

AGENDA  
SHAKOPEE PUBLIC UTILITIES COMMISSION  
REGULAR MEETING  
November 6, 2017

1. **Call to Order** at 5:00pm in the SPUC Service Center, 255 Sarazin Street.
2. **Approval of Minutes**
3. **Communications**
  - 3a) Resn. #1175 – In Recognition of Public Service - Joseph Helkamp
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
  - C=> 8b) Monthly Water Production Dashboard
9. **Reports: Electric Items**
  - 9a) Electric System Operations Report – Verbal
  - 9b) October 2017 MMPA Board Meeting Public Summary
  - 9c) October 31 Electric Outage - Review
  - 9d) 2017 MMUA Lineworker's Rodeo Results
  - 9e) Electric SCADA System Presentation
10. **Reports: Human Resources**
11. **Reports: General**
  - 11a) 2018 – 2022 Semi-Final Capital Improvement Plan
12. **New Business**
13. **Tentative Dates for Upcoming Meetings**

- Mid Month Meeting	--	November 20
- Regular Meeting	--	December 4
- Mid Month Meeting	--	December 18
- Regular Meeting	--	January 2 (Tuesday)
14. **Adjourn** to 11/20/17 at the SPUC Service Center, 255 Sarazin Street

MINUTES  
OF THE  
SHAKOPEE PUBLIC UTILITIES COMMISSION  
(Regular Meeting)

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., October 16, 2017.

MEMBERS PRESENT: Commissioners Joos, Amundson, Helkamp, Hennen and Weyer. Also present, Liaison Mocol, Finance Director Schmid, Planning & Engineering Director Adams, Line Superintendent Drent, Water Superintendent Schemel and Marketing/Customer Relations Director Walsh. Utilities Manager Crooks was absent as previously advised.

Motion by Weyer, seconded by Helkamp to approve the minutes of the October 2, 2017 Commission meeting. Motion carried.

There were no Communication items.

President Amundson asked that two items be placed on the agenda. The items were; Item 8c: Resolution #1173 - Setting of the Trunk Water Charge, Approving of Its Collection and Authorizing Water Service to Certain Property Described as: West Shakopee Gateway First Addition and Item 8d: Resolution #1174 - Approving of the Estimated Cost of Pipe Oversizing on the Watermain Project: Vierling Drive Connection CP 2017-10.

President Amundson offered the amended agenda for approval.

Motion by Helkamp, seconded by Weyer to approve the amended agenda as presented. Motion carried.

There were no Consent Items.

The warrant listing for bills paid October 16, 2017 was presented.

Motion by Joos, seconded by Helkamp to approve the warrant listing dated October 16, 2017 as presented. Motion carried.

Liaison Mocol presented her report. The City will be hiring a water resources position. There is a meeting with the Met Council's Regional Water Supply Committees on November 6. The Envision Shakopee initiative is underway. The initiative will promote the development of the 2040 City of Shakopee Comprehensive Plan.

Water Superintendent Schemel provided a report of current water operations. The SPU Water Supply Plan is completed and has been sent to the DNR for their review and approval. Construction updates were also provided.

Mr. Schemel then led a presentation on the construction of the Riverview Booster Station.

Planning and Engineering Director Adams provided an overview of the City of Shakopee development project on Vierling Drive.

Motion by Helkamp, seconded by Hennen to offer Resolution #1173. A Resolution Setting of the Trunk Water Charge, Approving of Its Collection and Authorizing Water Service to Certain Property Described as: West Shakopee Gateway First Addition. Ayes: Commissioners: Hennen, Joos, Helkamp, Weyer and Amundson. Nay: none. Motion carried. Resolution passed.

Motion by Joos, seconded by Helkamp to offer Resolution #1174. A Resolution Approving of the Estimated Cost of Pipe Oversizing on the Watermain Project: Vierling Drive Connection CP 2017-10. Ayes: Helkamp, Weyer, Joos, Hennen and Amundson. Nay: none. Motion carried. Resolution passed.

Line Superintendent Drent provided a report of current electric operations. Three electric outages were reviewed. Six SPU linemen will be participating in the MMUA Lineworker's Rodeo in Marshall, Minnesota. Construction updates were provided.

Marketing/Customer Relations Director Walsh provided an overview of the Residential Clean Energy Choice Program. The Program will roll out as of January 1, 2018.

President Amundson read the September 2017 MMPA Board Meeting Public Summary.

Finance Director Schmid provided the 2017 September Financial Results.

Ms. Schmid reviewed the 2018 Wage and Compensation Planning Assumptions, as approved by the Wage and Compensation Sub Committee.

Motion by Helkamp, seconded by Hennen to offer Resolution #1172. A Resolution Regulating Wage Ranges. Ayes: Commissioners: Helkamp, Weyer, Joos, Hennen and Amundson. Nay: none. Motion carried. Resolution passed.

Motion by Helkamp, seconded by Weyer to direct staff to proceed with job description updates for the Electric Department reorganization with positions to include: Assistant Electric Superintendent, Storekeeper, Dispatcher, Lead Lineman, Journeyman Lineman, Apprentice Lineman, Meter/Electronics Technician and Locator/Meter Specialist. Motion carried.

The tentative commission meeting dates of November 6 and November 20 were noted.

Motion by Helkamp, seconded by Weyer to adjourn to the November 6, 2017 meeting. Motion carried.

  
\_\_\_\_\_  
Commission Secretary: John R. Crooks

**RESOLUTION #1175****A RESOLUTION IN RECOGNITION OF PUBLIC SERVICE*****Joseph Helkamp***

WHEREAS, Joseph Helkamp, throughout his tenure as commissioner of the Shakopee Public Utilities always applied his best efforts toward the professional operation of the Shakopee Public Utilities Commission, and

WHEREAS, Mr. Helkamp consistently performed his duties in a diligent, conscientious, and civic minded manner,

WHEREAS, he has gladly contributed many hours of service to civic and public endeavors and has been an active and valued member of the Shakopee Public Utilities Commission until his resignation necessitated by his moving out of the City of Shakopee,

THEREFORE BE IT RESOLVED, that the Commission expresses its appreciation and that of the people of Shakopee to Mr. Helkamp for his seven years, 6 months of dedicated service.

BE IT FURTHER RESOLVED, by the Shakopee Public Utilities Commission that this resolution be adopted as a tribute to those years of faithful service of Joseph Helkamp and that a copy of the resolution be retained as a permanent testimony to the action.

Adopted in regular session of the Shakopee Public Utilities Commission, this 6<sup>th</sup> day of November, 2017.

---

Commission President: Deb Amundson

ATTEST:

---

Commission Secretary: John R. Crooks



# Monthly Water Dashboard

As of: **September 2017**

**Shakopee Public Utilities Commission**

**8b**

ALL VALUES IN MILLIONS OF GALLONS

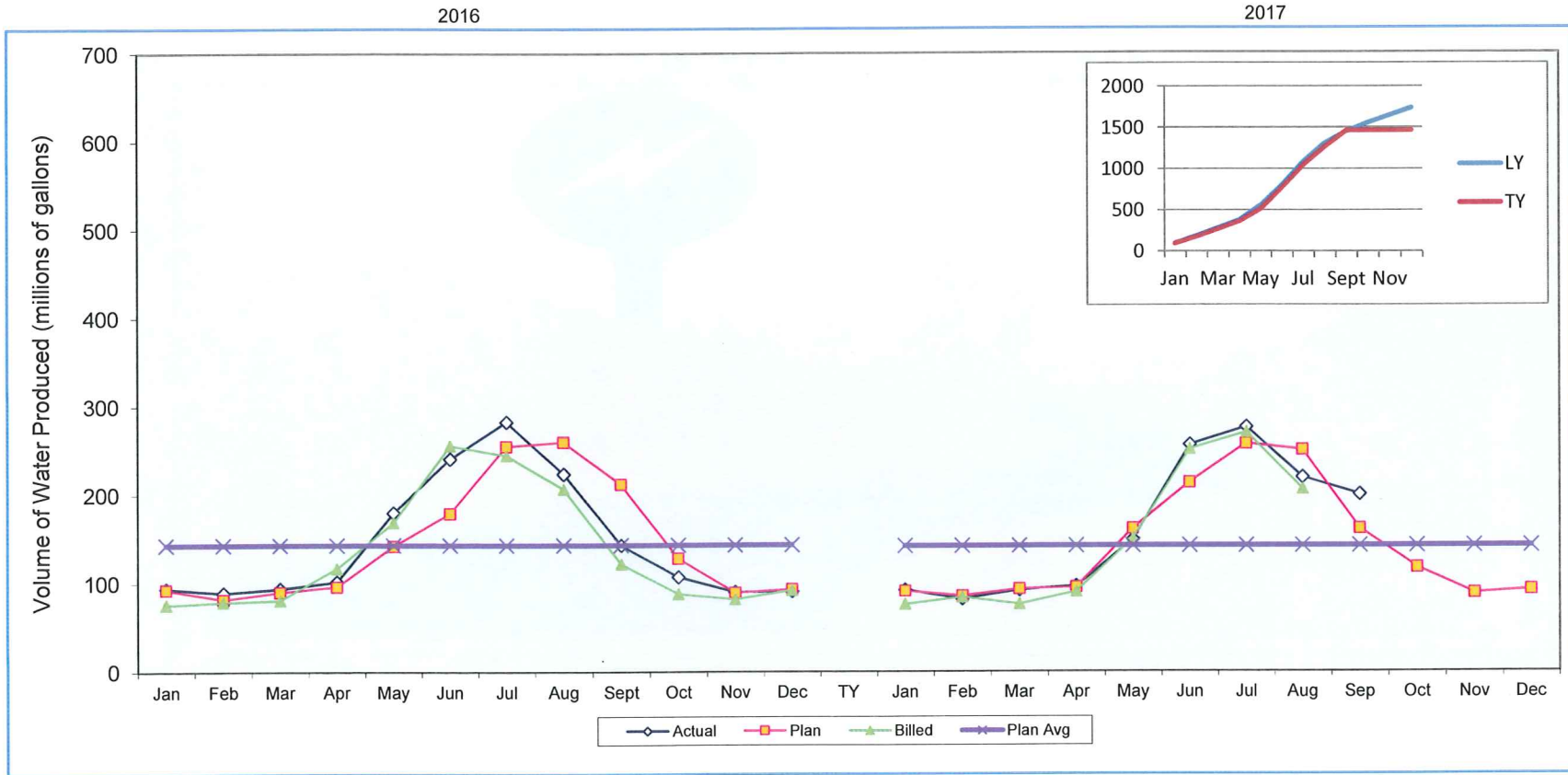
**Element/Measure**

**Water Pumped/Metered**

Averages

Last 6 months actuals	96	149	256	276	219	200
-----------------------	----	-----	-----	-----	-----	-----

2014	140
2015	138
2016	145




	LY	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sept	Oct	Nov	Dec	TY	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
Actual		94	89	94	102	180	241	283	224	143	107	90	91		92	82	92	96	149	256	276	219	200			
Plan		93	82	90	96	142	179	255	260	212	128	89	93		91	85	93	95	161	213	257	250	161	117	88	92
YTD % *															101%	99%	99%	99%	97%	104%	105%	101%	104%			
Billed		76	79	81	117	169	256	245	207	122	88	82	92		76	84	76	90	150	251	270	206				

\* Actual gallons pumped vs. Plan

**SHAKOPEE PUBLIC UTILITIES  
MEMORANDUM**

**9b**

**TO: SHAKOPEE PUBLIC UTILITIES COMMISSION**  
**FROM: JOHN R. CROOKS, UTILITIES MANAGER**   
**SUBJECT: OCTOBER 2017 MMPA BOARD MEETING SUMMARY**  
**DATE: NOVEMBER 3, 2017**

The Board of Directors of the Minnesota Municipal Power Agency (MMPA) met on October 24, 2017 at the offices of Shakopee Public Utilities in Shakopee, Minnesota.

Customer penetration of MMPA's Clean Energy Choice program for residential customers increased to 2.2%, with a range of market penetration by members of 0.7% to 5.5%.

The Clean Energy Choice for Business program rollout has begun, with customer signups underway.

The Board discussed the status of the renewable projects that the Agency is pursuing.

Commitments from all twelve member communities have been secured for the Agency's Energy Education program for the 2017-2018 school year, which includes an FEP tour or an in-school education assembly.

Hometown Solar grant application signups will open for educational facilities in Chaska and Shakopee next month.



9c

# SHAKOPEE PUBLIC UTILITIES

“Lighting the Way – Yesterday, Today and Beyond”

November 1, 2017

TO: John Crooks, Utilities Manager *JRC*  
FROM: Greg Drent, Electric Superintendent *GD*  
Subject: Outage on October 31, 2017

---

We experienced an Xcel transmission line outage on our Shakopee Substation on October 31, 2017 at 7:59am that affected 2591 customers. The outage lasted 13 minutes, as we were able to switch the load to other circuits to get everyone's power restored. Sharon Walsh posted the outage on Facebook, SPU website and SPU staff answered many phone calls during the outage.

First order of business was to restore the power to our customers and we did that in very short order. Next step was to find out why this happened and what steps we can take to make sure it never happens again. We contacted Xcel Energy and scheduled a meeting on November 1, 2017 at 1:00pm. Xcel Energy admitted a few steps that were missed causing the outage. We are addressing the missed steps with them as well as getting a report of their findings of the outage in the next couple of weeks. We came to an agreement that we need to be involved in an email chain every time they are switching loads on the transmission lines that feed us. Xcel also said they would call us if they were shutting down a transmission line that feeds us. This step was supposed to happen but it was missed and we made sure that it was known we need that phone call. We take every outage very serious, but we feel this one was totally avoidable. This outage was out of our control but we need to take every step to make sure it does not happen again.





# SHAKOPEE PUBLIC UTILITIES

“Lighting the Way – Yesterday, Today and Beyond”

October 30, 2017

TO: John Crooks, Utilities Manager *JRC*  
 FROM: Greg Drent, Electric Superintendent *GD*  
 Subject: MMUA MN Rodeo 2017 Update and Results

---

MMUA had the first MN lineman rodeo on Tuesday October 17, 2017 in Marshall MN. There were six SPU employees that participated in the rodeo and they are as follows: Mike Enright Journeyman, Cody Schuett Journeyman, Brad Carlson Journeyman, Justin Rotert Journeyman, Matt Kahle Apprentice, and Tyler Hanson Apprentice.

This lineman rodeo was a little different from the APPA rodeo as all the events are individual and there are no team events. The climbers competed in three different events: Obstacle Course, Hurtman Rescue and Insulator Changeout. The scores in the events are totaled and there was an overall champion too. Shakopee Public Utilities employee's performed very well at the rodeo and below is an email we received after the rodeo from MMUA with the results.

**From:** Rita Kelly [<mailto:rkelly@mmua.org>]  
**Sent:** Tuesday, October 17, 2017 10:04 PM  
**To:** Sanders, Kent <[ksanders@shakopeeutilities.com](mailto:ksanders@shakopeeutilities.com)>  
**Cc:** Crooks, John <[jcrooks@shakopeeutilities.com](mailto:jcrooks@shakopeeutilities.com)>  
**Subject:** SPU wins at Rodeo

Shakopee was called out quite a bit this evening at the Rodeo awards. Roger is bringing back a lot of hardware for several of your guys who were not able to stay. I told him I'd send a list so he'd remember who won what. Here is what we have for you:

### Obstacle Course Event – Apprentice

1<sup>st</sup> place by Matt Kahle  
 2<sup>nd</sup> place by Tyler Hanson

### Obstacle Course Event – Journeyman

1<sup>st</sup> place by Mike Enright  
 2<sup>nd</sup> place by Brad Carlson  
 3<sup>rd</sup> place by Cody Schuett  
 (Justin Rotert was in 4<sup>th</sup> place)





# SHAKOPEE PUBLIC UTILITIES

“Lighting the Way – Yesterday, Today and Beyond”

## Hurtman Rescue Event – Apprentice

1<sup>st</sup> place by Tyler Hanson

2<sup>nd</sup> place by Matt Kahle

## Hurtman Rescue Event – Journeyman

1<sup>st</sup> place by Mike Enright

2<sup>nd</sup> place by Brad Carlson

(Cody Schuett was in 7<sup>th</sup> place and Justin Rotert was 8<sup>th</sup>)

## Insulator Changeout Event – Apprentice

1<sup>st</sup> place by Matt Kahle

3<sup>rd</sup> place by Tyler Hanson

## Insulator Changeout Event – Journeyman

1<sup>st</sup> place by Mike Enright

2<sup>nd</sup> place by Cody Schuett

3<sup>rd</sup> place by Justin Rotert

(Brad Carlson was in 6<sup>th</sup> place)

## Overall Competition – Apprentice

1<sup>st</sup> place by Matt Kahle

2<sup>nd</sup> place by Tyler Hanson

## Overall Competition – Journeyman

1<sup>st</sup> place by Mike Enright

2<sup>nd</sup> place by Cody Schuett

3<sup>rd</sup> place by Brad Carlson

(Justin Rotert was in 4<sup>th</sup> place)

Congratulations to all!

**Rita Kelly** – Director of Administration

Minnesota Municipal Utilities Association

3025 Harbor Lane North, Suite 400, Plymouth, MN 55447-5142

Direct: 763.746.0707 • Cell: 612.532.2345 • Fax: 763.551.0459

[www.mmua.org](http://www.mmua.org)

---

Post Office Box 470 • 255 Sarazin Street • Shakopee, Minnesota 55379-0470  
(952) 445-1988 • Fax (952) 445-7767 • [www.spucweb.com](http://www.spucweb.com)



# SHAKOPEE PUBLIC UTILITIES

“Lighting the Way – Yesterday, Today and Beyond”

As you can see from the results, we took the rodeo serious and practiced whenever we could get a few hours free to make sure we are at the top of our game for rodeo. During the awards banquet the other utilities said they will be back next year to make sure SPU doesn't get so many trophies. I am very pleased with the dedication of the entire staff at SPU and feel very blessed to have a Utilities Manager and Commission members that support the rodeo events throughout the year. The lineman wanted me to share a big THANK YOU to Mr. Crooks and the Commission for the opportunity to represent SPU at the rodeo events throughout the year.







9e

# SHAKOPEE PUBLIC UTILITIES

“Lighting the Way – Yesterday, Today and Beyond”

November 2, 2017

TO: John Crooks, Utilities Manager *JPC*  
FROM: Greg Drent, Electric Superintendent *GD*  
Subject: SCADA Update

---

**Update:**


The new SCADA system is up and running with only a few remaining punch list items before final payment. This was a big project for SPU electric system and we are pleased with the results as we can now see the entire load on SPU system and the status of all our substation breakers. The SCADA system allows us to look at graphs and trending of our load going forward. When we have outages, we can also see the status of the circuits before we even leave the shop. With this information, we can do our job more efficiently as we do not have to drive to the substations to get information we just look at the SCADA system. When we are switching breakers, we do not have to be in front of the gear we can remote in and operate the switch, which is a much safer for our lineman and shorter outage times.


We did have a few setbacks during implementation of the new SCADA but it was nothing we could not overcome. Some of the issues were communication problems from the old C3ilex system to Survalant system, point list needed to be redirected in the Survalant system for accurate accounting of the power, reprogramming of some switches to get more information out of some devices and adding a new RTAC (Real Time Automation Controller) at the South Shakopee substation. Survalant did not provide the software to install our mapping system on the SCADA system but after a few phone calls, they provided that platform. We are working on installing the mapping system on the SCADA system.

Next year when we update some relays at Dean Lake substation, we will have an even better system as the real time information will come back faster to SPU control room. We use this information when looking at our loads, but it is most critical when we are tying circuits together. Then we will know what amperages are on them before opening up another circuit.

I will have a presentation of new SCADA system at the meeting and answer any questions you may have.

SHAKOPEE PUBLIC UTILITIES  
MEMORANDUM

TO: John Crooks, Utilities Manager 

FROM: Joseph D. Adams, Planning & Engineering Director 

SUBJECT: Semi-Final Capital Improvement Plan for 2018-2022

DATE: November 2, 2017

ISSUE

The Semi-Final Capital Improvement Plan for 2018-2022 is submitted for consideration by the Commission at their November 6, 2017 meeting. I will present the plan and take questions during the meeting.



**Shakopee Public Utilities  
Capital Improvement Plan  
Semi-Final  
Dated: November 2, 2017  
Administrative Summary**

Item Description	Justification	2017 Carryover	2018	2019	2020	2021	2022
1 General Office Equipment	See detail	-	123,925	112,000	190,000	90,000	90,000
2 Hardware	See detail	1,000	239,473	202,800	171,000	169,000	169,000
3 Software	See detail	-	35,000	42,000	30,000	30,000	30,000
4							
5 <b>Total Administrative</b>		<b>\$1,000</b>	<b>\$398,398</b>	<b>\$356,800</b>	<b>\$391,000</b>	<b>\$289,000</b>	<b>\$289,000</b>
6							
7 <b>Cumulative Total Administrative</b>		<b>\$1,000</b>	<b>\$399,398</b>	<b>\$756,198</b>	<b>\$1,147,198</b>	<b>\$1,436,198</b>	<b>\$1,725,198</b>
	Electric	\$750	\$298,799	\$267,600	\$293,250	\$216,750	\$216,750
	Water	\$250	\$99,600	\$89,200	\$97,750	\$72,250	\$72,250

**Shakopee Public Utilities  
Capital Improvement Plan  
Semi-Final  
Dated: November 2, 2017  
Administrative Detail**

Type	Item	Source of Request	Justification	Qty	Unit Cost	2017 Carryover	2018	2019	2020	2021	2022
1	Gen Office Equipt	Electronic White Board/Projector/Lap Top - Conference Room B	Plan/Eng	Map Display for Engineering Meetings/Presentations			-	12,400	-	-	-
2	Gen Office Equipt	File shelving/Scanning Equipment	F&A	Record retention (10 shelf units at \$500/2 scanners at \$2,000 ea)	10	500	-	9,000	-	-	-
3	Gen Office Equipt	Shredder	F&A	Replace 25 year old shredder	1	4,000	-	4,000	-	-	-
4	Gen Office Equipt	Electronic White Board/Projector/Lap Top - Training Room	Plan/Eng, Water, Electric	Map Display for Meetings/Presentations/Training/Conferences			-	15,000	-	-	-
5	Gen Office Equipt	Copier Upgrades	F&A - IT	Replace Aging Equipment	3	8,500	-	25,500	-	-	-
6	Gen Office Equipt	Commission Room Interactive Display Solution	Plan/Eng	Map Display for Meetings/Presentations/Training/Conferences			-	7,000	-	-	-
7	Furn & Equipment	Standing workstation	F&A-IT/Cust Svc	Employee Health and Wellness	8	800	-	6,400	-	-	-
8	Furn & Equipment	Office Chairs	F&A	Replace service center office chairs - aging equipment	65	625	-	40,625	-	-	-
9	Furn & Equipment	Portable Projector	F&A	Replace aging equipment	1	1,000	-	1,000	-	-	-
10	Furn & Equipment	Commission Room AV Equipment	F&A - IT	Upgrade Commission Room AV Equipment & Microphones			-	-	100,000	-	-
11	Gen Office Equipt	General office equipment	F&A - IT	General equipment replacements			-	25,000	90,000	90,000	90,000
12	<b>Total General Office Equipment</b>						-	<b>123,925</b>	<b>112,000</b>	<b>190,000</b>	<b>90,000</b>
13	Hardware	Replacement computers	F&A - IT	Replace aging Equipment & 2 staff additions in Cust Svc & Eng	14	1,000	-	14,000	14,000	14,000	14,000
14	Hardware	Miscellaneous Hardware	F&A - IT	Future planning			-	-	20,000	20,000	100,000
15	Hardware	I series Server Replacement	F&A - IT	Replace server supporting Daffron System			-	-	-	50,000	-
16	Hardware	Spare Equipment	F&A - IT	Spare Equipment for emergency replacement(monitors/printers/etc)			-	3,000	3,000	3,000	3,000
17	Hardware	Server room UPS maintenance/battery replacement	F&A - IT	Uninterrupted power supply & battery back up replacement	1	2,000	-	2,000	2,000	2,000	2,000
18	Hardware	Upgrade video camera system	Facilities	Upgrade quality of Video Surveillanc - analaog to digital			-	15,000	-	-	-
19	Hardware/Software	ESRI Upgrade to Standard & additional license	Plan/Eng	Software Upgrade basic to standard - basic support phased out			-	14,000	-	-	-
20	Hardware	Remit Plus Scanners - Payment Processing	Cust. Service	Scanner Replacements	3	4,000	-	-	-	12,000	-
21	Hardware	Tablets for Trucks	Electric	2nd phase of data maps in the field	8	600	-	-	4,800	-	-
22	Hardware	SCADA system replacement monitor	Water	Replace Aging Equipment - Upgrade from 19" to 55" monitor			-	-	-	-	-
23	Hardware	Wireless System + network cabling for SPUC Building	F&A - IT	Replace Improve Wireless capability for customers & meetings			-	17,000	-	-	-
24	Hardware	Fiber Ring /INET Connectivity	F&A - IT	Connectivity/Redundancy for systems/remote sites			-	50,000	50,000	50,000	50,000
25	Hardware	CSR additional monitors	Cust. Service	SW wants all CSRs to have dual monitors after remodel	4	200	-	800	-	-	-
26	Hardware	Water SCADA 23" Monitor for KVM	Water	Moving Waer SCADA to server room, need 23" KVM Monitor	1	200	-	200	-	-	-
27	Hardware	Network Switches	F&A - IT	Future Standard Replacement Cycle			-	-	-	20,000	-
28	Hardware	ShoreTel Replacing Phones	F&A - IT	Replace aging phones	10	400	-	4,000	-	-	-
29	Hardware	ShoreTel Headsets	Cust. Service	Operational efficiency	2	250	-	500	-	-	-
30	Hardware	Vmware ESX Hosts Replacemets	F&A - IT	Vmware ESX Hosts Replacemets HPE Proliant	2	16,000	-	-	32,000	-	-
31	Hardware	VMware HP DL380p Server - Add Host machine	F&A - IT	To meet capacity needs			-	-	75,000	-	-
32	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			-	22,973	-	-	-
33	Hardware	NAS Backup Device	F&A - IT	Replacement of existing equipment	1	6,000	-	6,000	-	-	-
34	Hardware	Core Switches	F&A - IT	Needed for redundant power supplies	1	5,000	-	5,000	-	-	-
35	Hardware	Vmware/Windows Backup and Diaster Recovery - Unitrends or SingleHop Solutions	F&A - IT	Disaster Recovery Solution - Replaces Intronis and will backup to local NAS and secondary cloud backup. DR to exiting environment via VPN tunnel			-	85,000	-	-	-
36	Hardware	Lobby - Replace IPAD Kiosk	F&A - IT	Improved Customer Service	1	2,000	-	-	2,000	-	-
37	<b>Total Hardware</b>						-	<b>1,000</b>	<b>239,473</b>	<b>202,800</b>	<b>171,000</b>
38	Software	Software	F&A - IT	Misc/Future budgeting			-	30,000	30,000	30,000	30,000
39	Software	Microsoft Client License - CALS	Electric	Client License needed to add email & SPAM filter at user level	50	100	-	5,000	-	-	-
40	Software	Microsoft Windows Server 2016 Datacenter Lic	F&A - IT	Vmware Microsoft server licenses	2	6,000	-	-	12,000	-	-
41	<b>Total Software</b>						-	<b>35,000</b>	<b>42,000</b>	<b>30,000</b>	<b>30,000</b>

**Shakopee Public Utilities**  
**Capital Improvement Plan**  
**Semi-Final**  
**Dated: November 2, 2017**  
**Administrative Detail**

Type	Item	Source of Request	Justification	Qty	Unit Cost	2017					
						Carryover	2018	2019	2020	2021	2022
42	Total CIP Expenditures - Administration					1,000	398,398	356,800	391,000	289,000	289,000
43	Cumulative CIP Expenditures - Administration					1,000	399,398	756,198	1,147,198	1,436,198	1,725,198



**Shakopee Public Utilities  
Capital Improvement Plan  
Semi-Final  
Dated: November 2, 2017**

**Electric Summary**

Item Description	Justification	2017 Carryover	2018	2019	2020	2021	2022
<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	100,000	588,000	562,000	560,000	495,000	495,000
Vehicles/Equipment	See Detail	100,000	467,000	364,000	410,000	370,000	295,000
<b><u>Local Area Projects</u></b>							
New UG Cables & Related Cost (Net of Contribution)	See Detail	-	300,000	350,000	350,000	400,000	400,000
Replace UG Cable Projects	See Detail	-	75,000	75,000	75,000	75,000	75,000
Rebuild OH Lines	See Detail	-	268,308	270,900	300,000	275,280	325,000
<b><u>Major System Projects</u></b>							
Feeder Extension Projects	See Detail	-	1,568,000	787,500	585,000	425,250	253,000
Territory Acquisition	See Detail	-	150,000	100,000	100,000	100,000	100,000
Shakopee Substation	See Detail	-	100,000	-	-	-	-
South Shakopee Substation	See Detail	100,000	20,000	-	-	30,000	-
Pike Lake Substation	See Detail	-	20,000	25,000	-	-	-
Dean Lake Substation	See Detail	-	240,000	-	30,000	-	-
East Shakopee Substation	See Detail	-	300,000	-	-	-	-
West Shakopee Substation	See Detail	-	300,000	-	200,000	4,400,000	-
Upgrade Projects	See Detail	-	275,000	280,000	190,000	200,000	210,000
ADVANCED METERING INFRASTRUCTURE (AMI)	See Detail	-	-	-	1,800,000	1,800,000	1,800,000
Service Center	See Detail	30,000	352,000	75,000	75,000	45,000	45,000
<b>Total Operating Fund</b>		<b>330,000</b>	<b>5,198,308</b>	<b>3,064,400</b>	<b>4,850,000</b>	<b>8,790,530</b>	<b>4,173,000</b>
<b><u>Relocation Fund</u></b>							
Relocation Projects	See Detail	-	168,578	264,750	148,000	126,280	177,000
<b>Total Relocation Fund</b>		<b>-</b>	<b>168,578</b>	<b>264,750</b>	<b>148,000</b>	<b>126,280</b>	<b>177,000</b>
<b>Total Electric</b>		<b>330,000</b>	<b>5,366,886</b>	<b>3,329,150</b>	<b>4,998,000</b>	<b>8,916,810</b>	<b>4,350,000</b>
<b>Cumulative Total Electric</b>		<b>330,000</b>	<b>5,696,886</b>	<b>9,026,036</b>	<b>14,024,036</b>	<b>22,940,846</b>	<b>27,290,846</b>



**Shakopee Public Utilities  
Capital Improvement Plan  
Semi-Final  
Dated: November 2, 2017  
Electric Detail**

1  
2  
3  
4  
5  
6

Item Description	Justification	2017 Carryover	2018	2019	2020	2021	2022
<b>Operating Fund</b>							
<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>							
Lateral Circuit Reconfiguration	System Reliability	100,000	25,000	25,000	25,000	25,000	25,000
Portable Trench Shoring Equipment	Trench Safety	-	20,000	-	-	-	-
SCADA Switches for Tie Switches	System Reliability	-	80,000	80,000	80,000	-	-
Meters	New Construction	-	63,000	55,000	55,000	50,000	50,000
Padmount Switches & Related	Load/Development	-	125,000	125,000	125,000	150,000	150,000
Distribution Transformers	Restock to min.	-	200,000	200,000	200,000	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
UG Cable Locator	Replace Old Equipment	-	10,000	-	10,000	-	-
CT Burden/3 Phase Meter Tester	Meter Tester	-	-	12,000	-	-	-
<b>Total System Material &amp; Facilities</b>		<b>100,000</b>	<b>588,000</b>	<b>562,000</b>	<b>560,000</b>	<b>495,000</b>	<b>495,000</b>
<b>Vehicles/Equipment</b>							
Trencher	Life Cycle Replacement, Possible \$10k trade in value (8yr)	100,000	-	-	-	-	-
#613 One Ton Dump	Life Cycle Replacement	-	60,000	-	-	-	-
1/2 Ton Pick-up 4X4 Duty Truck	Life Cycle Replacement - (8 yr)	-	50,000	-	-	-	-
#611 Bucket Truck 4X4	Possible \$15-\$20 K trade in value	-	175,000	-	-	-	-
#646 1/2 Ton Puck-up 4x4 Crew Cab	Life Cycle Replacement	-	40,000	-	-	-	-
Truck Box Sander	Life Cycle Replacement	-	7,000	-	-	-	-
Construction-Related Equipment-New/Additional/Replacement	Tool Replacement	-	45,000	45,000	45,000	45,000	45,000
#627 1/2 Ton Pick-up 4x4 Extendend Cab	Life Cycle Replacement	-	40,000	-	-	30,000	-
#632 One Ton with Utility Top 08/04	Life Cycle Replacement	-	50,000	-	-	120,000	-
#636 One Ton w/Utility Box	Life Cycle Replacement	-	-	55,000	-	-	-
Air Compressor	Life Cycle Replacement	-	-	19,000	-	-	-
Skid Steer Loader #624	Life Cycle Replacement	-	-	45,000	-	-	-
Tractor/Back Hoe #638	Life Cycle Replacement	-	-	200,000	-	-	-
#642 One Ton Dump Truck	Life Cycle Replacement	-	-	-	50,000	-	-
Pole Trailer	Life Cycle Replacement - (25 yr)	-	-	-	15,000	-	-
#616 Double Bucket	Life Cycle Replacement	-	-	-	300,000	-	-
#610 F550 4x4 Service Truck	Life Cycle Replacement	-	-	-	-	175,000	-
Directional Bore Equipment	New Equip for UG Construction	-	-	-	-	-	250,000
<b>Total Vehicles/Equipment</b>		<b>100,000</b>	<b>467,000</b>	<b>364,000</b>	<b>410,000</b>	<b>370,000</b>	<b>295,000</b>
<b>Local Area Projects</b>							
New UG Cables & Related Cost (Net of Contribution)	Load/Development	-	300,000	350,000	350,000	400,000	400,000
<b>Total New UG Cables &amp; Related Cost (New of Contribution)</b>		<b>-</b>	<b>300,000</b>	<b>350,000</b>	<b>350,000</b>	<b>400,000</b>	<b>400,000</b>
<b>Replace UG Cable Projects</b>							
Replace UG Cable - Presidential Addition	Reliability/Replace Problem Cable	-	20,000	-	-	-	-
Replace UG Cable - MN Valley Mall	Reliability/Replace Problem Cable	-	20,000	-	-	-	-

**Shakopee Public Utilities  
Capital Improvement Plan  
Semi-Final  
Dated: November 2, 2017  
Electric Detail**

1  
2  
3  
4  
5  
6  
7

Item Description	Justification	2017 Carryover	2018	2019	2020	2021	2022
57 Replace UG Cable - Weinandt Addition	Reliability/Replace Problem Cable	-	20,000	-	-	-	-
58 Replace UG Cable - Projects Yet To Be Determined	As Needed	-	15,000	75,000	75,000	75,000	75,000
<b>59 Total Replace UG Cable Projects</b>		-	<b>75,000</b>	<b>75,000</b>	<b>75,000</b>	<b>75,000</b>	<b>75,000</b>
<b>61 Rebuild OH Lines</b>							
62 DL-41 CR 83 from 4th Ave to VIBS 0.25 mile	County Project	-	22,308	-	-	-	-
63 PL-73 Rolling Oak Circle Single Phase Tap 0.25 mile (OH to UG)	Re-Development	-	40,000	-	-	-	-
64 DL-96 thru Canterbury Commons	Street Project (Shenandoah)	-	21,000	-	-	-	-
65 SH-09 Levee Drive 0.25 mile	Street Project	-	15,000	-	-	-	-
66 SH-10 Levee Drive 0.25 mile	Street Project	-	20,000	-	-	-	-
67 Rebuild OH lines - as needed RP3	Change Out	-	150,000	150,000	200,000	200,000	200,000
68 SS-31 CR 42 from CR 17 to CR 83 1.625 miles	County Project	-	-	120,900	-	-	-
69 BL-22 Maras Street and Hanson Avenue	Street Project	-	-	-	75,000	-	-
70 SS-32 CR 15 @ Vierling Drive & Hwy 169 Ramps	Roundabout Impacts	-	-	-	25,000	-	25,000
71 DL-55 CR 83 frp, VIBS to Hwy 169 0.75 mile	County Project	-	-	-	-	75,280	-
72 SS-31 CR 17 South of CR 42 to CR 82 0.75 mile	Street Project	-	-	-	-	-	100,000
<b>73 Total Rebuild OH Lines</b>		-	<b>268,308</b>	<b>270,900</b>	<b>300,000</b>	<b>275,280</b>	<b>325,000</b>
<b>74 Major System Projects</b>							
<b>76 Feeder Extension Projects</b>							
77 PL-75 SBX to Stagecoach Rd 0.25 mile	Development	-	56,000	-	-	-	-
78 SS-32 Taylor Street/Vierling Drive 0.50 mile	Load Growth	-	108,000	-	-	-	-
79 PL-73 CR18 from CR16 to Mullenhardt 0.50 mile	Load Growth	-	108,000	-	-	-	-
80 Dean Lake Sub Exit Circuits 1.0 mile	Load Growth	-	216,000	-	-	-	-
81 DL-9X New Feeder DL Sub to 4th Ave 1.50 miles	Development (VVBP)	-	324,000	-	-	-	-
82 DL-96 thru Canterbury Commons 1.0 mile	Load Growth	-	216,000	-	-	-	-
83 SS-32 CR 16 Ext. from CR15 to CR69 1.0 mile	Street Project & Development	-	108,000	112,500	-	-	-
84 SS-8X New Feeder SS Sub to CR 69&HWY169 via Xcel Easement, CR15&CR78 3.5 miles	Load Growth	-	216,000	337,500	351,000	-	-
85 DL-42 DL Blvd from CR 83 to Coneflower 0.5 mile	Load Growth	-	-	112,500	-	-	-
86 SS-83 New Feeder SS Sub to CR 17 via Stonebrooke 0.75 mile	Load Growth	-	-	-	-	182,250	-
87 Projects Yet to be Determined 1.0 mile	As Necessary	-	216,000	225,000	234,000	243,000	253,000
<b>88 Total Feeder Extension Projects</b>		-	<b>1,568,000</b>	<b>787,500</b>	<b>585,000</b>	<b>425,250</b>	<b>253,000</b>
90 Assumed Cost per mile unless noted otherwise		-	216,000	225,000	234,000	243,000	253,000
<b>92 Territory Acquisition</b>							
93 Territory Acquisition	Consolidation	-	150,000	100,000	100,000	100,000	100,000
<b>94 Total Territory Acquisition</b>		-	<b>150,000</b>	<b>100,000</b>	<b>100,000</b>	<b>100,000</b>	<b>100,000</b>
<b>96 Shakopee Substation</b>							
97 Land Rights	Load Growth/Downtown Re-development	-	100,000	-	-	-	-
<b>98 Total Shakopee Substation</b>		-	<b>100,000</b>	-	-	-	-
<b>100 South Shakopee Substation</b>							

**Shakopee Public Utilities  
Capital Improvement Plan  
Semi-Final  
Dated: November 2, 2017  
Electric Detail**

1  
2  
3  
4  
5  
6  
7

Item Description	Justification	2017 Carryover	2018	2019	2020	2021	2022
<b>101</b> Upgrade to Schweitzer Relays	For SCADA	100,000	20,000	-	-	-	-
<b>102</b> Oil Change Out on Tap Changer	Maintenance/Extend Life of Tap Changer	-	-	-	-	30,000	-
<b>103 Total South Shakopee Substation</b>		<b>100,000</b>	<b>20,000</b>	<b>-</b>	<b>-</b>	<b>30,000</b>	<b>-</b>
<b>105 Pike Lake Substation</b>							
<b>106</b> SCADA C3 ilex/Schweitzer RTAC	Change out C3ilex	-	20,000	-	-	-	-
<b>107</b> Oil Change Out on Tap Changer	Maintenance/Extend Life of Tap Changer	-	-	25,000	-	-	-
<b>108 Total Pike Lake Substation</b>		<b>-</b>	<b>20,000</b>	<b>25,000</b>	<b>-</b>	<b>-</b>	<b>-</b>
<b>110 Dean Lake Substation</b>							
<b>111</b> Grating T3	Safety	-	40,000	-	-	-	-
<b>112</b> Upgrade to Schweitzer Relays	For SCADA	-	200,000	-	-	-	-
<b>113</b> Oil Change Out on Tap Changer	Maintenance/Extend Life of Tap Changer	-	-	-	30,000	-	-
<b>114 Total Dean Lake Substation</b>		<b>-</b>	<b>240,000</b>	<b>-</b>	<b>30,000</b>	<b>-</b>	<b>-</b>
<b>116 East Shakopee Substation</b>							
<b>117</b> Land Rights	Load Growth	-	300,000	-	-	-	-
<b>118 Total East Shakopee Substation</b>		<b>-</b>	<b>300,000</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>-</b>
<b>120 West Shakopee Substation</b>							
<b>121</b> Land Rights	Load Growth	-	300,000	-	-	-	-
<b>122</b> Planning/Design/Project Management	Load Growth	-	-	-	200,000	400,000	-
<b>123</b> Construction	Load Growth	-	-	-	-	4,000,000	-
<b>124 Total West Shakopee Substation</b>		<b>-</b>	<b>300,000</b>	<b>-</b>	<b>200,000</b>	<b>4,400,000</b>	<b>-</b>
<b>126 Upgrade Projects</b>							
<b>127</b> Downtown Alley Reconstruction add duct banks	Alley paving w/concrete	-	100,000	100,000	-	-	-
<b>128</b> Projects yet to be determined		-	175,000	180,000	190,000	200,000	210,000
<b>129 Total Upgrade Projects</b>		<b>-</b>	<b>275,000</b>	<b>280,000</b>	<b>190,000</b>	<b>200,000</b>	<b>210,000</b>
<b>131 ADVANCED METERING INFRASTRUCTURE (AMI)</b>							
<b>132</b> Planning/Design/Project Management	Project Planning/Design	-	-	-	100,000	100,000	100,000
<b>133</b> Construction/Implementation/Hardware/Software/Training	Customer Service	-	-	-	1,700,000	1,700,000	1,700,000
<b>134 Total ADVANCED METERING INFRASTRUCTURE (AMI)</b>		<b>-</b>	<b>-</b>	<b>-</b>	<b>1,800,000</b>	<b>1,800,000</b>	<b>1,800,000</b>
<b>136 Service Center</b>							
<b>137</b> Service Center Roof Maintenance	Maintenance of Roof	10,000	-	-	-	-	-
<b>138</b> SPU Signage for South Public Entrance of Service Center	Facility Security	20,000	20,000	-	-	-	-
<b>139</b> Outside Painting/Wood Beam	Maint. Of Exterior	-	10,000	-	-	-	-
<b>140</b> Service Center Front Area Remodel & Lighting	Safety	-	95,000	-	-	-	-
<b>141</b> Replace Outside Landscape Lighting	Replace Problem Lighting and Upgrade Efficiency	-	12,000	-	-	-	-
<b>142</b> Storage Yard Lighting and Security	Update Lighting and Security	-	20,000	-	-	-	-
<b>143</b> New A/C	Replace	-	110,000	-	-	-	-



**Shakopee Public Utilities  
Capital Improvement Plan  
Semi-Final  
Dated: November 2, 2017  
Electric Detail**

1  
2  
3  
4  
5  
6  
7

Item Description	Justification	2017 Carryover	2018	2019	2020	2021	2022
144 Repair or Replace Exhaust Fan in Garage Area (exhaust fans not working)	Replace or Repair	-	15,000	-	-	-	-
145 Chaulk Sealing Bldg Joints	Maintenance	-	25,000	-	-	-	-
146 Miscellaneous Building Improvements/Replacements	Maint. & Requested Changes	-	45,000	45,000	45,000	45,000	45,000
147 Upgrade Security System	Safety	-	-	30,000	-	-	-
148 Garage Heaters	Maintenance	-	-	-	30,000	-	-
<b>149 Total Service Center</b>		<b>30,000</b>	<b>352,000</b>	<b>75,000</b>	<b>75,000</b>	<b>45,000</b>	<b>45,000</b>
<b>151 Total Operating Fund</b>		<b>330,000</b>	<b>5,198,308</b>	<b>3,064,400</b>	<b>4,850,000</b>	<b>8,790,530</b>	<b>4,173,000</b>
<b>153</b>							
<b>154</b>							
<b>155</b>							
<b>156 Relocation Fund</b>							
<b>157</b>							
<b>158 Relocation Projects</b>							
<b>159</b>							
160 DL-41 CR 83 from 4th Ave to VIBS 0.25 mile	County Project	-	23,308	-	-	-	-
161 SH-09 Levee Drive 0.25 mile x 2.3 (rock)	Street Project	-	50,760	-	-	-	-
162 SH-10 Levee Drive 0.25 mile x 2.3 (rock)	Street Project	-	50,760	-	-	-	-
163 SS-31 CR 42 from CR 17 to CR 83 1.625 miles (inc. \$73,500 for pad mount regulators)	County Project	-	-	219,750	-	-	-
164 BL-22 Maras Street & Hanson Ave	Street Project	-	-	-	75,000	-	-
165 SS-32 CR 15 @ Vierling Drive & Hwy 169 Ramps	Roundabout Impacts	-	-	-	25,000	-	25,000
166 DL-55 CR83 from VIBS to HWY 169 0.75 mile	County Project	-	-	-	-	76,280	-
167 SS-31 CR 17 South of CR 42 to CR 82 0.75 mile	Street Project	-	-	-	-	-	100,000
168 Projects Yet to Be Determined 0.50 Ckt. mile	As Necessary	-	43,750	45,000	48,000	50,000	52,000
<b>169 Total Relocation Projects</b>		<b>-</b>	<b>168,578</b>	<b>264,750</b>	<b>148,000</b>	<b>126,280</b>	<b>177,000</b>
<b>171 Total Relocation Fund</b>		<b>-</b>	<b>168,578</b>	<b>264,750</b>	<b>148,000</b>	<b>126,280</b>	<b>177,000</b>
<b>173 Total Electric</b>		<b>330,000</b>	<b>5,366,886</b>	<b>3,329,150</b>	<b>4,998,000</b>	<b>8,916,810</b>	<b>4,350,000</b>



**Shakopee Public Utilities  
Capital Improvement Plan  
Semi-Final  
Dated: November 2, 2017  
Water Summary**

Item Description	Justification	2017 Carryover	2018	2019	2020	2021	2022
<b><u>Operating Fund</u></b>							
Miscellaneous	See Detail	30,000	547,500	370,000	354,000	330,000	281,000
System Upgrades	See Detail	-	157,000	20,000	20,000	20,000	20,000
Total Irrigation Meter Pilot Project	See Detail	-	10,000	-	-	-	-
ADVANCED METERING INFRASTRUCTURE (AMI)	See Detail	-	-	-	1,049,018	1,049,018	1,092,792
Vehicles/Equipment	See Detail	-	280,000	-	-	-	-
<b>Total Operating Fund</b>		<b>30,000</b>	<b>994,500</b>	<b>390,000</b>	<b>1,423,018</b>	<b>1,399,018</b>	<b>1,393,792</b>
<b><u>Reconstruction Fund</u></b>							
Reconstruction Projects	See Detail	-	680,000	203,000	80,000	80,000	80,000
<b>Total Reconstruction Fund</b>		<b>-</b>	<b>680,000</b>	<b>203,000</b>	<b>80,000</b>	<b>80,000</b>	<b>80,000</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	-	577,764	287,696	690,264	216,514	280,142
<b>Total Trunk Fund</b>		<b>-</b>	<b>602,764</b>	<b>312,696</b>	<b>715,264</b>	<b>241,514</b>	<b>305,142</b>
<b><u>Connection Fund</u></b>							
Wells	See Detail	37,200	604,100	350,000	53,040	520,000	-
Water Treatment	See Detail	-	-	72,800	500,000	-	5,444,109
Pump House Additions/Expansions	See Detail	-	-	-	61,922	1,223,570	-
New Tanks and Transmission Water Main	See Detail	-	150,000	204,422	4,039,387	-	-
Booster Stations	See Detail	340,445	3,765,200	-	-	-	-
Auxiliary Facilities	See Detail	-	50,000	-	-	-	50,000
<b>Total Connection Fund</b>		<b>377,645</b>	<b>4,569,300</b>	<b>627,222</b>	<b>4,654,349</b>	<b>1,743,570</b>	<b>5,494,109</b>
<b>Total Water</b>		<b>407,645</b>	<b>6,846,564</b>	<b>1,532,918</b>	<b>6,872,631</b>	<b>3,464,102</b>	<b>7,273,043</b>
<b>Cumulative Total Water</b>		<b>407,645</b>	<b>7,254,209</b>	<b>8,787,127</b>	<b>15,659,758</b>	<b>19,123,860</b>	<b>26,396,903</b>

**Shakopee Public Utilities  
Capital Improvement Plan  
Semi-Final  
Dated: November 2, 2017  
Water Detail**

1  
2  
3  
4  
5  
6  
  
8  
9  
10  
11  
12  
13  
14  
15  
16  
17  
18  
19  
20  
21  
22  
23  
24  
25  
26  
27  
28  
29  
30  
31  
32  
33  
34  
35  
36  
37  
38  
39  
40  
41  
42  
43  
44  
45  
46  
47

Item Description	Justification	2017 Carryover	2018	2019	2020	2021	2022
<b>Operating Fund</b>							
<b>Miscellaneous</b>							
Water Meters	PM/Development	30,000	145,000	145,000	150,000	150,000	150,000
Landscaping	Line of sight screening Riverview Booster	-	13,500	-	-	-	-
8" Watermain Looping Boulder Pointe	Development	-	50,000	-	-	-	-
CL2 Feed Improvements	Safety/Enhanced Accuracy	-	72,000	72,000	75,000	-	-
Chemical Feed Scales	Life Cycle Replacement	-	22,000	23,000	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	-	30,000	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	-	-	-
CR 83 Valve & Hydrant Adjustments	County Road Project	-	125,000	-	-	50,000	-
<b>Total Miscellaneous</b>		<b>30,000</b>	<b>547,500</b>	<b>370,000</b>	<b>354,000</b>	<b>330,000</b>	<b>281,000</b>
<b>System Upgrades</b>							
TO3 Overhead Door Opener	Safety/Maintenance	-	4,500	-	-	-	-
Sidewalk Repair	Safety/Maintenance	-	5,000	-	-	-	-
SCADA Communications Upgrade	Water System Reliability	-	118,500	-	-	-	-
Pumphouse 9 A/C	Preventative Maintenance	-	9,000	-	-	-	-
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>-</b>	<b>157,000</b>	<b>20,000</b>	<b>20,000</b>	<b>20,000</b>	<b>20,000</b>
<b>Irrigation Meter Pilot Project</b>	Customer Service	<b>-</b>	<b>10,000</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>-</b>
<b>Total Irrigation Meter Pilot Project</b>		<b>-</b>	<b>10,000</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>-</b>
<b>ADVANCED METERING INFRASTRUCTURE (AMI)</b>							
Planning/Design/Project Management	Project Planning/Design	-	-	-	65,564	65,564	70,000
Construction/Implementation/Hardware/Software/Training	Customer Service	-	-	-	983,454	983,454	1,022,792
<b>Total ADVANCED METERING INFRASTRUCTURE (AMI)</b>		<b>-</b>	<b>-</b>	<b>-</b>	<b>1,049,018</b>	<b>1,049,018</b>	<b>1,092,792</b>
<b>Vehicles/Equipment</b>							
Riverview Portable Generator	Emergency Backup Power	-	200,000	-	-	-	-
Replace Truck #641	Life Cycle Replacement	-	35,000	-	-	-	-
New Positions Trucks	Customer Service	-	45,000	-	-	-	-
<b>Total Vehicles/Equipment</b>		<b>-</b>	<b>280,000</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>-</b>
<b>Total Operating Fund</b>		<b>30,000</b>	<b>994,500</b>	<b>390,000</b>	<b>1,423,018</b>	<b>1,399,018</b>	<b>1,393,792</b>



**Shakopee Public Utilities  
Capital Improvement Plan  
Semi-Final  
Dated: November 2, 2017  
Water Detail**

1  
2  
3  
4  
5  
6

8  
48  
49  
50  
51  
52  
53  
54  
55  
56  
57  
58  
59  
60  
61  
62  
63  
64  
65  
66  
67  
68  
69  
70  
71  
72  
73  
74  
75  
76  
77  
78  
79  
80  
81  
82

Item Description	Justification	2017 Carryover	2018	2019	2020	2021	2022
<b>Reconstruction Fund</b>							
<b>Reconstruction</b>							
Bituminous Overlay	City CIP	-	20,000	20,000	20,000	20,000	20,000
Reconstruction	City Street Recon	-	620,000	143,000	20,000	20,000	20,000
Correct Deficient Services	As Needed	-	40,000	40,000	40,000	40,000	40,000
<b>Total Reconstruction</b>		<b>-</b>	<b>680,000</b>	<b>203,000</b>	<b>80,000</b>	<b>80,000</b>	<b>80,000</b>
<b>Total Reconstruction Fund</b>		<b>-</b>	<b>680,000</b>	<b>203,000</b>	<b>80,000</b>	<b>80,000</b>	<b>80,000</b>
<b>Trunk Fund</b>							
<b>Trunk Water Mains - SPUC Projects (Completed by SPUC)</b>							
Projects to be determined		-	25,000	25,000	25,000	25,000	25,000
<b>Total Trunk Water Mains - SPUC Projects</b>		<b>-</b>	<b>25,000</b>	<b>25,000</b>	<b>25,000</b>	<b>25,000</b>	<b>25,000</b>
<b>Over Sizing - Non-SPUC Projects (Completed by Others)</b>							
12" WM West from CR 17 North of Wood Duck Trail (1200 ft) 2-HES	Development	-	32,600	-	-	-	-
12" WM Vierling Drive from Taylor Street to CR 69 NES	City Project	-	45,000	-	-	-	-
12" WM Crossings Blvd To Pike Lake Rd (Ridge Creek) NES	Development	-	46,154	-	-	-	-
16" WM Krystal Addition to CR 79 (800 ft) NES	Development	-	64,100	-	-	-	-
12" WM Corrigan/Goode Parcels from Horizon Dr S/E to Muhlenhardt Rd (4800 ft) 2-HES	Development	-	130,385	-	-	-	-
12" WM on CR 18/Muhlenhardt Rd 0.25 mile (Haven Ridge in PL) 2-HES	Interconnection with Prior Lake	-	34,325	-	-	-	-
12" WM West of Windermere 0.75 mile 1-HES	Development	-	90,000	97,400	-	-	-
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	-	46,800	-	50,856	-	-
12" WM South from Hwy 169 to 17th Ave 0.25 mile NES	Development	-	-	41,600	-	-	-
16" WM parallel to CR 15 to B.S. 0.125 mile 1-HES	Development	-	-	33,332	-	-	-
12" WM Parallel to CR 15 South from CR 16 0.25 mile/segment 2-HES	Development	-	-	48,700	-	52,900	-
16" WM East from Monarch Estates parallel to 17th Ave to CR 83 1.0 mile NES	Development	-	-	66,664	69,330	72,104	74,988
12" WM Thrush Street from CR 83 to 0.25 mile West 1- HES	Development	-	-	-	43,260	-	-
12" WM on Stagecoach Rd from Eagle Creek Preserve to Hansen Ave 0.5 mile NES	Development	-	-	-	74,250	-	-
12" WM Horizon Drive across CR 18 to Muhlenhardt Road 2-HES	Development	-	-	-	200,000	-	-
12" WM Muhlenhardt Road from Horizon Drive to W O Trail 2-HES	Development	-	-	-	50,856	-	-
12" WM Vierling Drive West from CR 69 0.25 mile NES	Development	-	-	-	100,000	-	-
12" WM Parallel to CR 69 South from 10th Ave 1.00 mile NES	Development	-	-	-	50,856	52,900	55,000
8" WM on Muhlenhardt Rd 0.50 mile 1-HES to 2-HES	Development	-	-	-	-	38,610	40,154
12" WM CR 69 South of HWY 169 1.00 mile 1-HES to 2-HES	Development	-	-	-	50,856	-	110,000



**Shakopee Public Utilities  
Capital Improvement Plan  
Semi-Final  
Dated: November 2, 2017  
Water Detail**

1  
2  
3  
4  
5  
6

8  
83  
84  
85  
86  
87  
88  
89  
90  
91  
92  
93  
94  
95  
96  
97  
98  
99  
100  
101  
102  
103  
104  
105  
106  
107  
108  
109  
110  
111  
112  
113  
114  
115  
116  
117  
118  
119

Item Description	Justification	2017 Carryover	2018	2019	2020	2021	2022
Projects to be determined		-	88,400	-	-	-	-
<b>Total Over Sizing - Non-SPUC Projects</b>		-	<b>577,764</b>	<b>287,696</b>	<b>690,264</b>	<b>216,514</b>	<b>280,142</b>
<b>Total Trunk Fund</b>		-	<b>602,764</b>	<b>312,696</b>	<b>715,264</b>	<b>241,514</b>	<b>305,142</b>
<b>Connection Fund</b>							
<b>Wells</b>							
1-HES Well @ Booster Station @ Windermere	Development	37,200	454,100	-	-	-	-
Future Submersible Well Site near Wood Duck Trail	Development	-	150,000	-	-	-	-
2-HES Well/Tank Site @ South of Windermere	Development	-	-	350,000	-	-	-
2-HES Jordan Well @ either Wood Duck Trail or South of Windermere	Development	-	-	-	53,040	520,000	-
<b>Total Wells</b>		<b>37,200</b>	<b>604,100</b>	<b>350,000</b>	<b>53,040</b>	<b>520,000</b>	-
<b>Water Treatment</b>							
NES Jordan Well #22 Submersible (Pump House No. 3 modifications)	Radium Remediation	-	-	72,800	500,000	-	-
Water Treatment Plant	Water Quality	-	-	-	-	-	5,444,109
<b>Total Water Treatment</b>		-	-	<b>72,800</b>	<b>500,000</b>	-	<b>5,444,109</b>
Note: The Water Treatment Plant is not currently needed, it is put into the budget as a placeholder as a contingency in the event it becomes necessary.							
<b>Pump House Additions/Expansions</b>							
2-HES Pump House @ either Wood Duck Trail or Bluffs	Development	-	-	-	61,922	1,223,570	-
<b>Total Pump House Additions/Expansions</b>		-	-	-	<b>61,922</b>	<b>1,223,570</b>	-
<b>New Tanks and Transmission Water Main</b>							
2-HES District Tank Site @ Muhlenhardt Road	Development	-	150,000	-	-	-	-
2-HES District Storage (0.5 MG, Elevated Tank) @ either Wood Duck Trail or Bluffs	Development	-	-	113,568	2,244,104	-	-
2-HES District Storage (0.25 MG, Elevated Tank) @ Muhlenhardt Road	Development	-	-	90,854	1,795,283	-	-
<b>Total New Tanks and Transmission Water Main</b>		-	<b>150,000</b>	<b>204,422</b>	<b>4,039,387</b>	-	-
<b>Booster Stations</b>							
Booster Station @ Tanks 5 & 6 Site NES to 2-HES	Savage Agreement Expiration	304,840	-	-	-	-	-
Booster Station @ Windermere 1-HES to 2-HES	Development	35,605	3,765,200	-	-	-	-
<b>Total Booster Stations</b>		<b>340,445</b>	<b>3,765,200</b>	-	-	-	-
<b>Auxiliary Facilities</b>							
Pressure Reducing/Pressure Sustaining Value-2-HES to 1-HES@Windermere	Development	-	25,000	-	-	-	-

**Shakopee Public Utilities**  
**Capital Improvement Plan**  
**Semi-Final**  
**Dated: November 2, 2017**  
**Water Detail**

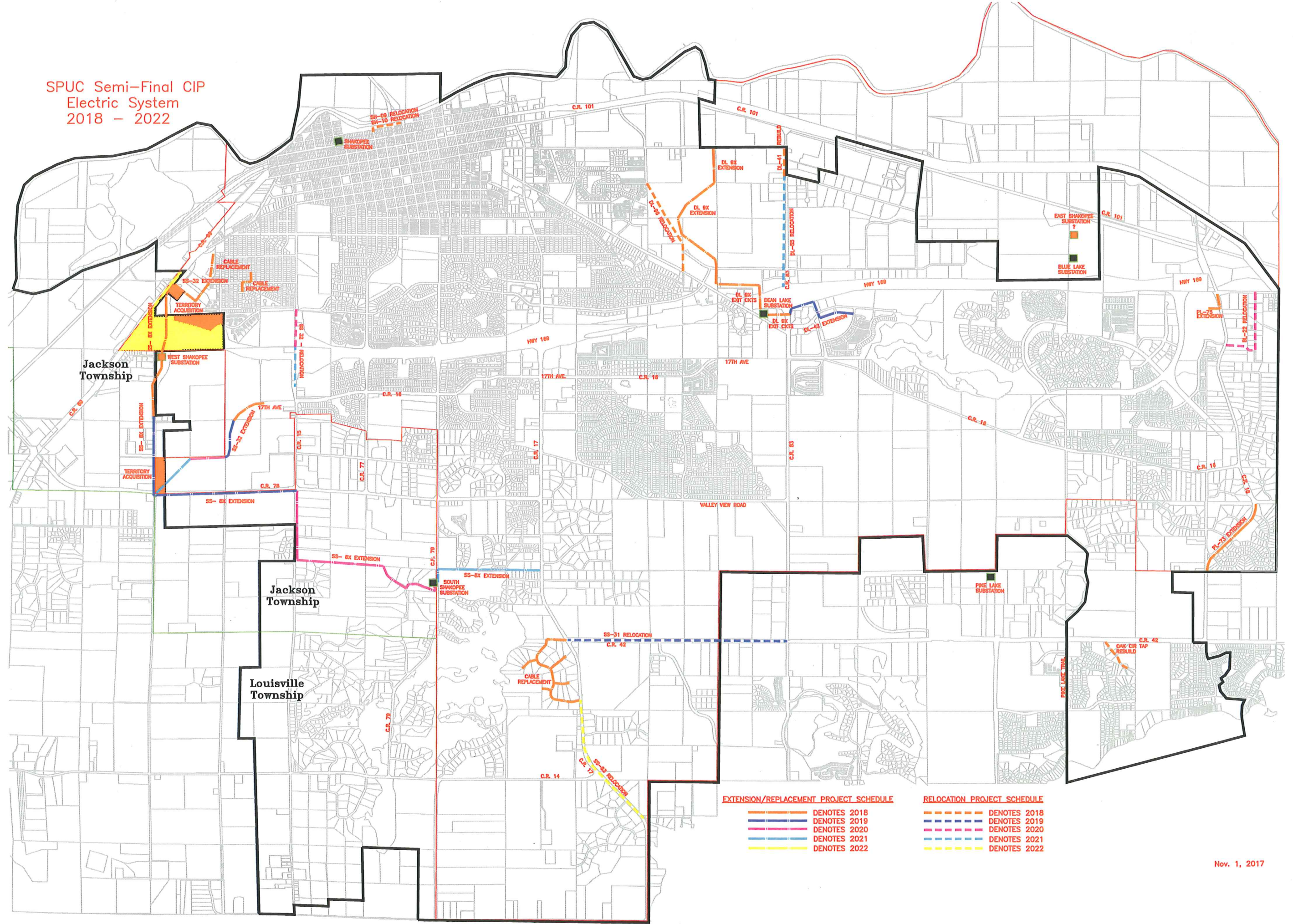
1  
2  
3  
4  
5  
6

8  
120  
121  
122  
123  
124  
125  
126  
127

Item Description	Justification	2017 Carryover	2018	2019	2020	2021	2022
Pressure Reducing Valve - 2-HES to 1-HES @ Horizon Drive	Development	-	25,000	-	-	-	-
Pressure Reducing Valve - 2-HES to 1-HES @ Muhlenhardt Rd	Development	-	-	-	-	-	25,000
Pressure Reducing Valve - 2-HES to 1-HES CR 69	Development	-	-	-	-	-	25,000
<b>Total Auxiliary Facilities</b>		-	<b>50,000</b>	-	-	-	<b>50,000</b>
<b>Total Connection Fund</b>		<b>377,645</b>	<b>4,569,300</b>	<b>627,222</b>	<b>4,654,349</b>	<b>1,743,570</b>	<b>5,494,109</b>
<b>Total Water</b>		<b>407,645</b>	<b>6,846,564</b>	<b>1,532,918</b>	<b>6,872,631</b>	<b>3,464,102</b>	<b>7,273,043</b>



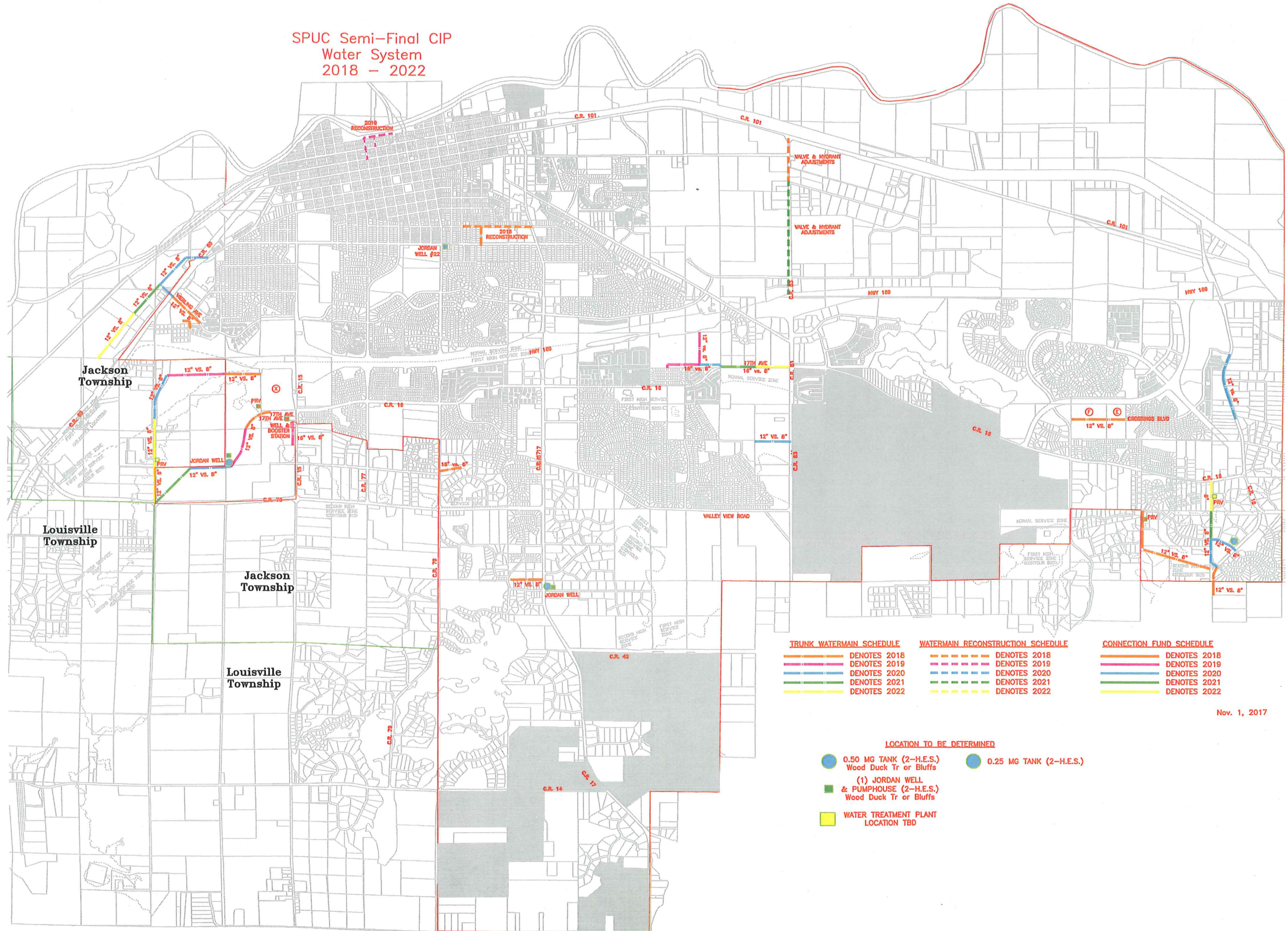
SPUC Semi-Final CIP  
Electric System  
2018 - 2022



EXTENSION/REPLACEMENT PROJECT SCHEDULE		RELOCATION PROJECT SCHEDULE	
	DENOTES 2018		DENOTES 2018
	DENOTES 2019		DENOTES 2019
	DENOTES 2020		DENOTES 2020
	DENOTES 2021		DENOTES 2021
	DENOTES 2022		DENOTES 2022



SPUC Semi-Final CIP  
Water System  
2018 - 2022



TRUNK WATERMAIN SCHEDULE	WATERMAIN RECONSTRUCTION SCHEDULE	CONNECTION FUND SCHEDULE
— DENOTES 2018	— DENOTES 2018	— DENOTES 2018
— DENOTES 2019	— DENOTES 2019	— DENOTES 2019
— DENOTES 2020	— DENOTES 2020	— DENOTES 2020
— DENOTES 2021	— DENOTES 2021	— DENOTES 2021
— DENOTES 2022	— DENOTES 2022	— DENOTES 2022

- LOCATION TO BE DETERMINED**
- 0.50 MG TANK (2-H.E.S.)  
Wood Duck Tr or Bluffs
  - 0.25 MG TANK (2-H.E.S.)
  - (1) JORDAN WELL  
& PUMPHOUSE (2-H.E.S.)  
Wood Duck Tr or Bluffs
  - WATER TREATMENT PLANT  
LOCATION TBD

Nov. 1, 2017