

City of Deephaven
Five Year Utility Projections
2020 - 2024

November 2019

Purpose

The primary purpose in developing five-year projections for our Water, Sewer and Storm Water Funds is to determine if utility rates are adequate to fund both utility operations and capital projects that are planned over the next five years. In addition, utility projections are also beneficial in forecasting future operational costs, providing rate stability, establishing a schedule of necessary capital projects, and in providing a rationale to residents on the need for future rate adjustments.

**Summary, Projections &
Recommendations**

Water Fund

Summary

The Deephaven Water Fund is very atypical of a municipal water fund in that it operates, for the most part, as a simple billing agency. Beginning in 1979, Water Service Agreements were established with the cities of Minnetonka and Shorewood to supply 114 Deephaven residents with public water service. Both cities bill Deephaven for the water usage incurred by these residents and Deephaven turns around and bills each resident the appropriate water usage fee plus a \$10.00 quarterly Administrative Fee and a \$20.00 quarterly Trunk Water Fee to cover Deephaven's operational and capital improvement costs. The implementation of these two latter fees has enabled the City to be able to fund both current and future water system operations and capital projects.

Since 2007, 35 additional customers have been added to the Deephaven water system with the development of Deephaven Cove and other minor water connections.

Forecast

- ◆ Excluding capital projects, annual operating expenditures are expected to increase 2.0% per year from 2020 to 2024 primarily owing to annual 3% salary & benefit increases and a projected 2% annual water rate increase from the cities of Minnetonka and Shorewood.
- ◆ Annual revenues are expected to increase 2% per year from 2020 to 2024 due to the pass through of the anticipated water rate increases from Minnetonka and Shorewood and gradual increases in interest income due to an increasing fund balance.
- ◆ Water Fund cash reserves are projected to increase from \$227,330 at the end of 2019 to \$266,981 at the end of 2024. The increase in cash reserves is primarily due to the lack of significant capital projects over this time period.
- ◆ Only two minor capital projects are planned over the next five years - the repair and/or replacement of six (6) fire hydrants in Amesbury in 2020 and the repair and/or replacement of three (3) fire hydrants on Minnetonka Blvd in 2023.
- ◆ The current Administrative Fee of \$10.00 per customer per quarter and the Trunk Water Charge of \$20.00 per customer per quarter should be adequate to fund all operational costs and system maintenance costs from 2020 to 2024.

Recommendations

1. A water rate increase will not be required from 2020 - 2024.
2. The current Administrative Fee and Trunk Water Charge are sufficient to finance all operational and maintenance costs of the Water Fund from 2020 - 2024.
3. The current Administrative Fee and Trunk Water Charge result in an average surplus of approximately \$7,930 per year to be used towards capital projects. This amount will not be nearly sufficient to finance the future replacement of the existing water main in the Pines, Minnetonka Blvd, along Carson's Bay Bridge, Ridgewood Road, Amesbury and Deephaven Cove. The full replacement of the existing water system requires an average surplus of approximately \$18,340 per year. Any future major improvement will likely require either an additional rate increase to support full main replacement or these project costs will have to be supported through special assessments.
4. An annual fund reserve of approximately \$250,000 should be sufficient to finance larger scale capital projects.

Sewer Fund

Summary

In reviewing the next five years, there continues to be uncertainty surrounding the Sewer Fund principally owing to the costs associated with adhering to the Metropolitan Council's inflow and infiltration requirements. Despite years of televising sewer mains undertaken to maintain the integrity of the sewer systems and to reduce inflow and infiltration (I & I), the City was notified in 2015 that the City exceeded our allotted flow and was required to participate in the Met Council's Inflow & Infiltration Mitigation Program. This program required the City to contribute \$249,000 over a four-year period from 2015-2018 towards I/I mitigation efforts. At the end of 2017, one-year earlier than required, the City met its commitment to contribute \$249,000 towards reducing inflow & infiltration into our sewer system. However, the Metropolitan Council continues to monitor the City's flow to ensure that the City is not contributing an excessive amount of I & I into their system.

The funding of projects over a three-year period to address inflow and infiltration is not a particularly significant issue for the Sewer Fund, although it has contributed significantly to the depletion of Sewer Fund cash reserves. The more immediate concern has been the rapidly increasing costs of the annual wastewater disposal charge. In 2016, the Municipal Wastewater Charge payable to the Metropolitan Council increased 23.3% from \$327,414 in 2015 to \$403,547 in 2016. More recently, the Municipal Wastewater Charge increased 11.7% in 2019 and another 3.8% increase in 2020. These increases are impossible to absorb with a flat sewer rate.

The goal over the next five years will be to continue to rehabilitate our manholes, clean and televise our sewer mains, and rehabilitation of sewer mains in order to substantially reduce the amount of inflow and infiltration into our system and to reduce the possibility of any sewer main backups.

Forecast

- ◆ Annual operating expenditures are expected to increase approximately 3.3% per year from 2020 to 2024 primarily owing to projected increases in salaries & benefits and waste disposal fees.
- ◆ A 2019 sewer rate increase from \$95.00 per quarter to \$105 per quarter increased current sewer revenues to approximately \$693,840 per year. This increase is not sufficient to support increases in operational costs, wastewater disposal fees, and the schedule of capital projects planned over the next five years.
- ◆ Another rate increase of \$10.00 per quarter is recommended to generate an additional \$66,080 in annual sewer revenues. Without this rate increase, the Sewer Fund would lose approximately \$63,500 per year.
- ◆ With the proposed 2020 rate increase, annual revenues should be adequate to support all operating costs and capital project costs through 2023. However, if waste disposal fees increase at more than 4% per year, another \$10.00 per quarter rate increase would be proposed in 2024.

- ◆ Sewer Fund cash reserves are projected to increase from \$295,387 at the end of 2019 to \$406,230 at the end of 2024. The increase in cash reserves is due to a \$10.00 per quarter rate increase in both 2020 and 2024.
- ◆ Capital projects from 2020 to 2024 are expected to be relatively minor and will include sewer main repairs in 2020, manhole repairs in 2021 & 2024, sewer main cleaning & televising in 2021-2023, and annual lift station upgrades.

Recommendations

1. With a fixed revenue stream, a sewer rate increase from \$105.00 to \$115.00 per quarter in 2020 and another \$10.00 per quarter increase in 2024 from \$115.00 to \$125.00 per quarter will be required in order to support increasing wastewater disposal charges, operating costs, lift station upgrades and the schedule of sewer infrastructure improvements planned from 2020 to 2024.
2. A regular schedule of sewer main cleaning & televising is recommended to properly maintain sewer mains, identify problem areas in the sewer system, and to help prevent sewer back-ups.
3. A manhole repair program is recommended to reduce inflow and infiltration into the sanitary sewer system.
4. Continue to initiate efforts over the next five years to substantially reduce inflow and infiltration into our system and to reduce the overall volume of our wastewater flow into the Metropolitan Council wastewater disposal system.
5. An annual fund reserve of approximately \$600,000 should be sufficient to provide a reliable stream of interest income, adequately maintain lift stations and repair damaged mains, and to provide for the reserves necessary to finance eventual sewer main replacement.

Storm Water Fund

Summary

The Storm Water Fund was originally established to provide funding for minor storm water control projects. Larger projects were funded through a combination of storm water fees, special assessments and from the General Fund through the general tax levy.

In 2006, the Storm Water Fund became the primary funding source for storm water projects when storm water fees were increased to \$5.00 per month per household to generate approximately \$88,260 per year in revenues. A second rate increase to \$7.00 per month per household was implemented in 2014 to generate approximately \$123,564 per year in revenues as the schedule of storm water projects grew and to repay an interfund loan from the Sewer Fund that was used to finance the Rutledge Avenue Storm Water Project.

Forecast

- ◆ Factoring out annual variations in capital project costs and engineering, annual expenditures are expected to increase at a rate of 1.5% per year from 2020 to 2024.
- ◆ Annual revenues are expected to increase at very moderate levels depending on the annual growth in the Fund's interest income.
- ◆ Storm Water Fund cash reserves are projected to increase from \$21,071 at the end of 2019 to \$114,083 at the end of 2024 as a proposed 2020 rate increase provides sufficient funding for the schedule of capital projects planned from 2020-2024.
- ◆ Annual system improvements totaling \$462,000 are scheduled over the next five years.
- ◆ The 2014 rate increase of \$2.00 per month provided an additional \$35,304 per year to enable the Storm Water Fund to repay the five-year \$200,000 loan from the Sewer Fund and to continue to fund a more aggressive schedule of storm water projects.
- ◆ The proposed 2020 rate increase of \$1.50 per month will provide an additional \$26,676 per year to enable the Storm Water Fund to more comfortably finance the storm water projects planned over the next five years and to provide adequate reserves if unexpected costs – such as having to pump down the water level in landlocked ponds and wetlands – should arise.

Recommendations

1. A rate increase of \$1.50 per month is proposed that would increase the rates from \$7.00 per month per household to \$8.50 per month per household. The last storm water rate increase was in 2014. The proposed rate increase would enable the Storm Water fund to more adequately finance future operational costs and capital projects from 2020 – 2024.
2. Maintain the proposed capital improvement schedule in order to upgrade the aging storm water structures.
3. An annual fund reserve of approximately \$150,000 should be sufficient to finance larger scale capital projects.

**Water Fund Forecast
2020 - 2024**

Item	2020	2021	2022	2023	2024
Salary	3,636	3,745	3,857	3,973	4,092
Pera	273	281	289	298	307
Fica	225	232	239	246	254
Medicare	53	54	56	58	59
Insurance	505	530	557	585	614
Supplies	500	500	500	500	500
Auditing	2,000	2050	2101	2154	2208
Engineering	1,000	500	500	1,000	500
Postage	100	100	100	100	100
Insurance	975	1,004	1,034	1,065	1,097
Training Expenses	500	500	500	500	500
Utilities	74,000	75,480	76,990	78,529	80,100
Repair & Maint	1,500	1,600	1,700	1,800	1,900
Sales Tax	400	400	400	400	400
Capital Outlay	7,500	0	0	3,750	0
Total Expense	93,167	86,977	88,824	94,958	92,631
Revenues					
Permit Fees	100	100	100	100	100
Special Assessments	1,412	400	400	400	400
Interest Income	2,273	3,447	3,602	3,755	5,120
Charges for Service	91,880	93,360	94,870	96,409	97,980
Total Revenue	95,665	97,307	98,972	100,664	103,600
Annual Balance	2,498	10,330	10,148	5,706	10,969
Cash Balance, Jan. 1st	227,330	229,828	240,158	250,307	256,012
Cash Balance, Dec. 31st	229,828	240,158	250,307	256,012	266,981

Notes:

1. 2.5 hours in weekly staff hours budgeted each year.
2. The number of water utility customers is estimated at 149 per year.
3. 2% annual projected increases in Minnetonka & Shorewood water rates.
4. Repair of (6) fire hydrants in Amesbury in 2020.
5. Replair of (3) fire hydrants on Minnetonka Blvd in 2023.
6. No rate increases are recommended over the next five years.

**Sewer Fund Forecast
2020 - 2024**

Item	2020	2021	2022	2023	2024
Salary	105,883	109,059	112,331	115,701	119,172
PERA	7,941	8,179	8,425	8,678	8,938
FICA	6,565	6,762	6,965	7,173	7,389
Medicare	1,535	1,581	1,629	1,678	1,728
Health Insurance	20,428	21,449	22,522	23,648	24,830
Supplies	2,600	2,800	2,800	3,000	3,000
Vehicle Maintenance	500	500	500	500	500
Repair & Maintenance	5,000	5,000	5,000	5,000	5,000
Minor Equipment	500	500	500	500	500
Auditing	4,000	4,100	4,203	4,308	4,415
Engineering	18,000	18,000	18,000	18,000	18,000
Disposal Fees	432,510	449,810	467,803	486,515	505,976
Computer Maintenance	3,200	3,200	3,300	3,300	3,300
Equipment Maintenance	20,000	20,000	20,000	20,000	20,000
Postage	1,400	1,400	1,400	1,400	1,400
Insurance	14,450	14,884	15,330	15,790	16,264
Training	800	800	800	800	800
Utilities	8,000	8,000	8,500	8,500	8,500
SAC Charges	2,485	2,485	2,485	2,485	2,485
Capital Projects	80,000	70,000	40,000	40,000	30,000
Miscellaneous	2,500	2,500	2,500	2,500	2,500
Transfer to Other Funds	31,726	32,169	32,169	32,169	32,169
Total Expenses	770,023	783,179	777,161	801,644	816,866
Revenues					
Charges for Service	764,920	764,920	764,920	764,920	826,000
SAC / Permit Fees	2,485	2,485	2,485	2,485	2,485
Permits	1,000	1,000	1,000	1,000	1,000
Special Assessments	23,211	27,000	27,000	27,000	27,000
Interest Income	2,954	4,799	5,054	5,404	7,188
Total Revenue	794,570	800,204	800,459	800,809	863,673
Annual Balance	24,547	17,025	23,299	-835	46,808
Cash Balance, Jan. 1st	295,387	319,934	336,959	360,257	359,422
Cash Balance, Dec. 31st	319,934	336,959	360,257	359,422	406,230

Notes:

1. Salaries include (1) FT public works, Administrator's salary (6 hrs/wk), Billing Clerk's salary (10 hrs/wk) and 370 hours/year in other public works salaries.
2. Waste disposal fee is estimated to increase at 4% per year.
3. There is a \$10.00 per quarter rate increase projected in 2020 & 2024.

**Storm Water Fund Forecast
2020 - 2024**

Item	2020	2021	2022	2023	2024
Salaries	9,232	9,509	9,794	10,088	10,391
Pera	693	713	735	757	779
Fica	572	590	607	625	644
Medicare	134	138	142	146	151
Health Insurance	558	586	615	646	678
Supplies	500	500	500	500	500
Repair & Maint	500	500	500	500	500
Auditing	2,000	2,050	2,101	2,154	2,208
Engineering	16,000	12,000	12,000	12,000	42,000
Postage	200	200	200	200	200
Insurance	950	979	1,008	1,038	1,069
Contract Services	6,000	6,000	6,500	6,500	6,500
Dues & Subscriptions	470	470	470	470	470
Capital Projects	130,000	45,000	47,000	40,000	200,000
Total Expense	167,809	79,234	82,172	75,624	266,090
Revenues					
Storm Water Fees	151,164	151,164	151,164	151,164	151,164
Special Assessments	0	0	0	0	0
Fund Transfer	0	0	0	0	0
Interest Income	210	70	1,150	2,202	4,490
Total Revenue	151,374	151,234	152,314	153,366	155,654
Annual Balance	-16,435	72,000	70,141	77,741	-110,436
Cash Balance, Jan. 1st	21,071	4,636	76,636	146,777	224,518
Cash Balance, Dec. 31st	4,636	76,636	146,777	224,518	114,083

Notes:

1. Salaries include 2 hrs/wk Administrator and 2.5 hrs/wk Billing Clerk.
2. There is one \$1.50 per month rate increase in 2020.
3. Major Capital Projects over the next five years include:
 - 2020: Summerville Road Project, Cottagewood Road Wetland Outlet Repair
 - 2021: Easton Pond Improvement
 - 2022: Honeysuckle Road Repair, Walden Trail Repair, Carsonwood Avenue Casting Repair
 - 2023: Heathcote Road Repair, Cottagewood Road Catch Basin Installation
 - 2024: Northome Road / Lake Avenue Storm Water Extension
4. Culvert & Catch Basin repairs are scheduled in 2021, 2025, 2026, 2028, & 2029