

**PUBLIC WORKS COMMITTEE
City of Milwaukee
Meeting Agenda**

**ALD. ROBERT J. BAUMAN, CHAIR
Ald. Mark A. Borkowski, Vice-Chair
Ald. JoCasta Zamarripa, Ald. Jose G. Perez, and Ald. Russell W.
Stamper, II**

Wednesday, June 3, 2020 9:00 AM Room 301-B, City Hall

7. [200149](#) Communication from the Department of Public Works and We Energies relating to the recent flooding of the downtown steam tunnels.

Sponsors: THE CHAIR

**Remarks by
Ted Sniegowski, Manager of We Energies' District Energy, and Paul Spicer, Vice
President of Generation**

Chairman Baumann and members of the Public Works Committee,

Good morning.

Thank you for giving us the opportunity to appear before your committee today. I know there are a lot of important issues happening right now, and I appreciate the chance to talk about this important issue.

My name is Ted Sniegowski; I am the manager of district energy. We serve more than 400 customers in and around downtown Milwaukee. Customers use the steam for heat, hot water and industrial processes. I am here with my boss Paul Spicer, our vice president of generation.

As you likely know, heavy flooding last month caused incredible damage to our underground steam system and knocked out service to hundreds of our customers.

The flooding also caused significant damage to our headquarters — the Public Service Building, near North 2nd Street and Michigan Avenue.

In the early morning hours of Monday, May 18, millions of gallons of water flooded into a portion of our underground steam tunnel system. The flooding caused extensive damage to the equipment, including pipe separations, failed flange gaskets and pipe insulation that was ripped away. Approximately 200 customers lost service due to the damage. Our crews worked 24/7 for nearly a week, oftentimes in very difficult conditions, to restore service to all customers.

In preparation for the forecasted heavy rain, we staged high-volume pumps to supplement the sump pumps inside our steam tunnels that run throughout downtown Milwaukee. As heavy rain fell on Sunday, May 17th, my team reported that the pumps were able to maintain the tunnel water level below the steam mains.

However, early Monday morning something changed. Around 3 a.m., I was informed the tunnel network from Wells Street to Clybourn, and Plankinton to Fourth Street, was flooding, the pumps were no longer able to keep pace with the water infiltration, and additional pumps were being set up.

By 4 a.m, I was downtown and was informed that a “tidal wave” of water had rushed into our tunnels and overwhelmed all of our pumping systems. I was shown an access shaft east of Second and Clybourn. The shaft is 20 feet deep. It was filled with 15 feet of water. I was then shown a video of another access shaft west of Second and Clybourn that was blowing boiling water and steam 30 to 35 feet into the air. I then learned that our nearby headquarters, the Public Service Building, was severely damaged by both flood water and steam.

We quickly isolated the steam system to prevent all customers from losing service and minimize damage. However, the flooded areas took out the entire system east of the river and a number of customers west of the river. This impacted steam delivery to over 200 customers.

On top of the extra pumps we already had on-site, we brought in 10 additional high-volume pumps that were capable of pumping out hundreds of gallons of water per minute. These pumps were set in positions to address the flooding. Unfortunately, despite pumping out water non-stop, there was no change in the flood level.

Mid-afternoon on Tuesday the 19th, the water level suddenly began to drop, and the pumps began to clear the flooded tunnels. Within 10 to 12 hours, tunnels were pumped out to a level of 6 to 12 inches of water. This is the lowest levels the external pumps could draw from. All of the internal sump pumps had failed due to the heat of the water and the ruined electrical system in the tunnels.

As we began inspections of the tunnels, the damage was immense. Besides the destruction of our equipment, the flooding left behind rock, mud and silt. In some places, the debris was nearly 6 feet deep.

Our testing also found that the water that breached our tunnel included sewage. We are working closely with the DPW and MMSD to track down the source of the water.

Our crews worked 24/7 removing water and debris from our tunnels to enable customer restoration. We were able to bring customers in each day, with most in by Friday, May 22, and all customers who needed service restored over Memorial Day weekend.

As I mentioned earlier, our Public Service Building at 2nd and Michigan received extensive damage due the flooding. The estimate to repair is more than \$10 million and may take as long as two months before we can reopen the building.

The exact cause is still under investigation, but we believe that the heavily flooded portion of the underground steam system near 2nd and Clybourn caused a steam release into our headquarters. The steam damaged parts of the building, including computers and other electronic equipment, carpeting, cubicle partitions, and furniture that became wet. Ceiling tiles, wallpaper and light fixtures also sustained damage.

The majority of employees in that building have been working remotely due to COVID-19 and will continue to do so during the repair phase.

This was an extraordinary event; we worked as expeditiously as we could to restore all customers on the system. We are working closely with the City of Milwaukee and MMSD to find the root cause of the problem to ensure it does not happen the next time we get a deluge of rain.

Thank you for the opportunity to be here, and Paul Spicer and I will be happy to answer any questions you may have.