below water sale projections; that equates to a \$4 million water revenue shortfall. Mr. Stowe commented on the recent proposal from Governor Branstad and the United State Department of Agriculture. DMWW had no communication

from either office. Mr. Stowe is unconvinced of the likelihood of the plan moving forward and of any meaningful impact to the utility. Mr. Wallace asked for staff to track all the proposed water quality plans being introduced – a matrix of who said what, funding sources, etc. Ms. Terry will evaluate all the proposals and provide a monthly update of the new matrix to the Board.

3. Public Comments – None

Meeting adjourned at 4:22 p.m.

**FINANCE AND AUDIT COMMITTEE  
OF THE BOARD OF WATER WORKS TRUSTEES  
HELD AT THE OFFICE OF DES MOINES WATER WORKS  
PURSUANT TO NOTICE**

Tuesday, January 12, 2016  
3:30 p.m.

Present:

Board Members: Susan Huppert, Leslie Gearhart and Graham Gillette

Staff Members: Ted Corrigan, Peggy Freese, Doug Garnett, Michelle Holland, Amy Kahler,  
Dan Klopfer, Mike McCurnin, Bill Stowe, and Laura Sarcone

1. Operating Reserves – Mr. Stowe stated to the Board that, accessing the operating reserves was necessary in 2015 to cover a \$4 million shortfall, arising from decreased water sale revenue. For many years, staff and legal counsel, were under the impression that a formal Board policy or action had established the operating reserve maintained by DMWW. The Government Finance Officers Association recommends that governments establish a formal policy for reserve balances. While staff has operated under a consistent guideline for reserves, it was not formally codified. There is no legal requirement for a formal Board Policy and it is common for the reserve balance to be addressed in the financial policies of an entity. Ms. Freese stated that staff has developed an operating reserve policy to provide adequate working capital for cash flow and contingency purposes under which DMWW will continue to maintain an operating reserve balance equal to three months operating expenditures.
  
2. Five Year Capital Improvement Plan – Mr. Stowe said at during his time of hire, the Board directed him to look beyond one year capital improvement plans (CIP). Last year, staff developed a three year CIP, and this year, staff has expanded to a five year CIP. The plan contains the best available information for planning purposes in detail. Mr. Stowe stated the proposed costs are extraordinary; however, each project is vital to meet federal drinking water standards for nitrate and disinfection by-product (DBP), improved distribution infrastructure, and other needs. Ms. Freese noted that the numbers will likely change, despite staff's best planning efforts, as future circumstances change. This fall, staff will recommend to the Board how to finance the plan, through a combination of bonds and rates. Mr. Stowe stated most of the capital items are not discretionary (i.e. nitrate and TTHM compliance). Source water quality projections for the Des Moines and Raccoon River show that investment in more treatment will be required to meet drinking water standards, or risk non-compliance. Mr. Klopfer explained the process of coming up the five year CIP. Staff identified the needs from Engineering, Water Distribution and Water Production. Input was also provided by the Des Moines Park Foundation, by the CIRDWC technical committee, and by receipt of CH2M Hill's DBP mitigation report and draft Nitrate Removal report. Engineering staff provided a cost estimate and sequencing for each project. The five year CIP totals \$241 million. Some projects, such as joint projects or park improvements, will proceed only if funded by other entities. Amounts to be funded by others in 2016-2020 are \$57 million, leaving \$184 million to be funded by DMWW. The funds needed for nitrate mitigation totals \$69,692,771. DBP mitigation is \$15,853,312. Treatment plant capacity and distribution capacity total around \$18 million. Another \$79 million is needed for critical

needs in Water Distribution, Water Production, Customer Service and Information Technology. Ms. Freese reiterated that staff will work on recommendations to the Board for various options for funding; however, at the end of the day, capital requirements will be funded by ratepayers. Mr. Stowe stated that staff will cover the same materials with the Board Planning Committee and then to the full Board to receive and file at February Board meeting.

3. CEO and General Manager's Comments – Nitrate concentrations in river sources remain above 10 mg/L, but the Infiltration Gallery is producing low nitrate water for us meet demand and drinking water standard without operating the nitrate removal facility. Mr. Stowe will request a closed session at the January Board meeting to discuss status of the federal lawsuit. Judge Bennett has certified questions to the Iowa Supreme Court, which may delay the scheduled August trial date. Mr. Stowe spoke briefly of Governor Branstad's plan for funding education infrastructure and water quality. Ms. Huppert noted the Greater Des Moines Partnership's Iowa Soil and Water Task Force plan will be unveiled to legislature later this week.
4. Public Comments – None.

Meeting adjourned at 4:30 p.m.