

(Prepared by/Return to: Amy Kahler, Des Moines Water Works, 2201 George Flagg Parkway, Des Moines, IA 50321, 515-283-8760)

**Meeting**  
**CENTRAL IOWA REGIONAL DRINKING WATER COMMISSION**  
**Technical Advisory Committee**  
**Des Moines Water Works Board Room**  
**January 21, 2016**  
**10:00 a.m.**

**Present**

The following attendees introduced themselves:

Tim Hoskins (Norwalk), Seth Zrucky (Norwalk), Karen Oppelt (Altoona), Vern Willey (Altoona), Ken Plager (Ankeny), John Gibson (Waukee), Dan Klopfer (DMWW), Ted Corrigan (DMWW), Amy Kahler (DMWW), Dale Acheson (Urbandale Water Utility), Randy Beavers (Warren Water District), Stan Ripperger (Warren Water District), William Mabuice (WDMWW), Len Murray (Pleasant Hill), Shane Kinsey (Johnston).

Members of the public in attendance: Chris Gruenhagen, Iowa Farm Bureau Federation.

**Five Year Capital Improvement Plan**

Dan Klopfer provided an overview of DMWW's 5-year CIP and capital budget. Developing a five-year plan is something DMWW did in 2015 for the first time, recognizing there are opportunities to better plan when a longer term view of needs is considered. Dan reviewed details of the 5 year plan, totaling \$241 million as follows:

Nitrate remediation	\$69.7 million
DBP mitigation	\$15.9
Nameplate	\$ 1.6
Distribution Expansion	\$16.8
Other - DMWW	\$79.7
Joint Projects	<u>\$57.4</u>
	\$241 million
Less: Joint Projects	<u>(\$57 million)</u>
Net CIP – DMWW funds	\$184 million

Several categories were highlighted for the group:

1. Nitrate remediation – These are costs planned to improve DMWW's ability to treat increased nitrate concentrations in the source water. Capital improvements include an 80 acre wetland in Water Works Park, and expanding the nitrate removal facility.

2. DBP mitigation – These are costs associated with the improvements discussed at the December 2015 Technical Advisory Committee meeting, including mixing and aeration, improvements to the Powder Activated Carbon (PAC) system, and coagulant improvements.
3. Nameplate – The term “nameplate” essentially refers to the capacity each plant was designed to produce. The nameplate capacities are as follows:
  - a. Fleur – 75 mgd
  - b. McMullen – 25 mgd
  - c. Saylorville – 10 mgd

Improvements are necessary to get the plants to nameplate capacity. For example, source water hardness at Saylorville affects the output of that plant, and membranes need to be replaced in order to produce the nameplate capacity of 10 mgd.

4. Distribution expansion – These are costs associated with distributing water to wholesale customers where they are experiencing growth.
5. Other includes DMWW capital projects not included in the above four categories, including meters and meter reading devices, IT projects, and general capital improvements unrelated to nitrate remediation, DBP, nameplate, or distribution expansions.
6. Joint projects include LP Moon expansion, Army Post ASR, WSI for total service areas, a joint northwest project, and joint southwest project, and park foundation improvements. The assumed funding from other entities for these projects totals \$57 million, bringing DMWW’s net capital needs to \$183.5 million

It is important to note the 5-year capital plan does not include additional treatment capacity.

Typically DMWW invests about \$10 - \$12 million in capital each year. Given the level of capital investment needed over the next five years, Amy Kahler indicated that DMWW will be putting together a financing plan in 2016 for the five year capital improvement plan.

### **Core Network Capacity vs. Demand Projections**

Ted Corrigan distributed some graphs depicting the long range demand projections developed by the Technical Advisory Committee with the existing Core Network Capacity. Core Network Capacity is 116 mgd as follows: Fleur – 75, McMullen – 25, Saylorville – 10, 2 ASRs - 6. Based on the group’s demand projections, it is anticipated additional treatment capacity will be needed by 2021. The long range plan will be an important piece of the process and will provide answers and/or options on how the demand in 2021 and beyond can be met.

### **Firm Capacity**

Following up to discussion in the last Executive Meeting, Ted Corrigan led discussion about stated core network capacity (116 mgd) vs. firm capacity (87.5 mgd) as developed by Black & Veatch in their regionalization study. Ted reported the firm capacity of 87.5 was computed assuming the largest treatment component of each plant is out of service at the same time, which is an unlikely scenario.

The 87.5 mgd firm capacity assumes the following production: Fleur – 70, McMullen 12.5, Saylorville – 4.2, ASRs – 0. There was group discussion on how the water shortage plan plays a role in responding to catastrophic failure on a peak demand day. Is it cost effective, desirable, or required, to build excess capacity as contingency for treatment system failures on a peak demand day that would produce only the B&V-calculated firm capacity of 87.5 mgd? The group will continue considering and discussing this as the long range plan is completed.

### **Next Steps – RFP Update**

DMWW is drafting a Scope of Services document and anticipates having a draft to share at the February meeting. A combination approach of internal DMWW staff, plus consultants for other pieces of the study, is being pursued.

### **Des Moines Water Works Board Activities for January**

Dan Klopfer reviewed the Des Moines Water Works Board of Trustees agenda for the upcoming December meeting:

- DMWW maintains about 200 acres of land near Maffitt Reservoir, and works with a leasee to practice environmentally sound agricultural practices on about 100 acres, including prairie strips, cover crops, etc. Another 60 acres is grassland and hay is harvested. The board will approve two agreements related to these land leases.
- The board will act to formally close a 2014 project related to the Bishop Farms wetland mitigation.
- The board will set a public hearing and request authorization to solicit bids for a Polk County Water System Improvement (WSI) project.
- Related to nitrate remediation, DMWW will be piloting a 1 acre wetland in advance of investing in an 80 acre wetland as recommended in the recently completed nitrate study by CH2M Hill. The board will be considering an amendment to the nitrate plan agreement with CH2M Hill to add scope for the demonstration pilot project.
- The board will be considering an easement for an electrical line at the Shared East Elevated Water Storage tank.

Ted Corrigan gave an overview of information he has learned related to the Flint, Michigan water crisis.

### **Next Meeting Date**

The next meeting will be February 18, 2016 at Des Moines Water Works.

### **Assignments**

No assignments were given.

Meeting adjourned at 11:25 a.m.