

***PLANNING AND ZONING COMMISSION WORKSHOP MEETING
AUGUST 28, 2018***

The Workshop Meeting of the Andover Planning and Zoning Commission was called to order by Acting Chairperson Bert Koehler IV on August 28, 2018, 6:00 p.m., at the Andover City Hall, 1685 Crosstown Boulevard NW, Andover, Minnesota.

Commissioners present: Dean Daninger, Scott Hudson, Nick Loehlein, Jeff Sims, and Mary VanderLaan

Commissioners absent: Chairperson Kyle Nemeth

Also present: Public Works Director/City Engineer David Berkowitz
Community Development Director Joe Janish
City Planner Stephanie Hanson

CALL TO ORDER

DISCUSSION OF 2018 COMPREHENSIVE PLAN UPDATE

Public Works Director/City Engineer Berkowitz stated tonight he will provide an overview of three plans: Stormwater Management Plan, Water System Comprehensive Plan, and Water Supply Plan.

- **Stormwater Management Plan**

Public Works Director/City Engineer Berkowitz explained the Stormwater Management Plan is a DNR requirement and relates to potential impacts of stormwater runoff on rivers and lakes. This Plan is required for public water supplies serving over 1,000 people to manage groundwater so it is known what each city is pumping out of the aquifer. It also allows cities to create future plans. The Plan helps water suppliers: 1) implement long-term water sustainability and conservation measures; and, 2) develop critical emergency preparedness measures.

Public Works Director/City Engineer Berkowitz stated in 2015, Andover's aquifers served over 19,000 residents with aquifer water to 6,481 connections to the City's water system. The Plan evaluates the amount of storage capacity and water taken from the system and provides that information to the DNR. This Plan also projects water use into

the future at maximum development. The DNR then looks at that information metro wide to determine future impacts to the aquifer.

Public Works Director/City Engineer Berkowitz noted the Plan also addresses other things, such as emergency preparedness measures so if there is a failure, the City knows how to react. There are seven interconnects with the City of Coon Rapids in case Andover's system fails and one incidental interconnect with the City of Anoka. He explained that Coon Rapids is at a higher elevation than Andover. Because of the elevation difference, water easily flows into Andover but it would be more difficult for Andover water to flow into Coon Rapids, if needed.

Public Works Director/City Engineer Berkowitz commented on the importance of emergency preparedness, noting the City of Blaine had issues with its water system, which resulted in a major impact to residents as well as politically.

Public Works Director/City Engineer Berkowitz stated in 2040, based on Met Council numbers, Andover is projected to have over 21,000 residents connected to the City's water system. The City uses future population and demand projections to identify improvements that would be needed. In the future, Andover has planned for two more wells and a water treatment plant in order to supply needed water for projected development. He described the potential locations of those water towers and water treatment plant.

Public Works Director/City Engineer Berkowitz stated if there is an issue, the set priority is to provide water to residents first with commercial and industrial properties coming after. The City would isolate the area of the issue, which can be done with the City's current extensive mapping, so that location can be shut off and quarantined. The Plan also outlines how to deal with the media and use social media to the City's advantage to keep residents aware of what is going on.

Public Works Director/City Engineer Berkowitz referenced the section on water conservation measures, noting aquifers are resources that are not endless as they are being drained faster than they can recharge. He described the positive impact of new household washing machines and low-flow toilets to reduce the amount of water used and increase water conservation. He stated Andover has a relatively new system so it is known that the major residential use is to water grass. The Plan focuses on how to educate residents who own irrigation systems about how much water is used by those systems and how that can be lowered through use of rain sensors and repair of leaking sprinkler heads. One technique is to use data to compare use of water from previous years and provide education on conservation measures. The Plan also identifies the largest users (associations with sprinkler systems) within the City, so staff can talk with them about use of rain sensors to conserve water. Public Works Director/City Engineer Berkowitz described an irrigation company's first tier audit of water use to determine whether or not the systems are compliant.

Public Works Director/City Engineer Berkowitz stated on the educational side with associations, the City uses its newsletter, enforces odd/even water restrictions, and has changed the commercial and industrial metering program to incorporate radio reads. Through these efforts the City has been able to reduce gallons per capita. In 2010, Andover was the highest water use municipality at 126 gallons per capita. From 2010 to 2014, that number was lowered to 114 gallons per capita, mostly because of new low-water use toilets and washing machines. He stated Andover is working towards getting that number down further by providing an educational booth at the Home Show, promoting water conservation with school-aged students, and describing how to conserve natural resources.

Commissioner Daninger stated he installed a Wi-Fi watering sensor that greatly reduced the amount of water used to irrigate grass. He stated he was amazed at how much his water costs have gone down, much more than just having a rain sensor. He noted Connexus offers a free thermostat to reduce energy use and asked whether the City could offer some kind of incentive to use Wi-Fi watering sensors.

Public Works Director/City Engineer Berkowitz stated perhaps the City could consider offering a rebate. He commented on the large water loss when sprinkler heads are not properly functioning or leaking.

Acting Chairperson Koehler stated he is frequently out after 11 p.m. and has noticed that is when the bulk of odd/even watering violations are taking place.

Public Works Director/City Engineer Berkowitz stated if something is odd with a water bill, the City does an internal audit. Currently, the City is dealing with a resident with a \$1,200 water bill. He explained staff identified high water use in the middle of the night and suggested the resident look at their appliances. Doing so, it revealed their water softener was taking a lot of water, so they stopped using it. At that point, their water usage went to zero during night-time use except when a toilet was flushed and used 1.6 gallons of water. That is how close the City's system monitors water use.

Commissioner VanderLaan stated the mention of replacing leaking sprinkler heads made her think about what can be done to require an inspection. She asked if other cities require a yearly sprinkler head inspection or restrict the amount of time the watering system can be used. She likened this to regulations on septic systems. Commissioner VanderLaan recounted discussions in Anoka on water conservation and to water plants on Main Street via an automated system.

Public Works Director/City Engineer Berkowitz stated the City does not have a mandated sprinkler head inspection requirement but does require backwater valves. He noted it would take an incredible staff level to accommodate such an inspection program as there are thousands of sprinkling systems in Andover. Because of that, he believed the best option is education about smart controllers and explanation of water loss through leaking sprinkler heads.

Commissioner Sims asked whether Andover shares information with other cities since they are pulling from the same aquifer. Public Works Director/City Engineer Berkowitz answered in the affirmative and described the aquifers used by the City's wells and the depth of each, noting Ham Lake has a shallower aquifer.

Commissioner Sims asked whether there are plans to address residents using private well water. Public Works Director/City Engineer Berkowitz explained if a private well uses a sandpoint, it may be down only 100 feet but private wells are under the jurisdiction of the State Health Department, not the City of Andover.

- **Water System Comprehensive Plan**

Public Works Director/City Engineer Berkowitz stated this Plan includes guidance and requirements the City puts in place to treat stormwater and snowfall runoff. Because it is important to keep the waters (i.e., creeks, lakes, rivers) within the State clean, developers are required to create ponds in their developments that provide treatment to ensure clean runoff. In addition, watershed districts review development plans to assure compliance. He stated this Plan is a main guidance for developers on the requirements to put into place and how the stormwater has to be treated.

Public Works Director/City Engineer Berkowitz presented the four main sections and purpose of each. He explained the City is required to update this Plan every ten years since stormwater treatment is often changing. In May 2015, it was updated and now the Met Council is requiring another update. The Lower Rum River Water Management Organization (LRRWMO) and Coon Creek Watershed District each have their own plans and within two years of adoption, require each member city to update its own plan. Andover's Plan was amended and approved in July 2018.

Public Works Director/City Engineer Berkowitz explained the Atlas 14 regulation, noting Andover was one of the first communities to adopt that regulation. The City has already addressed flood control. The two things needed in the City's Plan are to address asset management (replacement schedule and pond maintenance) and Total Maximum Daily Load (TMDL). A TMDL study was done of Coon Creek and three impacts were found that need to be addressed, which will benefit abutting municipalities. The TMDL impacts on the Rum River are under review by the LRRWMO and the Plan indicates Andover is a participant in that. He stated the City's Plan is set for approval by the LRRWMO in September and by the City in December.

Commissioner Daninger noted the last few plats the Planning Commission reviewed included different water management techniques other than of traditional ponding. He asked whether this Plan addresses that change in treatment. Public Works Director/City Engineer Berkowitz stated the City covers the treatment needs ultimately and there could be several different techniques to meet the requirements. Because of that, the Plan did

not need to be changed. He described different treatment techniques the City is now seeing.

- **Water Supply Plan**

Public Works Director/City Engineer Berkowitz stated staff is working with WSB to update the Comprehensive Water System Plan, which is the ‘meat and potatoes’ for equipment infrastructures. He explained the City has to pre-plan for the future to anticipate fees that need to be collected when houses are built. The fees are collected for what will be needed in the future, not for the City’s current infrastructure.

Public Works Director/City Engineer Berkowitz stated the City has eight supply wells, six are active and two are peaking wells that have not been used for several years. He noted the two peaking wells are high in radium, but the City is allowed to pump a maximum of 55 million gallons per year from those wells. The City also has one water treatment plant that can treat up to 9 million gallons a day and three storage facilities capable of storing 3 million gallons.

Public Works Director/City Engineer Berkowitz stated this is a ten-year Plan and based on the last five years of water use and projected future growth, staff is comfortable there is enough water supply for the demand through the next ten years. That will be evaluated again in ten years.

Public Works Director/City Engineer Berkowitz described the watermain loops that can be made to improve the City’s infrastructure and service delivery. The Plan identifies the existing system, needs for fire flow, whether the current system can serve new areas, future pressures within the system, and improvements needed for the future.

Public Works Director/City Engineer Berkowitz displayed a map of the City and explained the two pressure zones within the City’s water system. He explained when a project is proposed for outskirt areas, the City’s consultant conducts an extensive review to assure the City’s system has capacity. He noted an outskirt area that was reviewed extensively before being allowed to develop, noting it has somewhat lower pressures.

Community Development Director Janish noted the issue of water pressure would be a recommendation from the engineer saying whether the City’s system can or cannot serve an area. It would not come from the Planning Commission. Public Works Director/City Engineer Berkowitz stated that is correct, it would be an engineering determination.

Public Works Director/City Engineer Berkowitz presented maps depicting the rural reserve area and proposed water distribution system, existing structure, and proposed locations of a ground storage tank and wells. He displayed a graph identifying the point in time, within ten years, when another well may be needed. He also reviewed a map showing the future average day pressure and maximum day fire flow with a single pressure zone, which is better than a two-pressure zone system.

Public Works Director/City Engineer Berkowitz used a map to point out the proposed location for a 1.5-million-gallon ground storage tank next to the existing water treatment plant.

Commissioner Sims asked how much water the City uses yearly. Public Works Director/City Engineer Berkowitz estimated it had been just into the 1-billion-gallon range but through conservation methods, the City's usage has lowered to 800 million.

Public Works Director/City Engineer Berkowitz stated the City has a gravity treatment system, which takes more space. A pressurized system is much smaller (one-quarter the size) so that may be considered. In addition, it would only treat two wells.

Community Development Director Janish asked whether, at some point, there will be too much pressure in the system so pressure reducing valves would be needed for housing. Public Works Director/City Engineer Berkowitz replied the City has not experienced having too much pressure in the system so that has not been an issue with any homes. He noted before going to a single zone, staff would evaluate whether it would create too much pressure.

Acting Chairperson Koehler thanked Public Works Director/City Engineer Berkowitz for the informative presentation.

OTHER BUSINESS.

City Planner Hanson stated the September 11, 2018 regular meeting agenda will include four items, so it may run longer. There will be no workshop on September 11.

ADJOURNMENT.

Motion by Daninger, seconded by Loehlein, to adjourn the meeting at 6:55 p.m. Motion carried on a 6-ayes, 0-nays, 1-absent vote.

Respectfully Submitted,

Carla Wirth, Recording Secretary
TimeSaver Off Site Secretarial, Inc.