

AGENDA  
SHAKOPEE PUBLIC UTILITIES COMMISSION  
REGULAR MEETING  
DECEMBER 2, 2019

1. **Call to Order** at 5:00pm in the SPUC Service Center, 255 Sarazin Street.
2. **Approval of Minutes**
3. **Communications**
4. **Approve the Agenda**
5. **Approval of Consent Business**
6. **Bills: Approve Warrant List**
7. **Liaison Report**
8. **Reports: Water Items**
  - 8a) Water System Operations Report – Verbal
  - 8b) Water Efficiency Grant from the Metropolitan Council
9. **Reports: Electric Items**
  - 9a) Electric System Operations Report – Verbal
10. **Reports: Human Resources**
11. **Reports: General**
  - 11a) 2020 Proposed Budget, Cash Flows and Key Assumptions
  - 11b) 2020 Capital Projects and Equipment – Final
    1. Administrative Projects and Equipment
    2. Electric Projects and Equipment
    3. Water Projects and Equipment
  - 11c) 2020-2024 Capital Improvement Plan - Final
12. **Tentative Dates for Upcoming Meetings**
  - Mid Month Meeting -- December 16
  - Regular Meeting -- January 6
  - Mid Month Meeting -- January 21 (Tuesday)
  - Regular Meeting -- February 3
13. **Adjourn to 12/16/19** at the SPU Service Center, 255 Sarazin Street

MINUTES  
OF THE  
SHAKOPEE PUBLIC UTILITIES COMMISSION  
(Regular Meeting)

Vice President Amundson called the regular session of the Shakopee Public Utilities Commission to order at the Shakopee Public Utilities meeting room at 5:00 P.M., November 18, 2019.

**MEMBERS PRESENT:** Commissioners Amundson, Meyer and Clay. Also present, Liaison Lehman, Utilities Manager Crooks, Finance Director Schmid, Planning & Engineering Director Adams, Electric Superintendent Drent, Water Superintendent Schemel and Marketing/Customer Relations Director Walsh. Commissioners Joos and Mocol were absent as previously advised.

Motion by Clay, seconded by Meyer to approve the minutes of the November 4, 2019 Commission meeting. Motion carried.

There were no Communication items to report.

Vice President Amundson offered the agenda for approval. Item 11c: Website Consultant Presentation was proposed to be moved up in the agenda to follow the Liaison report.

Motion by Meyer, seconded by Clay to approve the amended agenda as presented. Motion carried.

Vice President Amundson stated that the Consent Items were: Item 8b: Water Production Dashboard, Item 9b: Proposed Xcel Energy Electric Rate Increase and Item 11b: Financial Results for October 2019.

Commissioner Meyer asked that Item 9b: Proposed Xcel Energy Electric Rate Increase be taken off of Consent Business.

Motion by Meyer, seconded by Clay to approve the Consent Business agenda as modified. Motion carried.

The warrant listing for bills paid November 18, 2019 was presented.

Motion by Clay, seconded by Meyer to approve the warrant listing dated November 18, 2019 as presented. Motion carried.

Liaison Lehman presented his report. A question from Councilor Brennen was relayed to the Commission regarding the 2019 Water Comp Plan Update. The same question was asked by the City Administrator in an email received by the Utilities Manager. The Comprehensive Plan will be updated to not confuse SPU responsibilities with City responsibilities.

Marketing/Customer Relations Director Walsh introduced Cory Dammann from Vivid Image. A presentation was given for the SPU website development project. The SPU website will have a totally new look and functionality. Security, scalability, new branding and support were discussed.

Motion by Meyer, seconded by Clay to direct Staff to continue engaging Vivid Image in the development of a new SPU website and bring back a negotiated contract for Commission review. Motion carried.

Water Superintendent Schemel provided a report of current water operations. A 4" watermain break was repaired on Scott Street between 1<sup>st</sup> and 2<sup>nd</sup> Avenues. The break was cast iron and was set on bedrock. Hydrant flushing is still being affected by the unseasonable weather. Construction projects were updated.

Item 8b: Water Production Dashboard was received under Consent Business.

Electric Superintendent Drent provided a report of current electric operations. Two small outages were reviewed. Discussion took place in regards to the scheduled outages with the Enclave Project downtown. Some customers affected by the outage were not notified due to a mix up in communications between the Enclave electrician and SPU. To correct this type of issue in the future, SPU and the contractor will notify customers that would be affected by scheduled outages in the future. Construction updates were also provided.

Discussion took place in regards to the proposed Xcel Energy electric rate. The PUC will be evaluating the proposal for a 15% increase over a three year period. Xcel Energy serves a portion of Shakopee's energy needs.

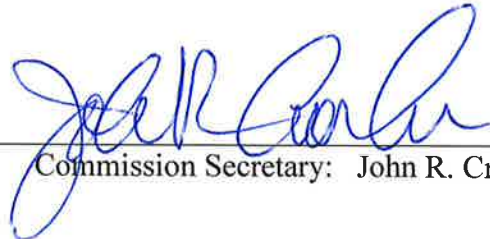
Utilities Manager Crooks discussed setting a date for his annual review. A tentative date of January 21, 2020 was proposed.

Planning and Engineering Director Adams provided an in depth review of the Capital Improvement Plan for 2020-2024. Administrative, Electric and Water capital projects and equipment were discussed for the 5 year period.

Item 11b: Financial Results for October 2019 was received under Consent Business.

The tentative commission meeting dates of December 2 and December 16 were noted.



Motion by Meyer, seconded by Clay to adjourn to the December 2, 2019 meeting. Motion carried.



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Commission Secretary: John R. Crooks

**SHAKOPEE PUBLIC UTILITIES  
MEMORANDUM**

TO: John R. Crooks, Utilities Manager   
FROM: Lon R. Schemel, Water Superintendent   
SUBJECT: **Metropolitan Council Water Efficiency Grant Program**  
DATE: November 26, 2019

On November 18, 2019, Shakopee Public Utilities was awarded \$23,300 as part of the 2019-2022 Water Efficiency Grant Program. This represents 75% of the program's total of \$31,070. The utility must provide the remaining 25% which is \$7,770.

Critical Points to the program:

- The applying municipality must be a water supplier
- New construction and new developments are not eligible
- Funds are for rebates or grants only; consulting and city staff time are ineligible
- Combined Council and municipality funds cannot pay for 100% of an eligible activity's cost
- A portion n of each eligible activity's cost must be paid by the property owner
- Grant recipients must display the Clean Water, Land and Legacy Amendment logo and the Metropolitan Council logo on program-related web pages and paper communications

Items eligible for replacement under this program are toilets, irrigation controllers and washing machines. Toilets and irrigation controllers must be labeled with US EPA WaterSense. Clothes washing machines must have US DOE Energy Star labeling. The utility estimates that 4 million gallons of water may be saved under this program. The program will begin on January 2, 2020.

Lon Schemel  
Water Superintendent  
P.O. Box 470, 255 Sarazin St  
Shakopee, MN 55379

November 18, 2019

The Metropolitan Council is pleased to award the Shakopee Public Utilities Commission the amount of \$23,300 as part of our 2019-2022 Water Efficiency Grant Program. The amount of matching funds required from your organization, based on the grant award above, is \$7,770. The Shakopee Public Utilities Commission is one of forty applicants in the Twin Cities Metropolitan Area that applied for and was accepted into this grant program. We are pleased to report that all available grant funds have been awarded and that all applicants will receive an award.

The amount of funds requested totaled \$1,393,527, while the amount of funds available is \$787,600. Because funds requested exceed funds available, a set of ranking factors and an objective scoring system were developed to establish a method to distribute the available funds. A committee of three staff members reviewed the applications and developed this ranking and scoring system. If you are interested in learning more about the ranking factors and scoring system, please contact me at [brian.davis@metc.state.mn.us](mailto:brian.davis@metc.state.mn.us) and I will send you a detailed description of this process.

Below are some critical points to remember:

- New construction and new developments are not eligible
- Funds are for rebates or grants only; consulting and city staff time are ineligible
- Grant recipients must display the Clean Water, Land and Legacy Amendment logo and the Metropolitan Council logo on all documents which are intended for public use

The Clean Water, Land and Legacy Amendment is available here: <http://www.legacy.leg.mn/legacy-logo/legacy-logo-download>

To obtain electronic and print versions of the Metropolitan Council logo, please contact me at [brian.davis@metc.state.mn.us](mailto:brian.davis@metc.state.mn.us).

As you prepare your organization's grant or rebate program, please be aware that the following information must be reported on a quarterly basis, on forms to be provided by the Metropolitan Council:

- Number, type and amount of rebates or grants provided to property owners, along with each property address
- Estimated annual gallons of water saved per installation
- Organization matching funds disbursed
- Number of unmet funding requests from property owners
- Electronically scanned copies of receipts to verify the cost of eligible devices being reported

Reporting forms and instructions will be made available in early 2020 on our website:  
<http://www.metrocouncil.org/Wastewater-Water/Funding-Finance/Available-Funding-Grants.aspx>

Quarterly reporting periods and reporting form due dates are shown below.

Quarterly Period	Reporting Form Due Date
Jan. 1, 2020 – March 31, 2020	April 30, 2020
April 1, 2020 – June 30, 2020	July 31, 2020
July 1, 2020 – September 30, 2020	October 31, 2020
October 1, 2020 – December 31, 2020	January 31, 2021
Jan. 1, 2021 – March 31, 2021	April 30, 2021
April 1, 2021 – June 30, 2021	July 31, 2021
July 1, 2021 – September 30, 2021	October 31, 2021
October 1, 2021 – December 31, 2021	January 31, 2022
January 1, 2022 – March 31, 2022	April 30, 2022
April 1, 2022 – June 30, 2022	July 31, 2022

In early December a Grant Agreement will be mailed to your organization for your signature. Instructions will be provided in that mailing.

Again, congratulations on your grant award. We look forward to working with you to increase the water efficiency of our region.


Sincerely,




Brian M. Davis, Ph.D, P.G., P.E.  
Senior Engineer, Water Supply Planning  
Phone: 651-602-1519  
[brian.davis@metc.state.mn.us](mailto:brian.davis@metc.state.mn.us)



November 26, 2020

TO: John Crooks, Utilities Manager 

FROM: Renee Schmid, Director of Finance and Administration 

SUBJECT: 2020 Proposed Operating Budget, Cash Flow, and Key Operating Budget Assumptions

The following documents are presented for review, discussion and recommended approval at the next meeting of the Shakopee Public Utilities Commission scheduled for December 2, 2019:

- 2020 Key Operating Budget Assumptions
- 2020 Proposed Operating Budget for the Electric Utility, Water Utility, and Total Utility
- Projected Cash Flows 2020-2024

2020 Key Operating Budget Assumptions:

The following key budget assumptions were used to develop the 2020 Operating Budget:

Revenue Planning Assumptions:

- Year to date revenues as of September 30, 2019 and forecasted revenues for the fourth quarter 2019 were used as the basis for developing the 2020 Operating Revenue Budget. Historical sales volumes over the last three years were also reviewed.

Total Utility Operating Revenue for the combined electric and water utility is budgeted at \$55.0 million in 2020, an increase of \$.6 million, or 1.0% from 2019.

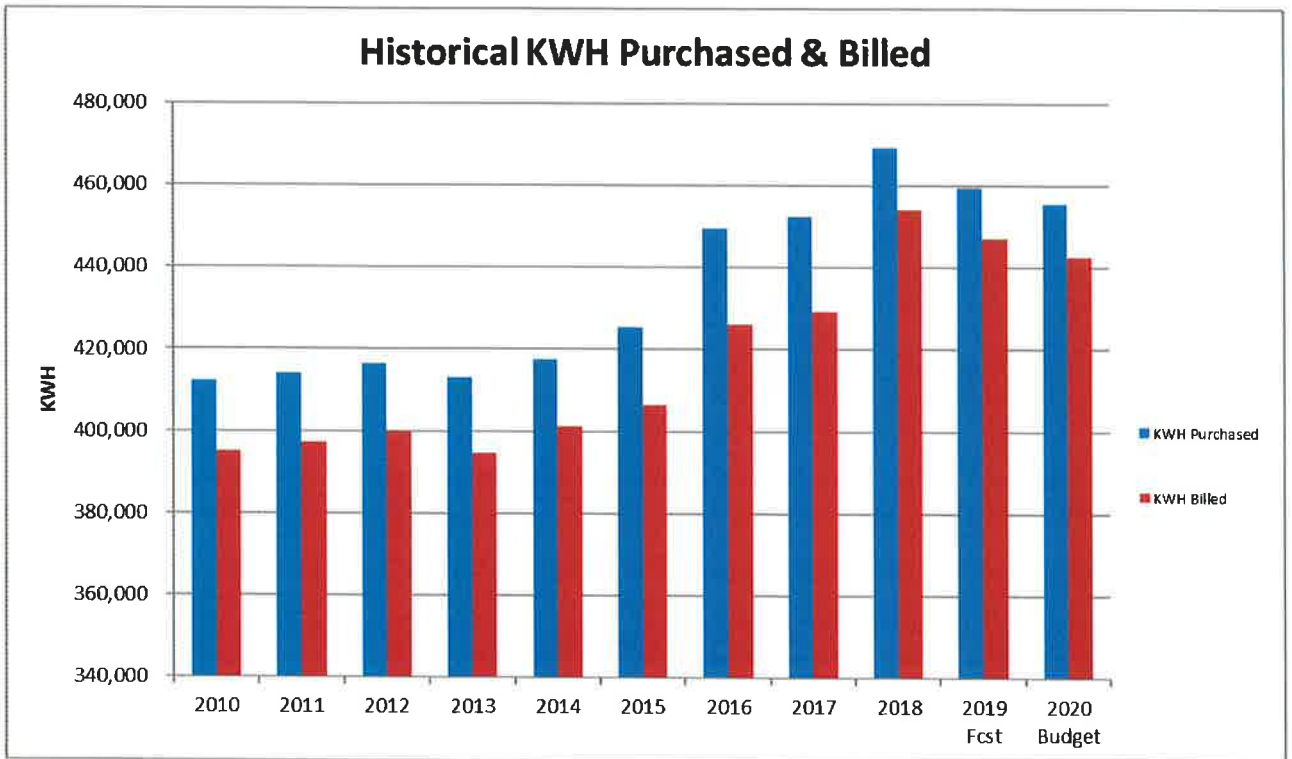
Electric Revenue Assumptions

Electric revenue is projected to be flat from 2019 to 2020 at \$49.6 million reflecting decreased industrial sales, increased residential sales, and increased power cost adjustment revenues driven by projected increased power costs. Underground relocation revenues are projected to decrease from \$149k to \$133k due to decrease in kWh sales and a rate decrease.

- Revenue projections assume no planned rate increases for energy, demand, or service charges as of January 1, 2020 in residential, commercial, and industrial rates. Rate adjustments to the energy charges were last made in 2012, service fee

charges and demand charges were made in 2016, and demand rate increases were last made in 2019. Relocation underground rates will decrease in 2019.

- Purchased power costs are projected to increase \$0.1 million dollars or 0.3% in 2020 from \$34.5 million to \$34.6 million, reflecting a projected 0.9% decrease in kWh purchased of \$0.2 million dollars and an increase in the cost of purchased power of \$0.3 million dollars or 1.2% per kilowatt. Increases in the cost per kWh of purchased power are being driven by increases in demand rate charges from our power supplier. The increase in purchased power costs is projected to impact the average cost of the power cost adjustment rate from an average of 1.55 cents per kWh in 2019 to 1.63 cents per kWh in 2020.
- Total sales of kilowatt hours are projected to decrease by 1.0% from 447,255,556 kWh in 2019 to 442,644,332 kWh in 2020 driven by a decrease in industrial kWh sales of 1.8% and partially offset by an increase in residential sales kWh growth of 0.5%. Commercial kWh sales are projected to be flat from 2019 – 2020. Industrial kilowatt sales are projected to decrease due to a large customer who discontinued operations in the fourth quarter of 2019. Industrial demand revenues will also decrease due to the loss of this customer as well as the expiration of minimum demand contracts with two large power customers. Residential kilowatt sales are projected to increase by 0.5% driven by expected growth of kWh sales of 1.0% and partially offset by a reduction in residential sales of 0.5% due to conservation initiatives.





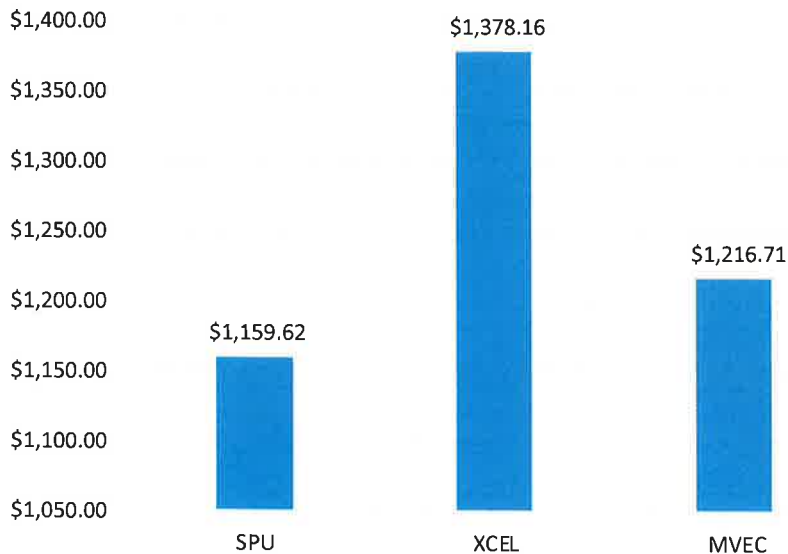
- The 2020 budget assumes the underground relocation charge will decrease from the 2019 rate of \$.00034/kWh to \$.00030/kWh in 2020. Specific project costs were reviewed and estimated over the next five years and the 2020 rate will result in sufficient fund balances to support operations over the next five years.

<b>Relocation Underground Rates/Fund Balance Projections</b>					
Date	KWH Billed	UGRL Rate	Revenue	Expense	Ending Balance
9/30/2019		0.00034			934,593.31
10/30/2019		0.00034	12,438.25		947,031.56
11/30/2019		0.00034	11,471.92		958,503.48
12/31/2019		0.00034	12,380.42	-	970,883.90
2020	442,644,332	0.00030	132,793.30	480,750.00	622,927.20
2021	447,070,776	0.00030	134,121.23	125,000.00	632,048.43
2022	451,541,483	0.00030	135,462.45	102,000.00	665,510.88
2023	456,056,898	0.00030	136,817.07	55,000.00	747,327.94
2024	460,617,467	0.00030	138,185.24	394,300.00	491,213.19

The projected increase to a residential customer bill with the increase in PCA costs and reduction of the Relocation Underground rate decrease is a net increase from 2019 to 2020 of 0.9% or \$0.82 per month or \$9.89 annually.

- SPU annual average customer bills are lower than Xcel and MVEC based on 2019 rates and 2018 variable costs with exception to Large Industrial rates. Early in 2020 staff plans to update the Commission with actual 2019 rates when final variable rate information is available. Xcel is proposing significant rates increases over the next several years.

**Average Annual Residential Electric Bill**  
 Calculated using 2019 Published Rates and 2018 Variable Rates



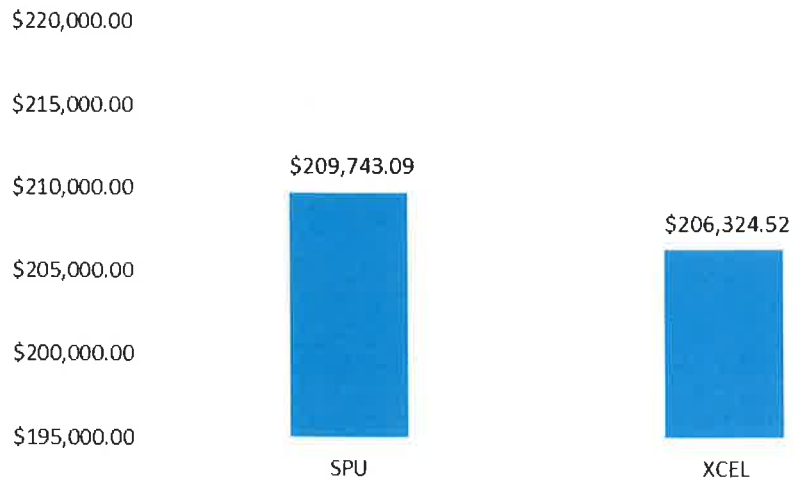
**Average Annual Electric Commercial Bill**  
Calculated using 2019 Published Rates & 2018 Variable Rates



**Average Annual Large General Bill (15 - 150kW Demand)**  
Calculated using 2019 Published rates & 2018 Variable Rates



**Average Annual Large Industrial Service Bill**  
Calculated using 2019 Published rates & 2018 Variable Rates

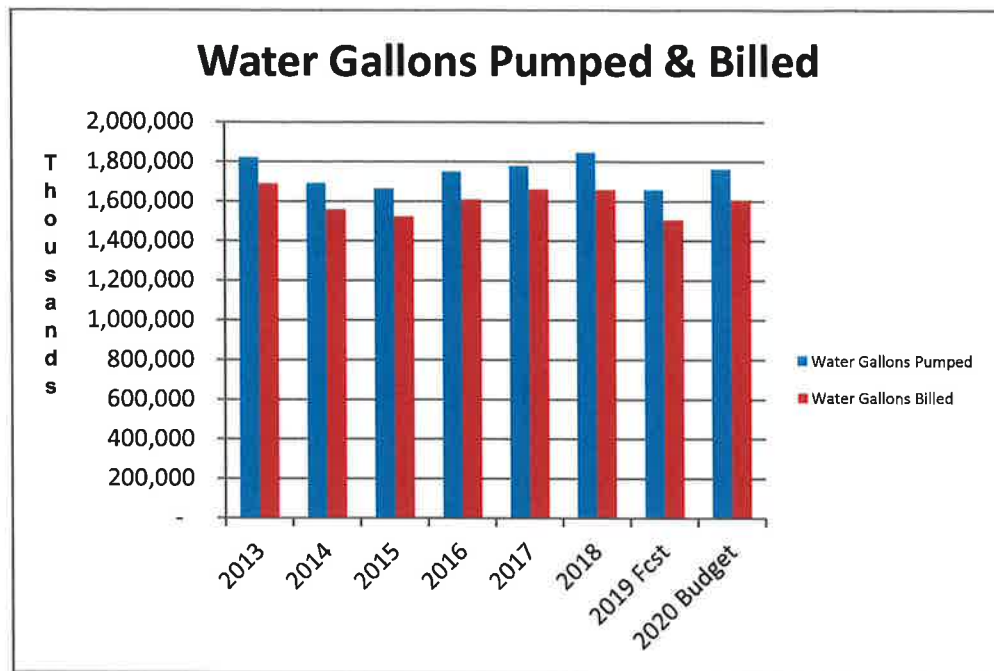


SPU is approximately 1.6% higher than Xcel on Large Industrial Service bills.

**Water Revenue Assumptions**

Total water operating revenue is projected to increase from \$4.8 million to \$5.4 million, an increase of \$567k or 11.7% from 2019 to 2020 driven by higher projected water sales volume of \$267k, and an increase in water reconstruction revenues of \$300k driven by an increase in the water reconstruction rate to support planned projects.

- Water revenue assumptions assume no changes to fixed or commodity usage rates from 2019 to 2020.
- Water sales are projected to increase 6.8% from 1.506 billion gallons in 2019 to 1.608 billion gallons in 2020 reflecting a more typical weather pattern based on historical sales volume data over the last three years. 2019 precipitation levels were one of the highest on record for the twin cities area which impacted customer consumption and irrigation usage. 2020 account growth is planned at 0.7% from 2019 primarily due to residential account growth.



- As of January 1<sup>st</sup>, 2010, the DNR has required all utilities to adopt a conservation based rate structure. The last water rate increases adopted by the Commission were in 2018.
- The water reconstruction fee is projected to increase from \$.25 per thousand gallons to \$.42 per thousand gallons to support planned reconstruction projects over the next five years resulting in an increase of \$300k in revenue in 2020 from 2019.

#### Shakopee Public Utilities Water Reconstruction Fund Rates

	Projected Annual Retail Sales Gallons in Thousands	Estimated Average Charge Per 1,000 Gallons	Estimated Revenues	Reconstruction Project Costs	Projected Fund Balance
9/30/2019					633,504.93
10/30/2019			35,476.75		668,981.68
11/30/2019			22,190.25	(212,503.74)	478,668.19
12/31/2019	1,505,742	0.25	22,335.25		501,003.44
2020	1,608,358	0.42	675,510.50	(455,000.00)	721,513.94
2021	1,624,442	0.42	682,265.61	(1,400,000.00)	3,779.54
2022	1,640,686	0.25	410,171.58	(265,000.00)	148,951.13
2023	1,657,093	0.25	414,273.30	(205,000.00)	358,224.43
2024	1,673,664	0.25	418,416.03	(210,000.00)	566,640.46

The impact of the increase in the water reconstruction rate increase on a residential customer bill using 7,500 gallons per month will be an increase of \$1.27/month and results in water rates still below the average of other comparative cities using 2019 rate data.

Assumes 7,500 gallons of water used per month

City *	Billing Cycle	Water Base Fee		Water for 7,500 gallons	Water Total	Average Water Bill
		Monthly	Monthly			
Burnsville	Monthly	\$3.20	\$23.70	\$26.90	\$28.02	
Lakeville	Quarterly	\$2.42	\$10.88	\$13.29	\$28.02	
Shakopee - 2019	Monthly	\$3.71	\$21.78	\$25.49	\$28.02	
Shakopee - 2020	Monthly	\$3.71	\$23.05	\$26.76	\$28.02	
Savage	Monthly	\$8.65	\$26.10	\$34.75	\$28.02	
Chanhassen	Quarterly	\$4.55	\$16.70	\$21.25	\$28.02	
Rogers	Monthly	\$2.04	\$11.78	\$13.82	\$28.02	
Inver Grove Heights	Quarterly	\$7.70	\$21.26	\$28.96	\$28.02	
Inver Grove Heights NWA	Quarterly	\$7.70	\$21.26	\$28.96	\$28.02	
Eagan	Quarterly	\$1.26	\$14.78	\$16.04	\$28.02	
Chaska	Monthly	\$3.00	\$19.28	\$22.28	\$28.02	
Carver	Monthly	\$10.00	\$33.75	\$43.75	\$28.02	
Prior Lake	Bimonthly	\$2.50	\$36.08	\$38.58	\$28.02	
Jordan	Monthly	\$10.71	\$43.88	\$54.59	\$28.02	
Eden Prairie	Quarterly	\$6.00	\$17.59	\$23.59	\$28.02	
*2019 Rates by City per Ehlers Report						
<b>Average (excluding Shakopee 2020 rate)</b>					<b>\$28.02</b>	

- It should be also noted that the State of Minnesota is increasing its water connection fee to fund safe drinking water from 0.53 cents per month to .81 cents per month effective January 1, 2020. This is a fee that appears on all customer bills and is collected on behalf of the State of Minnesota and is not included in the water rate survey analysis above.

Expense Planning Assumptions:

- Year to date expenses as of August 31, 2019 annualized were used as the basis for developing the 2020 Operating Expense Budget.
- The operating budget anticipates leaving three authorized positions vacant in 2020 for a savings of approximately \$78k in salary or 1.5% of total base pay.
- Operating expense is expected to increase \$1.4 million or 3.2% million from \$44.0 million in 2019 to \$45.4 million in 2020.

Purchased power costs are expected to increase by \$103k or 0.3% from \$34.5 million in 2019 to \$34.6 million in 2020 driven by projected increases in power costs and partially offset by a decrease in purchased kWh due to a decrease in industrial sales volumes. Wage ranges are projected to increase at 3.0%. Labor expense is increasing by \$471k in direct operating expense and \$61k in capitalized non-operating labor, including a provision of \$108k to hire three

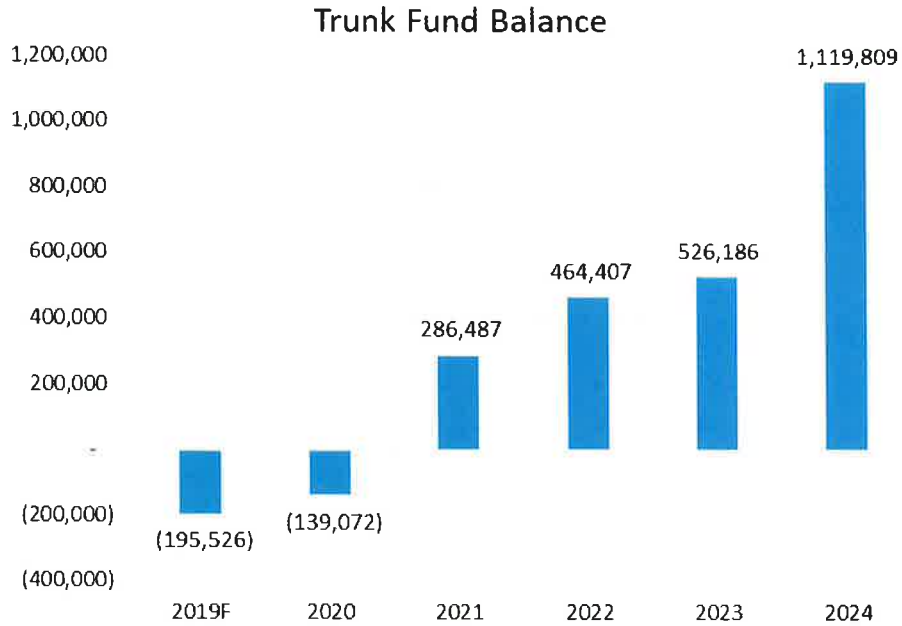
authorized staff additions previously left unfilled, and \$64k for competitive pay market adjustments. Other expense increases total \$837k and are driven by increases in direct employee benefits of \$204k, water system maintenance costs of \$45k, electric distribution maintenance expense of \$29k, conservation expense of \$10k for a water rebate program, office supplies of \$39k for software maintenance, disaster recovery, and a phone system upgrade, customer service \$56k for Ebill, staff development, and call management software, insurance expense of \$53k including insurance claim reserves, other expenses of \$66k for staff training, and outside services expense of \$318k to support project initiatives including \$30k Territory Acquisition, \$2k succession planning, \$30k HR legal/recruiting, \$52k IT disaster recovery and security assessment implementation, \$89k web redesign/customer newsletters, \$13k water SCADA, \$56k engineering projects, \$30k Daffron upgrade, and other miscellaneous of \$16k.

- Depreciation expense is projected to increase \$491k from 2019 to 2020 driven by capital expenditures in both water and electric. The increase in depreciation expense anticipates the completion of several large capital projects including the addition of the Windermere Booster Station, completion of the 2019 water main reconstruction project, the Rahr water main project, and new capital projects planned in 2020.

#### Other Non-Operating Planning Assumptions:

- Non-Operating Income is anticipated to decrease from 2019 to 2020 by \$486k primarily due to lower investment income of \$354k, and lower miscellaneous income of \$96k due to non-recurring income recognized in 2019, and other lower miscellaneous income of \$36k. Investment income is planned to decrease due to a decline in investment balances for planned capital expenditures and a declining rate environment. The Federal Reserve Bank lowered the feds fund rate several times during 2019.
- Capital Contributions are expected to be lower in 2020 than 2019 by \$840k primarily due to lower collection of Water Capacity Charge fees of \$807k based on timing of planned development, lower paid in capital contributions of \$297k, and partially offset by higher collection of Trunk Water fees \$264k based on projected plat development.

Trunk Water and Water Connection revenue projections were reviewed and adjusted to reflect current planned projects, expected building permit activity and related timing in the Five Year Cash Flow projections. The budget as proposed assumes no increase in Water Connection or Trunk Fees pending completion of a financial study of the utility's development fees which was contingent upon the completion of the final 2019 supplement to the water comprehensive plan and recently accepted by the Commission. The Commission plans to review development fees after completion of the study.

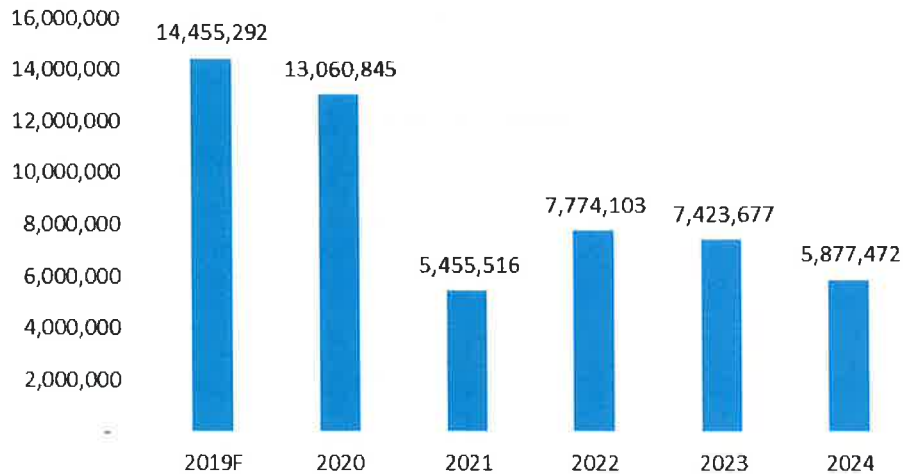


The Trunk Fund balance is projected to have a deficit balance through 2020 and improve in 2021 if planned development projects materialize. Total projected expenses over the period total \$3.1 million dollars against anticipated fees of \$4.2 million over the five years.

### Trunk Fund Balance Projections

Date	# acres	Trunk Fee/Acre	Revenue	Expense	Ending Balance
9/30/2019		4,451			79,599.29
10/30/2019	-	4,451	-	179,399.63	(99,800.34)
11/30/2019	-	4,451	-	75,707.12	(175,507.46)
12/31/2019	-	4,451	-	20,018.89	(195,526.35)
2020	104	4,451	462,904.00	406,450.00	(139,072.35)
2021	190	4,509	854,429.54	428,870.00	286,487.19
2022	107	4,567	488,720.17	310,800.00	464,407.36
2023	83	4,627	384,029.00	322,250.00	526,186.36
2024	423	4,687	1,982,602.93	1,388,980.00	1,119,809.29
Total Revenue/Expense			4,172,685.64	3,132,475.64	

## Water Connection Fund Balance



The Water Connection Fund balance is projected to have a balance at the end of 2019 of \$14.5 million and decrease to \$5.9 million by 2024. Planned revenues were projected based on the number of residential and non-residential planned connections over the next five years. Expenses are driven by planned infrastructure costs in the five year CIP plan. Total projected expenses over the period total \$27.1 million dollars against anticipated water capacity fee revenue of \$16.2 million over the five years.

### Water Connection Fund Balance Projections

Date	# Residential lots*	# Non Residential	Total Projected Units	Water Connection Fee	Revenue	Expense	Ending Balance
9/30/2019							16,786,570.58
10/30/2019	9	18	27	6,039	162,016.70	84,549.05	16,864,038.23
11/30/2019		4	4	6,039	24,156.00	2,681,822.77	14,206,371.46
12/31/2019				6,039	354,405.00	105,484.84	14,455,291.62
2020	510	53	563	6,039	3,402,553.77	4,797,000.00	13,060,845.39
2021	600	53	653	6,118	3,994,670.90	11,600,000.00	5,455,516.29
2022	313	96	409	6,197	2,534,587.15	216,000.00	7,774,103.43
2023	436	74	510	6,278	3,201,573.98	3,552,000.00	7,423,677.41
2024	360	49	409	6,359	2,600,914.76	4,147,120.00	5,877,472.17
Total Revenue/Expense					16,274,878.25	27,183,976.66	

- Transfer to Municipality of Shakopee expense is expected to remain flat at \$2.4 million dollars driven by electric and water sales.

During the last several years, the commission has discussed the need to address the ability of the water utility to sustain the level of municipal contributions as defined under the current resolution set by the commission. The current municipal transfer is calculated based on water sales (excluding water



reconstruction revenues) less energy costs for pumping times 23.77%. The water utility operating income and municipal contribution amounts are shown below for 2018 and the 2019 forecast:

Water Utility Operating Income (in thousands)	2018	2019
Operating Revenues	5,608	4,846
Operating Expenses	(4,261)	(4,720)
Operating Income	1,347	126
Transfer to Municipality	(1,092)	(995)
Net Operating Income after Municipal Transfer	255	(869)

To continue with the current water municipal contribution will either require a significant increase in rates for our water customers, a significant reduction in costs, or a change to municipal contribution transfer.

The current electric municipal contribution is calculated based on Residential, Commercial, and Industrial Sales, and customer late fees, excluding relocation underground fees and water division pumping, times 2.71%.

Electric Utility Operating Income (in thousands)	2018	2019
Operating Revenues	50,393	49,609
Operating Expenses	(43,935)	(43,194)
Operating Income	6,459	6,415
Transfer to Municipality (without free service)	(1,340)	(1,320)
Net Operating Income after Municipal Transfer	5,118	5,094

The 2020 budget proposes the Commission consider revising the municipal contribution amounts for both the water and electric utility. The proposed budget would maintain a consistent amount in the total Transfer to Municipality costs paid by SPU to the City of Shakopee, rebalance the amounts paid between the electric and water utilities, reduce the pressure to increase water customer rates or make significant operating expense cuts, and clarify and simplify the calculation of the municipal transfer fee. The transfer would be calculated based on customer sales from fixed/service, usage, PCA, and security light billings less bad debt charge offs times 4.4% for both the electric and water utilities. Special purpose fund revenues from underground relocation, water reconstruction, and water division pumping would continue to be excluded from this calculation as they have been in the past. The table below shows the municipal transfer amounts under the current methodology for 2018 (actual), 2019 and 2020 and the same under the proposed methodology.

Current Municipal Transfer (in thousands)	2018	2019	2020
Electric	(1,340)	(1,320)	(1,321)
Water	(1,092)	(995)	(1,056)
Total Municipal Transfer	(2,432)	(2,316)	(2,377)
Free Service for Street Lighting	(169)	(85)	(85)
Total Municipal Transfer with Free Service	(2,601)	(2,401)	(2,462)
Proposed Municipal Transfer (in thousands)	2018**	2019R*	2020R*
Electric	(1,340)	(2,117)	(2,203)
Water	(1,092)	(194)	(206)
Total Municipal Transfer	(2,432)	(2,311)	(2,409)
Free Service for Street Lighting	(169)	(85)	(85)
Total Municipal Transfer with Free Service	(2,601)	(2,397)	(2,494)

\*2019R - 2020R Transfer Fee using new method

\*\*2018 is actual calculation for 2018

In addition to the municipal transfer fee at 4.4% of defined sales less bad debt, SPU contributes energy for all city street lights at no charge to the City of Shakopee. This amount was \$169k in 2018 and is expected to decrease in 2019 to approximately \$85k because SPU funded the city wide conversion to LED lights in 2018. SPU also provides maintenance at no charge to keep the LED lights in working condition. The effective contribution rate to the City of Shakopee with Free Service for Street Lighting is 4.56% under the proposed transfer fee for 2020.

### Outstanding Debt

- As of February 1, 2018, Shakopee Public Utilities has no outstanding debt. The final outstanding bond issue was fully callable for early defeasance as of February 1, 2015 and defeasance was approved by the Commission and executed on 2/1/2018. The Commission continues to realize savings in interest expense of \$2.19 million dollars between 8/1/2018 – 2/1/2030 by early retirement of this bond issue.

### Projected Cash Flows and Fund Balances

- The 2020 operating budget and related capital improvements as proposed result in positive cash flow projections near term in all funds with exception to the Trunk fund which is expected to have a deficit balance for the next several years. Please refer to the attached projected cash flow statement.
- Our financial advisors and auditors recommend maintaining an operating fund cash reserve of a minimum of three to six months of operating expenses. Other consultants and advisors recommend six months to one year. The 2020 operating budget and related capital improvements as proposed will generate and maintain adequate cash reserves in 2020 in the electric and water operating funds.

Operating Reserve Analysis	2020	2021	2022	2023	2024
Water - Op Expense	(5,441)	(5,604)	(5,772)	(5,945)	(6,124)
Electric - Op Expense	(44,375)	(45,706)	(47,078)	(48,490)	(49,945)
Total Utility - Op Expense	(49,816)	(51,310)	(52,850)	(54,435)	(56,068)
40% as reserves - Water	(2,176)	(2,242)	(2,309)	(2,378)	(2,449)
40% as reserves - Electric	(17,750)	(18,283)	(18,831)	(19,396)	(19,978)
40% as reserves - Total Utility	(19,926)	(20,524)	(21,140)	(21,774)	(22,427)
Projected Water Op Cash Balance	7,991	6,785	5,874	5,029	6,156
Projected Electric Op Cash Balance	35,381	33,779	35,719	33,110	26,585
Total Operating Cash Balance	43,372	40,564	41,593	38,139	32,741
<b>Reserve (Deficit)/Surplus - Water</b>	<b>5,814</b>	<b>4,543</b>	<b>3,565</b>	<b>2,651</b>	<b>3,707</b>
<b>Reserve (Deficit)/Surplus - Electric</b>	<b>17,631</b>	<b>15,496</b>	<b>16,888</b>	<b>13,714</b>	<b>6,607</b>
<b>Reserve (Deficit)/Surplus - Total</b>	<b>23,445</b>	<b>20,040</b>	<b>20,453</b>	<b>16,365</b>	<b>10,314</b>

Water Average monthly operating expenses	453.4	467.0	481.0	495.4	510.3
Water - Number of months of reserves	17.6	14.5	12.2	10.2	12.1
Electric Average monthly operating expenses	3,697.9	3,808.9	3,923.1	4,040.8	4,162.1
Electric - Number of months of reserves	9.6	8.9	9.1	8.2	6.4

Cash reserves target calculated at 40% (or 5 months) of operating expense per financial advisor  
Other consultants suggest anywhere from 6mths to 1year (PCE/auditors)

Without the change in the proposed municipal contribution, excess water reserve balances diminish to near zero in 2022 and are negative in 2023 and 2024.

#### Requested Commission Action

- Approve the 2020 Operating Budget and 2020 – 2024 Projected Cash Flow Statement.
- Direct staff to proceed with drafting a resolution for commission approval to modify the municipal contribution as proposed.

Thank you for your time and consideration of this budget proposal.

**Shakopee Public Utilities**  
**2019 Operating Budget - Total Utility**  
(\$ in Thousands)

	2018 Actual	2019 Projected	2019 Budget	2020 Budget	2019 Projected vs 2020 Budget	
					\$	%
Operating Revenue	\$ 56,002	\$ 54,455	\$ 56,426	\$ 55,013	\$ 558	1.0%
Operating Expense	(44,543)	(44,009)	(46,765)	(45,420)	(1,411)	-3.2%
Depreciation & Amortization	(3,653)	(3,905)	(4,125)	(4,396)	(491)	-12.6%
Operating Income	<u>7,806</u>	<u>6,541</u>	<u>5,536</u>	<u>5,197</u>	<u>(1,344)</u>	<u>-20.6%</u>
Non-Operating Income (Expense)	1,156	1,893	942	1,407	(486)	25.7%
Net Income Before Contributions & Transfers	<u>8,962</u>	<u>8,434</u>	<u>6,477</u>	<u>6,604</u>	<u>(1,830)</u>	<u>-21.7%</u>
Capital Contributions	6,599	4,794	3,120	3,955	(840)	-17.5%
Transfers To Municipality	(2,601)	(2,401)	(2,525)	(2,409)	(8)	-0.3%
Net Income or Change in Net Assets	<u>\$ 12,960</u>	<u>\$ 10,827</u>	<u>\$ 7,073</u>	<u>\$ 8,149</u>	<u>\$ (2,677)</u>	<u>-24.7%</u>

**Shakopee Public Utilities**  
**2019 Operating Budget - Electric**  
(\$ in Thousands)

	2018 Actual	2019 Projected	2019 Budget	2020 Budget	2019 Projected vs 2020 Budget	
					\$	%
Operating Revenue	\$ 50,393	\$ 49,609	\$ 51,176	\$ 49,600	\$ (9)	0.0%
Operating Expense	(41,697)	(40,872)	(43,365)	(41,848)	(975)	-2.4%
Depreciation & Amortization	(2,238)	(2,322)	(2,432)	(2,527)	(205)	-8.8%
Operating Income	<u>6,459</u>	<u>6,415</u>	<u>5,379</u>	<u>5,225</u>	<u>(1,190)</u>	<u>-18.5%</u>
Non-Operating Income (Expense)	747	1,304	541	952	(352)	27.0%
Net Income Before Contributions & Transfers	<u>7,206</u>	<u>7,718</u>	<u>5,921</u>	<u>6,177</u>	<u>(1,542)</u>	<u>-20.0%</u>
Capital Contributions	731	297	-	-	(297)	NA
Transfers To Municipality	(1,509)	(1,406)	(1,446)	(2,203)	(797)	-56.7%
Net Income or Change in Net Assets	<u>\$ 6,427</u>	<u>\$ 6,609</u>	<u>\$ 4,475</u>	<u>\$ 3,974</u>	<u>\$ (2,635)</u>	<u>-39.9%</u>

**Shakopee Public Utilities**  
**2019 Operating Budget - Water**  
(\$ in Thousands)

	2018 Actual	2019 Projected	2019 Budget	2020 Budget	2019 Projected vs 2020 Budget	
					\$	%
Operating Revenue	\$ 5,608	\$ 4,846	\$ 5,250	\$ 5,412	\$ 567	11.7%
Operating Expense	(2,846)	(3,137)	(3,400)	(3,572)	(435)	-13.9%
Depreciation & Amortization	(1,415)	(1,583)	(1,693)	(1,869)	(286)	-18.1%
Operating Income	<u>1,347</u>	<u>126</u>	<u>156</u>	<u>(28)</u>	<u>(155)</u>	<u>-122.4%</u>
Non-Operating Income (Expense)	409	589	400	455	(134)	22.7%
Net Income Before Contributions & Transfers	<u>1,756</u>	<u>715</u>	<u>556</u>	<u>427</u>	<u>(288)</u>	<u>-40.3%</u>
Capital Contributions - Includes Capital Contributions, Trunk, Connection, and Meter Fees	5,868	4,498	3,120	3,955	(543)	-12.1%
Transfers To Municipality	(1,092)	(995)	(1,079)	(206)	789	79.3%
Net Income or Change in Net Assets	<u>\$ 6,533</u>	<u>\$ 4,218</u>	<u>\$ 2,598</u>	<u>\$ 4,176</u>	<u>\$ (42)</u>	<u>-1.0%</u>

**Projected Water Cash Flow  
9/30/19 - 12/31/19  
Final as of 11/18/19**

	Operating Fund Less Customer Deposits*	Connection Fund	Trunk Fund	Water Reconstruction Fund	Sub-total Available Funds	Bond Reserve	Bond Reserve 2004	Bond Reserve 2006	Total Water Funds
<b>Balance 9/30/19</b>	<b>\$ 6,123,529.43</b>	<b>\$ 16,786,570.58</b>	<b>\$ 79,599.29</b>	<b>\$ 633,504.93</b>	<b>\$ 23,623,204.23</b>	<b>\$ -</b>	<b>\$ -</b>	<b>\$ -</b>	<b>\$ 23,623,204.23</b>
Estimated Receipts		540,577.70	0.00	80,002.25	<b>620,579.95</b>	0.00	0.00	0.00	\$ 620,579.95
Est Cash Flow - 4th Qtr/Payments**	(1,281,938.64)	(351,999.67)	(275,125.64)	(179,092.73)	<b>(2,088,156.68)</b>	0.00	0.00	0.00	\$ (2,088,156.68)
Transfers	2,553,268.00	(2,519,856.99)	0.00	(33,411.01)	<b>0.00</b>	0.00	0.00	0.00	\$ 0.00
<b>Estimated 12/31/19 Balance</b>	<b>\$ 7,394,858.79</b>	<b>\$ 14,455,291.62</b>	<b>\$ (195,526.35)</b>	<b>\$ 501,003.44</b>	<b>\$ 22,155,627.50</b>	<b>\$ -</b>	<b>\$ -</b>	<b>\$ -</b>	<b>\$ 22,155,627.50</b>

\*\* Connection Fund Cash include expenditures of \$84,549 Windemere Test Well, \$2,681,822 Windemere Booster Station, \$105,484.84 Windemere Transmission Res #1247, Water Reconstruction includes \$212.5k for 2019 Street Reconstruction Pr  
Trunk Fund payments include \$275.1k in oversizing for: \$179.4k Windemere South 1st, \$75.7 Windemere South 2nd, \$20k Mount Olive Church

**Projected Electric Cash Flow  
9/30/19 - 12/31/19**

	Operating Fund Less Customer Deposits*	Emergency Fund	Underground Relocation Fund	Sub-total Available Funds	Bond Reserve	Bond Reserve 2004	Bond Reserve 2006	Total Electric Funds
<b>Balance 9/30/19</b>	<b>\$ 35,338,123.84</b>	<b>\$ 100,000.00</b>	<b>\$ 934,593.31</b>	<b>\$ 36,372,717.15</b>	<b>\$ -</b>	<b>\$ -</b>	<b>\$ -</b>	<b>\$ 36,372,717.15</b>
Estimated Receipts	0.00	0.00	36,290.59	<b>36,290.59</b>				\$ 36,290.59
Est Cash Flow - Oct - Dec**	1,819,046.30	0.00		<b>1,819,046.30</b>	0.00	0.00	0.00	\$ 1,819,046.30
Transfers	0.00	0.00	0.00	-	0.00	0.00	0.00	\$ -
<b>Estimated 12/31/19 Balance</b>	<b>\$ 37,157,170.14</b>	<b>\$ 100,000.00</b>	<b>\$ 970,883.90</b>	<b>\$ 38,228,054.04</b>	<b>\$ -</b>	<b>\$ -</b>	<b>\$ -</b>	<b>\$ 38,228,054.04</b>

\*\*Operating cash flows include \$618k in 4th quarter CIP project expenditures of \$300k for Dean Lake Relays/SCADA & \$318K in Underground & Feeder projects underway

**Projected Cash Flow - Combined Water & Electric  
9/30/19 - 12/31/19**

	Operating Fund	Connection & Emergency Fund	Trunk & UGRL Funds	Water Reconstruction Fund	Sub-total Available Funds	Bond Reserve	Bond Reserve 2004	Bond Reserve 2006	Total Funds
<b>Balance 9/30/19</b>	<b>\$ 41,461,653.27</b>	<b>\$ 16,886,570.58</b>	<b>\$ 1,014,192.60</b>	<b>\$ 633,504.93</b>	<b>\$ 59,995,921.38</b>	<b>\$ -</b>	<b>\$ -</b>	<b>\$ -</b>	<b>\$ 59,995,921.38</b>
Est Receipts	-	540,577.70	36,290.59	80,002.25	<b>656,870.54</b>	0.00	0.00	0.00	\$ 656,870.54
Est Cash Flow - Oct - Dec	537,107.66	(351,999.67)	(275,125.64)	(179,092.73)	<b>(269,110.38)</b>	0.00	0.00	0.00	\$ (269,110.38)
Transfers	2,553,268.00	(2,519,856.99)	-	(33,411.01)	<b>0.00</b>	0.00	0.00	0.00	\$ 0.00
<b>Estimated 12/31/19 Balance</b>	<b>\$ 44,552,028.93</b>	<b>\$ 14,555,291.62</b>	<b>\$ 775,357.55</b>	<b>\$ 501,003.44</b>	<b>\$ 60,383,681.54</b>	<b>\$ -</b>	<b>\$ -</b>	<b>\$ -</b>	<b>\$ 60,383,681.54</b>

**Projected Cash Flows 2020 - 2024**  
**Final as of 11/18/19**

**Water Cash Flow**  
**2020-2024**

	Operating Fund	Connection Fund	Trunk Fund	Reconstruction Fund	Sub-total Available Funds	Bond Reserve 2006	Total Bond Reserves	Total Water Funds
<b>Estimated Balance 12/31/19</b>	<b>\$ 7,394,859</b>	<b>\$14,455,292</b>	<b>(\$195,526)</b>	<b>\$501,003</b>	<b>\$22,155,627</b>	<b>\$0</b>	<b>\$0</b>	<b>\$22,155,627</b>
2020								
CIP Costs	(764,825)	(4,797,000)	(406,450)	(455,000)	(6,423,275)		\$0	(\$6,423,275)
CIP Costs - Administration	(142,622)				(142,622)		\$0	(\$142,622)
Receipts		3,402,554	462,904	675,511	4,540,968		\$0	\$4,540,968
Bond Payments - P&I	0				0		\$0	\$0
Operations-Net	1,503,190				1,503,190		\$0	\$1,503,190
<b>Balance 12/31/20</b>	<b>\$7,990,602</b>	<b>\$13,060,845</b>	<b>(\$139,072)</b>	<b>\$721,514</b>	<b>\$21,633,889</b>	<b>\$0</b>	<b>\$0</b>	<b>\$21,633,889</b>
2021								
CIP Costs	(2,587,751)	(11,600,000)	(428,870)	(1,400,000)	(16,016,621)		\$0	(\$16,016,621)
CIP Costs - Administration	(136,044)				(136,044)		\$0	(\$136,044)
Receipts		3,994,671	854,430	682,266	5,531,366		\$0	\$5,531,366
Bond P&I Payments	0				0		\$0	\$0
Operations-Net	1,518,222				1,518,222		\$0	\$1,518,222
<b>Balance 12/31/21</b>	<b>\$ 6,785,029</b>	<b>\$ 5,455,516</b>	<b>\$ 286,487</b>	<b>\$ 3,780</b>	<b>\$ 12,530,812</b>	<b>\$ -</b>	<b>\$0</b>	<b>\$ 12,530,812</b>
2022								
CIP Costs	(2,326,000)	(216,000)	(310,800)	(215,000)	(3,067,800)		\$0	(\$3,067,800)
CIP Costs - Administration	(118,649)				(118,649)		\$0	(\$118,649)
Receipts		2,534,587	488,720	410,172	3,433,479		\$0	\$3,433,479
Bond P&I Payments	0				0		\$0	\$0
Operations-Net	1,533,405				1,533,405		\$0	\$1,533,405
<b>Balance 12/31/22</b>	<b>\$ 5,873,784</b>	<b>\$ 7,774,103</b>	<b>\$ 464,407</b>	<b>\$ 198,951</b>	<b>\$ 14,311,246</b>	<b>\$ -</b>	<b>\$0</b>	<b>\$ 14,311,246</b>
2023								
CIP Costs	(2,275,000)	(3,552,000)	(322,250)	(205,000)	(6,354,250)		\$0	(\$6,354,250)
CIP Costs - Administration	(118,176)				(118,176)		\$0	(\$118,176)
Receipts		3,201,574	384,029	414,273	3,999,876		\$0	\$3,999,876
Bond P&I Payments	0				0		\$0	\$0
Operations-Net	1,548,739				1,548,739		\$0	\$1,548,739
<b>Balance 12/31/23</b>	<b>\$ 5,029,347</b>	<b>\$ 7,423,677</b>	<b>\$ 526,186</b>	<b>\$ 408,224</b>	<b>\$ 13,387,435</b>	<b>\$ -</b>	<b>\$0</b>	<b>\$ 13,387,435</b>
2024								
CIP Costs	(300,000)	(4,147,120)	(1,388,980)	(210,000)	(6,046,100)		\$0	(\$6,046,100)
CIP Costs - Administration	(137,342)				(137,342)		\$0	(\$137,342)
Receipts		2,600,915	1,982,603	418,416	5,001,934		\$0	\$5,001,934
Bond P&I Payments	0				0		\$0	\$0
Operations-Net	1,564,226				1,564,226		\$0	\$1,564,226
<b>Balance 12/31/24</b>	<b>\$ 6,156,231</b>	<b>\$ 5,877,472</b>	<b>\$ 1,119,809</b>	<b>\$ 616,640</b>	<b>\$ 13,770,153</b>	<b>\$ -</b>	<b>\$0</b>	<b>\$ 13,770,153</b>

\*Note: Reconstruction Projects will be funded from operating account in the event funds are not sufficient in the Reconstruction Fund.



**Projected Cash Flows 2020 - 2024**  
**Final as of 11/18/19**

**Electric Cash Flow**  
**2020-2024**

	<b>Operating Fund</b>	<b>Emergency Fund</b>	<b>Underground Relocation Fund</b>	<b>Sub-total Available Funds</b>	<b>Bond Reserve 2006</b>	<b>Total Bond Reserves</b>	<b>Total Electric Funds</b>
<b>Estimated Balance 12/31/19</b>	<b>\$ 37,157,170</b>	<b>\$ 100,000</b>	<b>\$ 970,884</b>	<b>\$ 38,228,054</b>	<b>\$ -</b>	<b>\$ -</b>	<b>\$ 38,228,054</b>
2020							
CIP Costs	(7,717,000)		(480,750)	(8,197,750)	\$ -	\$ -	<b>(8,197,750)</b>
CIP Costs - Administration	(427,867)			(427,867)	\$ -	\$ -	<b>(427,867)</b>
Receipts			132,793	132,793	\$ -	\$ -	<b>132,793</b>
Bond P&I Payments	0			0	\$ -	\$ -	<b>-</b>
Operations-Net	6,368,639			6,368,639	\$ -	\$ -	<b>6,368,639</b>
<b>Balance 12/31/20</b>	<b>\$ 35,380,942</b>	<b>\$ 100,000</b>	<b>\$ 622,927</b>	<b>\$ 36,103,869</b>	<b>\$ -</b>	<b>\$ -</b>	<b>\$ 36,103,869</b>
2021							
CIP Costs	(7,626,100)		(125,000)	(7,751,100)	\$ -	\$ -	<b>(7,751,100)</b>
CIP Costs - Administration	(408,133)			(408,133)	\$ -	\$ -	<b>(408,133)</b>
Receipts			134,121	134,121	\$ -	\$ -	<b>134,121</b>
Bond P&I Payments	0			0	\$ -	\$ -	<b>-</b>
Operations-Net	6,432,325			6,432,325	\$ -	\$ -	<b>6,432,325</b>
<b>Balance 12/31/21</b>	<b>\$ 33,779,034</b>	<b>\$ 100,000</b>	<b>\$ 632,048</b>	<b>\$ 34,511,082</b>	<b>\$ -</b>	<b>\$ -</b>	<b>\$ 34,511,082</b>
2022							
CIP Costs	(4,200,950)		(102,000)	(4,302,950)	\$ -	\$ -	<b>(4,302,950)</b>
CIP Costs - Administration	(355,948)			(355,948)	\$ -	\$ -	<b>(355,948)</b>
Receipts			135,462	135,462	\$ -	\$ -	<b>135,462</b>
Bond P&I Payments	0			0	\$ -	\$ -	<b>-</b>
Operations-Net	6,496,648			6,496,648	\$ -	\$ -	<b>6,496,648</b>
<b>Balance 12/31/22</b>	<b>\$ 35,718,784</b>	<b>\$ 100,000</b>	<b>\$ 665,511</b>	<b>\$ 36,484,295</b>	<b>\$ -</b>	<b>\$ -</b>	<b>\$ 36,484,295</b>
2023							
CIP Costs	(8,816,350)		(55,000)	(8,871,350)	\$ -	\$ -	<b>(8,871,350)</b>
CIP Costs - Administration	(354,529)			(354,529)	\$ -	\$ -	<b>(354,529)</b>
Receipts			136,817	136,817	\$ -	\$ -	<b>136,817</b>
Bond P&I Payments	0			0	\$ -	\$ -	<b>-</b>
Operations-Net	6,561,615			6,561,615	\$ -	\$ -	<b>6,561,615</b>
<b>Balance 12/31/23</b>	<b>\$ 33,109,520</b>	<b>\$ 100,000</b>	<b>\$ 747,328</b>	<b>\$ 33,956,848</b>	<b>\$ -</b>	<b>\$ -</b>	<b>\$ 33,956,848</b>
2024							
CIP Costs	(12,740,000)		(394,300)	(13,134,300)	\$ -	\$ -	<b>(13,134,300)</b>
CIP Costs - Administration	(412,026)			(412,026)	\$ -	\$ -	<b>(412,026)</b>
Receipts			138,185	138,185	\$ -	\$ -	<b>138,185</b>
Bond P&I Payments	0			0	\$ -	\$ -	<b>-</b>
Operations-Net	6,627,231			6,627,231	\$ -	\$ -	<b>6,627,231</b>
<b>Balance 12/31/24</b>	<b>\$ 26,584,725</b>	<b>\$ 100,000</b>	<b>\$ 491,213</b>	<b>\$ 27,175,939</b>	<b>\$ -</b>	<b>\$ -</b>	<b>\$ 27,175,939</b>

**Projected Cash Flows 2020 - 2024**  
**Combined Water and Electric**  
**Final as of 11/18/19**

	Water Funds	Electric Funds	Total Funds	
<b>Estimated Balance 12/31/19</b>	<b>\$ 22,155,627</b>	<b>\$ 38,228,054</b>	<b>\$ 60,383,682</b>	59,060,720 826,850.08
2020				
CIP Costs	(6,423,275)	(8,197,750)	\$ (14,621,025)	
CIP Costs - Administration	(142,622)	(427,867)	\$ (570,489)	
Debt Retirement	-	-	\$ -	
Bond Payments - P&I	-	-	\$ -	
Receipts/Operations-Net	6,044,159	6,501,432	\$ 12,545,591	
<b>Balance 12/31/20</b>	<b>\$ 21,633,889</b>	<b>\$ 36,103,869</b>	<b>\$ 57,737,758</b>	<b>51,737,758.06</b> 879,541.89
2021				
CIP Costs	\$ (16,016,621)	\$ (7,751,100)	\$ (23,767,721)	
CIP Costs - Administration	\$ (136,044)	\$ (408,133)	\$ (544,177)	
Bond Payments - P&I	-	-	\$ -	
Receipts/Operations-Net	7,049,588	6,566,446	\$ 13,616,035	
<b>Balance 12/31/21</b>	<b>\$ 12,530,812</b>	<b>\$ 34,511,082</b>	<b>\$ 47,041,894</b>	
2022				
CIP Costs	(3,067,800)	(4,302,950)	\$ (7,370,750)	
CIP Costs - Administration	(118,649)	(355,948)	\$ (474,598)	
Bond Payments - P&I	-	-	\$ -	
Receipts/Operations-Net	4,966,884	6,632,111	\$ 11,598,994	
<b>Balance 12/31/22</b>	<b>\$ 14,311,246</b>	<b>\$ 36,484,295</b>	<b>\$ 50,795,541</b>	
2023				
CIP Costs	(6,354,250)	(8,871,350)	\$ (15,225,600)	
CIP Costs - Administration	(118,176)	(354,529)	\$ (472,705)	
Bond Payments - P&I	-	-	\$ -	
Receipts/Operations-Net	5,548,615	6,698,432	\$ 12,247,047	
<b>Balance 12/31/23</b>	<b>\$ 13,387,435</b>	<b>\$ 33,956,848</b>	<b>\$ 47,344,283</b>	
2024				
CIP Costs	(6,046,100)	(13,134,300)	\$ (19,180,400)	
CIP Costs - Administration	(137,342)	(412,026)	\$ (549,368)	
Bond Payments - P&I	-	-	\$ -	
Receipts/Operations-Net	6,566,160	6,765,416	\$ 13,331,576	
<b>Balance 12/31/24</b>	<b>\$ 13,770,153</b>	<b>\$ 27,175,939</b>	<b>\$ 40,946,091</b>	
Cumulative 5 Year CIP Costs	(37,908,046)	(42,257,450)	(80,165,496)	
Cumulative 5 Year CIP Costs - Admin	(652,834)	(1,958,503)	(2,611,337)	
<b>Total Cumulative 5 Year CIP Costs</b>	<b>\$ (38,560,880)</b>	<b>\$ (44,215,953)</b>	<b>\$ (82,776,833)</b>	

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SHAKOPEE PUBLIC UTILITIES  
MEMORANDUM

TO: John Crooks, Utilities Manager   
FROM: Joseph D. Adams, Planning & Engineering Director   
SUBJECT: 2020 ADMINISTRATIVE CAPITAL PROJECTS  
DATE: November 26, 2019

Attached is the list of 2020 Administrative Capital Projects for the Commission to approve.

**Shakopee Public Utilities  
2020 Capital Projects  
Final  
Dated: December 2, 2019  
Administrative Summary**

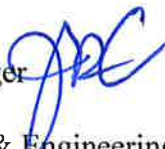

Item Description	Justification	2019 Carryover	2020
1 General Office Equipment	See detail	-	115,143
2 Hardware	See detail	-	402,319
3 Software	See detail	-	53,027
4			
5 <b>Total Administrative</b>		<b>\$0</b>	<b>\$570,489</b>
6			
7 <b>Cumulative Total Administrative</b>		<b>\$0</b>	<b>\$570,489</b>
		\$0	\$427,867
		\$0	\$142,622

**Shakopee Public Utilities  
2020 Capital Projects  
Final  
Dated: December 2, 2019  
Administrative Detail**

Type	Item	Source of Request	Justification	Qty	Unit Cost	2019 Carryover	2020	
1	Gen Office Equipt	File shelving/Scanning Equipment	F&A			-	-	
2	Gen Office Equipt	Electronic White Board/Projector/Lap Top - Training Room	Plan/Eng, Water, Electric			-	15,000	
3	Gen Office Equipt	Copier & Fax Upgrades	F&A - IT		3 10,000	-	-	
4	Furn & Equipment	Standing workstation	F&A-IT/Cust Svc/Eng/Admin		17 900	-	15,300	
5	Furn & Equipment	Commission Room AV Equipment	F&A - IT			-	69,843	
6	Gen Office Equipt	General office equipment	F&A - IT			-	15,000	
7	<b>Total General Office Equipment</b>						-	<b>115,143</b>
8	Hardware	Replacement computers	F&A - IT		10 1,000	-	10,000	
9	Hardware	Dual Monitors & 1 Android tablet for CSR	Water/Cust Svc		5 250	-	1,250	
10	Hardware	Trimble GPS Handheld with 5 year support	Planning & Eng		1 10,000	-	10,000	
11	Hardware	Miscellaneous Hardware	F&A - IT			-	-	
12	Hardware	I series Server Replacement	F&A - IT			-	-	
13	Hardware	Spare Equipment	F&A - IT			-	30,000	
14	Hardware	Server room UPS maintenance/battery replacement	F&A - IT		1 2,000	-	2,000	
15	Hardware	Web Server	Marketing		1	-	30,000	
16	Hardware	Remit Plus Scanners - Payment Processing	Cust. Service		3 4,000	-	-	
17	Hardware	Tablets for Trucks	Electric		6 400	-	2,400	
18	Hardware	Wireless System Upgrade/Replacement	F&A - IT			-	-	
19	Hardware	Fiber Ring /INET Connectivity	F&A - IT			-	100,000	
20	Hardware	Network Switches	F&A - IT			-	-	
21	Hardware	ShoreTel Phones	F&A - IT		10 600	-	6,000	
22	Hardware	Phone System Upgrade	F&A - IT			-	75,000	
23	Hardware	SAN - includes 5 years of maintenance	F&A - IT			-	73,669	
24	Hardware	VMware HP DL380p Server - Add Host machine	F&A - IT			-	-	
25	Hardware	AS400 iSeries DR Solution Cybernetics iGuard Replication	F&A - IT			-	30,000	
26	Hardware	NAS Backup Device	F&A - IT		1 6,000	-	6,000	
27	Hardware	Vmware/Windows Backup and Disaster Recovery - Unitrends	F&A - IT			-	-	
28	Hardware	Firewall	F&A - IT			-	-	
29	Hardware	Water Scada System Replacements	Water		2 5,000	-	-	
30	Hardware	HVAC Computer & Software Upgrade	Facilities			-	26,000	
31	Hardware	Lobby - Replace IPAD Kiosk	F&A - IT		1 2,000	-	-	
32	<b>Total Hardware</b>						-	<b>402,319</b>
33	Software	Software	F&A - IT			-	30,000	
34	Software	SQL 2019	F&A - IT			-	855	
35	Software	Microsoft Client Access License - CALS			60 100	-	6,000	
36	Software	Microsoft Client Access License - CALS Exchange			60 100	-	6,000	
37	Software	Microsoft Client Access License - CALS Server			60 43	-	2,577	
38	Software	Exchange Server 2019			1 3,740	-	3,740	
39	Software	SQL Software Upgrade			1 3,855	-	3,855	
40	Software	Microsoft Windows Server 2019 Datacenter Lic	F&A - IT		2 7,500	-	-	
41	<b>Total Software</b>						-	<b>53,027</b>
42	<b>Total CIP Expenditures - Administration</b>						-	<b>570,489</b>
43	<b>Cumulative CIP Expenditures - Administration</b>						-	<b>570,489</b>

11b2

SHAKOPEE PUBLIC UTILITIES  
MEMORANDUM

TO: John Crooks, Utilities Manager   
FROM: Joseph D. Adams, Planning & Engineering Director   
SUBJECT: 2020 ELECTRIC CAPITAL PROJECTS  
DATE: November 26, 2019

Attached is the list of 2020 Electric Capital Projects for the Commission to approve.

**Shakopee Public Utilities  
2020 Capital Projects  
Final  
Dated: December 2, 2019**

**Electric Summary**

Item Description	Justification	2019 Carryover	2020
<b><u>Operating Fund</u></b>			
<b><u>System Projects</u></b>			
Miscellaneous	See Detail	-	175,000
System Material & Facilities	See Detail	-	660,000
Vehicles/Equipment	See Detail	-	478,000
<b><u>Local Area Projects</u></b>			
New UG Cables & Related Cost (Net of Contribution)	See Detail	-	350,000
Replace UG Cable Projects	See Detail	-	10,000
Rebuild OH Lines	See Detail	-	437,500
<b><u>Major System Projects</u></b>			
Feeder Extension Projects	See Detail	250,000	984,500
Convert OH to UG	See Detail	-	285,000
Territory Acquisition	See Detail	-	350,000
Shakopee Substation	See Detail	-	265,000
South Shakopee Substation	See Detail	-	80,000
Pike Lake Substation	See Detail	-	85,000
Dean Lake Substation	See Detail	-	137,000
East Shakopee Substation	See Detail	-	1,200,000
West Shakopee Substation	See Detail	-	1,200,000
Upgrade Projects	See Detail	-	330,000
ADVANCED METERING INFRASTRUCTURE (AMI)	See Detail	-	120,000
Service Center	See Detail	12,000	308,000
<b>Total Operating Fund</b>		<b>262,000</b>	<b>7,455,000</b>
<b><u>Relocation Fund</u></b>			
Relocation Projects	See Detail	-	480,750
<b>Total Relocation Fund</b>		<b>-</b>	<b>480,750</b>
<b>Total Electric</b>		<b>262,000</b>	<b>7,935,750</b>
<b>Cumulative Total Electric</b>		<b>262,000</b>	<b>8,197,750</b>

**Shakopee Public Utilities  
2020 Capital Projects  
Final  
Dated: December 2, 2019  
Electric Detail**

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Item Description	Justification	2019 Carryover	2020
<u>Operating Fund</u>			
<b>System Projects</b>			
<b>Miscellaneous</b>	As Necessary	-	175,000
<b>Total Miscellaneous</b>		-	<b>175,000</b>
<b>System Material &amp; Facilities</b>			
Remote Cutter	Safety	4,000	-
Lateral Circuit Reconfiguration	System Reliability	-	85,000
Meters	New Construction	-	80,000
Padmount Switches & Related	Load/Development	-	125,000
Distribution Transformers	Restock to min.	-	200,000
System Capacitors-Additional	PF Improvements	-	25,000
SCADA-Capacitor Control	Op. Efficiencies & Voltage Control	-	40,000
SCADA Switches for Tie Switches	System Reliability	-	80,000
CT Burden/3 Phase Meter Tester	Meter Tester	-	15,000
UG Cable Locator	Replace Old Equipment	-	10,000
Meter Tester	Replace Old Equipment	-	-
<b>Total System Material &amp; Facilities</b>		-	<b>660,000</b>
<b>Vehicles/Equipment</b>			
Construction-Related Equipment-New/Additional/Replacement	Tool Replacement	-	45,000
Underground Equipment (Tamper, Jumping Jack, Electric Jack Hammer)	Life Cycle Replacement	-	10,000
#636 One Ton w/Utility Box	Life Cycle Replacement	-	58,000
Roll Tamp	New Equipment	-	35,000
#642 One Ton Dump Truck	Life Cycle Replacement	-	55,000
Backyard Digger/Bucket Truck	New Equipment	-	175,000
Single Wire Reel Trailer	Life Cycle Replacement	-	11,000
Skid Steer Loader #624	Life Cycle Replacement	-	60,000
Skid Loader Attachment Pole Setter	New	-	20,000
Skid Loader Auger	New	-	9,000
#621 Pickup (Replace Yard Truck)	Life Cycle Replacement	-	-
Mini Skid Loader/Backhoe	Life Cycle Replacement	-	-
#616 Double Bucket	Life Cycle Replacement	-	-
Mini Excavator	New Equipment	-	-
Air Compressor	Life Cycle Replacement	-	-
#617 Duty Truck	Life Cycle Replacement	-	-
Directional Bore Equipment	New Equip for UG Construction	-	-
Vac-Tron	Life Cycle Replacement	-	-
#637 Engineering Pick Up 4X4	Life Cycle Replacement	-	-
Dump Truck	New Equipment	-	-
#610 F550 4x4 Service Truck	Life Cycle Replacement	-	-
Forklift	Life Cycle Replacement	-	-
Digger Truck	Life Cycle Replacement	-	-
<b>Total Vehicles/Equipment</b>		-	<b>478,000</b>

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**Shakopee Public Utilities  
2020 Capital Projects  
Final  
Dated: December 2, 2019  
Electric Detail**

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Item Description	Justification	2019 Carryover	2020
<b>Local Area Projects</b>			
New UG Cables & Related Cost (Net of Contribution)	Load/Development	-	350,000
<b>Total New UG Cables &amp; Related Cost (Net of Contribution)</b>		<b>-</b>	<b>350,000</b>
<b>Replace UG Cable Projects</b>			
DL-44 CR83 Reconstruction	County Project	-	35,000
DL-41 CR83 Reconstruction	County Project	-	30,000
Replace UG Cable - Projects Yet To Be Determined	As Needed	-	10,000
<b>Total Replace UG Cable Projects</b>		<b>-</b>	<b>10,000</b>
<b>Rebuild OH Lines</b>			
Rebuild OH lines - as needed RP3	Change Out	-	150,000
SH-08 Levee Drive 0.25 mile	Street Project	-	25,000
SH-10 Levee Drive 0.25 mile	Street Project	-	25,000
SS-31 CR 42 from CR 17 to CR 83 1.625 miles	County Project	-	162,500
DL-55 CR 83 from, VIBS to Hwy 169 0.75 mile	County Project	-	75,000
BL-22 Stagecoach Road and Maras Avenue	Street Project	-	-
SS-31 CR 17 South of CR 42 to CR 82 0.75 mile	Street Project	-	-
DL-52 Eagle Creek Blvd@Vierling Drive 0.25 mile	Street Project	-	-
SS-32 CR 15 @Hwy 169 Ramps 0.50 mile	Roundabout Impacts	-	-
<b>Total Rebuild OH Lines</b>		<b>-</b>	<b>437,500</b>
<b>Major System Projects</b>			
<b>Feeder Extension Projects</b>			
DL-98 New Feeder DL Sub to 4th Ave 2.00 miles	Development (Canterbury Commons)	250,000	-
PL-75 SBX to Stagecoach Rd 0.25 mile	Development	-	58,500
SS-32 CR 16 Ext. from CR15 to CR69 1.25 mile	Street Project & Development	-	117,000
SS-83 New Feeder SS Sub to CR 69&HWY169 via Xcel Easement, CR78&CR69 3.75 miles OH/UG Mix	Load Growth	-	575,000
Dean Lake Sub Exit Circuits 1.0 mile	Load Growth	-	-
SS-84 New Feeder SS Sub to CR 17 via Stonebrooke 0.75 mile	Load Growth	-	-
West Shakopee Substation Exit Circuits	Load Growth	-	-
DL-97 New Feeder DL Sub to Barendscheer Blvd 1.0 mile	Development (Canterbury Commons)	-	-
DL-42 Feeder Extension to Data Center 0.5 mile	Load Growth (Data Center)	-	-
Projects Yet to be Determined 1.0 mile	As Necessary	-	234,000
<b>Total Feeder Extension Projects</b>		<b>250,000</b>	<b>984,500</b>
Assumed Cost per mile unless noted otherwise		225,000	234,000
<b>Convert OH to UG</b>			
SH-08 Levee Drive 0.25 mile x 2.3 (rock)	Street Project	-	125,000
SH-10 Levee Drive 0.25 mile x 2.3 (rock)	Street Project	-	125,000
Muhlenhardt Undergrounding 0.75 mile	Reliability	-	35,000
<b>Total Convert OH to UG</b>		<b>-</b>	<b>285,000</b>

**Shakopee Public Utilities  
2020 Capital Projects  
Final  
Dated: December 2, 2019  
Electric Detail**

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Item Description	Justification	2019 Carryover	2020
<b>99 Territory Acquisition</b>			
100 Territory Acquisition	Purchase	-	200,000
101 Territory Acquisition	Consolidation	-	150,000
<b>102 Total Territory Acquisition</b>		-	<b>350,000</b>
<b>104 Shakopee Substation</b>			
105 Land Rights	Load Growth/Downtown Re-development	-	250,000
106 Substation to County Fiber & Fiber Equipment		-	15,000
<b>107 Total Shakopee Substation</b>		-	<b>265,000</b>
<b>109 South Shakopee Substation</b>			
110 Upgrade to RTAC C3 ilex	For SCADA	-	65,000
111 Substation to County Fiber & Fiber Equipment		-	15,000
112 Oil Change Out on Tap Changer (Transformer 1 & 2)	Maintenance/Extend Life of Tap Changer	-	-
<b>113 Total South Shakopee Substation</b>		-	<b>80,000</b>
<b>115 Pike Lake Substation</b>			
116 SCADA C3 ilex/Schweitzer RTAC & Blue Lake	Change out C3ilex	-	75,000
117 Oil Change Out on Tap Changer	Maintenance/Extend Life of Tap Changer	-	-
118 Substation to County Fiber & Fiber Equipment		-	10,000
<b>119 Total Pike Lake Substation</b>		-	<b>85,000</b>
<b>121 Dean Lake Substation</b>			
122 Oil Change Out on Tap Changer	Maintenance/Extend Life of Tap Changer	-	30,000
123 Substation to County Fiber & Fiber Equipment		-	7,000
124 Dean Lake 2 115KV Circuit Switcher		-	100,000
<b>125 Total Dean Lake Substation</b>		-	<b>137,000</b>
<b>127 East Shakopee Substation</b>			
128 Land Rights	Load Growth	-	1,200,000
129 Planning/Design/Project Management	Load Growth	-	-
130 Construction	Load Growth	-	-
<b>131 Total East Shakopee Substation</b>		-	<b>1,200,000</b>
<b>133 West Shakopee Substation</b>			
134 Land Rights	Load Growth	-	1,200,000
135 Planning/Design/Project Management	Load Growth	-	-
136 Construction	Load Growth	-	-
<b>137 Total West Shakopee Substation</b>		-	<b>1,200,000</b>
<b>139 Upgrade Projects</b>			
140 Downtown Alley Reconstruction add duct banks	Alley paving w/concrete	-	100,000
141 SH-08 Reconductoring 4th, Spencer, Fillmore, Somerville	Load Growth	-	40,000



**Shakopee Public Utilities  
2020 Capital Projects  
Final  
Dated: December 2, 2019  
Electric Detail**

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Item Description	Justification	2019 Carryover	2020
142 Projects yet to be determined		-	190,000
<b>143 Total Upgrade Projects</b>		-	<b>330,000</b>
<b>145 ADVANCED METERING INFRASTRUCTURE (AMI)</b>			
146 Planning/Design/Project Management	Project Planning/Design	-	120,000
147 Construction/Implementation/Hardware/Software/Training	Customer Service	-	-
<b>148 Total ADVANCED METERING INFRASTRUCTURE (AMI)</b>		-	<b>120,000</b>
<b>150 Service Center</b>			
151 Miscellaneous Building Improvements/Replacements	Maint. & Requested Changes	-	45,000
152 Replace Outside Landscape Lighting	Replace Problem Lighting and Upgrade Efficiency	12,000	20,000
153 Repair or Replace Exhaust Fan in Garage Area (exhaust fans not working)	Replace or Repair	-	-
154 Warehouse Expansion		-	50,000
155 SPU Signage for South Entrance of Service Center (Non-public)	Facility Security	-	20,000
156 Display Case Office		-	7,000
157 Garage Heaters	Maintenance	-	30,000
158 Extend Outdoor Storage Cement 225X33	Additional Storage	-	100,000
159 Seal Wash Bay (Cracks & Surface)	Maintenance	-	6,000
160 Seal Wood Beams & Chalk Windows	Maintenance	-	30,000
161 Door Seal Loading Dock		-	-
162 Ice Machine		-	-
163 Building Expansion Office		-	-
<b>164 Total Service Center</b>		<b>12,000</b>	<b>308,000</b>
<b>166 Total Operating Fund</b>		<b>262,000</b>	<b>7,455,000</b>
<b>168 Relocation Fund</b>			
<b>171 Relocation Projects</b>			
173 SS-31 CR 42 from CR 17 to CR 83 1.625 miles (inc. \$112,000 for pad mount regulators)	County Project	-	269,750
174 DL-55 CR83 from VIBS to HWY 169 0.75 mile	County Project	-	163,000
175 BL-22 Maras Street & Stagecoach Road	Street Project	-	-
176 DL-52 Eagle Creek Blvd@Vierling Drive 0.25 mile	Street Project	-	-
177 SS-32 CR 15 & Hwy 169 Ramps 0.50 mile	Roundabout Impacts	-	-
178 SS-31 CR 17 South of CR 42 to CR 82 0.75 mile	Street Project	-	-
179 Projects Yet to Be Determined 0.50 Ckt. mile	As Necessary	-	48,000
<b>180 Total Relocation Projects</b>		-	<b>480,750</b>
<b>182 Total Relocation Fund</b>		-	<b>480,750</b>
<b>184 Total Electric</b>		<b>262,000</b>	<b>7,935,750</b>

11b3

SHAKOPEE PUBLIC UTILITIES  
MEMORANDUM

TO: John Crooks, Utilities Manager   
FROM: Joseph D. Adams, Planning & Engineering Director   
SUBJECT: 2020 WATER CAPITAL PROJECTS  
DATE: November 26, 2019

Attached is the list of 2020 Water Capital Projects for the Commission to approve.

**Shakopee Public Utilities**  
**2020 Capital Projects**  
**Final**  
**Dated: December 2, 2019**  
**Water Summary**

Item Description	Justification	2019 Carryover	2020
<b><u>Operating Fund</u></b>			
Miscellaneous	See Detail	-	504,000
System Upgrades	See Detail	-	79,500
ADVANCED METERING INFRASTRUCTURE (AMI)	See Detail	-	125,825
Vehicles/Equipment	See Detail	-	55,500
<b>Total Operating Fund</b>		<b>-</b>	<b>764,825</b>
<b><u>Reconstruction Fund</u></b>			
Reconstruction Projects	See Detail	-	455,000
<b>Total Reconstruction Fund</b>		<b>-</b>	<b>455,000</b>
<b><u>Trunk Fund</u></b>			
Trunk Water Mains - SPUC Projects	See Detail	-	25,000
Over Sizing - Non-SPUC Projects	See Detail	-	381,450
<b>Total Trunk Fund</b>		<b>-</b>	<b>406,450</b>
<b><u>Connection Fund</u></b>			
Wells	See Detail	-	645,000
Water Treatment	See Detail	-	1,072,000
Pump House Additions/Expansions	See Detail	-	200,000
New Tanks and Transmission Water Main	See Detail	-	2,700,000
Booster Stations	See Detail	110,000	-
Auxiliary Facilities	See Detail	-	70,000
<b>Total Connection Fund</b>		<b>110,000</b>	<b>4,687,000</b>
<b>Total Water</b>		<b>110,000</b>	<b>6,313,275</b>
<b>Cumulative Total Water</b>		<b>110,000</b>	<b>6,423,275</b>

**Shakopee Public Utilities  
2020 Capital Projects  
Final  
Dated: December 2, 2019  
Water Detail**

Item Description	Justification	2019 Carryover	2020
<u>Operating Fund</u>			
<b>Miscellaneous</b>			
Water Meters	PM/Development	-	150,000
8" Watermain Looping Boulder Pointe	Development	-	150,000
Cl2 Feed Improvements	Safety/Enhanced Accuracy	-	75,000
Chemical Feed Scales	Life Cycle Replacement	-	24,000
Reservoir Maintenance	Preventative Maintenance	-	50,000
Power Wash Towers	Preventative Maintenance	-	15,000
Hydrant Replacement	As Needed	-	40,000
CR16 Valve & Hydrant Adjustments	County Trail Project CP-16-XX	-	-
<b>Total Miscellaneous</b>			<b>504,000</b>
<b>System Upgrades</b>			
Reservoir Mixers	Water Quality	-	35,000
PO4 Addition at Wellfield	Water Quality	-	7,000
Sidewalk Repair	Safety/Maintenance	-	4,000
Cl2 Leak Detection Upgrade	Safety/Lifecycle Replacement	-	13,500
SCADA Communications Upgrade	Water System Reliability	-	-
Sealcoat Drives/Repair	Preventative Maintenance	-	5,000
Miscellaneous Equipment	As Needed	-	15,000
<b>Total System Upgrades</b>		-	<b>79,500</b>
<b>Advanced Metering Infrastructure (AMI)</b>			
Planning/Design/Project Management	Project Planning/Design	-	125,825
Construction/Implementation/Hardware/Software/Training	Customer Service	-	-
<b>Total Advanced Metering Infrastructure (AMI)</b>		-	<b>125,825</b>
<b>Vehicles/Equipment</b>			
Field & Brush Mower w/Trailer	Grounds Maintenance	-	6,000
Watermain Locator	Life Cycle Replacement	-	4,500
Water Operator Apprentice Truck #651	Customer Service	-	45,000
Replace Truck #622	Life Cycle Replacement	-	-
Replace Truck #635	Life Cycle Replacement	-	-
<b>Total Vehicles/Equipment</b>			<b>55,500</b>

**Shakopee Public Utilities  
2020 Capital Projects  
Final  
Dated: December 2, 2019  
Water Detail**

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Item Description	Justification	2019 Carryover	2020
<b>Total Operating Fund</b>		-	<b>764,825</b>
<b><u>Reconstruction Fund</u></b>			
<b>Reconstruction</b>			
Full-Depth Pavement Reconstruction	City CIP	-	10,000
Bituminous Overlay	City CIP	-	20,000
Reconstruction	City Street Recon	-	150,000
Correct Deficient Services	As Needed	-	40,000
Reconstruct watermain on Hansen from 21 to Crossing Blvd		-	235,000
18" Recon CR 83 from VIBS to HWY 169 0.75 mile	County Project	-	-
<b>Total Reconstruction</b>			<b>455,000</b>
<b>Total Reconstruction Fund</b>			<b>455,000</b>
<b><u>Trunk Fund</u></b>			
<b>Trunk Water Mains - SPU Projects (Completed by SPU)</b>			
Projects to be determined		-	25,000
<b>Total Trunk Water Mains - SPU Projects</b>		-	<b>25,000</b>
<b>Over Sizing - Non-SPU Projects (Completed by Others)</b>			
16" WM East from Monarch Estates parallel to 17th Ave to CR 83 0.875 mile NES	Development	-	158,000
16" WM Krystal Addition to CR 79 (800 ft) NES	Development	-	72,800
12" WM South from Hwy 169 to 17th Ave 0.25 mile (Hauer) NES	Development	-	50,650
12" WM C.R. 16 from C.R. 15 west to C.R. 69 - (DR Horton) 0.25 mile/segment 2-HES	Development/City Project/Scott County Proj	-	-
12" WM on Stagecoach Rd from Eagle Creek Preserve to Hansen Ave 0.5 mile NES	Development	-	-
12" WM Vierling Drive West from CR 69 0.25 mile NES	Development	-	-
12" WM South of Valley View Road @ Independence 0.50 mile (Hauer) 1-HES	Development	-	-
12" WM Parallel to CR 69 South from Vierling Drive 0.75 mile NES	Development	-	-
12" WM Thrush Street from CR 83 to 0.25 mile West 1- HES	Development	-	-
12" WM CR 83 from Thrush Street to 0.50 mile north and south 1-HES	Development	-	-
12" WM West of Tank #8 Site thru area B to CR69 0.25 mile	Development	-	-
12"WM West of CR 69 thru area B 0.50 mile 2-HES	Development	-	-
12" WM CR 69 South of HWY 169 0.50 mile 1-HES to 2-HES	Development	-	-
12" WM West of CR 69 thru area B 0.50 mile 1-HES	Development	-	-

**Shakopee Public Utilities  
2020 Capital Projects  
Final  
Dated: December 2, 2019  
Water Detail**

Item Description	Justification	2019 Carryover	2020
72 12" WM Parallel to CR 69 South from CR 16 0.25 mile 2-HES	Development	-	-
73 12" WM Horizon Drive across CR 18 to Foothill Road 2-HES (1.0 mile) 2 HES to NES	Development	-	-
74 8" WM on Muhlenhardt Rd 0.50 mile 1-HES to 2-HES	Development	-	-
75 12" WM West of Windermere 0.75 mile 1-HES	Development	-	-
76 Projects to be determined		-	100,000
<b>77 Total Over Sizing - Non-SPU Projects</b>		<b>-</b>	<b>381,450</b>
<b>79 Total Trunk Fund</b>		<b>-</b>	<b>406,450</b>
<b>80 <u>Connection Fund</u></b>			
<b>81 Wells</b>			
82 Observation Wells @ Tank 3 and TBD	Department of Natural Resources Monitoring	-	125,000
83 2-HES Jordan Well @ Tank #8 Site	Development	-	520,000
<b>84 Total Wells</b>		<b>-</b>	<b>645,000</b>
<b>85 Water Treatment</b>			
86 NES Jordan Well #22 Submersible (Pump House No. 3 modifications)	Radium Remediation	-	550,000
87 Water Treatment Plant	Water Quality	-	522,000
<b>88 Total Water Treatment</b>		<b>-</b>	<b>1,072,000</b>
<b>89 Pump House Additions/Expansions</b>			
90 2-HES Pump House @ Tank #8 Site	Development	-	200,000
91 Pumphouse 2 Rehabilitation	Justification and Cost TBD	-	-
92 Pumphouse 4 Rehabilitation	Justification and Cost TBD	-	-
<b>93 Total Pump House Additions/Expansions</b>		<b>-</b>	<b>200,000</b>
<b>94 New Tanks and Transmission Water Main</b>			
95 2-HES District Storage (0.75 MG, Elevated Tank) @ South of Windermere	Development	-	2,700,000
<b>96 Total New Tanks and Transmission Water Main</b>		<b>-</b>	<b>2,700,000</b>
<b>97 Booster Stations</b>			
98 Booster Station @ Windermere 1-HES to 2-HES	Development	110,000	-
<b>99 Total Booster Stations</b>		<b>110,000</b>	<b>-</b>
<b>100 Auxiliary Facilities</b>			
101 Inline Booster Station Site @ Foothill Road and Horizon Drive	Development	-	-
102 Southbridge PRV Sites	Pressure Control	-	10,000
103 Normal Zone Elevated Tank PRVs	Pressure Control	-	60,000





**Shakopee Public Utilities**  
**2020 Capital Projects**  
**Final**  
**Dated: December 2, 2019**  
**Water Detail**

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Item Description	Justification	2019 Carryover	2020
Inline Booster Station @ Foothill and Horizon NES to 2 HES	Development	-	-
Pressure Reducing Valve - 2-HES to 1-HES @ Horizon Drive City Trail East of Foothill Rd.	Development	-	-
Pressure Reducing Valve - 2-HES to 1-HES @ Muhlenhardt Rd	Development	-	-
Pressure Reducing Valve - 2-HES to 1-HES @ CR 69	Development	-	-
<b>Total Auxiliary Facilities</b>		<b>-</b>	<b>70,000</b>
<b>Total Connection Fund</b>		<b>110,000</b>	<b>4,687,000</b>
<b>Total Water</b>		<b>110,000</b>	<b>6,313,275</b>

SHAKOPEE PUBLIC UTILITIES  
MEMORANDUM

TO: John Crooks, Utilities Manager   
FROM: Joseph D. Adams, Planning & Engineering Director   
SUBJECT: 2020-2024 FINAL CAPITAL IMPROVEMENT PLAN  
DATE: November 26, 2019

## ISSUE

Attached is the 2020-2024 Final Capital Improvement Plan for the Commission's consideration. This plan covers water, electric and administrative system improvements for the five-year period 2020-2024.

This is the same information presented to the Commission as the 2020-2024 Semi-Final CIP on November 4, 2019.

Staff requests that the Commission **ACCEPT** the Final 2020-2024 CIP.

**Shakopee Public Utilities  
Capital Improvement Plan  
Final**

**Dated: December 2, 2019**

**Administrative Summary**

Item Description	Justification	2019 Carryover	2020	2021	2022	2023	2024
1 General Office Equipment	See detail	-	115,143	111,045	102,148	102,255	132,368
2 Hardware	See detail	-	402,319	383,132	322,450	305,450	367,000
3 Software	See detail	-	53,027	50,000	50,000	65,000	50,000
4							
5 <b>Total Administrative</b>		<b>\$0</b>	<b>\$570,489</b>	<b>\$544,177</b>	<b>\$474,598</b>	<b>\$472,705</b>	<b>\$549,368</b>
6							
7 <b>Cumulative Total Administrative</b>		<b>\$0</b>	<b>\$570,489</b>	<b>\$1,114,667</b>	<b>\$1,589,264</b>	<b>\$2,061,969</b>	<b>\$2,611,337</b>
	Electric	\$0	\$427,867	\$408,133	\$355,948	\$354,529	\$412,026
	Water	\$0	\$142,622	\$136,044	\$118,649	\$118,176	\$137,342

**Shakopee Public Utilities  
Capital Improvement Plan  
Final  
Dated: December 2, 2019  
Administrative Detail**

Type	Item	Source of Request	Justification	Qty	Unit Cost	2019 Carryover	2020	2021	2022	2023	2024	
1	Gen Office Equipt	File shelving/Scanning Equipment	F&A	Record retention (10 shelf units at \$500/2 scanners at \$2,000 ea)		-	-	9,000	-	-		
2	Gen Office Equipt	Electronic White Board/Projector/Lap Top - Training Room	Plan/Eng, Water, Electric	Map Display for Meetings/Presentations/Training/Conferences		-	15,000	-	-	-		
3	Gen Office Equipt	Copier & Fax Upgrades	F&A - IT	Replace Aging Equipment	3	10,000	-	-	-	-	30,000	
4	Furn & Equipment	Standing workstation	F&A-IT/Cust Svc/Eng/Admin	Employee Health and Wellness	17	900	-	15,300	-	-		
5	Furn & Equipment	Commission Room AV Equipment	F&A - IT	Upgrade Commission Room AV Equipment, Microphones, Interactive Display		-	69,843	2,045	2,148	2,255	2,368	
6	Gen Office Equipt	General office equipment	F&A - IT	General equipment replacements		-	15,000	100,000	100,000	100,000	100,000	
7	<b>Total General Office Equipment</b>						-	<b>115,143</b>	<b>111,045</b>	<b>102,148</b>	<b>102,255</b>	<b>132,368</b>
8	Hardware	Replacement computers	F&A - IT	Replace aging Equipment (staff addition in Plan/Eng covered)	10	1,000	-	10,000	10,000	10,000	10,000	
9	Hardware	Dual Monitors & 1 Android tablet for CSR	Water/Cust Svc	Department requests for efficiency	5	250	-	1,250	-	-	-	
10	Hardware	Trimble GPS Handheld with 5 year support	Planning & Eng	Equipment replacement - no longer supported	1	10,000	-	10,000	-	-	-	
11	Hardware	Miscellaneous Hardware	F&A - IT	Future planning/Unplanned replacements		-	-	125,000	125,000	125,000	125,000	
12	Hardware	I series Server Replacement	F&A - IT	Replace aging equipment		-	-	-	50,000	-	-	
13	Hardware	Spare equipment	F&A - IT	Spare Equipment for emergency replacement(monitors/printers/etc.)		-	30,000	30,000	30,000	30,000	30,000	
14	Hardware	Server room UPS maintenance/battery replacement	F&A - IT	Uninterrupted power supply & battery back up replacement	1	2,000	-	2,000	54,254	2,000	2,000	
15	Hardware	Web Server	Marketing	Hosted Web Solutions - Customer Service Improvement	1	-	-	30,000	-	-	-	
16	Hardware	Remit Plus Scanners - Payment Processing	Cust. Service	Scanner Replacements	3	4,000	-	-	12,000	-	-	
17	Hardware	Tablets for Trucks	Electric	2nd phase of data maps in the field (3 electric/1 eng/2 water)	6	400	-	2,400	-	-	-	
18	Hardware	Wireless System Upgrade/Replacement	F&A - IT	Replace aging equipment		-	-	-	-	25,000	-	
19	Hardware	Fiber Ring /INET Connectivity	F&A - IT	Connectivity/Redundancy for systems/remote sites		-	100,000	100,000	100,000	100,000	100,000	
20	Hardware	Network Switches	F&A - IT	Future Standard Replacement Cycle		-	-	25,000	-	-	-	
21	Hardware	ShoreTel Phones	F&A - IT	Replace aging phones - compatible with Mitel	10	600	-	6,000	-	-	-	
22	Hardware	Phone System Upgrade	F&A - IT	Current system no longer supported by September 2020		-	75,000	-	-	-	-	
23	Hardware	SAN - includes 5 years of maintenance	F&A - IT	Replace of existing equipment - currently 5 years old		-	73,669	-	-	-	-	
24	Hardware	VMware HP DL380p Server - Add Host machine	F&A - IT	Replacement of existing equipment		-	-	-	-	-	100,000	
25	Hardware	AS400 iSeries DR Solution Cybernetics iGuard Replication	F&A - IT	Position for Disaster Recovery & Backup/replication appliance to CPS Data Center. DR VPN Tunnel Access		-	30,000	-	-	-	-	
26	Hardware	NAS Backup Device	F&A - IT	Replacement of existing equipment	1	6,000	-	6,000	-	-	-	
27	Hardware	Vmware/Windows Backup and Disaster Recovery - Unitrends	F&A - IT	Future maintenance contracts for Vmware system		-	-	16,878	3,450	3,450	-	
28	Hardware	Firewall	F&A - IT	Replace product reaching end of life support		-	-	10,000	-	-	-	
29	Hardware	Water Scada System Replacements	Water	Server/Workstation 6 years old/needs upgrade to Windows 10	2	5,000	-	-	-	10,000	-	
30	Hardware	HVAC Computer & Software Upgrade	Facilities	Windows 7 system no longer supported		-	26,000	-	-	-	-	
31	Hardware	Lobby - Replace IPAD Kiosk	F&A - IT	Improved Customer Service	1	2,000	-	-	2,000	-	-	
32	<b>Total Hardware</b>						-	<b>402,319</b>	<b>383,132</b>	<b>322,450</b>	<b>305,450</b>	<b>367,000</b>
33	Software	Software	F&A - IT	Misc/Future budgeting		-	30,000	50,000	50,000	50,000	50,000	
34	Software	SQL 2019	F&A - IT	Upgrade to latest version		-	855	-	-	-	-	
35	Software	Microsoft Client Access License - CALS		Upgrade from 2012 to 2019 CALS	60	100	-	6,000	-	-	-	
36	Software	Microsoft Client Access License - CALS Exchange		Upgrade from 2012 to 2019 CALS	60	100	-	6,000	-	-	-	
37	Software	Microsoft Client Access License - CALS Server		Upgrade from 2012 to 2019 CALS	60	43	-	2,577	-	-	-	
38	Software	Exchange Server 2019		Upgrader exchange server software from 2013 to 2019	1	3,740	-	3,740	-	-	-	
39	Software	SQL Software Upgrade		Upgrade from 2012 to 2017 SQL	1	3,855	-	3,855	-	-	-	
40	Software	Microsoft Windows Server 2019 Datacenter Lic	F&A - IT	Vmware Microsoft server licenses	2	7,500	-	-	-	15,000	-	
41	<b>Total Software</b>						-	<b>53,027</b>	<b>50,000</b>	<b>50,000</b>	<b>65,000</b>	<b>50,000</b>
42	<b>Total CIP Expenditures - Administration</b>						-	<b>570,489</b>	<b>544,177</b>	<b>474,598</b>	<b>472,705</b>	<b>549,368</b>
43	<b>Cumulative CIP Expenditures - Administration</b>						-	<b>570,489</b>	<b>1,114,667</b>	<b>1,589,264</b>	<b>2,061,969</b>	<b>2,611,337</b>

**Shakopee Public Utilities**  
**Capital Improvement Plan**  
**Final**  
**Dated: December 2, 2019**  
**Electric Summary**

Item Description	Justification	2019 Carryover	2020	2021	2022	2023	2024
<b><u>Operating Fund</u></b>							
<b><u>System Projects</u></b>							
Miscellaneous	See Detail	-	175,000	175,000	175,000	175,000	175,000
System Material & Facilities	See Detail	-	660,000	585,000	510,000	495,000	495,000
Vehicles/Equipment	See Detail	-	478,000	495,000	470,000	370,000	345,000
<b><u>Local Area Projects</u></b>							
New UG Cables & Related Cost (Net of Contribution)	See Detail	-	350,000	400,000	400,000	450,000	450,000
Replace UG Cable Projects	See Detail	-	10,000	10,000	10,000	10,000	10,000
Rebuild OH Lines	See Detail	-	437,500	125,000	75,000	50,000	175,000
<b><u>Major System Projects</u></b>							
Feeder Extension Projects	See Detail	250,000	984,500	608,100	505,950	761,750	795,000
Convert OH to UG	See Detail	-	285,000	-	-	-	-
Territory Acquisition	See Detail	-	350,000	100,000	100,000	100,000	100,000
Shakopee Substation	See Detail	-	265,000	-	-	-	-
South Shakopee Substation	See Detail	-	80,000	60,000	-	-	-
Pike Lake Substation	See Detail	-	85,000	-	-	-	30,000
Dean Lake Substation	See Detail	-	137,000	-	-	-	-
East Shakopee Substation	See Detail	-	1,200,000	-	-	216,300	4,950,000
West Shakopee Substation	See Detail	-	1,200,000	-	-	216,300	4,950,000
Upgrade Projects	See Detail	-	330,000	200,000	210,000	220,000	220,000
ADVANCED METERING INFRASTRUCTURE (AMI)	See Detail	-	120,000	1,820,000	1,700,000	1,700,000	-
Service Center	See Detail	12,000	308,000	3,048,000	45,000	4,052,000	45,000
<b>Total Operating Fund</b>		<b>262,000</b>	<b>7,455,000</b>	<b>7,626,100</b>	<b>4,200,950</b>	<b>8,816,350</b>	<b>12,740,000</b>
<b><u>Relocation Fund</u></b>							
Relocation Projects	See Detail	-	480,750	125,000	102,000	55,000	394,300
<b>Total Relocation Fund</b>		<b>-</b>	<b>480,750</b>	<b>125,000</b>	<b>102,000</b>	<b>55,000</b>	<b>394,300</b>
<b>Total Electric</b>		<b>262,000</b>	<b>7,935,750</b>	<b>7,751,100</b>	<b>4,302,950</b>	<b>8,871,350</b>	<b>13,134,300</b>
<b>Cumulative Total Electric</b>		<b>262,000</b>	<b>8,197,750</b>	<b>15,948,850</b>	<b>20,251,800</b>	<b>29,123,150</b>	<b>42,257,450</b>

**Shakopee Public Utilities  
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Dated: December 2, 2019  
Electric Detail**

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Item Description	Justification	2019 Carryover	2020	2021	2022	2023	2024
<u>Operating Fund</u>							
<b>System Projects</b>							
Miscellaneous	As Necessary	-	175,000	175,000	175,000	175,000	175,000
<b>Total Miscellaneous</b>		<b>-</b>	<b>175,000</b>	<b>175,000</b>	<b>175,000</b>	<b>175,000</b>	<b>175,000</b>
<b>System Material &amp; Facilities</b>							
Remote Cutter	Safety	4,000	-	-	-	-	-
Lateral Circuit Reconfiguration	System Reliability	-	85,000	25,000	25,000	25,000	25,000
Meters	New Construction	-	80,000	60,000	50,000	50,000	50,000
Padmount Switches & Related	Load/Development	-	125,000	150,000	150,000	150,000	150,000
Distribution Transformers	Restock to min.	-	200,000	205,000	205,000	205,000	205,000
System Capacitors-Additional	PF Improvements	-	25,000	25,000	25,000	25,000	25,000
SCADA-Capacitor Control	Op. Efficiencies & Voltage Control	-	40,000	40,000	40,000	40,000	40,000
SCADA Switches for Tie Switches	System Reliability	-	80,000	80,000	-	-	-
CT Burden/3 Phase Meter Tester	Meter Tester	-	15,000	-	-	-	-
UG Cable Locator	Replace Old Equipment	-	10,000	-	-	-	-
Meter Tester	Replace Old Equipment	-	-	-	15,000	-	-
<b>Total System Material &amp; Facilities</b>		<b>-</b>	<b>660,000</b>	<b>585,000</b>	<b>510,000</b>	<b>495,000</b>	<b>495,000</b>
<b>Vehicles/Equipment</b>							
Construction-Related Equipment-New/Additional/Replacement	Tool Replacement	-	45,000	45,000	45,000	45,000	45,000
Underground Equipment (Tamper, Jumping Jack, Electric Jack Hammer)	Life Cycle Replacement	-	10,000	-	-	-	-
#636 One Ton w/Utility Box	Life Cycle Replacement	-	58,000	-	-	-	-
Roll Tamp	New Equipment	-	35,000	-	-	-	-
#642 One Ton Dump Truck	Life Cycle Replacement	-	55,000	-	-	-	-
Backyard Digger/Bucket Truck	New Equipment	-	175,000	-	-	-	-
Single Wire Reel Trailer	Life Cycle Replacement	-	11,000	-	-	-	-
Skid Steer Loader #624	Life Cycle Replacement	-	60,000	-	-	-	-
Skid Loader Attachment Pole Setter	New	-	20,000	-	-	-	-
Skid Loader Auger	New	-	9,000	-	-	-	-
#621 Pickup (Replace Yard Truck)	Life Cycle Replacement	-	-	40,000	-	-	-
Mini Skid Loader/Backhoe	Life Cycle Replacement	-	-	50,000	-	-	-
#616 Double Bucket	Life Cycle Replacement	-	-	300,000	-	-	-
Mini Excavator	New Equipment	-	-	60,000	-	-	-
Air Compressor	Life Cycle Replacement	-	-	-	30,000	-	-
#617 Duty Truck	Life Cycle Replacement	-	-	-	40,000	-	-
Directional Bore Equipment	New Equip for UG Construction	-	-	-	250,000	-	-
Vac-Tron	Life Cycle Replacement	-	-	-	55,000	-	-
#637 Engineering Pick Up 4X4	Life Cycle Replacement	-	-	-	50,000	-	-
Dump Truck	New Equipment	-	-	-	-	120,000	-
#610 F550 4x4 Service Truck	Life Cycle Replacement	-	-	-	-	175,000	-
Forklift	Life Cycle Replacement	-	-	-	-	30,000	-
Digger Truck	Life Cycle Replacement	-	-	-	-	-	300,000
<b>Total Vehicles/Equipment</b>		<b>-</b>	<b>478,000</b>	<b>495,000</b>	<b>470,000</b>	<b>370,000</b>	<b>345,000</b>

**Shakopee Public Utilities  
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Electric Detail**

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Item Description	Justification	2019 Carryover	2020	2021	2022	2023	2024
<b>Local Area Projects</b>							
New UG Cables & Related Cost (Net of Contribution)	Load/Development	-	350,000	400,000	400,000	450,000	450,000
<b>Total New UG Cables &amp; Related Cost (Net of Contribution)</b>		<b>-</b>	<b>350,000</b>	<b>400,000</b>	<b>400,000</b>	<b>450,000</b>	<b>450,000</b>
<b>Replace UG Cable Projects</b>							
DL-44 CR83 Reconstruction	County Project	-	35,000	-	-	-	-
DL-41 CR83 Reconstruction	County Project	-	30,000	-	-	-	-
Replace UG Cable - Projects Yet To Be Determined	As Needed	-	10,000	10,000	10,000	10,000	10,000
<b>Total Replace UG Cable Projects</b>		<b>-</b>	<b>10,000</b>	<b>10,000</b>	<b>10,000</b>	<b>10,000</b>	<b>10,000</b>
<b>Rebuild OH Lines</b>							
Rebuild OH lines - as needed RP3	Change Out	-	150,000	50,000	50,000	50,000	50,000
SH-08 Levee Drive 0.25 mile	Street Project	-	25,000	-	-	-	-
SH-10 Levee Drive 0.25 mile	Street Project	-	25,000	-	-	-	-
SS-31 CR 42 from CR 17 to CR 83 1.625 miles	County Project	-	162,500	-	-	-	-
DL-55 CR 83 from, VIBS to Hwy 169 0.75 mile	County Project	-	75,000	-	-	-	-
BL-22 Stagecoach Road and Maras Avenue	Street Project	-	-	75,000	-	-	-
SS-31 CR 17 South of CR 42 to CR 82 0.75 mile	Street Project	-	-	-	-	-	75,000
DL-52 Eagle Creek Blvd@Vierling Drive 0.25 mile	Street Project	-	-	-	25,000	-	-
SS-32 CR 15 @Hwy 169 Ramps 0.50 mile	Roundabout Impacts	-	-	-	-	-	50,000
<b>Total Rebuild OH Lines</b>		<b>-</b>	<b>437,500</b>	<b>125,000</b>	<b>75,000</b>	<b>50,000</b>	<b>175,000</b>
<b>Major System Projects</b>							
<b>Feeder Extension Projects</b>							
DL-98 New Feeder DL Sub to 4th Ave 2.00 miles	Development (Canterbury Commons)	250,000	-	-	-	-	-
PL-75 SBX to Stagecoach Rd 0.25 mile	Development	-	58,500	-	-	-	-
SS-32 CR 16 Ext. from CR15 to CR69 1.25 mile	Street Project & Development	-	117,000	121,700	63,200	-	-
SS-83 New Feeder SS Sub to CR 69&HWY169 via Xcel Easement, CR78&CR69 3.75 miles OH/UG Mix	Load Growth	-	575,000	-	-	-	-
Dean Lake Sub Exit Circuits 1.0 mile	Load Growth	-	-	243,400	-	-	-
SS-84 New Feeder SS Sub to CR 17 via Stonebrooke 0.75 mile	Load Growth	-	-	-	189,750	-	-
West Shakopee Substation Exit Circuits	Load Growth	-	-	-	-	104,000	520,000
DL-97 New Feeder DL Sub to Barendscheer Blvd 1.0 mile	Development (Canterbury Commons)	-	-	-	-	263,100	-
DL-42 Feeder Extension to Data Center 0.5 mile	Load Growth (Data Center)	-	-	-	-	131,550	-
Projects Yet to be Determined 1.0 mile	As Necessary	-	234,000	243,000	253,000	263,100	275,000
<b>Total Feeder Extension Projects</b>		<b>250,000</b>	<b>984,500</b>	<b>608,100</b>	<b>505,950</b>	<b>761,750</b>	<b>795,000</b>
Assumed Cost per mile unless noted otherwise		225,000	234,000	243,000	253,000	263,100	275,000
<b>Convert OH to UG</b>							
SH-08 Levee Drive 0.25 mile x 2.3 (rock)	Street Project	-	125,000	-	-	-	-
SH-10 Levee Drive 0.25 mile x 2.3 (rock)	Street Project	-	125,000	-	-	-	-
Muhlenhardt Undergrounding 0.75 mile	Reliability	-	35,000	-	-	-	-
<b>Total Convert OH to UG</b>		<b>-</b>	<b>285,000</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>-</b>

**Shakopee Public Utilities  
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Item Description	Justification	2019 Carryover	2020	2021	2022	2023	2024
<b>99 Territory Acquisition</b>							
100 Territory Acquisition	Purchase	-	200,000	-	-	-	-
101 Territory Acquisition	Consolidation	-	150,000	100,000	100,000	100,000	100,000
<b>102 Total Territory Acquisition</b>		-	<b>350,000</b>	<b>100,000</b>	<b>100,000</b>	<b>100,000</b>	<b>100,000</b>
<b>104 Shakopee Substation</b>							
105 Land Rights	Load Growth/Downtown Re-development	-	250,000	-	-	-	-
106 Substation to County Fiber & Fiber Equipment		-	15,000	-	-	-	-
<b>107 Total Shakopee Substation</b>		-	<b>265,000</b>	-	-	-	-
<b>109 South Shakopee Substation</b>							
110 Upgrade to RTAC C3 ilex	For SCADA	-	65,000	-	-	-	-
111 Substation to County Fiber & Fiber Equipment		-	15,000	-	-	-	-
112 Oil Change Out on Tap Changer (Transformer 1 & 2)	Maintenance/Extend Life of Tap Changer	-	-	60,000	-	-	-
<b>113 Total South Shakopee Substation</b>		-	<b>80,000</b>	<b>60,000</b>	-	-	-
<b>115 Pike Lake Substation</b>							
116 SCADA C3 ilex/Schweitzer RTAC & Blue Lake	Change out C3ilex	-	75,000	-	-	-	-
117 Oil Change Out on Tap Changer	Maintenance/Extend Life of Tap Changer	-	-	-	-	-	30,000
118 Substation to County Fiber & Fiber Equipment		-	10,000	-	-	-	-
<b>119 Total Pike Lake Substation</b>		-	<b>85,000</b>	-	-	-	<b>30,000</b>
<b>121 Dean Lake Substation</b>							
122 Oil Change Out on Tap Changer	Maintenance/Extend Life of Tap Changer	-	30,000	-	-	-	-
123 Substation to County Fiber & Fiber Equipment		-	7,000	-	-	-	-
124 Dean Lake 2 115KV Circuit Switcher		-	100,000	-	-	-	-
<b>125 Total Dean Lake Substation</b>		-	<b>137,000</b>	-	-	-	-
<b>127 East Shakopee Substation</b>							
128 Land Rights	Load Growth	-	1,200,000	-	-	-	-
129 Planning/Design/Project Management	Load Growth	-	-	-	-	216,300	450,000
130 Construction	Load Growth	-	-	-	-	-	4,500,000
<b>131 Total East Shakopee Substation</b>		-	<b>1,200,000</b>	-	-	<b>216,300</b>	<b>4,950,000</b>
<b>133 West Shakopee Substation</b>							
134 Land Rights	Load Growth	-	1,200,000	-	-	-	-
135 Planning/Design/Project Management	Load Growth	-	-	-	-	216,300	450,000
136 Construction	Load Growth	-	-	-	-	-	4,500,000
<b>137 Total West Shakopee Substation</b>		-	<b>1,200,000</b>	-	-	<b>216,300</b>	<b>4,950,000</b>
<b>139 Upgrade Projects</b>							
140 Downtown Alley Reconstruction add duct banks	Alley paving w/concrete	-	100,000	-	-	-	-
141 SH-08 Reconductoring 4th, Spencer, Fillmore, Somerville	Load Growth	-	40,000	-	-	-	-



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Item Description	Justification	2019 Carryover	2020	2021	2022	2023	2024
142 Projects yet to be determined		-	190,000	200,000	210,000	220,000	220,000
<b>143 Total Upgrade Projects</b>		-	<b>330,000</b>	<b>200,000</b>	<b>210,000</b>	<b>220,000</b>	<b>220,000</b>
<b>145 ADVANCED METERING INFRASTRUCTURE (AMI)</b>							
146 Planning/Design/Project Management	Project Planning/Design	-	120,000	120,000	-	-	-
147 Construction/Implementation/Hardware/Software/Training	Customer Service	-	-	1,700,000	1,700,000	1,700,000	-
<b>148 Total ADVANCED METERING INFRASTRUCTURE (AMI)</b>		-	<b>120,000</b>	<b>1,820,000</b>	<b>1,700,000</b>	<b>1,700,000</b>	-
<b>150 Service Center</b>							
151 Miscellaneous Building Improvements/Replacements	Maint. & Requested Changes	-	45,000	45,000	45,000	45,000	45,000
152 Replace Outside Landscape Lighting	Replace Problem Lighting and Upgrade Efficiency	12,000	20,000	-	-	-	-
153 Repair or Replace Exhaust Fan in Garage Area (exhaust fans not working)	Replace or Repair	-	-	-	-	-	-
154 Warehouse Expansion		-	50,000	3,000,000	-	-	-
155 SPU Signage for South Entrance of Service Center (Non-public)	Facility Security	-	20,000	-	-	-	-
156 Display Case Office		-	7,000	-	-	-	-
157 Garage Heaters	Maintenance	-	30,000	-	-	-	-
158 Extend Outdoor Storage Cement 225X33	Additional Storage	-	100,000	-	-	-	-
159 Seal Wash Bay (Cracks & Surface)	Maintenance	-	6,000	-	-	-	-
160 Seal Wood Beams & Chaulk Windows	Maintenance	-	30,000	-	-	-	-
161 Door Seal Loading Dock		-	-	3,000	-	-	-
162 Ice Machine		-	-	-	-	7,000	-
163 Building Expansion Office		-	-	-	-	4,000,000	-
<b>164 Total Service Center</b>		<b>12,000</b>	<b>308,000</b>	<b>3,048,000</b>	<b>45,000</b>	<b>4,052,000</b>	<b>45,000</b>
<b>166 Total Operating Fund</b>		<b>262,000</b>	<b>7,455,000</b>	<b>7,626,100</b>	<b>4,200,950</b>	<b>8,816,350</b>	<b>12,740,000</b>
<b>169 Relocation Fund</b>							
<b>171 Relocation Projects</b>							
173 SS-31 CR 42 from CR 17 to CR 83 1.625 miles (inc. \$112,000 for pad mount regulators)	County Project	-	269,750	-	-	-	-
174 DL-55 CR83 from VIBS to HWY 169 0.75 mile	County Project	-	163,000	-	-	-	-
175 BL-22 Maras Street & Stagecoach Road	Street Project	-	-	75,000	-	-	-
176 DL-52 Eagle Creek Blvd@Vierling Drive 0.25 mile	Street Project	-	-	-	50,000	-	-
177 SS-32 CR 15 & Hwy 169 Ramps 0.50 mile	Roundabout Impacts	-	-	-	-	-	136,900
178 SS-31 CR 17 South of CR 42 to CR 82 0.75 mile	Street Project	-	-	-	-	-	197,400
179 Projects Yet to Be Determined 0.50 Ckt. mile	As Necessary	-	48,000	50,000	52,000	55,000	60,000
<b>180 Total Relocation Projects</b>		-	<b>480,750</b>	<b>125,000</b>	<b>102,000</b>	<b>55,000</b>	<b>394,300</b>
<b>182 Total Relocation Fund</b>		-	<b>480,750</b>	<b>125,000</b>	<b>102,000</b>	<b>55,000</b>	<b>394,300</b>
<b>184 Total Electric</b>		<b>262,000</b>	<b>7,935,750</b>	<b>7,751,100</b>	<b>4,302,950</b>	<b>8,871,350</b>	<b>13,134,300</b>

**Shakopee Public Utilities**  
**Capital Improvement Plan**  
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**Dated: December 2, 2019**  
**Water Summary**

Item Description	Justification	2019 Carryover	2020	2021	2022	2023	2024
<b><u>Operating Fund</u></b>							
Miscellaneous	See Detail	-	504,000	355,000	306,000	255,000	280,000
System Upgrades	See Detail	-	79,500	64,000	20,000	20,000	20,000
ADVANCED METERING INFRASTRUCTURE (AMI)	See Detail	-	125,825	2,073,751	2,000,000	2,000,000	-
Vehicles/Equipment	See Detail	-	55,500	95,000	-	-	-
<b>Total Operating Fund</b>		<b>-</b>	<b>764,825</b>	<b>2,587,751</b>	<b>2,326,000</b>	<b>2,275,000</b>	<b>300,000</b>
<b><u>Reconstruction Fund</u></b>							
Reconstruction Projects	See Detail	-	455,000	1,400,000	215,000	205,000	210,000
<b>Total Reconstruction Fund</b>		<b>-</b>	<b>455,000</b>	<b>1,400,000</b>	<b>215,000</b>	<b>205,000</b>	<b>210,000</b>
<b><u>Trunk Fund</u></b>							
Trunk Water Mains - SPUC Projects	See Detail	-	25,000	25,000	25,000	25,000	25,000
Over Sizing - Non-SPUC Projects	See Detail	-	381,450	403,870	285,800	297,250	1,363,980
<b>Total Trunk Fund</b>		<b>-</b>	<b>406,450</b>	<b>428,870</b>	<b>310,800</b>	<b>322,250</b>	<b>1,388,980</b>
<b><u>Connection Fund</u></b>							
Wells	See Detail	-	645,000	125,000	-	-	-
Water Treatment	See Detail	-	1,072,000	8,505,000	-	-	-
Pump House Additions/Expansions	See Detail	-	200,000	2,800,000	-	3,500,000	3,650,000
New Tanks and Transmission Water Main	See Detail	-	2,700,000	-	-	-	-
Booster Stations	See Detail	110,000	-	-	-	-	-
Auxiliary Facilities	See Detail	-	70,000	170,000	216,000	52,000	497,120
<b>Total Connection Fund</b>		<b>110,000</b>	<b>4,687,000</b>	<b>11,600,000</b>	<b>216,000</b>	<b>3,552,000</b>	<b>4,147,120</b>
<b>Total Water</b>		<b>110,000</b>	<b>6,313,275</b>	<b>16,016,621</b>	<b>3,067,800</b>	<b>6,354,250</b>	<b>6,046,100</b>
<b>Cumulative Total Water</b>		<b>110,000</b>	<b>6,423,275</b>	<b>22,439,896</b>	<b>25,507,696</b>	<b>31,861,946</b>	<b>37,908,046</b>

**Shakopee Public Utilities  
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Water Detail**

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Item Description	Justification	2019 Carryover	2020	2021	2022	2023	2024
<b><u>Operating Fund</u></b>							
<b>Miscellaneous</b>							
Water Meters	PM/Development	-	150,000	150,000	150,000	150,000	175,000
8" Watermain Looping Boulder Pointe	Development	-	150,000	-	-	-	-
CI2 Feed Improvements	Safety/Enhanced Accuracy	-	75,000	75,000	-	-	-
Chemical Feed Scales	Life Cycle Replacement	-	24,000	25,000	26,000	-	-
Reservoir Maintenance	Preventative Maintenance	-	50,000	50,000	50,000	50,000	50,000
Power Wash Towers	Preventative Maintenance	-	15,000	15,000	15,000	15,000	15,000
Hydrant Replacement	As Needed	-	40,000	40,000	40,000	40,000	40,000
CR16 Valve & Hydrant Adjustments	County Trail Project CP-16-XX	-	-	-	25,000	-	-
<b>Total Miscellaneous</b>		-	<b>504,000</b>	<b>355,000</b>	<b>306,000</b>	<b>255,000</b>	<b>280,000</b>
<b>System Upgrades</b>							
Reservoir Mixers	Water Quality	-	35,000	35,000	-	-	-
PO4 Addition at Wellfield	Water Quality	-	7,000	-	-	-	-
Sidewalk Repair	Safety/Maintenance	-	4,000	-	-	-	-
CI2 Leak Detection Upgrade	Safety/Lifecycle Replacement	-	13,500	9,000	-	-	-
SCADA Communications Upgrade	Water System Reliability	-	-	-	-	-	-
Sealcoat Drives/Repair	Preventative Maintenance	-	5,000	5,000	5,000	5,000	5,000
Miscellaneous Equipment	As Needed	-	15,000	15,000	15,000	15,000	15,000
<b>Total System Upgrades</b>		-	<b>79,500</b>	<b>64,000</b>	<b>20,000</b>	<b>20,000</b>	<b>20,000</b>
<b>Advanced Metering Infrastructure (AMI)</b>							
Planning/Design/Project Management	Project Planning/Design	-	125,825	73,751	-	-	-
Construction/Implementation/Hardware/Software/Training	Customer Service	-	-	2,000,000	2,000,000	2,000,000	-
<b>Total Advanced Metering Infrastructure (AMI)</b>		-	<b>125,825</b>	<b>2,073,751</b>	<b>2,000,000</b>	<b>2,000,000</b>	<b>-</b>
<b>Vehicles/Equipment</b>							
Field & Brush Mower w/Trailer	Grounds Maintenance	-	6,000	-	-	-	-
Watermain Locator	Life Cycle Replacement	-	4,500	-	-	-	-
Water Operator Apprentice Truck #651	Customer Service	-	45,000	-	-	-	-
Replace Truck #622	Life Cycle Replacement	-	-	40,000	-	-	-
Replace Truck #635	Life Cycle Replacement	-	-	55,000	-	-	-
<b>Total Vehicles/Equipment</b>		-	<b>55,500</b>	<b>95,000</b>	<b>-</b>	<b>-</b>	<b>-</b>

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Item Description	Justification	2019 Carryover	2020	2021	2022	2023	2024
<b>Total Operating Fund</b>		-	764,825	2,587,751	2,326,000	2,275,000	300,000
<b>Reconstruction Fund</b>							
<b>Reconstruction</b>							
Full-Depth Pavement Reconstruction	City CIP	-	10,000	-	5,000	5,000	10,000
Bituminous Overlay	City CIP	-	20,000	30,000	20,000	10,000	10,000
Reconstruction	City Street Recon	-	150,000	390,000	150,000	150,000	150,000
Correct Deficient Services	As Needed	-	40,000	40,000	40,000	40,000	40,000
Reconstruct watermain on Hansen from 21 to Crossing Blvd		-	235,000	-	-	-	-
18" Recon CR 83 from VIBS to HWY 169 0.75 mile	County Project	-	-	940,000	50,000	-	-
<b>Total Reconstruction</b>			455,000	1,400,000	215,000	205,000	210,000
<b>Total Reconstruction Fund</b>			455,000	1,400,000	215,000	205,000	210,000
<b>Trunk Fund</b>							
<b>Trunk Water Mains - SPU Projects (Completed by SPU)</b>							
Projects to be determined		-	25,000	25,000	25,000	25,000	25,000
<b>Total Trunk Water Mains - SPU Projects</b>		-	25,000	25,000	25,000	25,000	25,000
<b>Over Sizing - Non-SPU Projects (Completed by Others)</b>							
16" WM East from Monarch Estates parallel to 17th Ave to CR 83 0.875 mile NES	Development	-	158,000	82,420	171,400	178,250	-
16" WM Krystal Addition to CR 79 (800 ft) NES	Development	-	72,800	-	-	-	-
12" WM South from Hwy 169 to 17th Ave 0.25 mile (Hauer) NES	Development	-	50,650	-	-	-	-
12" WM C.R. 16 from C.R. 15 west to C.R. 69 - (DR Horton) 0.25 mile/segment 2-HES	Development/City Project/Scott County Proj	-	-	55,000	57,200	59,500	-
12" WM on Stagecoach Rd from Eagle Creek Preserve to Hansen Ave 0.5 mile NES	Development	-	-	108,200	-	-	-
12" WM Vierling Drive West from CR 69 0.25 mile NES	Development	-	-	52,900	-	-	-
12" WM South of Valley View Road @ Independence 0.50 mile (Hauer) 1-HES	Development	-	-	105,350	-	-	-
12" WM Parallel to CR 69 South from Vierling Drive 0.75 mile NES	Development	-	-	-	57,200	59,500	61,880
12" WM Thrush Street from CR 83 to 0.25 mile West 1- HES	Development	-	-	-	-	-	61,900
12" WM CR 83 from Thrush Street to 0.50 mile north and south 1-HES	Development	-	-	-	-	-	123,800
12" WM West of Tank #8 Site thru area B to CR69 0.25 mile	Development	-	-	-	-	-	123,800
12"WM West of CR 69 thru area B 0.50 mile 2-HES	Development	-	-	-	-	-	123,800
12" WM CR 69 South of HWY 169 0.50 mile 1-HES to 2-HES	Development	-	-	-	-	-	119,000
12" WM West of CR 69 thru area B 0.50 mile 1-HES	Development	-	-	-	-	-	123,700

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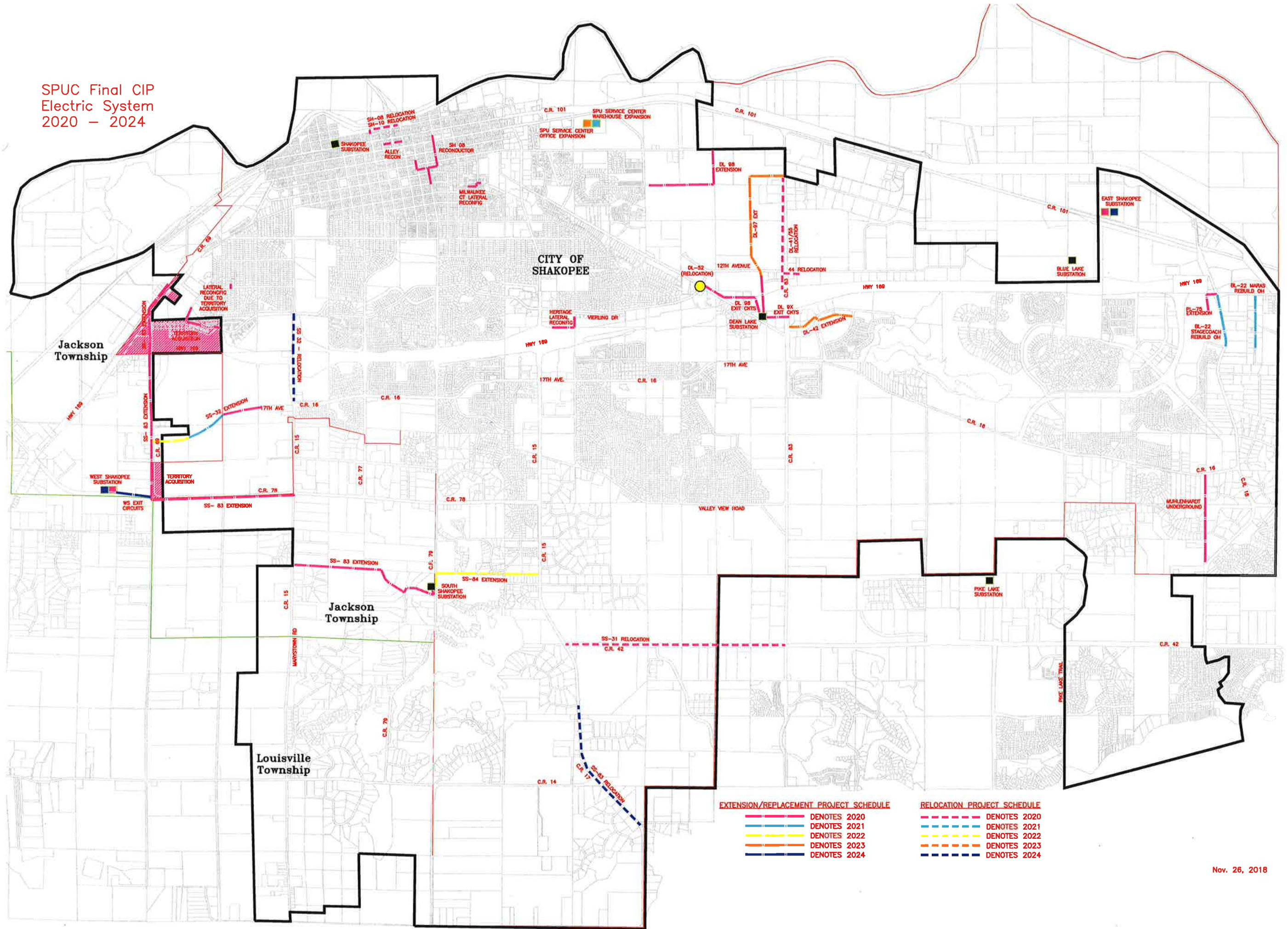
Item Description	Justification	2019 Carryover	2020	2021	2022	2023	2024
12" WM Parallel to CR 69 South from CR 16 0.25 mile 2-HES	Development	-	-	-	-	-	61,900
12" WM Horizon Drive across CR 18 to Foothill Road 2-HES (1.0 mile) 2 HES to NES	Development	-	-	-	-	-	234,000
8" WM on Muhlenhardt Rd 0.50 mile 1-HES to 2-HES	Development	-	-	-	-	-	86,900
12" WM West of Windermere 0.75 mile 1-HES	Development	-	-	-	-	-	243,300
Projects to be determined		-	100,000	-	-	-	-
<b>Total Over Sizing - Non-SPU Projects</b>		-	<b>381,450</b>	<b>403,870</b>	<b>285,800</b>	<b>297,250</b>	<b>1,363,980</b>
<b>Total Trunk Fund</b>		-	<b>406,450</b>	<b>428,870</b>	<b>310,800</b>	<b>322,250</b>	<b>1,388,980</b>
<b>Connection Fund</b>							
<b>Wells</b>							
Observation Wells @ Tank 3 and TBD	Department of Natural Resources Monitoring	-	125,000	125,000	-	-	-
2-HES Jordan Well @ Tank #8 Site	Development	-	520,000	-	-	-	-
<b>Total Wells</b>			<b>645,000</b>	<b>125,000</b>	-	-	-
<b>Water Treatment</b>							
NES Jordan Well #22 Submersible (Pump House No. 3 modifications)	Radium Remediation	-	550,000	-	-	-	-
Water Treatment Plant	Water Quality	-	522,000	8,505,000	-	-	-
<b>Total Water Treatment</b>		-	<b>1,072,000</b>	<b>8,505,000</b>	-	-	-
<b>Pump House Additions/Expansions</b>							
2-HES Pump House @ Tank #8 Site	Development	-	200,000	2,800,000	-	-	-
Pumphouse 2 Rehabilitation	Justification and Cost TBD	-	-	-	-	3,500,000	-
Pumphouse 4 Rehabilitation	Justification and Cost TBD	-	-	-	-	-	3,650,000
<b>Total Pump House Additions/Expansions</b>		-	<b>200,000</b>	<b>2,800,000</b>	-	<b>3,500,000</b>	<b>3,650,000</b>
<b>New Tanks and Transmission Water Main</b>							
2-HES District Storage (0.75 MG, Elevated Tank) @ South of Windermere	Development	-	2,700,000	-	-	-	-
<b>Total New Tanks and Transmission Water Main</b>		-	<b>2,700,000</b>	-	-	-	-
<b>Booster Stations</b>							
Booster Station @ Windermere 1-HES to 2-HES	Development	110,000	-	-	-	-	-
<b>Total Booster Stations</b>		<b>110,000</b>	-	-	-	-	-
<b>Auxiliary Facilities</b>							
Inline Booster Station Site @ Foothill Road and Horizon Drive	Development	-	-	-	156,000	-	-
Southbridge PRV Sites	Pressure Control	-	10,000	110,000	-	-	-
Normal Zone Elevated Tank PRVs	Pressure Control	-	60,000	60,000	60,000	-	-

**Shakopee Public Utilities**  
**Capital Improvement Plan**  
**Final**  
**Dated: December 2, 2019**  
**Water Detail**

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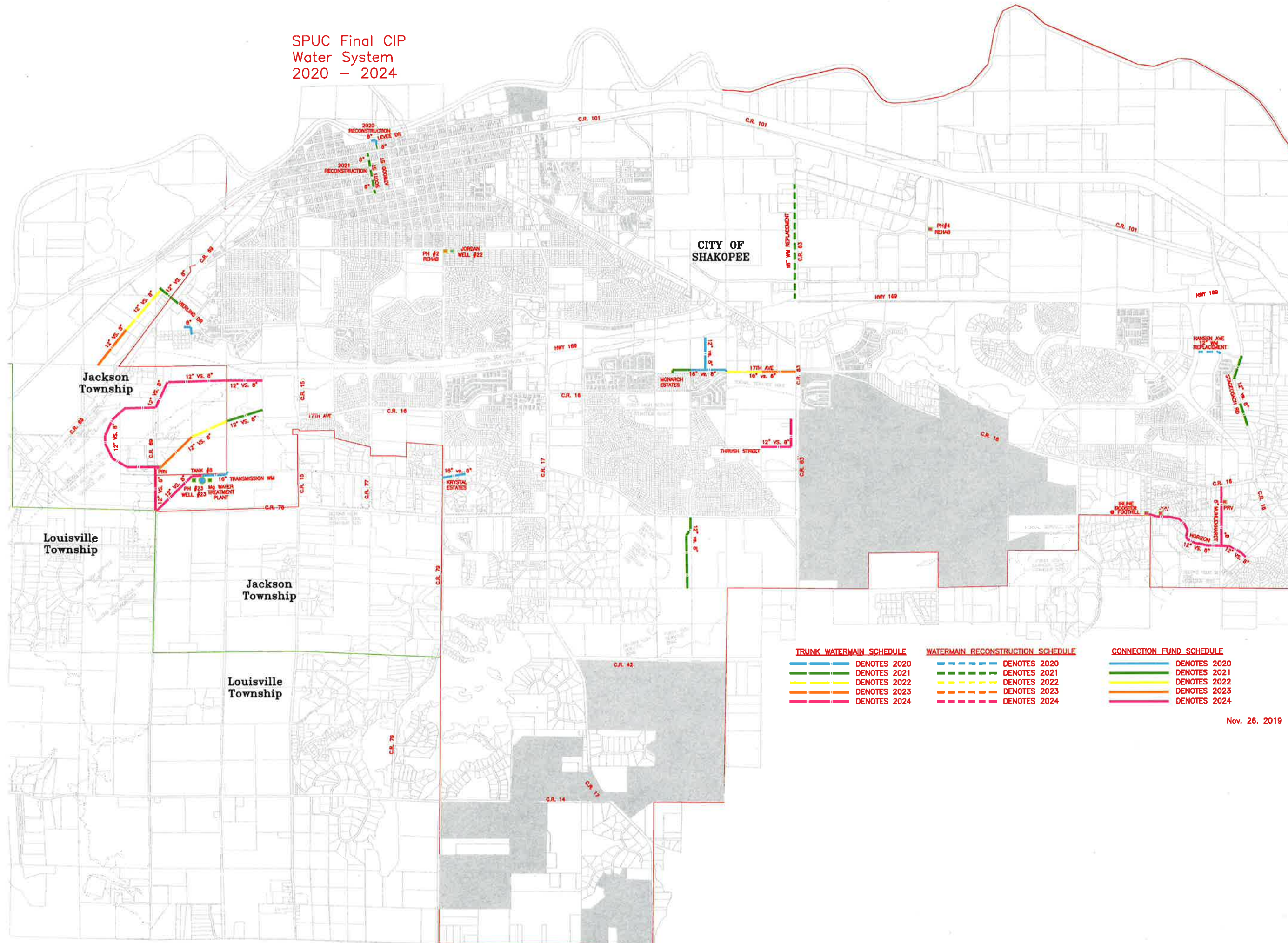
Item Description	Justification	2019 Carryover	2020	2021	2022	2023	2024
Inline Booster Station @ Foothill and Horizon NES to 2 HES	Development	-	-	-	-	52,000	416,000
Pressure Reducing Valve - 2-HES to 1-HES @ Horizon Drive City Trail East of Foothill Rd.	Development	-	-	-	-	-	27,040
Pressure Reducing Valve - 2-HES to 1-HES @ Muhlenhardt Rd	Development	-	-	-	-	-	27,040
Pressure Reducing Valve - 2-HES to 1-HES @ CR 69	Development	-	-	-	-	-	27,040
<b>Total Auxiliary Facilities</b>		-	<b>70,000</b>	<b>170,000</b>	<b>216,000</b>	<b>52,000</b>	<b>497,120</b>
<b>Total Connection Fund</b>		<b>110,000</b>	<b>4,687,000</b>	<b>11,600,000</b>	<b>216,000</b>	<b>3,552,000</b>	<b>4,147,120</b>
<b>Total Water</b>		<b>110,000</b>	<b>6,313,275</b>	<b>16,016,621</b>	<b>3,067,800</b>	<b>6,354,250</b>	<b>6,046,100</b>

SPUC Final CIP  
Electric System  
2020 - 2024



EXTENSION/REPLACEMENT PROJECT SCHEDULE		RELOCATION PROJECT SCHEDULE	
<span style="color: red;">—</span>	DENOTES 2020	<span style="color: red;">- - -</span>	DENOTES 2020
<span style="color: orange;">—</span>	DENOTES 2021	<span style="color: orange;">- - -</span>	DENOTES 2021
<span style="color: yellow;">—</span>	DENOTES 2022	<span style="color: yellow;">- - -</span>	DENOTES 2022
<span style="color: green;">—</span>	DENOTES 2023	<span style="color: green;">- - -</span>	DENOTES 2023
<span style="color: blue;">—</span>	DENOTES 2024	<span style="color: blue;">- - -</span>	DENOTES 2024

SPUC Final CIP  
Water System  
2020 - 2024



**TRUNK WATERMAIN SCHEDULE**

- DENOTES 2020
- DENOTES 2021
- DENOTES 2022
- DENOTES 2023
- DENOTES 2024

**WATERMAIN RECONSTRUCTION SCHEDULE**

- DENOTES 2020
- DENOTES 2021
- DENOTES 2022
- DENOTES 2023
- DENOTES 2024

**CONNECTION FUND SCHEDULE**

- DENOTES 2020
- DENOTES 2021
- DENOTES 2022
- DENOTES 2023
- DENOTES 2024