

**MINUTES**  
**PUBLIC UTILITIES BOARD**

Monday, August 22, 2016

9:00a.m.

Service Center Training Room

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After determining that a quorum of the Public Utilities Board of the City of Denton, Texas is present, the Chair of the Public Utilities Board will thereafter convene into an open meeting on Monday, August 22, 2016 at 9:00 a.m. in the Service Center Training Room at the City of Service Center, 901 A Texas Street, Denton, Texas.

Present: Chair Randy Robinson, Vice Chair Susan Parker, Charles Jackson, Brendan Carroll, and Allen Bishop

Ex Officio Members: Howard Martin, ACM Utilities

Absent: Barbara Russell and Lilia Bynum

Introduction of Allen Bishop new Public Utilities Board Member.

**CLOSED MEETING**

- A. PUB16-158-** Deliberations regarding Real Property - Under Texas Government Code Section 551.072; Consultation with Attorneys - Under Texas Government Code Section 551.071.

Receive information from staff and discuss, deliberate, and provide staff with direction regarding the potential acquisition of real property interests located generally on the northwest corner of North TX Loop 288 W and Farm to Market Road 2164 in the City of Denton, Denton County, Texas; discussions had, deliberation, and direction given, by the Denton Public Utility Board in an open meeting would have a detrimental effect on the position of the governmental body in negotiations with a third party. Consultation with the City's attorneys regarding legal issues associated with the acquisition of the real property interests described above; discussion of these legal matters in an open meeting would conflict with the duty of the City's attorneys to the City of Denton and the Denton Public Utility Board under the Texas Disciplinary Rules of Professional Conduct of the State Bar of Texas, or would jeopardize the City's legal position in any administrative proceeding or potential litigation. [Long Road Substation].

- B. PUB16-198-** Deliberations regarding Real Property - Under Texas Government Code Section 551.072; Consultation with Attorneys - Under Texas Government Code Section 551.071.

Receive information from staff, discuss, deliberate, and provide staff with direction regarding the potential acquisition of real property interests generally located in the Gibson Myers Survey, Abstract No. 843, The Johnson, Green, Myers, and Brummell Survey, Abstract No. 1699, the Moses H. Davis Survey, Abstract No. 377, and the William Wilburn Survey, Abstract No. 1419, located in the City of Denton, Denton County, Texas, for the possible construction of an electric generation facility where deliberation in an open meeting would have a detrimental effect on the position of a governmental body in negotiations with a third party. Consultation with the City's attorney's regarding legal issues associated with the acquisition of the real property interests described above where a public discussion of these legal matters would conflict with the duty of the City's attorneys to the City of Denton and the Denton Public Utility Board under the Texas Disciplinary Rules of Professional Conduct

of the State Bar of Texas, or would jeopardize the City's legal position in any administrative proceeding or potential litigation.

**C. PUB16-168-** Deliberations regarding Certain Public Power Utilities – Competitive Matters --  
- Under Texas Government Code Section 551.086.

Receive competitive public power competitive information and financial information from staff regarding the proposed FY 2016-2017 operating budget for Denton Municipal Electric ("DME") including without limitation, a proposed FY 2016-2017 DME rate ordinance, expected revenues, expenses, commodity volumes, and financial commitments of DME; discuss, deliberate, provide staff with direction, consider and make a final recommendation to the Council regarding this matter.

**Board Member Parker motioned to approve item C. There was a second by Board Member Jackson. Vote 5-0 approved.**

**D. PUB16-179-** Deliberations regarding Certain Public Power Utilities – Competitive Matters --  
- Under Texas Government Code Section 551.086.

Receive a presentation from staff regarding public power competitive and financial matters related to the City's participation in, and the overall operational and financial aspects of, the Texas Municipal Power Agency; discuss and deliberate strategies regarding same; discuss, deliberate and provide staff with direction.

**OPEN MEETING**  
**CONSENT AGENDA**

**A. PUB16-197-** Consider a recommendation for the City of Denton to enter into a contract with Zeit Energy LLC, Dallas, Texas, to design and construct a public compressed natural gas (CNG) fueling facility for the City of Denton, at the intersection of Mayhill Road and Spencer Road, and the extension of the Atmos Energy Inc. natural gas transmission line to the fueling facility, and three years of maintenance service, for the budgeted amount of \$2,682,445 (RFQ 6016).

**Board Member Jackson motioned to approve item A. There was a second by Board Member Parker. Vote 5-0 approved.**

**ITEMS FOR INDIVIDUAL CONSIDERATION**

**A. PUB16-200** Receive nominations and hold an election for Vice Chair of the Public Utilities Board.

Board Member Jackson Nominated Board Member Parker. There were no other nominations.  
Vote 5-0.

**B. PUB16-186** Consider recommending approval of the Public Utilities Board Meeting minutes of August 8, 2016.

**Approved as circulated.**

**C. PUB16-180** Receive a report, hold a discussion and give staff direction regarding the “Manual for the Control, Operations and Maintenance of Zebra Mussels” for design, construction and installation of key improvements to control and monitor zebra mussels for both Lake Ray Roberts and Lake Lewisville raw water sources and supply lines.

Mamun Yusuf, Senior Engineer, started the presentation by briefly talking about the Zebra Mussel Projects and introducing Ben Kuhnle of Arcadis.

Kuhnle talked about the Zebra Mussel impact and stated that both Lake Lewisville and Lake Ray Roberts raw water systems were evaluated. Roberts has a very short piping system to the plant as Lewisville’s pipe line is about eight miles.

Kuhnle went through what it means to have a ‘zebra mussel infestation’. Texas Parks and Wildlife and USGS has been doing a lot of monitoring around the lakes in north Texas for a while tracking the progression. DNA would be detected first then progress to veliger. Initially there will be limited settled juveniles or adults in the body of water before you will get to a sustainable reproducing population.

Lake Ray Roberts had a sustainable reproducing population in 2012 and Lake Lewisville had the same in 2015.

Since LRR has an infestation, the risk is high, Lewisville’s risk is overall high as well. Lakes in this area are favorable to Zebra Mussels because of the water temperature.

Zebra Mussels have major impacts on potable water facilities. They attach themselves to trash racks, screens, pipes, pumps and valves. They can layer up to six inches thick. This will constrict the water flow and increase head loss. They can foul the support of the infrastructure. They can attach to gates and isolation structures as well as within basins and reservoirs.

When the City of Denton went in the pipelines at Lake Ray Roberts they found a significant amount of shells. In the ‘low spot’ of the pipeline there was a 50-80 percent blockage. It was significantly impacting water flow.

The cleaning project that was conducted in 2014 was budgeted at \$500,000. The first cleaning had capital investments as seven new manways were constructed (\$265,818). The physical cleaning and disposal (\$224,493) and Denton Staff (\$6,000).

Arcadis met with City of Denton staff to gain an understanding and did a site survey and risk assessment at both plants. A manual approach was put together with short term and long term recommendations. A multi-barrier approach is recommended that includes coatings, chemicals and physical removal. Many different strategies have been considered and discussed.

In addition to preventative, control and reactive strategies, a multi-barrier zebra mussel management approach should include O&M improvements to: enhance daily operational activities, improve designs to ease maintenance activities, optimize existing and proposed chemical dosing strategies and initiate programs to manage future risks.

Lake Lewisville has not detected any of the Zebra Mussels at the intake. It is being monitored and a strategy is being put into place for when they do arrive.

Recommendations for Lake Lewisville include probable cost of \$2,360,000 for capital improvement costs, and probable cost for Engineering and construction administration fee of \$480,000. This would cover: rebuilding bar screen in copper alloy, installing a copper ion system (based upon plant flow), installing a sodium permanganate storage and feed system (based on design dose of 5.5 mg/L) and minor manway improvements for physical removal and disposal access especially at pipeline low points.

Annual operations and maintenance cost are in the range of \$99,000 to \$147,000. This would include:

- Light physical removal and disposal, as required (e.g. bar screen power washing)
- During settlement season, feed copper ions at a dose of 5 ppb copper (2 ppb year-round) or sodium permanganate at an average dose of 3.5 mg/L (range of 1.5-5.5 mg/L)
- Operate pumps and valves frequently
- Isolate and dewater structures (e.g. wet well) during plant shutdowns (lower water level if dewatering not possible)
- Alternate pipeline use, when possible

Recommendations for Lake Ray Roberts include probable cost of \$2,180,000 for capital improvement costs, and probable cost for Engineering and construction administration fee of \$440,000. This would cover: improving the raw water pipelines with additional access points and valves, installing a copper ion system based upon plant flow, installing a sodium permanganate storage and feed system (based on a design dose of 2.5 mg/L) and minor manway improvements for physical removal and disposal access especially at pipeline low points.

Annual operations and maintenance cost are in the range of \$98,000 to \$119,000. This would include:

- Light physical removal and disposal, as required (e.g. low point downstream of USACE outlet)
- During settlement season, feed copper ions at a 5 ppb dose (2 ppb during non-settlement season) or feed sodium permanganate at an average dose of 1.5 mg/L (range of 0.5-2.5 mg/L)
- Operate pumps (if operational) and valves frequently
- Isolate and dewater structures (e.g. pipelines) during plant shutdowns (lower water level if dewatering not possible)

Next step recommendations for short and long term include:

Short – Term/No Trigger:

- Implement the recommended next steps
- Revise budgets in the Capital Improvements Plan (CIP)
- Establish third party physical removal contracts
- Begin designs of permanent systems and subsequent construction
- Implement interim chemical feed plans

Longer – Term/Zebra Mussel Observed:

- Begin construction of permanent improvements.
- Lake Lewisville - Begin to increase the permanganate dose when there is settlement.
- Ray Roberts - Plan for physical removal and disposal from the 60" pipeline at least once before the new systems are constructed in 2017.
- Ray Roberts - Plan for annual inspections of the 60" (particularly at the low point downstream of the USACE outlet) to determine whether additional cleanings are required.

Tim Fisher talked about what staff has learned from this experience and the financials.

**D. PUB16-194** Recommend approval of amending the Fiscal Year 2015-2016 Budget and Annual Program of Services of the City of Denton to allow for adjustments to the Water Fund of one million dollars (\$1,000,000) and the Wastewater Fund of eight hundred sixty-five thousand dollars (\$865,000).

Kenneth Banks, Director Environmental Services & Sustainability Director, gave this presentation. This item is related to an expenditure from the development fund line in the water and wastewater budgets. There is a resolution that was established in 1991 R91-008 that established a development plan line. That development plan line is a consideration of funding up to \$250,000 per year with a cap of \$1,000,000 for both water and wastewater funds.

Last year in June this Board received a closed session report discussing the expenditures of \$1,000,000 from the water fund and up to \$865,000 from the wastewater fund. Because this development plan line is a part of the reserves it isn't actually designated as an expenditure on the budget side therefore we do not have the expenditure authority without a budget modification. The purpose of bringing this today is seeking approval modifying the water fund budget for 2015-2016 for an additional \$1,000,000 and the wastewater fund budget \$865,000 to give the expenditure authority necessary to cover the expenses.

Upon approval from this board it will go forward to Council approval tentatively September 20, 2016

Robinson stated he knows this is on the expense side, what about the revenue side. Banks answered this is a part of the appropriable balance at the end of every year which falls into the reserves. This money come out of the reserve line.

**Board Member Parker motioned to approve item D. There was a second by Board Member Carroll. Vote 5-0 approved.**

**E. PUB16-187- ACM Update**

1. Matrix

**Matrix no changes**

### **CONCLUDING ITEMS**

Under Section 551.042 of the Texas Open Meetings Act, respond to inquiries from the Public Utilities Board or the public with specific factual information or recitation of policy, or accept a proposal to place the matter on the agenda for an upcoming meeting AND Under Section 551.0415 of the Texas Open Meetings Act, provide reports about items of community interest regarding which no action will be taken, to include: expressions of thanks, congratulations, or condolence; information regarding holiday schedules; an honorary or salutary recognition of a public official, public employee, or other citizen; a reminder about an upcoming event organized or sponsored by the governing body; information regarding a social, ceremonial, or community event organized or sponsored by an entity other than the governing body that was attended or is scheduled to be attended by a member of the governing body or an official or employee of the municipality; or an announcement involving an imminent threat to the public health and safety of people in the municipality that has arisen after the posting of the agenda.

**Adjournment 11:11 a.m.**