DULUTH PUBLIC UTILITIES COMMISSION
Tuesday, January 20, 2015
City Council Chambers
AGENDA

1. Roll call

2. Approval of previous meeting minutes

3. Old business

   3.1 14PUC-004 - RESOLUTION OF THE DULUTH PUBLIC UTILITIES COMMISSION RECOMMENDING THAT THE CITY OF DULUTH ADOPT A NO-LOSS POLICY FOR REMAINING WETLANDS WITHIN CITY BOUNDARIES.

4. New business

   4.1 Repayment to MN Power

   4.2 Election of officers

5. Updates from staff

6. Upcoming Council actions

7. Commissioner questions or comments

8. Preview of upcoming business

**DULUTH PUBLIC UTILITIES COMMISSION**
**Meeting Minutes**
**November 18, 2014**

**Members Present:** Councilor Zack Filipovich, Councilor Jennifer Julsrud, Rob Prusak, Jim Ramnes, Linda Sellner, Councilor Joel Sipress

**Members Absent:** Jason Thorsell

**Staff Present:** Jodi Amundson, Jim Benning, Liz Bieter, Leanna Gilbert, Glenn Strid

**Call to Order:** The meeting was called to order at 5:15 p.m. by President Prusak.

**Carl Green appeal**
The appellant, Carl Green, did not appear to present his case. The appeal was unanimously denied.

**Approval of previous meeting minutes**

**New business:**

**2015 meeting schedule**
After some discussion, the Commission approved the proposed 2015 meeting schedule provided by staff with the exception of the August and December meetings. The Commission will not meet those months.

**14PUC-004 - RESOLUTION OF THE DULUTH PUBLIC UTILITIES COMMISSION RECOMMENDING THAT THE CITY OF DULUTH ADOPT A NO-LOSS POLICY FOR WETLANDS.**
This resolution was pulled from the agenda.

**Updates from staff**
Eric Shaffer is currently at gas modeling school. We are wrapping up projects for the year and ramping up design for 2015.

**Upcoming Council actions**
There are two grant resolutions on the agenda. One is for Brighton Beach and the other is for College Street.

**Commissioner questions or comments**
President Prusak inquired about the two creek resolutions on the Council agenda. Jim Benning explained that they are both for the design of flood projects and will be funded through the state or FEMA.

President Prusak asked about the ordinance on the Council agenda regarding extra PILOT funds. Jim Benning explained that there would be no change to the total amount paid by the gas utility. This would change how the PILOT funds are distributed.

**Preview of upcoming business**
The next regular meeting is scheduled for Tuesday, January 20, 2015, at 5:15 p.m. in City Council Chambers. Commissioners will elect new officers at the January meeting.

**Adjournment:** The meeting was adjourned at 5:33 p.m.

**RESOLUTION NO. 14PUC-004**

**RESOLUTION OF THE DULUTH PUBLIC UTILITIES COMMISSION RECOMMENDING THAT THE CITY OF DULUTH ADOPT A NO-LOSS POLICY FOR REMAINING WETLANDS WITHIN CITY BOUNDARIES.**

WHEREAS, the permit authorizing the City of Duluth's stormwater discharge to waters of the State ("MS4 Permit") includes as a goal non-degradation of water quality of receiving waters; and

WHEREAS, wetlands slow, store and clean stormwater before releasing it to into the City's stormwater utility system; and

WHEREAS, the City's stormwater system, by design, deposits a substantial portion of collected stormwater into the city streams and their channels; and

WHEREAS, the City's historic development practices, while mitigating or replacing wetlands, sometimes in other watersheds, have not always prevented destruction of all wetlands as part of land development work; and

WHEREAS, a level landscape is conducive to wetland occurrence and because of Duluth's unique, hillside geography, most wetlands occur above the bluff and at its base which constitutes a comparatively small proportion of lands within the City; and

WHEREAS, the most recent rainfall-precipitation design data available to the City demonstrates an increase in severe precipitation events is expected to occur with impending climate change that may surpass conveyance capacity and lead to flooding; and

WHEREAS, there is a need to preserve Duluth's existing wetlands in order to effectively help control and treat stormwater run-off in the City.

RESOLVED, that the Duluth Public Utilities Commission hereby recommends that the City of Duluth implement the following policies and practices for addressing stormwater run-off in the City of Duluth:

1. That the City recognize the importance of using both structural and non-structural approaches to managing stormwater flow.

2. That the City commit to incorporating "Green Infrastructure" as defined in the MS4 Permit into its stormwater management and this be extended to preserving natural resource components in site plan reviews for land use planning purposes.

3. That the City recognize wetlands as a component of green infrastructure and establish a "no-loss" policy (that being, setting forth the inability to allow the draining, filling or their replacement in the same or other watersheds of the water

bodies they are hydrologically connected to) with regard to existing wetlands in the City of Duluth.

Approved by the DPUC: _____
(date)

Submitted to City Council: _____
(where appropriate) (date)

ATTEST:

_____
Director
Public Works and Utilities
City of Duluth

STATEMENT OF PURPOSE
Historical development in wetlands has followed a sequence of avoidance, then minimization of impact and, finally, municipal approval for replacement of impacted wetlands. This has left Duluth with a net-loss in wetland area despite the No-Net-Loss State policy.

The Natural Resources Overlay of the Duluth Comprehensive Plan promotes protection of watershed function for water quality through regulatory changes to City ordinance. Five of 16 DNR designated trout streams within the city are currently "Impaired" and the St. Louis River Estuary is an EPA "Area of Concern" for polluted condition.

# Question of the Month

ADVICE FOR SMALL SYSTEMS

## How Do We Meet the Challenge of Aging Infrastructure?

BY NAEEM QURESHI

**Drinking water infrastructure is nearing the end of its useful life throughout the United States. The nation's public water systems are stressed. How utilities respond to this challenge and get support for increasing rates will require careful planning, strategic prioritization, appropriate rate structures, public outreach, and effective communication with all stakeholders.**

Most of the 1+ million miles of US drinking water infrastructure is approaching the end of its useful life and will require a staggering public investment during the next 20 years. Water main replacement will cost more than $1 trillion by 2035. Demand for water throughout the country has been decreasing, which has resulted in decreased revenue. Rate increases or public subsidies will be needed. To win public support for needed additional revenue, some utilities have developed strategies that include completing rate studies, establishing citizen committees, developing public outreach programs, and providing regular updates to elected officials.

### THE REPLACEMENT ERA

The following are reasons that US public water systems face potentially massive public investment needs during the next 20 years:

- A large part of the US public water system dates to immediately after World War II; thus, buried infrastructure is critically aged.
- Most US distribution pipes dating from the 1800s through the 1960s are cast iron. Pipes manufactured in the 1920s have a 100-year average life expectancy, whereas those dating from the post–World War II era average about 75 years.
- Population in many areas has increased significantly or shifted geographically since the original distribution system was installed.
- Public water systems may need to replace infrastructure and upgrade or expand treatment plants to comply with new Safe Drinking Water Act regulations. Compliance with combined sewer overflow and stormwater regulations will also have significant costs.

The strength and integrity of the US water infrastructure is critical to the country's long-term health. Although the financial cost of upgrading or replacing the infrastructure is daunting, the cost of ignoring it could be catastrophic. Because of the poor condition of aging and leaky pipes, the US Geological Survey estimated that nationally more than 6 bil gal of expensive, treated water is lost each year—about 14 percent of US daily water use.

Although utilities spend billions on infrastructure each year, public water systems face an annual shortfall of at least $11 billion in funding needed to replace aging facilities and to comply with existing and future federal water regulations. As detailed in AWWA's 2012 *Buried No Longer* report (www.awwa.org/buriednolonger), restoring existing US water systems as they reach the end of their useful lives and extending them to serve a growing population will cost at least $1 trillion during the next 25 years if the United States is to maintain its current level of water service. Delaying the investment may result in degrading water service, increasing water service disruptions, and increasing expenditures for emergency repairs.

### THE WATER SUPPLIER'S DILEMMA

Many water utilities across North America are experiencing declining water sales. Study results show declining demand was mostly attributable to residential customers and was because of a declining number of individuals per household and an increased use of low-flow appliances. Per capita, residential customer demand isn't likely to increase in the future.

Public water systems are using more chemicals and employing enhanced treatment methods to meet national drinking water standards, raising operating costs. Current economic conditions are also taking a toll. The dilemma for public water utilities is that they have infrastructure in place that needs to be maintained and upgraded irrespective of the amount of water sold. With the decrease in demand and revenue, economic need drives public water systems to increase water rates; but it's difficult for US water suppliers to get support for rate increases.

Meeting this challenge requires new partnerships among utilities, states, and the federal government. Utilities need to examine their rate structure to ensure long-term viability and efficiency. In addition to loan assistance from the state and federal governments, public water systems may need to use various other measures.

**Develop a Comprehensive Strategy.** Public water systems and local government should develop comprehensive local strategies that include

- assessing the condition of the drinking water system infrastructure.
- strengthening research and development by seeking new material and technologies to determine the most cost-effective time to replace a water main instead of continually repairing it.
- working with members of the public to increase awareness of the challenge ahead, assess local rate structures, and adjust rates where necessary.
- building managerial capacity by having staff members attend AWWA trainings, which will assist in sustainability planning.

http://dx.doi.org/10.5991/OPF.2014.40.0080

Naeem Qureshi is with Progressive Consulting Engineers (www.pce.com), Minneapolis, Minn.

**Better Manage Assets.** Use best practices for asset management and environmental management systems. Understand the full life-cycle cost of the public water system for financial viability as described in the US Environmental Protection Agency (USEPA) 2008 report *Effective Utility Management* (http://1.usa.gov/113uiq2). Maintain an accurate inventory of infrastructure assets and quantify renewal needs to help justify large capital expenditures to governing boards and customers, schedule renewal programs over time, and decrease costs by improving bond rating.

**Set Adequate Rates and Make Adjustments.** Inadequate rates contribute to the gap that exists in many systems between available funds and the costs of needed repairs and replacements. Rate restructuring and setting rates that reflect the full-cost pricing of service can help utilities capture the actual costs of operating water systems, raise revenues, and help conserve water. Utilities can develop assistance programs for low-income and disadvantaged groups. Frequent rate adjustments, forward-looking rates, and demand-repression adjustments to programs and prices can be implemented.

**Decouple Sales and Profits and Expand Service.** Separating sales and profits can be beneficial in that it caps revenues, maintains cash flows, and reduces risk in the face of declining and apparently less-predictable demand. As customers move from neighborhoods served by an existing system to outlying areas, public water systems can pay for building new systems as well as maintaining the old, even with nearly the same number of customers. Water systems should charge service expansion (water availability) fees to developers of new neighborhoods and their customers to pay for these costs.

**Implement a Fix-It-First Philosophy.** As suggested in the 2006 USEPA report *Growing Toward More Efficient Water Use* (http://1.usa.gov/1pW99dn), states should carefully monitor new development and favor repairing and upgrading existing systems over new construction. State loan funds can be used to support new development in existing neighborhoods rather than in new neighborhoods, thereby improving the efficiency of existing systems and reducing the quantity of water needed. A fix-it-first policy that stresses maintenance of existing physical assets may contribute to a higher bond rating, lower borrowing costs, and result in a lower overall cost for water delivery.

## PLANNING APPROACHES

Public water systems will need to increase their rates to generate sufficient revenue to perform infrastructure maintenance and to address the revenue shortfall resulting from decreasing demands. Because of the current economic situation, raising rates requires a considerable degree of political will to overcome the challenge of resistance to change. Utility staff have various options that can be implemented to get council members and citizens on board with planning.

**Communication.** Effectively communicating an infrastructure's improvement needs is vital to obtain approval for the revenue required. Utilities can provide useful information to elected officials such as

- number of water main breaks and how much it costs to repair them
- age of infrastructure and estimated remaining useful life
- annual condition reports
- annual operational reviews

**Rate Study.** Conduct a rate study to show the real cost of water. Include realistic multiyear revenue and expenditure projections for infrastructure improvement. As long as cost and demand continue to shift, more frequent rate adjustments will reduce the lag in rate increases and ensure that rates are properly aligned with costs.

**Citizen Advisory Committee.** Set up a rate committee or citizen advisory committee to help communicate the need for water system infrastructure improvements to elected officials. Committee members can become spokespeople for rate changes and provide rational justification for rate increases to elected officials.

**Community Involvement.** Involve the communities to be served and treat them as partners. Engage stakeholders in decision-making processes by partnering with them to assure them their money is well spent. External stakeholders must be part of a thoughtful public outreach approach. Ballot measures to obtain funding approval for infrastructure improvements have been successful in several communities. When need is clearly articulated, the public appears willing to pay for infrastructure improvements.

**Public Outreach Programs.** A utility has various ways to involve the community in the planning process, from conferences and workshops to media relations strategies.

## ACCEPTING RATE INCREASES

Financing is a key component of maintaining a sustainable water system. Most of the improvements discussed in this column will be funded by higher rates. Gaining acceptance from policymakers and stakeholders is crucial in developing an adequate financing plan. Changing demographics and current US economic conditions affect what financing options will be acceptable to stakeholders and policymakers.

People are typically willing to provide support for a project, including paying more for water services, if they know the project's importance. Having strong leaders who can effectively communicate the need to upgrade or replace infrastructure is critical in making the case and getting approval for funding. Acceptance of a financing plan can be accomplished by operating and maintaining the public water system efficiently and effectively and conveying these achievements to policymakers and stakeholders.

MINNESOTA MDH DEPARTMENT OF HEALTH

*Protecting, maintaining and improving the health of all Minnesotans*

December 5, 2014

Duluth City Council
c/o Mr. Jeffrey Cox, Clerk
Duluth City Hall
411 West First Street, Room 330
Duluth, MN 55802

Dear Duluth City Council,

The Minnesota Department of Health Oral Health Program and Drinking Water Protection Section are pleased to present you with the Centers for Disease Control and Prevention (CDC) **2013 Water Fluoridation Quality Award**. This award recognizes those public water systems that adjust the fluoride concentration in drinking water and achieve a monthly average fluoride level that is in the optimal range for 12 consecutive months in a calendar year, as documented in the CDC Water Fluoridation Reporting System (WFRS).

CDC initiated the Water Fluoridation Quality Awards in 2002 to recognize outstanding performance in fluoridation management by public water systems. Over the past few years there has been an increase in the number of states and water systems that have achieved this recognition. For calendar year 2013, all 50 states provided census information to WFRS. Nationwide, about 43% of the eligible adjusted systems in states reporting water fluoridation quality earned this award.

Quality Awards can be a good opportunity to promote community water fluoridation and this award will provide you with an opportunity to highlight the excellent work being done by your water system. To assist you in promoting this achievement, we are providing you with a press release template that can be tailored for your community. An electronic copy of the template is available upon request.

Once again, congratulations on this outstanding effort and thank you for providing safe, dependable drinking water for your community. If you have any questions about the award or the press release, please contact either David Rindal at (651) 201-4660, david.rindal@state.mn.us or Clare Larkin at (651) 201-4230, clare.larkin@state.mn.us.

Sincerely,

Merry Jo Thoele

Merry Jo Thoele, MPH, RDH
Director, Oral Health Program
Minnesota Department of Health

Randy Ellingboe

Randy Ellingboe
Manager, Drinking Water Protection Section
Minnesota Department of Health

WFRS
Water Fluoridation Reporting System

# 2013

# Water Fluoridation Quality Award

## Duluth

## State of Minnesota

*The Centers for Disease Control and Prevention commends this water system for its consistent and professional adjustment of the water fluoride content to the optimum level for oral health for 12 consistent months. Consistent, high-quality water fluoridation practice, as demonstrated by this water system, is a safe and effective method to prevent tooth decay, improving the oral health of community residents of all ages.*

Presented by the
**Centers for Disease Control and Prevention**
**United States Department of Health & Human Services**

National Fluoridation Engineer, Division of Oral Health
National Center for Chronic Disease Prevention
and Health Promotion

**Centers for Disease Control and Prevention**
National Center for Chronic Disease Prevention and Health Promotion