

**CALLED MEETING OF THE BOARD OF WATER WORKS TRUSTEES  
HELD AT THE OFFICE OF THE DES MOINES WATER WORKS  
PURSUANT TO NOTICE, TUESDAY,  
January 26, 2016  
3:30pm**

Present: Mr. Graham R. Gillette, presiding; 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, Webster Kranto, Mike McCurnin, Amber Norton, Laura Sarcone, Bill Stowe and Jennifer Terry. Also in attendance was Rick Malm, legal counsel.

Consent Agenda – A motion was made by Mr. Carlson, seconded by Ms. Gearhart, to approve Consent Items A, B, C, D, E, F, and G (approval of the minutes, December 15, 2015, Board of Water Works Trustees meeting; minutes, January 5, 2016, Planning Committee meeting; minutes, January 12, 2016, Finance and Audit Committee meeting; filing of the financial statements for audit purposes; approval of payments for December 2015; summary of CEO-Approved Expenditures in Excess of \$20,000; Review of Reserve Funds Investment Policy; Review of Depositories for Des Moines Water Works Funds; and approval of February 23, 2016, as the next meeting of the Board of Water Works Trustees). Mr. Stowe noted that under Board Policy and state law, there is an annual review of the investment policy and depositories. 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 comments presented.

License Agreement Extension for the Right to Farm Agricultural Land at Maffitt Reservoir – Mr. Stowe stated this is a one-year extension of a current agreement. Staff is very pleased with Mr. and Mrs. Flynn, as tenants of the land, and with their conservation efforts on the land. Before the end of 2016, staff will seek new proposals for the right to farm. A motion was made by Mr. Carlson, seconded by Ms. Huppert, to authorize the CEO and General Manager to execute the License Agreement Extension for the Right to Farm Des Moines Water Works Agricultural Land for the 2016 crop year. Upon vote, the motion was adopted, with each member of the Board, who is identified above as present, voting in favor of the motion.

License Agreement Extension for the Right to Harvest Grass Hay at Maffitt Reservoir – Mr. Stowe again stated staff is very pleased with Mr. and Mrs. Flynn. Staff will also seek new proposals for the right to harvest grass hay before the end of 2016. A motion was made by Ms. Gearhart, seconded by Mr. Carlson, to authorize the CEO and General Manager to execute the License Agreement Extension for the Right to Harvest Grass Hay on Des Moines Water Works Agricultural Land for the 2016 crop year. Upon vote, the motion was adopted, with each member of the Board, who is identified above as present, voting in favor of the motion.

Acceptance of 2014 Bishop Farms Wetland Mitigation Project – Mr. Stowe stated this is the last step of the contract process after the work on the Bishop Farms Wetland Mitigation Project has

been completed to staff's satisfaction. A motion was made by Mr. Carlson, seconded by Ms. Huppert, to accept the 2014 Bishop Farms Wetland Mitigation Plan, completed by Griggs Environmental Strategies, Inc., in the amount of \$77,289.84. Upon vote, the motion was adopted, with each member of the Board, who is identified above as present, voting in favor of the motion.

Request Authorization to Solicit Bids for 2016 Polk County Water System Improvements – Contract 1 and Establish the Date of the Public Hearing as the Date of the February 2016 Board Meeting – Mr. Stowe stated this main replacement program for Polk County is funded by a Polk County rate surcharge that has been expressly established for these improvements. A motion was made by Ms. Gearhart, seconded by Mr. Carlson, to authorize staff to solicit bids for 2016 Polk County Water System Improvements – Contract 1 and establish the date of Public Hearing as the date of the February 2016 Board meeting, and direct staff to publish notice as provided by law. Upon vote, the motion was adopted, with each member of the Board, who is identified above as present, voting in favor of the motion.

Request Authorization to Execute Amendment #2 to the Existing Nitrate Management Plan Agreement with CH2M Hill and add Nitrate Removal Engineered Wetlands Pilot/Demonstration Scope – Mr. Stowe noted staff will be receiving a final report soon on future denitrification recommendations from CH2M Hill. A constructed wetland will be a part of their recommendations for denitrification. A two-year one-acre pilot is needed prior to a full scale wetland. Mr. Carlson stated that there may be an opportunity for a bike trail to also be established in the area where the constructed wetland is being proposed. A motion was made by Mr. Carlson, seconded by Ms. Gearhart, to approve and authorize the CEO and General Manager to execute Amendment #2 to the Existing Nitrate Management Plan Agreement with CH2M Hill and add Nitrate Removal Engineered Wetlands Pilot and Demonstration Scope. Upon vote, the motion was adopted, with each member of the Board, who is identified above as present, voting in favor of the motion.

Easement for Underground Electric Line at Shared East Elevated Water Storage Tank – A Public Hearing was opened by Chairperson Gillette for comments from the public regarding the grant of an easement to MidAmerican Energy Company. Mr. Stowe stated this is a necessary easement for disinfection by-product mitigation at the Shared East Elevated Water Storage Tank. Receiving no oral or written comments, the Public Hearing was closed. A motion was made by Mr. Carlson, and seconded by Ms. Gearhart to approve the easement for an underground electric line at the Shared East Elevated Water Storage Tank in favor of MidAmerican Energy Company and to authorize the Chairperson and the CEO and General Manager to execute such easement.. 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 stated that nine legislators attended an informational tour and water quality discussion at Des Moines Water Works on January 25.

The following reports were provided:

- Mr. Wallace noted that the Planning Committee met on January 5, 2016, and discussed the proposed constructed wetland for denitrification.
- Ms. Huppert stated that the Finance and Audit Committee met on January 12, 2016, and discussed the staff's five year capital improvement plan. She noted the very tough decisions ahead of the Board. She complimented staff for its hard work. The Committee also discussed operating reserve policy. Mr. Stowe stated that staff has adopted an internal policy of maintaining a cash reserve of three months expenses. Ms. Huppert requested that the policy be adopted in the next revisions of the Board Policy Manual.
- Ms. Gearhart had no report on the Greater Des Moines Botanical Garden Board.
- Mr. Carlson noted the Des Moines Water Works Park Foundation Board has \$1.8 million in fundraising commitments. New fundraising material will be forthcoming.
- Ms. Huppert stated the Greater Des Moines Partnership's Iowa Soil and Water Future Task Force recommendation report has been published and it has started a discussion in the community. The task force will continue to meet monthly.

CEO and General Manager's Comments –

- Section 384.103 Finding – Filter Building Water Service Line – Mr. Stowe reported that he exercised his emergency spending authority of approximately \$95,000 for repair of a water service line inside the Fleur Drive Treatment Plant.
- Nitrate Load Data – Mr. Stowe reviewed 2015 nitrate load and concentration graphs provided by University of Iowa – IIHR.
- Lead Exposure Analysis – Mr. Stowe asked staff to provide information to the Board on lead exposure in view of the situation in Flint, Michigan. There are DMWW customers who have lead service lines, so there is a risk of lead exposure. Mr. Corrigan stated finished drinking water leaving Des Moines Water Works facilities does not contain lead. When it gets to a customer's service line or premises, it has the potential to come in contact with lead. If the water is corrosive, it could lead to leaching of lead. Des Moines Water Works treats its drinking water to ensure it is not corrosive. Mr. Stowe stated staff and Board are in the public health business and we will remain transparent as to all public health risks.

Mr. Gillette noted the Contract Status Spreadsheet, December 2015 Lien Certification and Reversals, and Outreach Summary and Legislative Water Quality Proposal Matrix included in the Board's packet.

Closed Session – At 4:30 p.m., Mr. Wallace made a motion, seconded by Mr. Carlson, for the Board to go into closed session, pursuant to Section 21.5(1)(c), Code of Iowa, to discuss litigation strategy with counsel in the pending federal case concerning nitrate pollution to avoid disclosure likely to prejudice or disadvantage the position of the Des Moines Water Works. A roll call vote was conducted. Mr. David Carlson, Ms. Leslie Gearhart, Mr. Graham Gillette, Ms. Susan Huppert, and Mr. Marc Wallace each voted "Aye." A closed session was then conducted.

At approximately 5:19 p.m., the meeting returned to open session. No action was taken as a result of the closed session.

Adjournment – Adjourn by unanimous consent. Meeting adjourned at 5:19 p.m.

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

Tuesday, February 2, 2016  
3:30 p.m.

Present:

Board Members: Dave Carlson, Marc Wallace

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

1. Five Year Capital Improvement Plan – Mr. Stowe noted at his time of hire, the Board challenged 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. Mr. Stowe stated the proposed costs are extraordinary; however, each project is vital to meet federal drinking water standards for disinfection by-product (DBP) and nitrate removal, and to meet improved distribution infrastructure and other needs. Ms. Freese noted 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 during 2016-2020 are \$57 million, leaving \$184 million to be funded by DMWW. This fall, staff will recommend to the Board how to finance the plan, through a combination of bonds and rates. 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 Central Iowa Regional Drinking Water Commission Technical Subcommittee, 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 individual project. The funds needed for nitrate mitigation total \$69,692,771. DBP mitigation is \$15,853,312. Treatment plant capacity (i.e. Saylorville Water Treatment Plant at 10 million gallons per day) and distribution expansion (i.e. water main from SWTP to City of Johnston) total around \$18 million. Another \$79 million is needed for critical needs in Water Distribution, Water Production, Customer Service (meter and meter reading interface system) and Information Technology (finance software and CRM replacement). Mr. Stowe 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 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. The full Board will receive and file the five year CIP at February Board meeting. The committee briefly discussed the proposed nitrate removal regeneration waste connection to the Water Reclamation Authority sewer system.
2. CEO and General Manager's Comments – Mr. Stowe stated nitrate levels in the river continue to be at or over 10 mg/L and we are optimizing the Gallery system. Mr. Corrigan reported on 2015 main break numbers: 205 main breaks, compared to 421 main breaks in 2014. Ms. Sarcone previewed two new education videos highlighting Des Moines Water Works Fleur Drive Treatment Plant and water quality issues. They will be posted on the website for teachers, students and the public to access.

3. Public Comments – None

Meeting adjourned at 4:53 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, February 9, 2016  
3:30 p.m.

Present:

Board Members: Susan Huppert, Leslie Gearhart and Graham Gillette

Staff Members: Nathan Casey, Ted Corrigan, Peggy Freese, Doug Garnett, Erika Hale, Donna Heckman, Amy Kahler, Dan Klopfer, Bill Stowe, and Laura Sarcone, Jennifer Terry

1. Workers' Compensation Summary – Mr. Stowe reported that DMWW began self-insuring workers compensation in 2014. DMWW had 19 injuries in 2015, and recently had our second injury for 2016. Ms. Freese reported that 2015 claims paid are lower than they have been in the past; however, it is staff's goal to lower the number of claims and ultimately reduce the total of out of pocket costs. Mr. Stowe noted Mr. Corrigan and the safety team are pursuing a number of initiatives to improve DMWW's safety program and culture. Ms. Huppert inquired about DMWW's injury protocol and compliance with HIPPA.
  
2. Wetland Pilot – Mr. Stowe stated 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, surface flow wetland in Water Works Park for natural denitrification. Constructed wetlands are a conservation practice that landowners can implement for nutrient management. Mr. Casey noted that DMWW operated the nitrate removal facility for a record 177 days in 2015. CH2M Hill 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. At the Saylorville Water Treatment Plant the reverse osmosis treatment process will provide low nitrate water needed. Mr. Casey stated a proposed 80 acre constructed wetland in Water Works Park could provide the initial portion of 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. The Board has approved a professional service agreement with CH2M Hill for \$155,942 for designing of the pilot wetland. The cost for construction of the pilot wetlands 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 is included in the five year capital improvement plan. If findings appear to be favorable after the first year of the pilot, the consultant will begin plans for the proposed 80-acre wetland. Mr. Stowe stated that the constructed wetland is one of several nitrate removal measures that the consultant is recommending in combination,

including eventual expansion of the current ion exchange denitrification facility. Mr. Stowe noted the potential location for the pilot will complement future trail work the Park Foundation is considering. Plans for the “circuit” and relocating George Flagg Parkway would decrease some costs associated with the wetland. The Park Foundation will present a Master Plan Progress Report at the Board’s February meeting.

3. CEO and General Manager’s Comments – None.
4. Public Comments – Ms. Huppert thanked Ms. Kahler for prompt response to a customer over the weekend.

Meeting adjourned at 4:20 p.m.