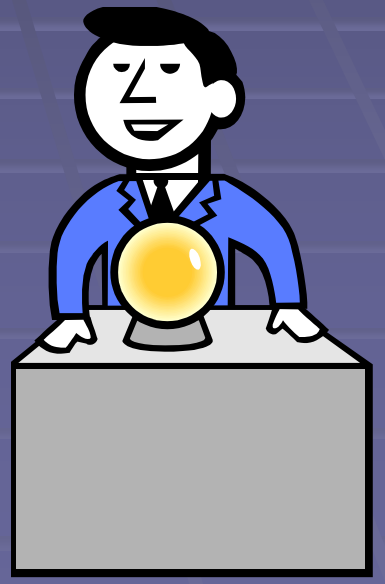
5 Year Forecast Utility Enterprise Funds 2020-2024



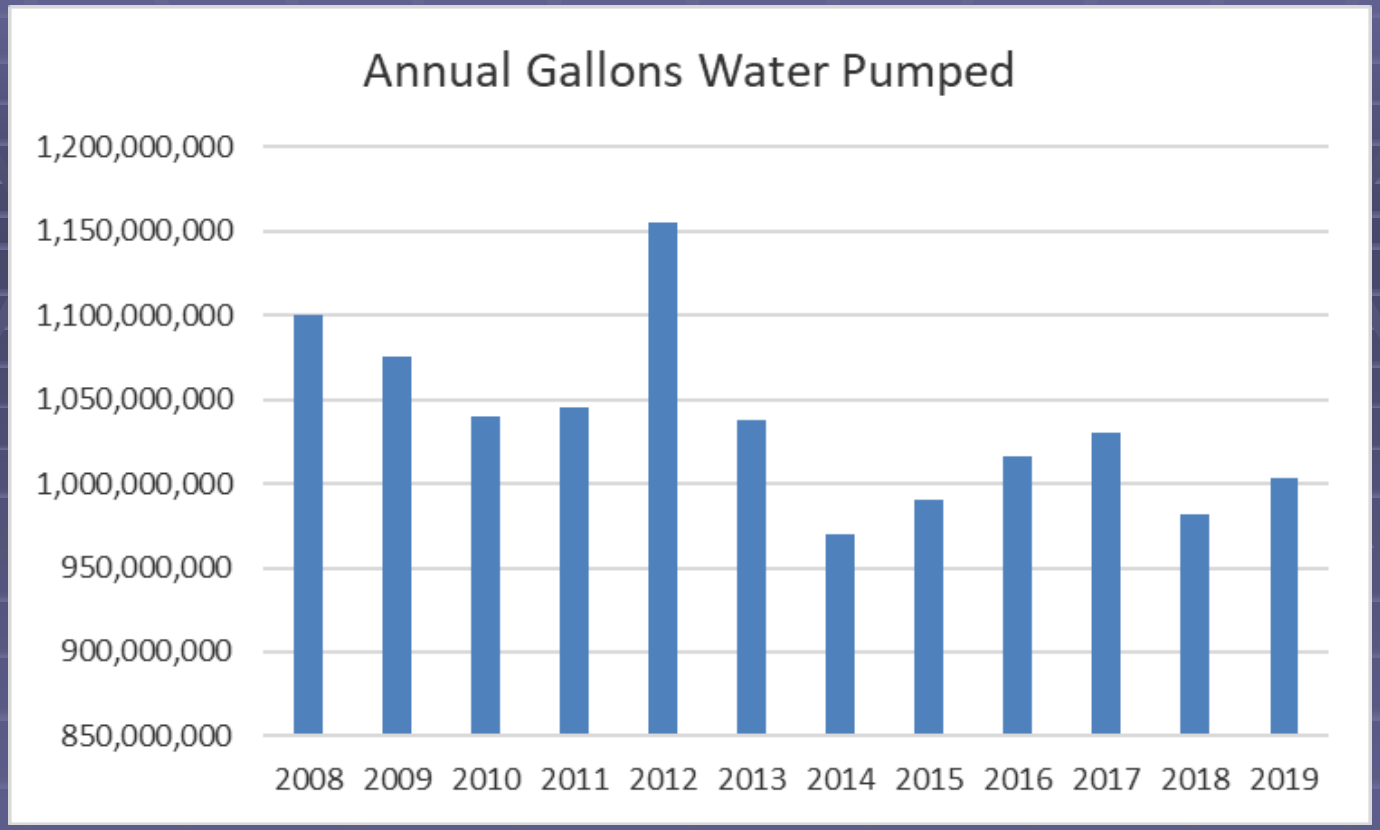
Water 5-Year Forecast 2020-2024

Water Fund Objectives

- Provide the necessary resources for the Water Fund to assure continuation of quality services to customers
- Maintain rates comparable to other cities, while at the same time maintaining adequate cash reserves for replacement of existing capital and for emergencies
  - This includes contributions to Downtown Street Program, as much of our water infrastructure in the downtown area is very old
- Assume that we are doing normal routine maintenance to our entire Water system, and making the improvements that make it more efficient and reliable
- Assume that major capital additions to the Water system are not funded from rate revenue (funded by development Trunk Funds)

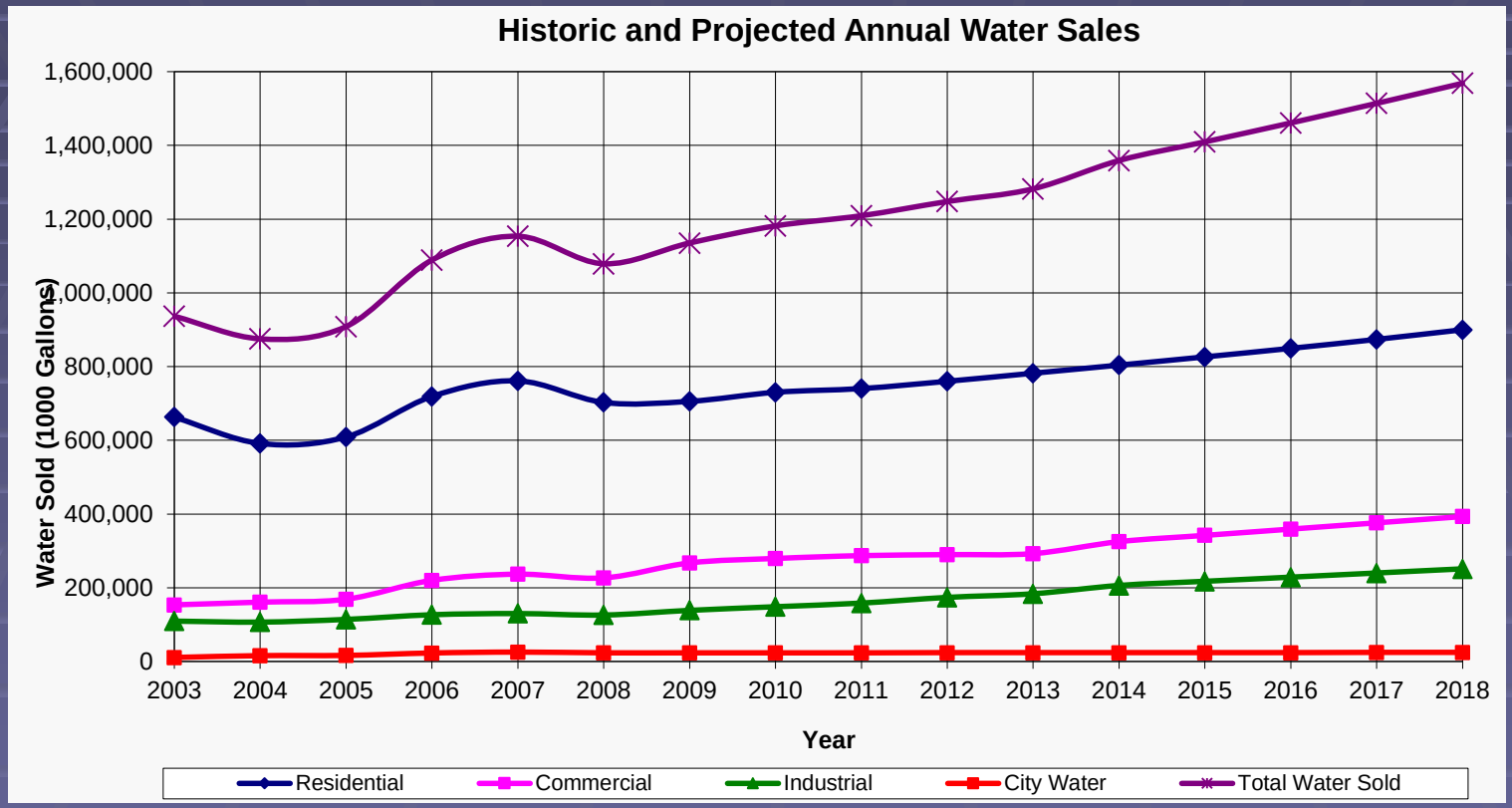
Trends in Water Fund

- We have had an overall trend over the last decade of seeing a decrease in the amount of water used
  - This is coming at the same time that we have seen C/I growth, as well as robust residential growth in the community
  - Just like with Electric, people installing more efficient appliances/fixtures in homes and C/I
- Prior to the recession, as we saw growth in the community, water usage trended upward annually
- As we have seen growth rebound, we have not seen water usage increase
  - Our Water usage in 2008 will be 9% higher than the Water Usage in 2019
  - We came in 4.47% below budgeted gallons pumped in 2019 even with significant development occurring
  - Some of this has occurred because of wet weather over the past few years, and our tiered rate structure, but it also has evolved because of technology changes developed that reduce water consumption
- This trend has demonstrated some success in the tiered pricing structures we developed several years ago to incent lower water usage
  - However, this has also had a negative impact on revenues generated from our Water Sales as average usage by residents have gone down and our tiered rate structure hasn't kept up



- Water Usage in 2019 is projected to be 9% lower than 2008
- All years except 2012 (which was an exceptionally dry year) have been lower than 2008 usage

Chaska's Annual Water Usage Projected in Last Rate Analysis



Note: Our actual water usage in 2018 was 981,943,000 gallons, which is ~40% lower than what was projected in the 2009 study. This points out again how things have changed over the past several years with water conservation

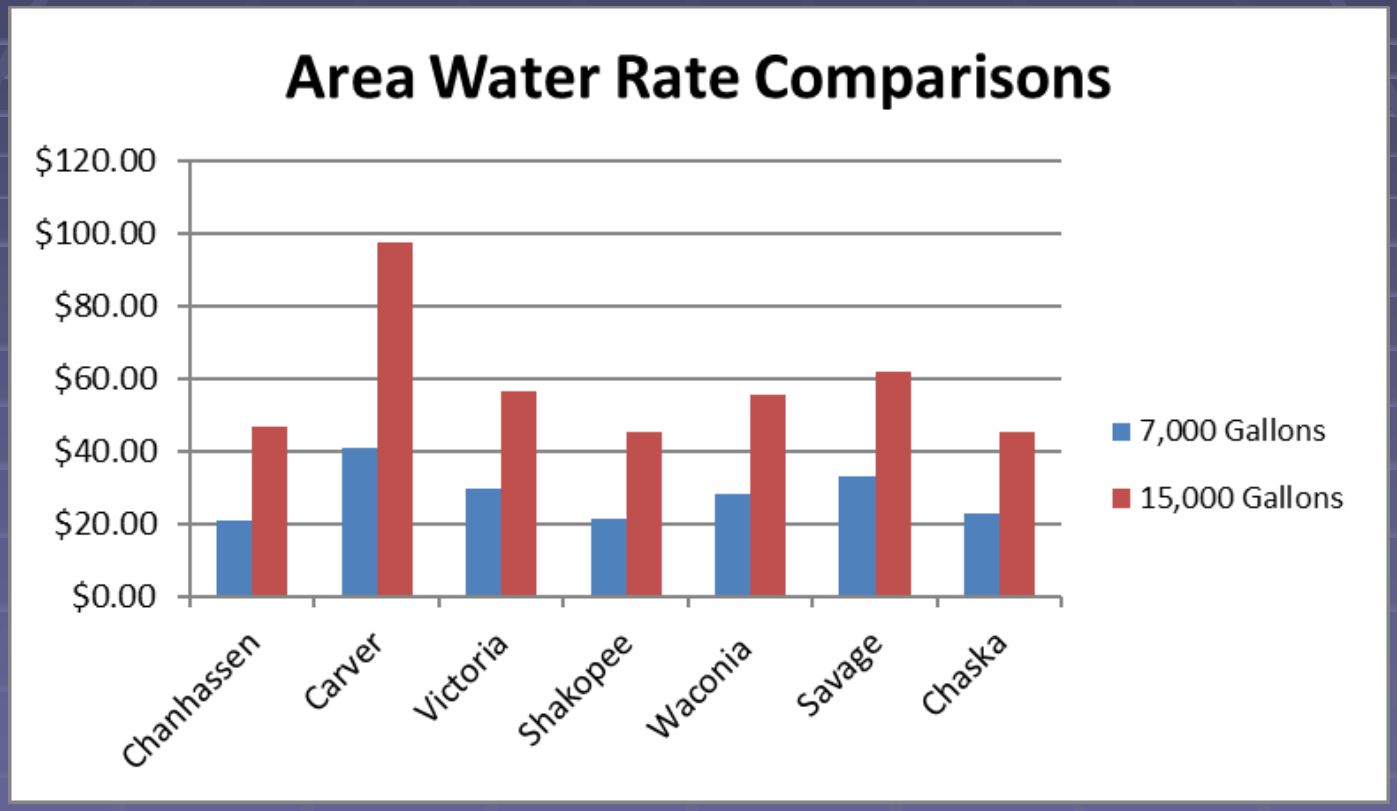
Water Conservation-Rates

- In 2011, Council had discussion on need to implement Water Conservation-DNR was requiring for access to new wells
  - Our average daily water usage was 2 mill winter/7 mill summer
  - Most of the impact in summer from irrigating lawns-C/I use is similar all year
- Focus of discussion was how we as municipalities address the issue proactively to try to avoid any future need for regionalization of water system
- Discussed the impact rates can have on helping change consumer's behavior as it relates to conservation
  - Rate focus not on negatively impacting average water users, but instead creating economic incentive for consumers to not utilize unnecessary water
- Most Cities went to this type of rate structure, and as demonstrated by our Water Usage, it has an impact
  - Our average residential user has gone down from 7,000 to less than 5,000 gallons per month
  - We are working on a rate analysis now that will focus on how we adjust rate structure to not negatively impact average users, but instead charge more for those using more than average

Water Rate Proposal

- Our 5-year plan last year projected a 5% increase in 2020
- Looking this year at the needs in our Water Utility for future maintenance and staffing needs, as well as taking into consideration little growth in the gallons of water anticipated to be sold, Staff recommends staying at 5% rate increase for 2020
  - The 5-year projection assumes a 5% rate increase annually to be able to meet the needs within our Water Utility
- Proposed Residential Structure (per 1,000 gallons)
  - 0-7,000 gallons: $2.69/1,000 (Currently $2.56)
  - 7,001-20,000 gallons: $2.85/1,000 (Currently $2.71)
  - 20,001-30,000 gallons: $3.20/1,000 (Currently $3.04)
  - 30,001-40,000 gallons: $3.71/1,000 (Currently $3.53)
  - Above 40,001 gallons: $4.60/ 1,000 (Currently $4.37)
- Commercial/Industrial would also be at 5% increase

Comparison to Surrounding Communities



This includes the monthly service charge and assumes the proposed rate increase and **no** increase for comparison communities

Shows we continue to be very competitive for rates

2020 Proposed Rate/SC Changes Residential

Average Winter Use	Existing Rate	Proposed Rate	Cost Difference
7,000 gallons	$21.76	$22.79	$1.03/month
Average Summer Use	Existing Rate	Proposed Rate	Cost Difference
15,000 gallons	$43.42	$45.59	$2.17/month

2020 Proposed Rate/SC Changes Businesses

Commercial	Existing Rate	Proposed Rate	Cost Difference
47,000 gallons	$189.62	$199.60	$9.98/month
Industrial	Existing Rate	Proposed Rate	Cost Difference
117,000 gallons	$495.52	$521.60	$26.08/month

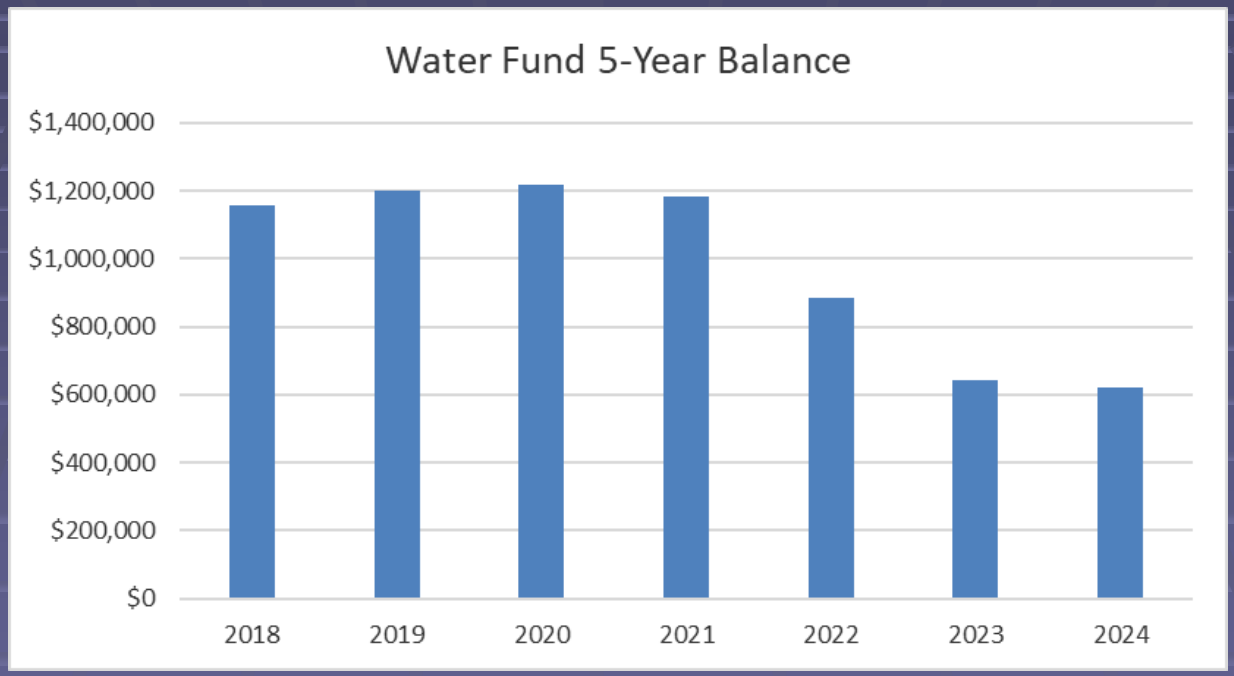
Water Fund Forecast Assumptions

- We have started to be more conservative on our water usage assumptions by moving down our projections to 120 new residential units/year.
  - To be conservative, we are assuming no new additions to C/I in 2020, and then the addition of one large user per year thereafter (240,000 gallons/month) to match with when we would expect to see our next industrial park on-line
- Assuming no new growth in usage for 2020, with it then averaging between 1.2%-1.4% increase in water usage each year between 2021-2024 (even though new growth, not as much water used per home)
- Propose to increase retail rates for residential customers by 5% on the base rate, with this carrying through to each of the tiers of our rate plan
- We are finishing a cost of service/rate analysis currently that Council should see in the early part of 2020. This will be a follow up to our 2009 study
  - Objective of keeping our rates competitive, but to also re-adjust our tiered rate structure to make sure it is still meeting its original objectives, especially with water usage declining
  - Will help us to plan for fully funding our future maintenance needs while also keeping our rates competitive with other communities

Water Fund Forecast Assumptions

- Continue to have ~$600,000 annually from Water Fund going towards $1.2 million annual debt service on Water Treatment Plant
- Addition of maintenance staff person in 2020, with position shared with the Sewer Department
  - This represents one of the two positions that was identified in the Baker Tilly Staffing Gap analysis
  - We shared last year that this was a position that was already being planned for/discussed during last years budget planning process
- Contribution of $70,000 annually to the Downtown Street Program
  - We increased this amount from the $50,000 programmed last year because there will be some Water-specific components in near term street projects
- Continue with regular schedule of Well and Tower capital improvements, with $125,000 in work included for 2020 for restoration of Well #9
  - There is also $50,000 allocated for design work for a small water treatment facility we are going to need at our Well #7 to handle additional capacity of users in SW Chaska.
  - Facility will likely need to be built in 2023 to meet our needs
    - It would be located behind Cub Foods on Hundertmark Road next to existing Well House #7
- Hundertmark Water Tower (Clover Ridge) Re-painted in 2022
- No Equipment scheduled to be replaced in 2020

Fund Balance Outlook



Our target would be to get Fund Balance up to around $1.5 million (35% target). After we have the initial impact of needing to construct the new Water Treatment Facility in 2023-2024, we start to see the Fund Balance move in that direction-especially after we adjust the tier structure

Sewer Fund 5-Year Forecast

2020-2024

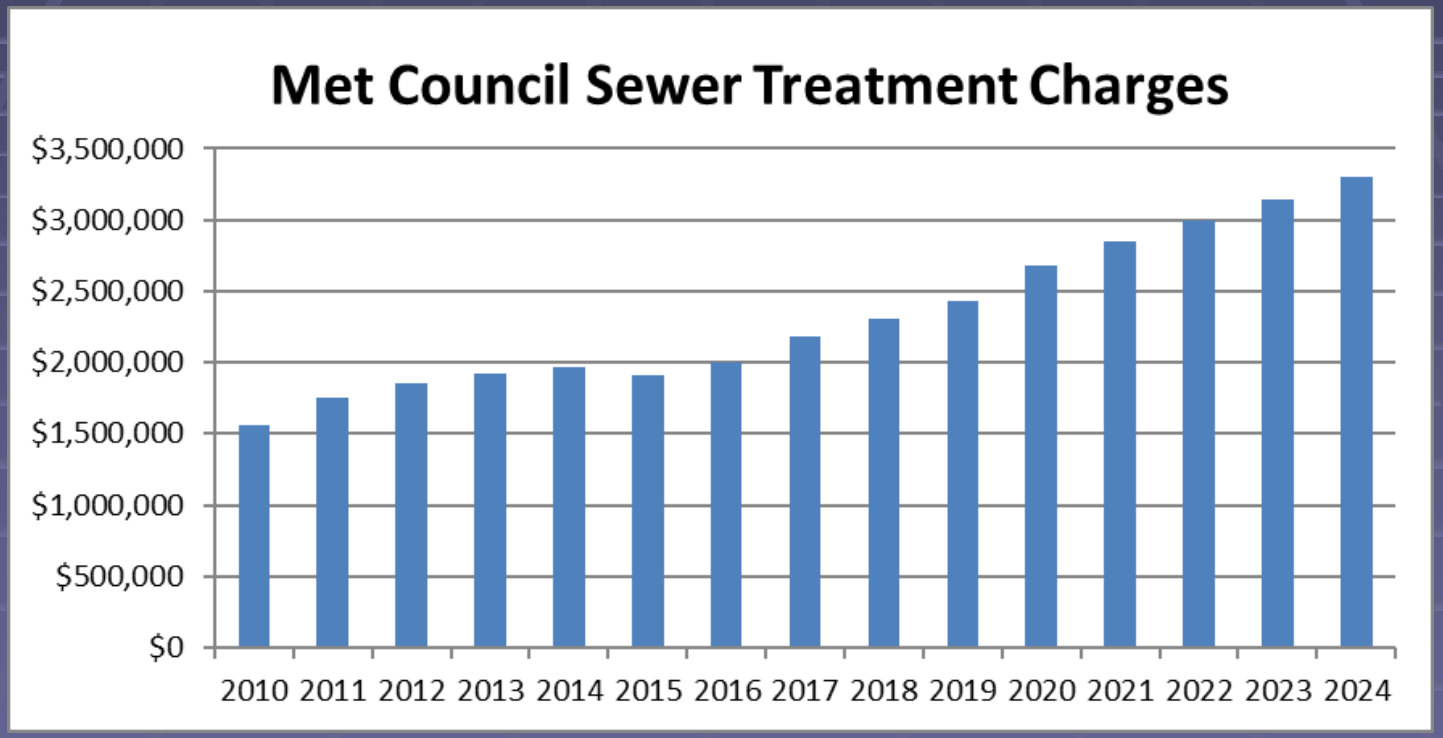
Sewer Fund Objectives

- Provide the necessary resources for the Sewer Fund to assure continuation of quality of services to customers
- Maintain rates comparable to other cities, while at the same time maintaining adequate cash reserves for replacement of existing capital and for emergencies
  - This includes contributions to Street Program
- Assume that increases in Metro Sewer fees are not being subsidized through our sewer fund reserves
- Assume that major capital additions to collection system not funded from rate revenue (funded through Development Trunk Funds)

Trends at Metro Waste

- Unlike other services where we have to estimate what our costs will be during the upcoming year, Metro Waste is different in that we are given the exact amount of our bill for the upcoming year as we are budgeting
  - This allows us to know exactly what we have to do with rates so as not to subsidize the Metro Waste costs.
- In 2017, we saw our Metro Waste Fee go up by 8% to a little over $2.16 million
- In 2018, we saw our Metro Waste Fee go up by 5.9% to a little over $2.29 million.
- In 2019, we saw our Metro Waste Fee go up by 5.41%, to a total number of $2,433,857
- In 2020, we will see our Metro Waste Fee go up by 9.9%, bringing us to a total number of $2,675,539
  - Based on this increase in Metro fees and own internal costs, Staff is recommending that we raise our Sewer Rate by 5.5% for 2020
  - At the same time, we also recommend that we increase our monthly service charge by $1 per month for 2020, bringing us up to a total of $5 in 2020
  - The Service Charge is meant to address our fixed costs that change regardless of how much sewer is utilized. Up until 2017 we had no service charge, but through a study determined that we needed to get it up to $8 to cover our total costs. We have been implementing this slowly since 2017, and would see that it would take until 2023 to fully implement this rate
    - With the recommendation to move up our Service Charge over time, as opposed to all at once so we do not see too large of a rate increase in one year, this does require us to utilize our reserves to get through this implementation with reasonable impact to annual rates

Metro Waste Rates



- This projects a 5% annual increase to Met Council rates in 2021-2024

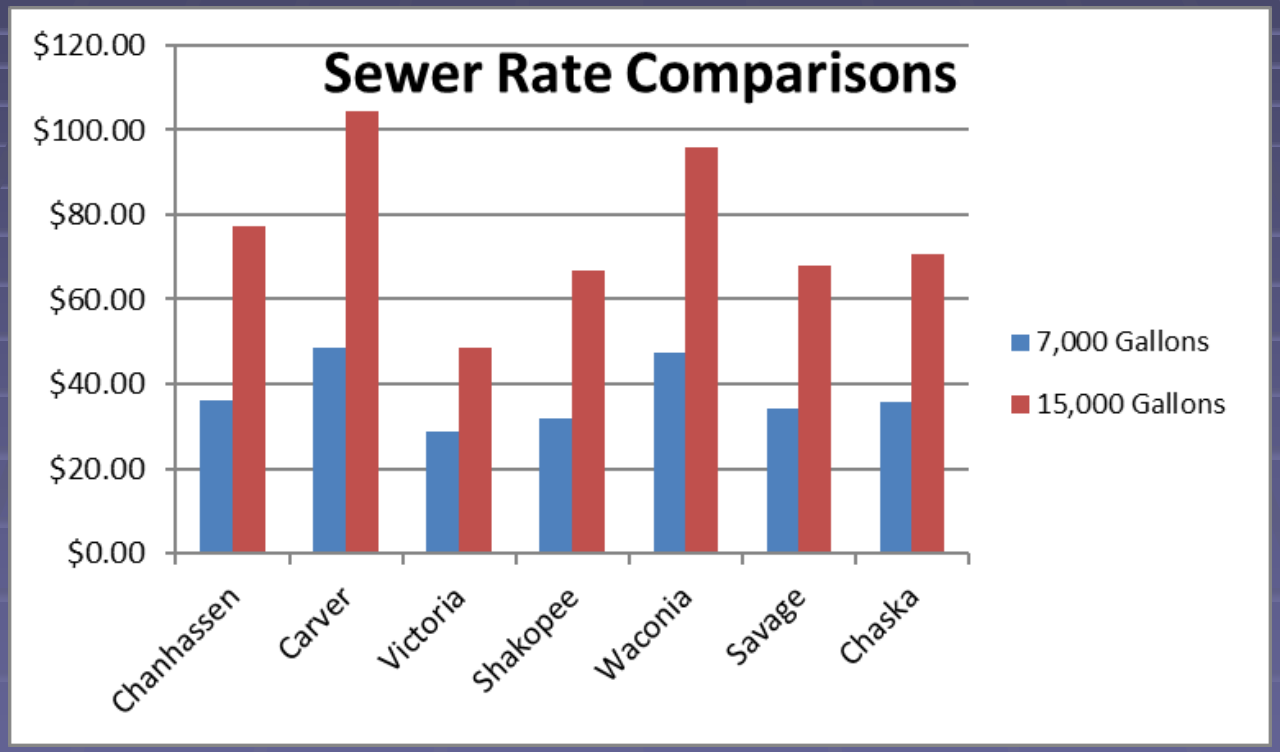
Metro Waste Impact on City Rates

- City has objective of establishing City sewer rate to not force us to utilize reserves to subsidize any Metro Waste rate increase
  - We balance the increase assuming both this, and looking at our cost increases for our own internal operational costs
  - Seek to have a reserve in Sewer Fund sufficient to cover future maintenance expenses
- Based on this objective, and the fact that we have been working since 2017 to make sure we are covering our fixed costs through a service fee, Staff is recommending the 5.5% increase in retail rates, with the service fee being increased by $1 for 2020.

- Average impact on residents in 2020:

Average Use	2019 Bill	2020 Bill	Increase	% Increase
7,000/month	$33.12	$35.73	$2.61	7.9%

Proposed Sewer Rates Compared with Surrounding City's Current Rates



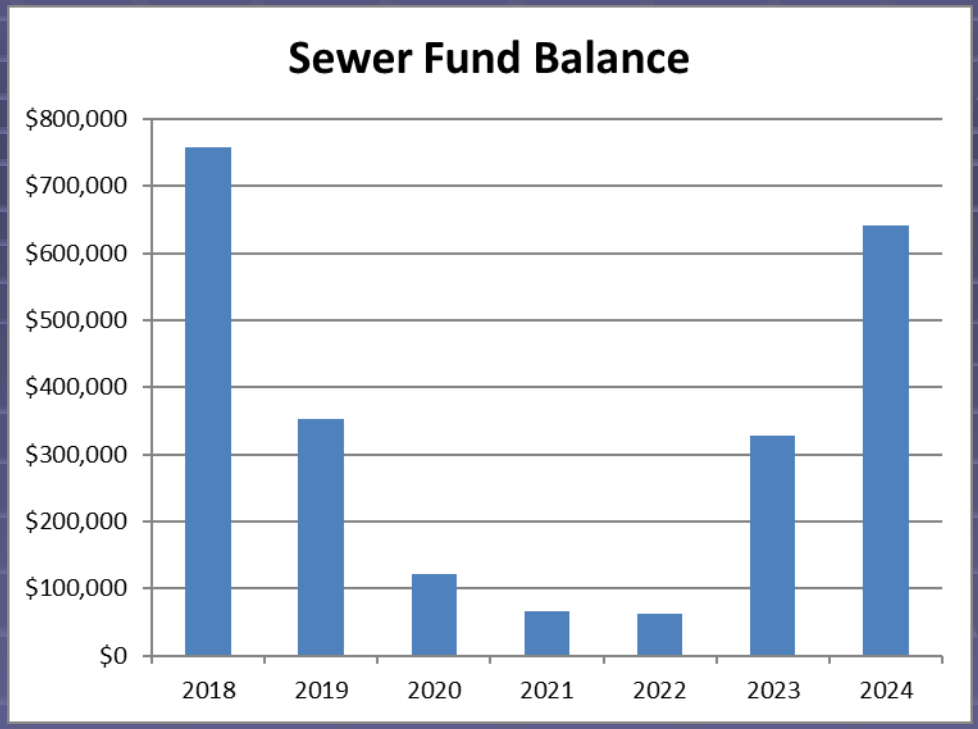
Sewer rates for those on Metro Waste tend to be relatively similar, due to all these cities having similar treatment costs

Chaska has still been very competitive

Key 5-Year Forecast

- Retail rates change by 5.50% in 2020, with forecasted average of 5% increase each subsequent year (Dependent on actual rates coming from the Met Council)
  - Also would include a service charge increase of $1 per month (brining to a total of $5). Would finish going to $8 by 2023
- Continuation of $15,000 annually to support the SAS system needed for our new AMI System (same in all of our other utilities using AMI)
- Addition of one maintenance Staff member in 2020 to be shared with the Water Department
  - This is one of two positions in this department identified in the Baker Tilly Staffing Study gap analysis.
- Contribution of $110,000 annually towards Street Reconstruction, with this going up to $143,000 annually when the Yellow Brick Lift Station needs to be removed as part of Downtown Street Project
- Fully Fund our Equipment Replacement Schedule, which is $77,000 for replacement of an Easement Jetting Machine in 2020
- Our Capital Improvements for 2020 include $50,000 towards our Inflow and Infiltration program and Sewer lining program and $10,000 for work on Autumn Woods East Lift Station

Fund Balance Outlook



-It should be noted that it was a conscious decision when we started implementing our service fee structure in 2017 to try to get that accomplished while keeping residents rate increases at a reasonable level. This requires us to utilize our Fund Balance to mitigate until 2023.

-We could reduce impact on Fund Balance but would have large 1-year impact on rates (trying to smooth this for residents during implementation)

-You can see that we quickly start building back up Fund Balance once we fully get through the implementation of this after 2023

-Target would be to get it back up to around $1.9 million which is 35% target

Chaska Electric Fund

2020-2024 Financial Forecast

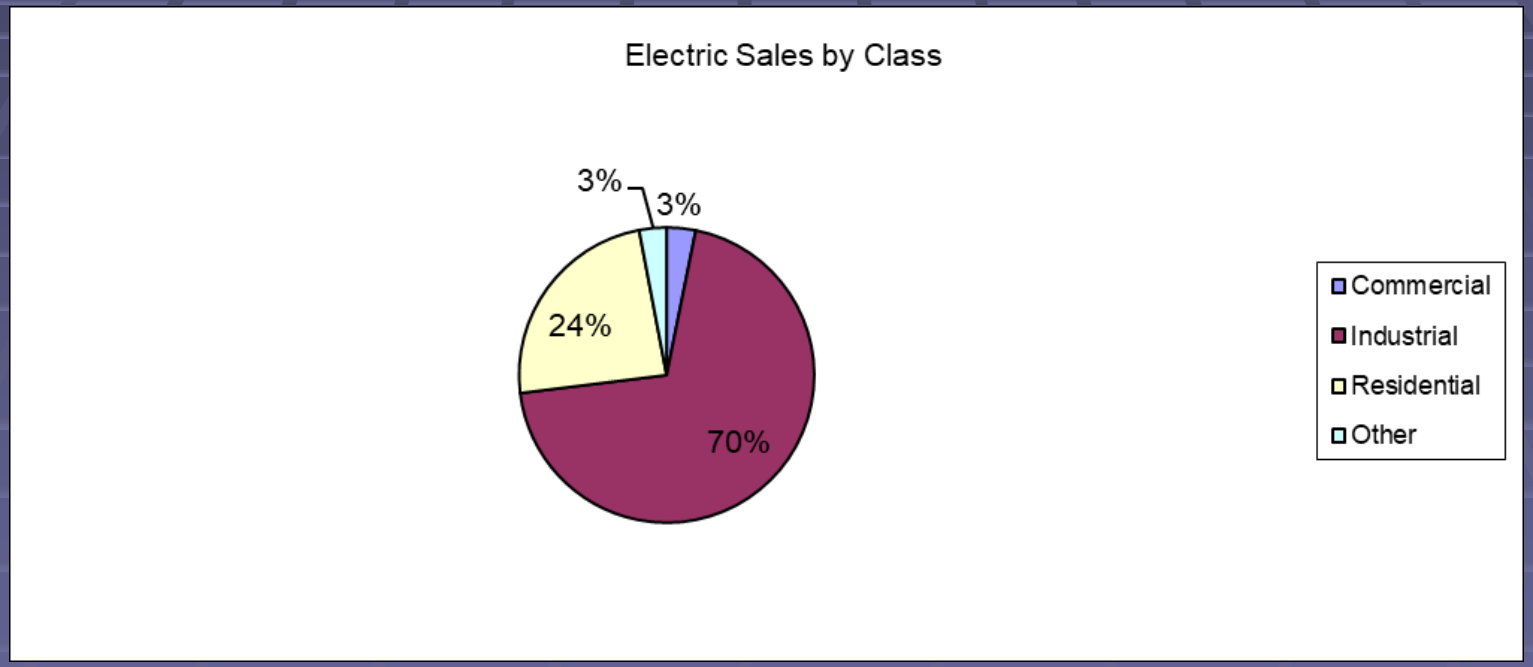
Chaska Electric Utility Purpose and Mission

The mission of the Chaska Electric Utility is to provide reliable and efficient electric service to Chaska customers at competitive rates and to provide financial aid to the City in keeping Chaska's property taxes low.

Trends Effecting Chaska Electric

- Last decade saw a significant increase in loads within the City due to both C/I growth, but also the new growth we are seeing in residential development
- Increased loads came from large C/I Projects
  - Data Centers as well as additions we have seen in existing Industrial buildings
  - It is this second type of growth that had us invest in the new North Substation, which is just going on-line, and which had us add an additional feeder line and switch gear at the West Creek Substation to handle new growth
- We have also seen increased electric usage by existing residential and commercial/industrial customers (general increase due to more electronic equipment in homes)
  - While we have seen this growth occur, we have projected more conservatively over this next 5-year period to make sure that from a budgetary perspective we are not projecting too much growth
- Raw product costs for electricity production still relatively stable (i.e. Natural Gas)
- Legislative mandates for “Renewable Energy” initiatives
- Chaska has continued to perform significantly better than Xcel for rates and reliability-we have been relatively close to Mn Valley
- Chaska has needed to make large investment into new equipment, as well as upgrading aging systems

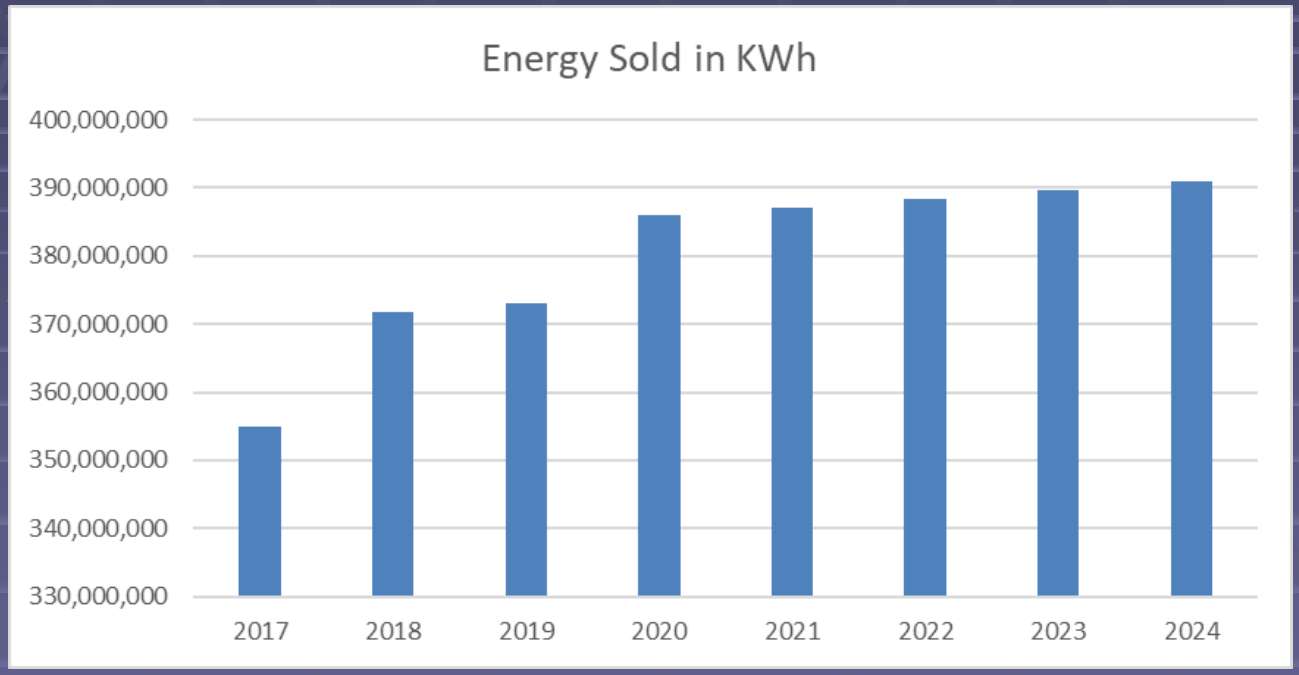
Chaska Electric Usage



Renewable Energy and Conservation Improvement Initiatives

- State Mandates to achieve 25% generation from renewable sources by 2025-Targeted goals throughout this transition (i.e. 20% by 2020)
  - Agency currently achieving targets just above our 2020 goals
- Oak Glen Wind Farm was opened almost a decade ago with capacity to generate 44 MW of total electricity
- MMPA completed the 160 KW Hometown Windpower Project
  - Refurbished in 2019 to extend life 20 years into future
- MMPA completed the Hometown Bioenergy Project in Le Sueur opened in 2014-8 MW Facility
- MMPA received $3 million in grant to start Hometown Geopower Program
  - The Landing (Block 53) has utilized this program to install Geopower in the facility at 1st Street and Highway 41
- Members required to utilize 1.5% of their gross profit on conservation improvement programs,
  - This has also been an Economic Development Tool to both retain existing businesses and attract new businesses
- MMPA completed a Solar project in Buffalo in 2017-7 MW Facility
- MMPA completed the Clover Ridge Solar Project in 2018

Projected Energy Sales

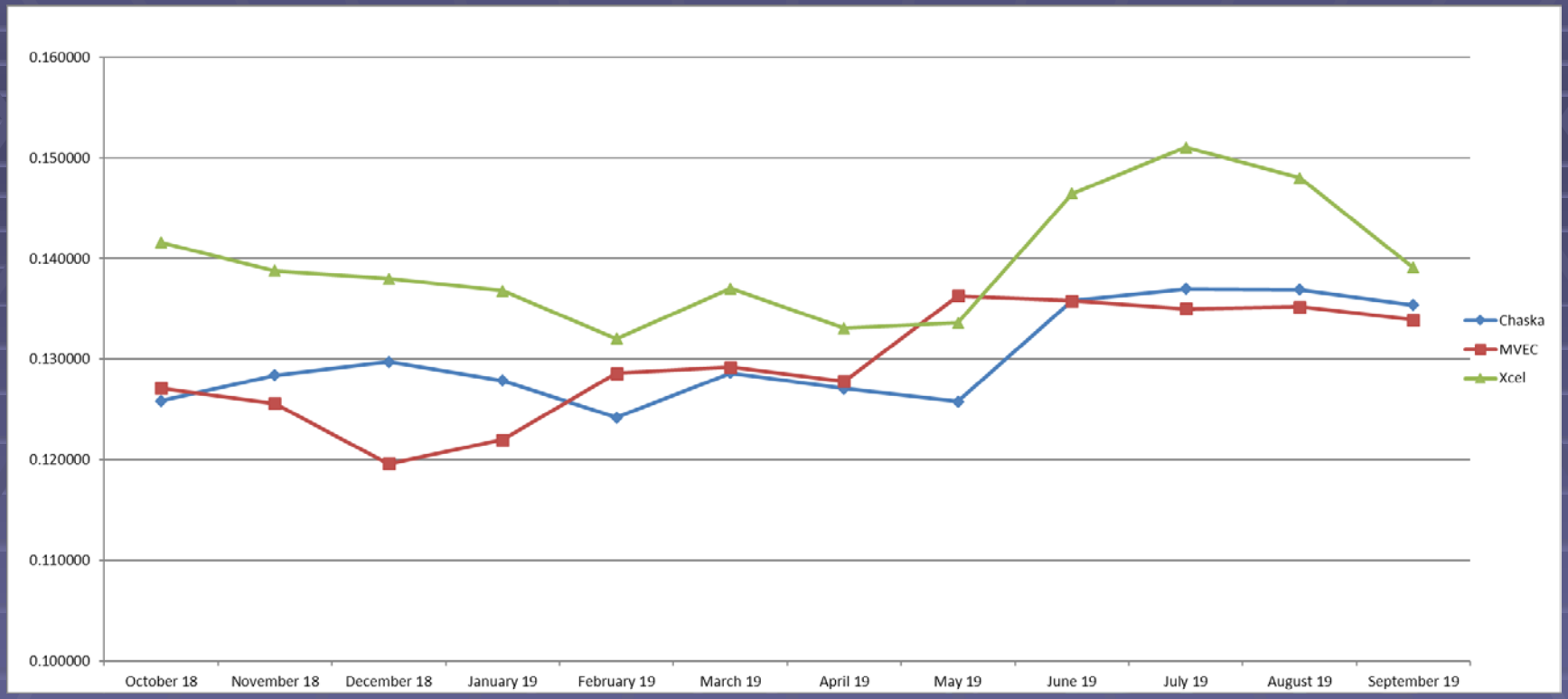


- Have seen 1.7% annual average increase in energy from 2017-2019
- Estimating a 3.45% in growth for 2020 because of known projects coming online, but being more conservative through the remainder of forecast to not overestimate growth
  - Doing this as there is less land within our service territory that is available for C/I development-will likely see much more growth occurring in residential

Electric Generating Cost Trends

- All Electric Utilities have seen the Energy Adjustment Costs to customers become more of a significant expense over last several years
  - MMPA is projecting to see an overall increase in wholesale rates of 7% for 2020, however all of this is projected to be in increases to demand
    - To account for this change, along with the costs we will incur for operational and capital expenses, Staff is recommending we raise our retail rates by 3.5%
  - Expect to see that Natural Gas markets remain relatively low and stable in near future
- Stabilization in Natural Gas has had a positive impact of making Chaska's electric prices lower than Xcel
  - Xcel has also had to make significant investment in new generation facilities over the past several years to go away from coal-based facilities
- Taking advantage of Federal Grants to offset some of the costs, we have been able to add to our renewable energy portfolio without having negative impacts on comparisons to Xcel and Mn Valley Electric Coop
  - The latest grant that was received was to help off-set some of the costs on the Le Sueur Bioenergy Plant which opened in 2014
  - Also have been able to take advantage of tax credits to help support project development

Residential Rate Comparisons



- Chaska Electric Rates averaged 7% below Xcel and almost the same as MVEC in 2019 for residential rates
- Xcel just requested a 15.2% increase in rates from PUC for a 3-year period. The interim rate they are seeking on January 1st would be a 4.1%
  - This means that our rates will continue to be very competitive with Xcel who is our main market competitor

5-Year Forecast Assumptions

- Assume in forecast that the wholesale electric cost from MMPA will go up by 7% in 2020, understanding that most of this will come through as a demand increase
  - Assuming this demand rate increase and the increase in our operational costs, we would need a 3.5% increase in retail rates for 2020
    - We would divide this increase between some our fixed service charge fee and some going towards rates as our service charge is now too low to recapture all of our fixed costs (still an overall 3.5% impact on bill)
  - Based on our projections we have planned a 2.25% increase each of the remaining years of our 5-year planning period
- This rate increase would still keep us competitive, especially as we compare with Xcel Energy, who we are currently 7% below for 2019 and they are requesting a 15.2% increase over the next 3-years
- Projecting electric usage will be up around 3.45% in 2020, with it being up around 0.3% for remainder of 5-year period
  - We have been more conservative in this 5-year period to make sure that we are not overestimating the amount of growth

2019 Bill	2020 Bill	Increase	% Increase
$99.24	$102.71	$3.47	3.50%

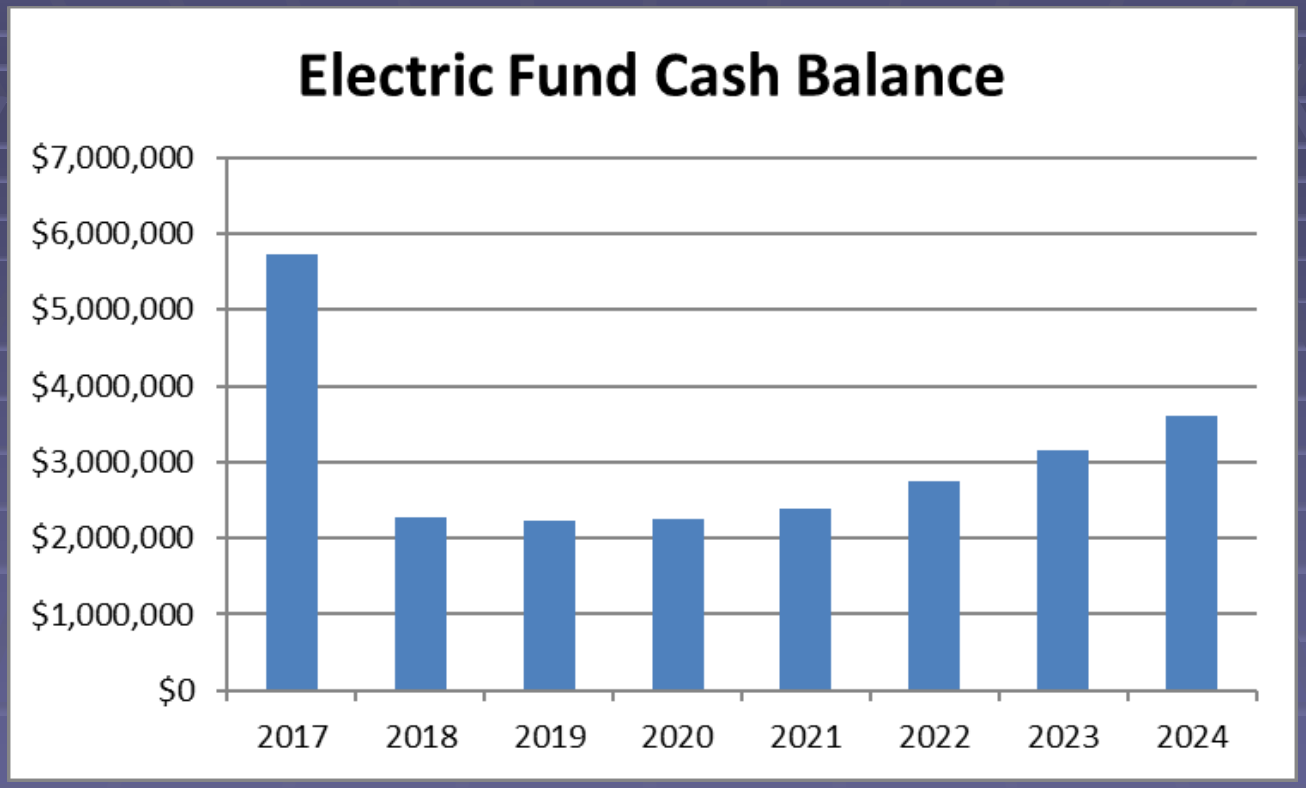
5-Year Forecast Assumptions

- Will continue to see ~$230,000 annually in debt service for West Creek Substation that was financed in 2011 (20 years)
- Have the addition of debt service from 2018 of ~$494,000 annually to support the addition of the new North Industrial sub station, and the new switch gear at West Creek substation
  - Both of these projects were necessary to support both the increase in needed capacity in the community, along with providing necessary redundancy
- No planned staffing increases in 2020 for Full Time employees
  - Will continue to address vacancies in Department for 2020 with temporary seasonal workers, as we did in 2019
- Fund replacement schedule of equipment ($175,500)
  - This would include a replacement bucket truck ($145,000) and 2 replacement trailers ($30,500 for both)
- Assume funding normal System Improvement Schedule-looking at approximately $600,000 in 2020
  - We will also be adding a new breaker at the MN River Substation for $300,000. While we will incur this expense, we will be fully reimbursed from MMPA for this
- Continuation of annual contribution to the Community Building Fund of $1,300,000
- Continuation of $15,000 to go toward SAS System for the AMI

5-Year Forecast Assumptions

- Electric Fund contributing $150,000 annually towards Community Center CIP program, in addition to existing $100,000 contribution made annually since CCC opened supporting annual repairs
- Electric Fund also contributes ~$220,000 each year toward debt service on The Lodge addition which goes through 2027
- 10% of annual sales also go to General Fund through a Franchise Fee as we do with other private utilities such as Gas and Cable, and will implement with the new Industrial Park for MN Valley Electric Coop
- Electric Department is also in process of replacing all Street Lights in town to be LED which will be a monetary savings on the General Fund (which pays for the electricity for these bills)

Electric Fund Balance Outlook



- Assuming very modest growth through 5-year planning period, cash balance in fund would be ~$3.6 million in 2024
- The higher amount of Fund Balance in 2017 is in relation to bond proceeds we had come in for the North Substation/West Creek Switch Gear/41 Feeder Project
- Would seek to start building up fund closer to $6 million

Storm Sewer Fund

2020-2024

Storm Sewer Fund Objectives

- Provide the necessary resources for the Storm Sewer Fund to assure continuation of quality services to customers
- Maintain rates comparable to other cities, while at the same time generating adequate cash reserves for replacement of existing capital, necessary maintenance on our system, and for emergencies
- Meet all of the new MS4 requirements for Storm Water Management, addressing changes in the requirements as they occur
- Move all Storm Water Management activities out of our General Fund, treating the management of our Storm Water System the same financially as our other Utility Enterprise Funds (I.e. Water/Sewer and Electric)
- Ensure that we are collecting sufficient Area Charges from new development for new development to adequately contribute to our overall Storm Trunk System

History of Storm Sewer Utility

- Up until 2008, all Storm Water Utility activities were handled through the General Fund in our Public Works Department
- New MS4 Stormwater Management laws required cities to take on a more significant role in managing surface water runoff over the past decade
  - This has been the largest percentage of growth we have seen in the City expenses
- General Fund resources were not sufficient to cover required activities in our Storm Water Management Plan
- Storm Water Utility was created in 2008 to put more emphasis on program and properly fund the activities in our surface water management plan
- Really experienced the need for a robust storm water system during the heavy rains of 2014
  - Heavier patterns of rain have strained our system over the past few years-we have had to dedicate much more attention to these activities over past 5 years
- Have also changed approach towards new development, requiring developments to contribute 40% of total Stormwater Fee, even if the stormwater is being dealt with on site-this has been necessitated to make sure there is proper contribution towards community's overall trunk system
- Significant number of projects occurred over the past 5 years to both fix damage that occurred (Creek Road and Ravines) and to increase our capacity to handle more heavy rain events (Oak Street Lift Station, Athletic Park Berm and Hammer's Property Storm Water Pond)
  - These are projects that we have had little choice to address, and have made it very difficult to keep the Storm Water Fund adequately funded going into the future

Storm Water Management Activities

- Annually completing certification and maintenance of Chaska's Flood Control System
  - This has been one that has increased significantly post-Hurricane Katrina
- Completing maintenance of our Storm Water treatment ponds across the City
- Street Cleaning to keep surface water runoff as clean as possible
- Maintaining our ravine systems throughout the City
  - We have started to see some areas eroding away
  - This especially became an issue after the June 2014 Rain
- Completing our MS4 reporting and maintenance requirements
- Monitoring development activities to ensure storm water runoff and treatment requirements both during construction and after developments completed
- Increased frequency of large rain events have made this activity even more important
  - Within the past few years we had to increase the size of the Oak Street Lift Station to handle larger rain events-it had already became undersized only 20 years after the Flood Control System was installed

Storm Water Utility Revenue

- Ordinance adopted in 2008 required rate to be set based on meeting our necessary expenditure level
- Each property in the City is charged a monthly fee on their utility bill that goes directly to the Storm Water Fund-including undeveloped
- Fee was developed in 2008 based both on estimates of what we felt the expenses in our Storm Water Utility would be, and proportionally dividing this based on a property's impact to City's Storm System
- Rate for residential units was started at $3/month in 2008 based on these estimated expenses anticipated in the fund
  - At time it was initially adopted, it was intended to be reviewed after fund was fully established and expenses fully known
  - Review of this in 2011 resulted in raising rate to $4.50/month to better reflect costs
  - We continued to need to increase because increased frequency of unavoidable activity has required additional resources to support
- Residential Rate was brought up to $9.50 per month in 2018 both because of needs in Department and comparisons with cities in similar circumstances.
  - Our initial fees were not close to meeting the increasing needs and requirements we were seeing

Current Comparison to Cities with Similar Requirements

Eden Prairie	$15.10
Moorhead	$10.21
Shakopee	$7.80
Carver	$9.26
Edina	$11.60
Waconia	$12.65
Eagan	$10.00
Red Wing	$11.50
Winona	$5.81
Chaska	$9.79
Average	$10.44

- The Cities above represent cities that have comparable types of activities to Chaska
- They compare cities with similar usage, such as pump stations, levy systems, flooding, ravine systems, etc…
- Chaska's Proposed rate for 2020 would be $10.14

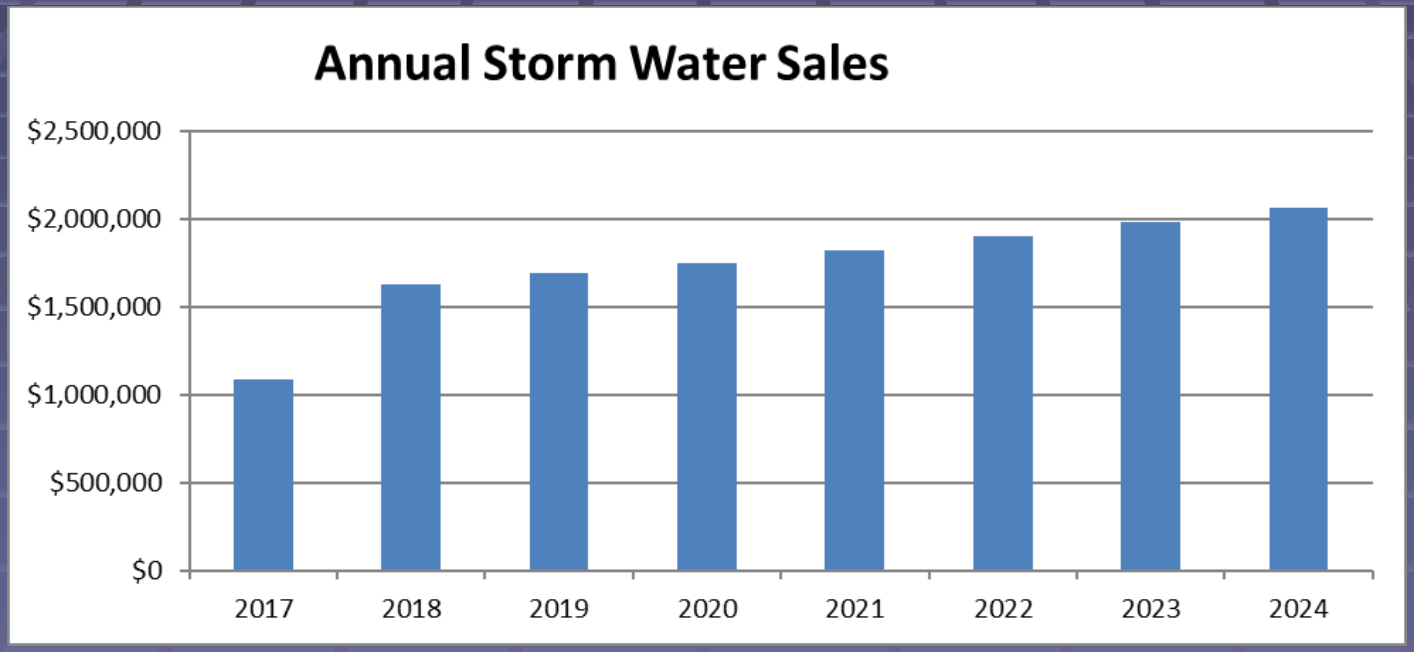
Assumptions for 5-Year

- The recommended rate increase to keep up with our increasing activities would be to raise the rate by 3.58%.
  - This would keep Chaska's rate $0.30 per month lower than the average of other similar cities, assuming they have no increase in their rates
  - 5-Year assumes that we would need about a 4% annual increase to keep up with our on-going project costs-this should keep our rates very close to average over the entire 5-year period
- We will have $223,000 in 2020, and $246,000 in 2021-2024 going towards our Street Reconstruction Program
  - This would include installing a storm water system into our downtown streets, which currently does not exist, and would include replacement of the Beech Street Bridge as part of our 2020 reconstruction program
- Continuation of annual work required by Army Corps of Engineers to keep Flood Control Levy System Certified (post-Hurricane Katrina)
  - Rock Channel Weed/Brush Control Program: $10,000/year
  - Routine Maintenance on Stormwater Ponds: $50,000 annually

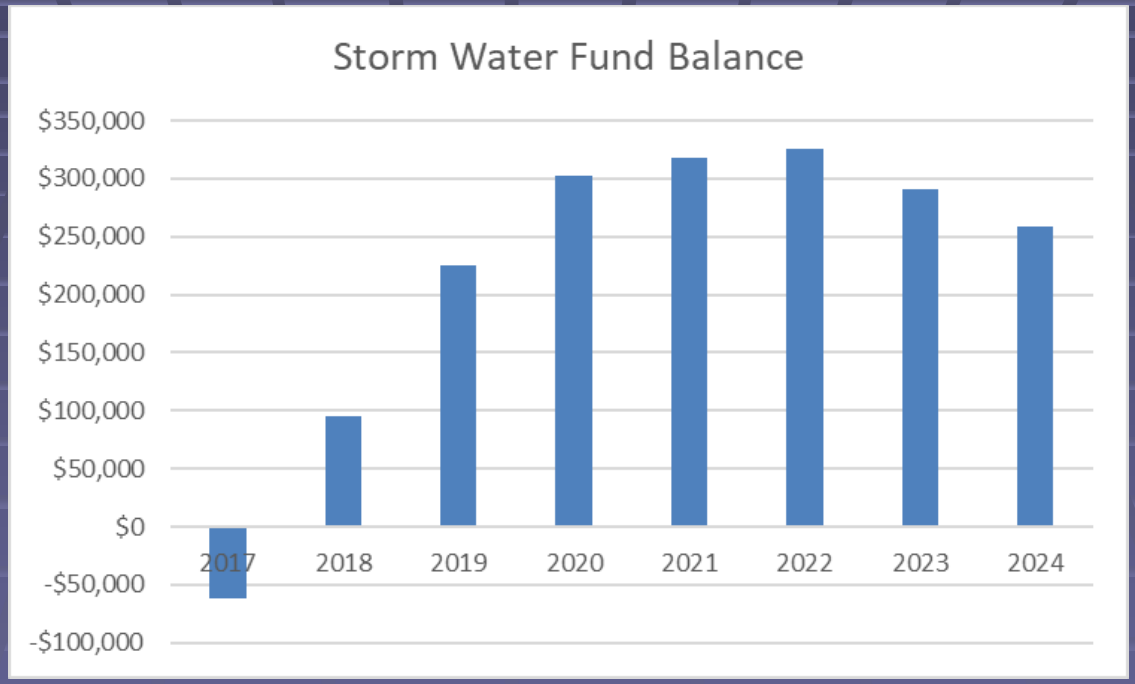
Assumptions for 5-Year

- $80,000 allocated towards general maintenance work in the Storm Water System for 2020, along with the replacement of the Beech Street Bridge as part of the 2020 Street Reconstruction Program (we receive dollars from the State to help with the replacement of this bridge-$300,000 is our share of this cost)
  - $80,000 allocated annually from 2021-2024 for general maintenance work in our Stormwater System, with $200,000 annually going towards our Storm Water CIP program on an annual basis from 2022-2024
- Equipment Replacement of a Track Skidsteer in 2020 for $45,000

Annual Sales of Service



Stormwater Fund Balance Outlook



- Keeping our Rates Comparable to the Market over the 5-year period allows us to make sure that we are collecting enough revenue to support our increasing Storm Water project needs
- The last two years of the forecast do have us increasing our annual CIP work in the Fund up to $200,000 annually-will need to make sure rates are set correctly in those years to continue to see a building of our Fund Balance
- Target of Fund Balance would be about $650,000

Total Utility Changes Impact

	2019	2020	Increase	Increase
Water	$21.76	$22.79	$1.03	5.00%
Sewer	$33.12	$35.73	$2.61	7.90%
Electric	$99.24	$102.71	$3.47	3.50%
Storm Sewer	$9.79	$10.14	$0.35	3.58%
Total	$163.91	$171.37	$7.46	4.50%

Total Impact for the average residential utility user for 2020 would be $7.46 per month for all City Utilities

Questions??