

DULUTH PUBLIC UTILITIES COMMISSION

Tuesday, April 17, 2018

City Council Chambers

AGENDA

1. Roll call
2. Approval of previous meeting minutes
3. New business:
 - 3.1 Stormwater system discussion
4. Updates from staff
5. Upcoming Council actions
6. Commissioner questions or comments
7. Preview of upcoming business
8. Known absences for future meetings

DULUTH PUBLIC UTILITIES COMMISSION
Meeting Minutes
March 20, 2018

Members Present: Jen Julsrud, Jim Lewis, Rob Prusak, Councilor Joel Sipress, Councilor Em Westerlund

Members Absent: Councilor Noah Hobbs, Chris McIntosh

Staff Present: Bob Asleson, Jim Benning, Leanna Gilbert, Howard Jacobson, Chris Kleist, Eric Shaffer, Glenn Strid, Kerry Venier

Call to Order: The meeting was called to order at 5:21 p.m. by President Prusak.

Public hearing:

18PUC-003 - RESOLUTION AMENDING RESOLUTION 17PUC-004 ESTABLISHING WATER RATES TO MODIFY RATES CHARGED TO POLITICAL SUBDIVISIONS EFFECTIVE MAY 1, 2018.

The Commission held a public hearing on water rate resolution 18PUC-003. No one from the public was present to speak. The hearing was closed and the Commission moved on to the regular meeting.

Approval of previous meeting minutes

New business:

18PUC-003 - RESOLUTION AMENDING RESOLUTION 17PUC-004 ESTABLISHING WATER RATES TO MODIFY RATES CHARGED TO POLITICAL SUBDIVISIONS EFFECTIVE MAY 1, 2018.

Commissioner Julsrud motioned to approve the resolution, and the motion was seconded. After some comments, resolution 18PUC-003 was approved by all present.

18PUC-004 - RESOLUTION RECOMMENDING CITY COUNCIL APPROVE AMENDMENTS TO THE CITY'S SEWER CODE, ITS I & I PROGRAM GUIDELINES, AND ITS PRIVATE SEWER SERVICE GRANT PROGRAM GUIDELINES TO MEET WLSSD REQUIREMENTS.

Chris Kleist gave an overview of the proposed changes to Chapter 43, the Private Sewer Service Grant Program, and the I/I Grant Program Guidelines. Grants of \$4,000 would be available for those mandated to replace their laterals, and grants of \$2,000 would be available for volunteers. After some discussion, Commissioner Westerlund motioned to approve the resolution, and the motion was seconded. Resolution 18PUC-004 was approved by all present.

Updates from staff

ASCE Report Cards giving an assessment of local infrastructure were provided to commissioners. Eric Shaffer reported that Superior Street construction is supposed to begin on April 9th and should be finished by Thanksgiving. Jim Benning said that MNDOT is planning to do Central Entrance in 2024. They will probably start at the top of Mesaba, but we are not sure where the construction will end. There are multiple water mains in that area that will need to be replaced.

Upcoming Council actions

Jim Benning reported that there is a resolution on the upcoming agenda reappointing President Prusak to the Commission. There are also resolutions awarding the gas blanket project and gas meter relocations to Hanco.

Commissioner questions or comments

Commissioner Lewis stated that he recently retired from the military and will be moving to Texas. He will be resigning from the Commission after the April meeting. President Prusak thanked Commissioner Lewis for his service on the Commission and his service to the country.

Preview of upcoming business

The next regular meeting is scheduled for Tuesday, April 17, 2018, at 5:15 p.m. in City Council Chambers. Staff will continue working on the WLSSD I&I ordinance. Staff would like to start focusing on the stormwater system. Commissioner Julsrud suggested having another tour of the stormwater system for commissioners and possibly taking the media along. Chris Kleist will set something up.

Known absences for future meetings

No one present was aware of any absences for the April meeting.

Adjournment: The meeting was adjourned at 5:48 p.m.

DULUTH PUBLIC UTILITIES COMMISSION

Public Hearing

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Members Present: Jen Julsrud, Jim Lewis, Rob Prusak, Councilor Joel Sipress, Councilor Em Westerlund

Members Absent: Councilor Noah Hobbs, Chris McIntosh

Staff Present: Bob Asleson, Jim Benning, Leanna Gilbert, Howard Jacobson, Chris Kleist, Eric Shaffer, Glenn Strid, Kerry Venier

Call to Order: The hearing was called to order at 5:21 p.m. by President Prusak.

Under consideration was a resolution to modify the water rates for political subdivisions.

No one from the public was present to speak at the hearing.

The Duluth Public Utilities Commission voted to approve the water rate resolution after the public hearing closed.

Adjournment: The hearing was closed at 5:23 p.m.

A recording of this hearing is available upon request.

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LOCAL

Duluth's hidden creeks, under buildings and roads, increasing cause for worry

Duluth's aging tunnels can be ticking time bombs for homeowners, city.

By Pam Louwagie (<http://www.startribune.com/pam-louwagie/10645326/>) Star Tribune staff

MARCH 31, 2018 — 5:27PM

DULUTH - When she bought her first home here nine years ago, Susan Williams thought the small creek emerging from the ground in her backyard was beautiful. It trickles from a concrete outlet into a natural ravine down her East Hillside neighborhood toward Lake Superior.

But Williams was surprised to learn years later that the waterway, named Greys Creek, actually flows right under her house — and that she is responsible for maintaining her section of the nearly century-old, 3½-foot concrete pipe surrounding it.

"I try not to focus on what happens in the future," Williams said with a shrug. "We just keep paying for the house and hopefully I'm dead by the time it caves in."

Greys Creek is one of 44 named streams trickling and sometimes gushing their way down Duluth's steep hill toward the great lake. Early developers who valued land in the heart of the city simply built tunnels over parts of the streams, covering them up so they could erect buildings over them.

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GRAINGER

"It was all about usable space and property a long time ago," explained Todd Carlson, program coordinator in the city's engineering department.



(http://stmedia.startribune.com/images/ows_152253343625844.jpg) BRIAN PETERSON, STAR TRIBUNE

Todd Carlson, program coordinator for Duluth's engineering department, navigates a storm tunnel under the city.

But age and greater water flow caused by climate change and development up the hill have increasingly turned the tunnels into a maintenance worry for city utilities staff. If the wrong section fails during a storm, it can back up streams and cause flooding or undermine roads and create sinkholes. It's a prominent issue during spring snow melt and heavy summer rains.

"A 100-year life span for any piece of infrastructure is pretty long," said Chris Kleist, utility operations supervisor with the city. "Any pipe in the ground is going to fail, it's just a matter of time."

Secret streams

With so much water running down Duluth's nonabsorbent bedrock-and-clay hill, it was easier for early developers to cover up some streams than to try to bridge them all, engineers explained.

The oldest tunnels are the least worrisome, city officials said. Some, nearest to Lake Superior, are 12 feet high and 8 feet wide, with walls built of thick bluestone boulders and topped with brick arches several layers tall. They are a wonder of craftsmanship.

"The old tunnels are impressive," said Tom Johnson, a senior utilities engineer as he and some city colleagues stomped over ice and slogged through the flowing water of Chester Creek on a recent tunnel walk. "And it was all done with a slide ruler."

In some ways, a stroll through the tunnels is like walking through time. The tunnels were built piecemeal by individual land owners who wanted to build on top of the waterways. So every 100 feet or so, the stones and mortar patterns might change slightly, signaling a different property.

Up the hill, tunnels weren't built of stones at all, partly because of changing construction methods and materials over time.

"Upstream ... you get less and less stone and brick, you get more cast-in-place concrete," Johnson said.

The tunnels follow the natural meandering of the waterways — it was easier to build around them than to try to blast through bedrock to channel the streams into straight lines. In some spots, they are more than 40 feet below the surface.

City engineers believe there are 10 to 12 miles of covered waterways in Duluth; but sometimes, as they go about making other repairs to water pipes and other infrastructure, they find hidden tributaries that they didn't know about.

"Back in the early 1900s, Duluth was booming, and so the building was crazy. There was not a lot of documentation," Kleist said. "We keep finding them."

Expensive repairs

If there are no city easements or rights of way, the land owners above the buried waterways are legally responsible for maintaining and repairing what's underneath, city officials said. While inspecting or working on portions of tunnels, workers who notice disrepair in neighboring sections will take note and the city will make the land owner aware.

That's what happened at an Auto Value parts store in the East Hillside neighborhood.

Work on a nearby tunnel showed that its roof underneath the store had deteriorated. Store owners appealed to the city, saying they believed it is infrastructure that benefits the whole city, and that the city should fix it. But the city "politely refused," said Dennis Gregory, the company's chief operating officer.

"It is a big undertaking and one, frankly, that we're not all that happy about," Gregory said. "It's to drain the hillside down into the lake, essentially, so it seems that the benefiting properties are more than just our property."

Company managers hired workers who crawled in through a manhole and put steel bars into the tunnel's existing walls and formed a support steel deck. Concrete was then pumped in through a well drilling hole to form a new roof slab on that decking. The bill was about \$44,000.

Gregory said his company's concerns were about the fairness of the city's policy.

"It's no different, in our view, than a city street, than a sidewalk, than a number of other things that benefit the broader community," Gregory said. "And when you have infrastructure that benefits the broader community, the broader community are typically the ones that provide the funding for that."



(http://stmedia.startribune.com/images/ows_1522533441:
BRIAN PETERSON, STAR TRIBUNE

Engineering coordinator Todd Carlson inspected a century-old storm tunnel over Brewery Creek that runs directly under a Duluth

Kleist said the city tries to work with property owners when there is a dispute, but the city can't take on responsibility for all of the piecemeal tunnels built by private landowners many decades ago.

Maintenance is crucial throughout the tunnels, because something that clogs just one spot could mean trouble for neighbors, causing the creek in an open area to overflow upstream and send water running all over places it shouldn't.

Charming but hazardous

Greys Creek ran under the house and driveway of Jane Rupel's former property in East Hillside. Rupel and her husband and children used to enjoy sitting on their backyard wooden deck atop the culvert where the creek flowed in. The scene was gorgeous, with the creek trickling down a wooded hill.

"It was one of the most charming things about the house," Rupel said. "We joked that we had our own private state park."

But when heavy rains pounded Duluth in 2012 and produced flash flooding, water started to rise in the basement, partly from the tunnel and partly from the creek overflowing, said Keith Hamre, director of planning and construction services for the city.

After Rupel and her family agreed, the city used emergency state money to buy the house for its fair market value of \$111,000 and tore it down, determining that it was susceptible to further flood damage and that nothing should be built in that spot.

Now Rupel and her family live about 3 miles away — and a block from Tischer Creek.

While she misses having a trickling stream so close to her back door, she said, "it was definitely an advantage of the place that we looked at here, that there wasn't any."

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