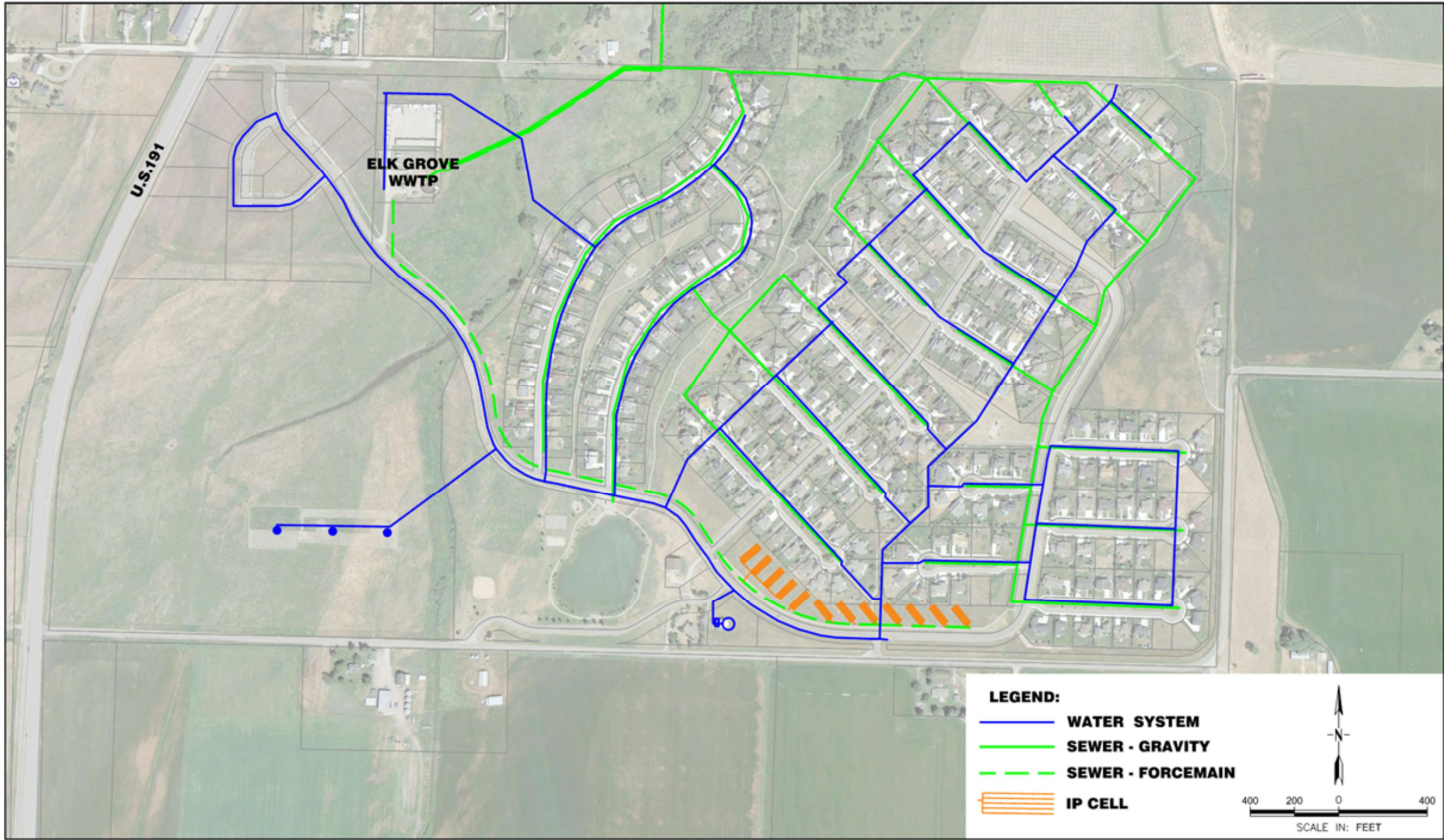


FOUR CORNERS
Water & Sewer District

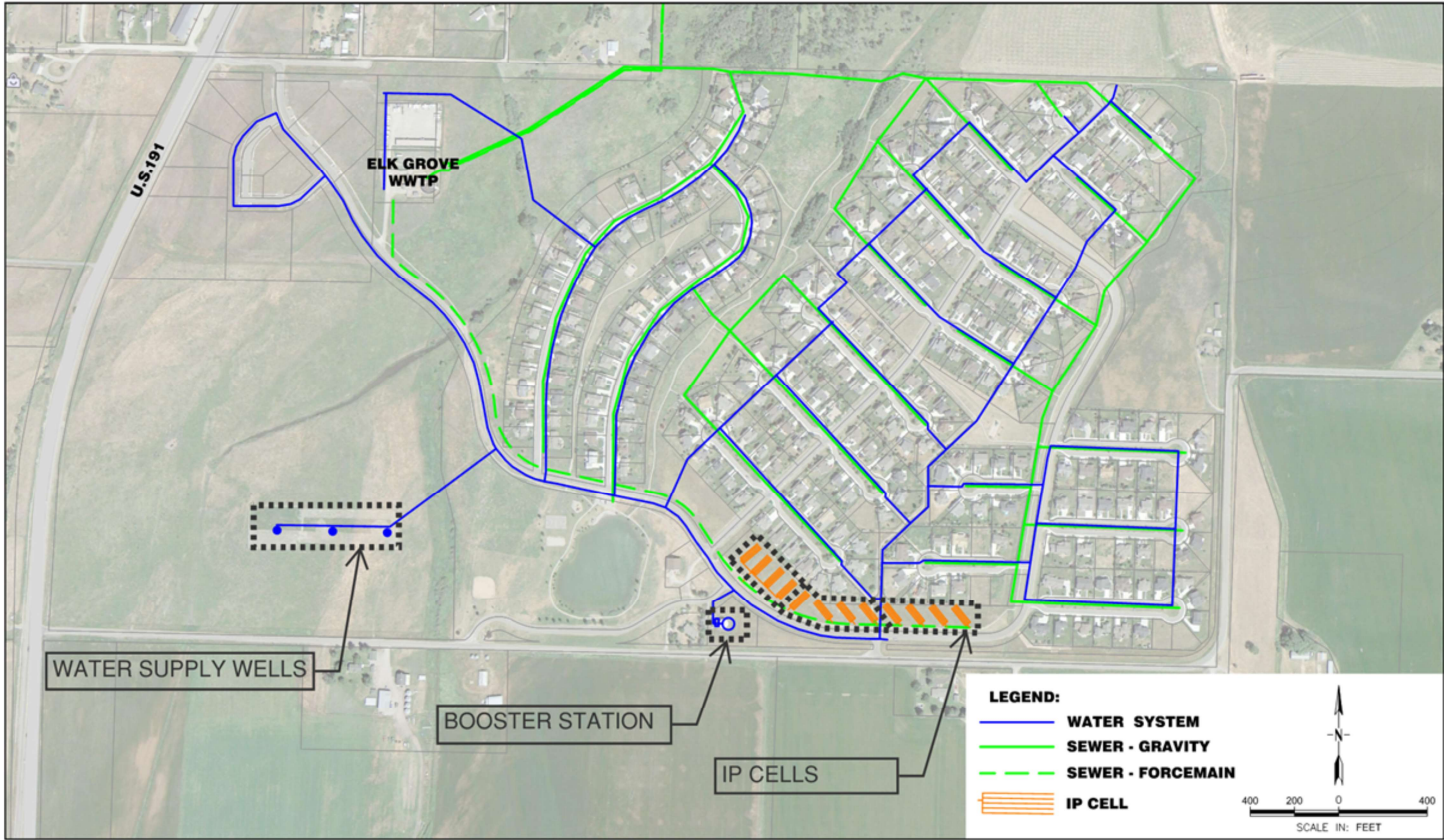
ELK GROVE WATER AND SEWER SYSTEM



This presentation has been assembled by Morrison Maierle Engineering and the Four Corners Water & Sewer District to give you information to help in your decision to annex ... or not. This diagram shows the layout of the Elk Grove water and sewer system, with water lines in blue and sewer lines in green. The gravity sewer lines are solid green and the sewer forcemain is the dotted green line. The IP cell (infiltration percolation cell ... or drain field area) is shown in orange.



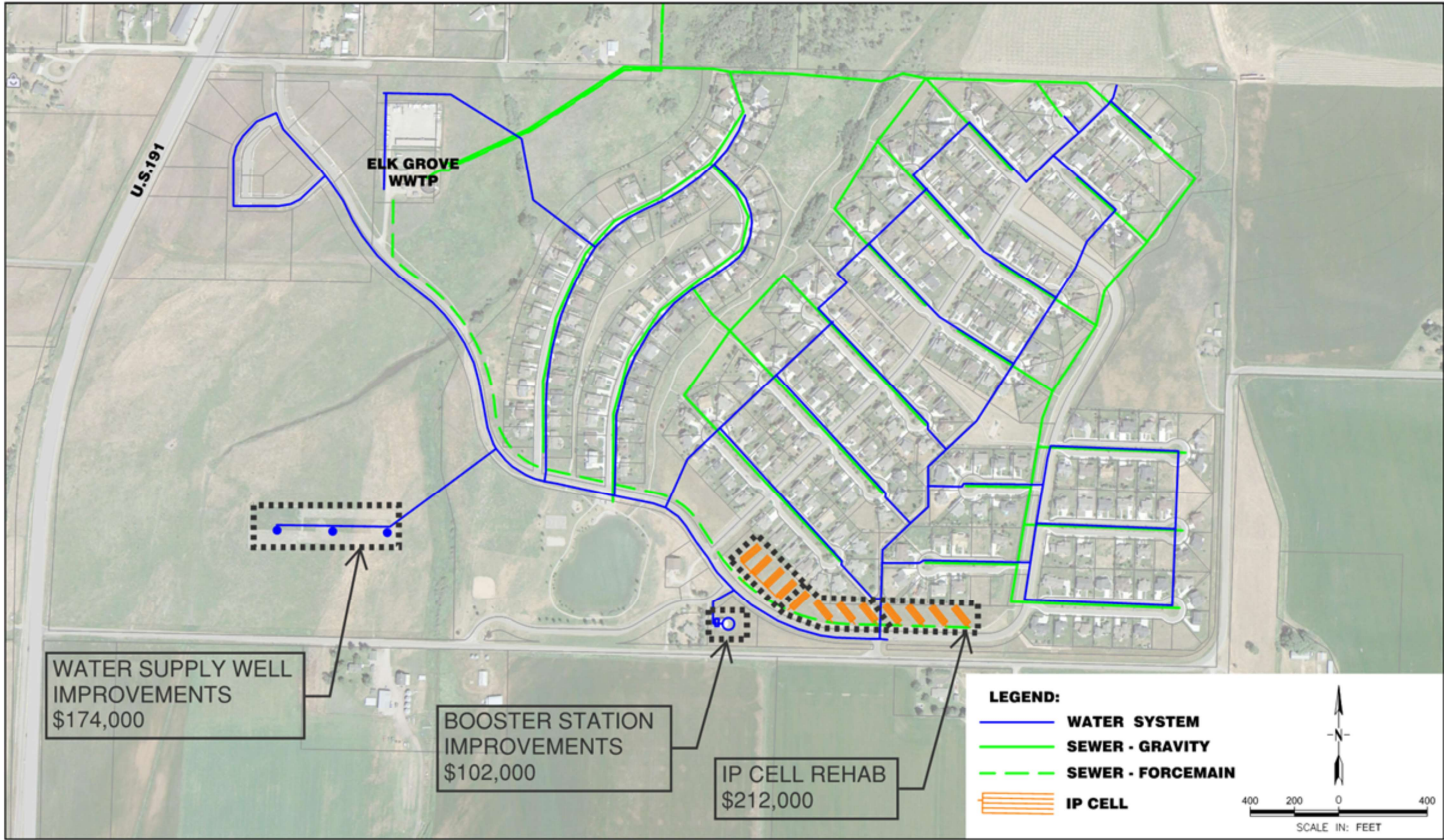
ELK GROVE WATER AND SEWER SYSTEM



The Elk Grove water and sewer systems were constructed in 2000, so are about 17 years old and in need of repairs beyond regular maintenance. We’ve identified these areas in need of repair (the water supply wells, the booster station, and the IP cells) ... and have included these repairs in the overall cost of operations. These are considered “capital projects”.

FOUR CORNERS
Water & Sewer District

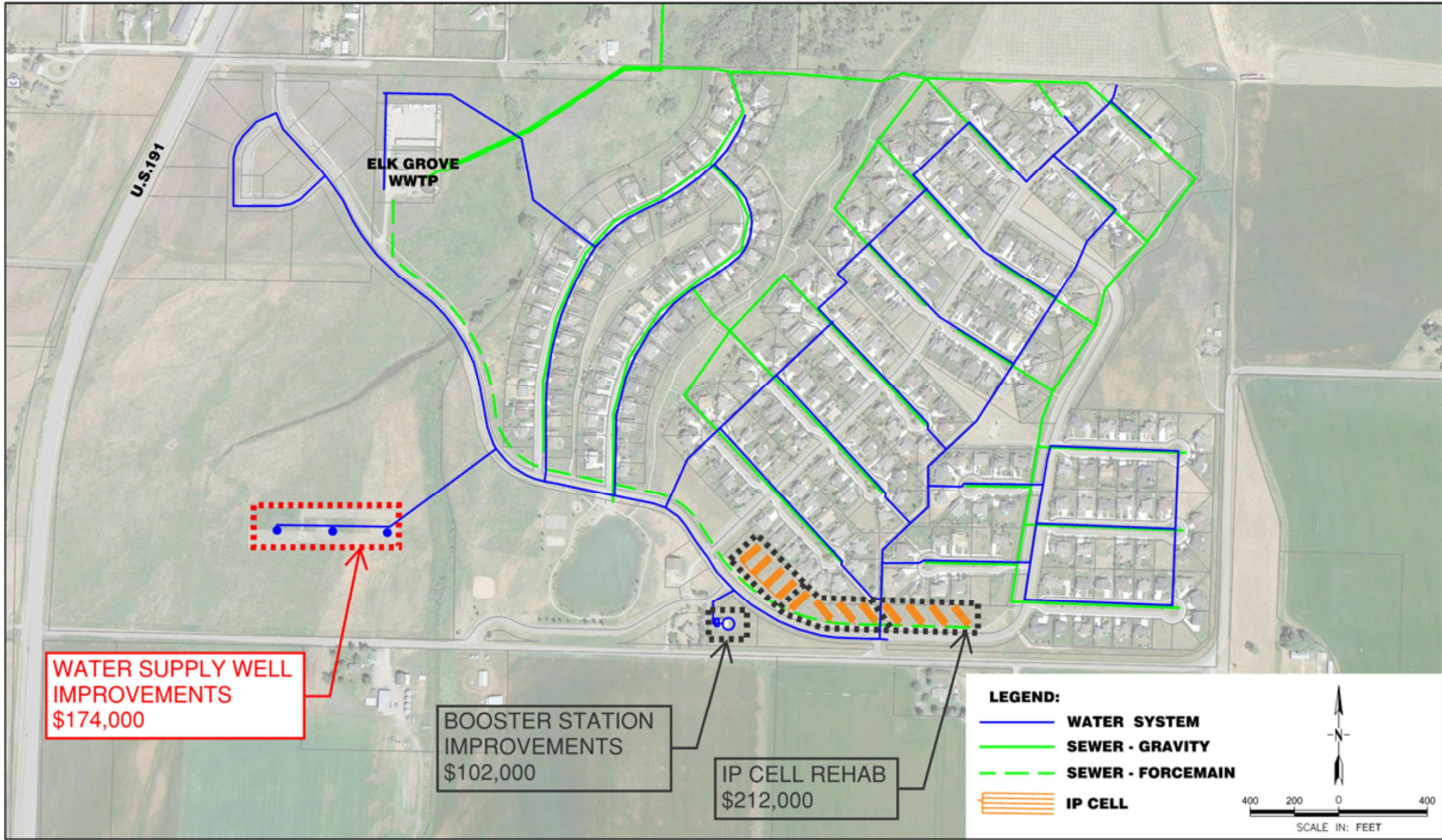
ELK GROVE WATER AND SEWER SYSTEM



The costs associated with the capital project repairs are significant, totaling \$488,000.

FOUR CORNERS
Water & Sewer District

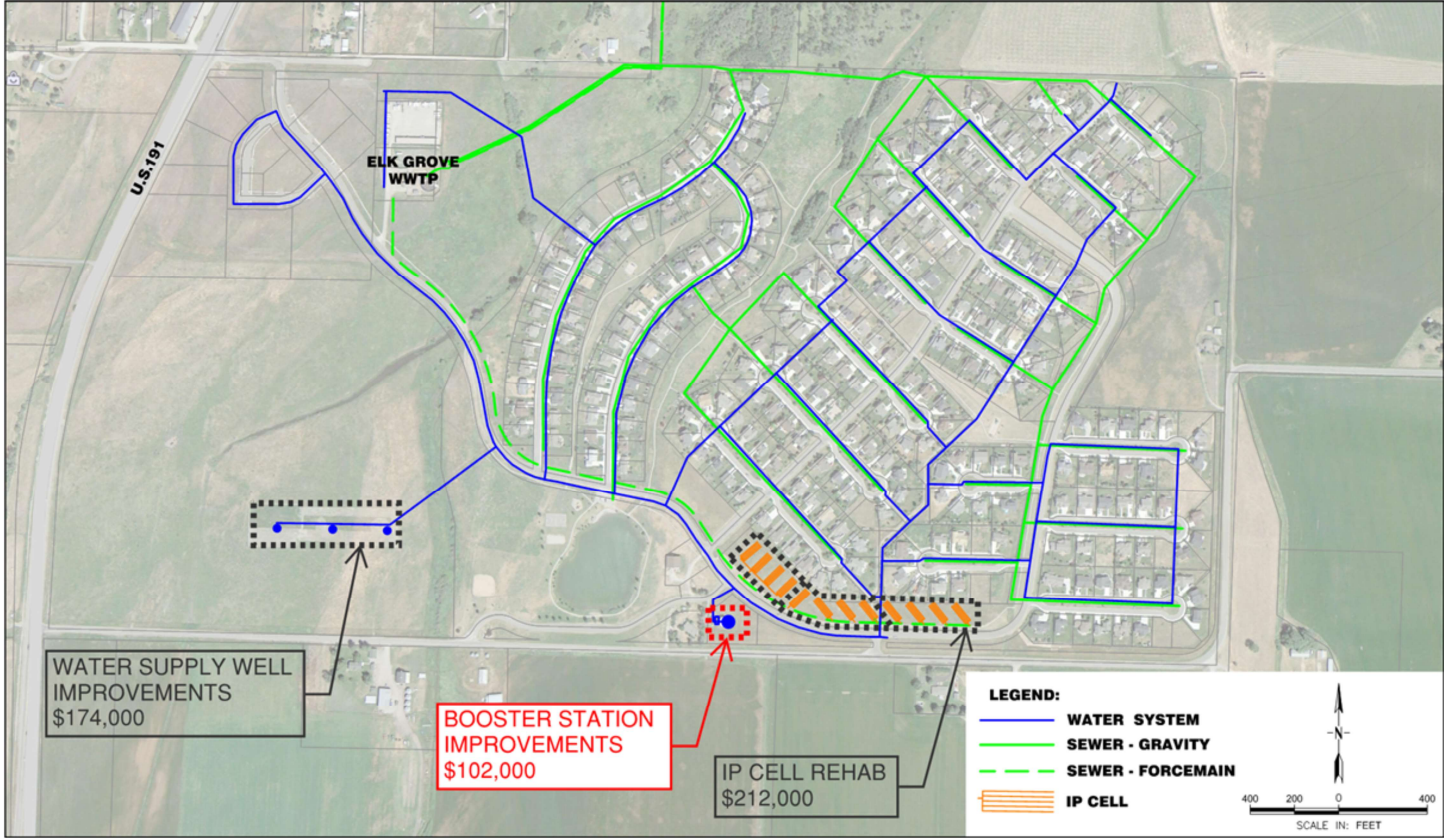
ELK GROVE WATER AND SEWER SYSTEM



Projected costs for water supply well improvements are \$174,000. Our DNRC water right requires flow meters for each point of diversion ... and meters for wells 1, 2 & 3 are not functional. Wells 1 and 2 need the existing direct-bury propeller meters replaced with new mag meters/transmitters, check valves, and isolation valves within concrete meter vaults. Well 3 needs a replacement meter/transmitter and sump pump in the existing meter vault. Recently we've also had to replace damaged electrical equipment supplying power to the wells and narrow band radios are being installed to communicate flow information to the Northstar Booster Station and to the Elk Grove WWTP.

FOUR CORNERS
Water & Sewer District

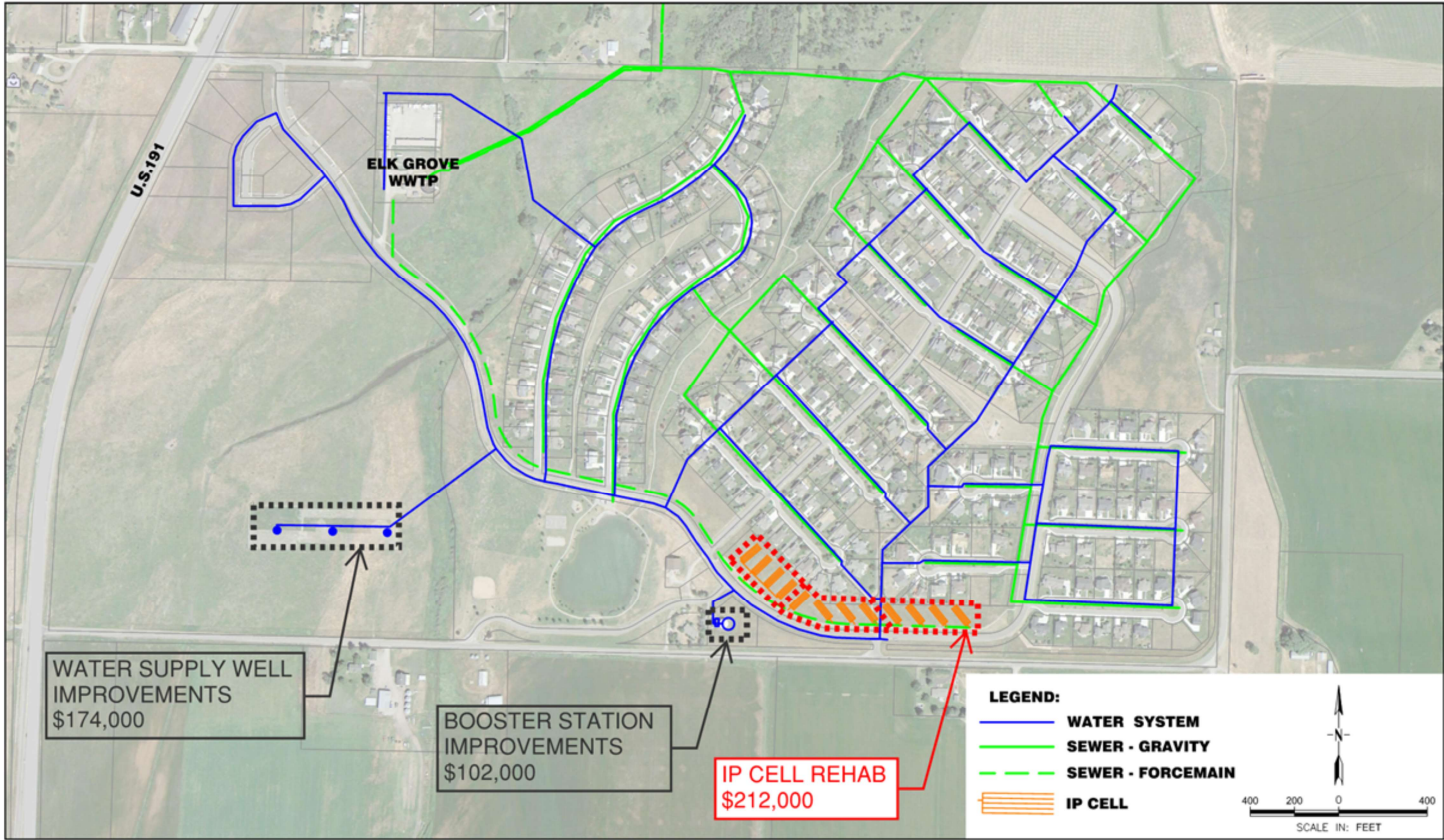
ELK GROVE WATER AND SEWER SYSTEM



Projected costs for booster station improvements are \$102,000 to provide flow-pacing capability for the chlorination system and to install bypass piping to facilitate replacement of a non-functional discharge flow meter.

FOUR CORNERS
Water & Sewer District

ELK GROVE WATER AND SEWER SYSTEM

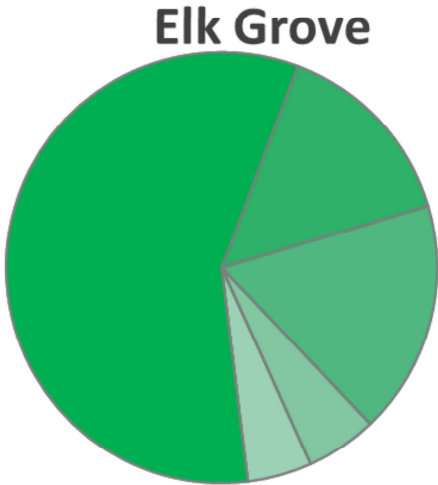


And the cost to rehabilitate the IP cells (or drain field) for Elk Grove is estimated to be \$212,000. The drain field is divided into 3 zones. One is broken up and needs replacement and the other two need to be cleaned/rehabilitated.



WATER AND SEWER SYSTEM BUDGET

ELK GROVE ANNUAL COSTS

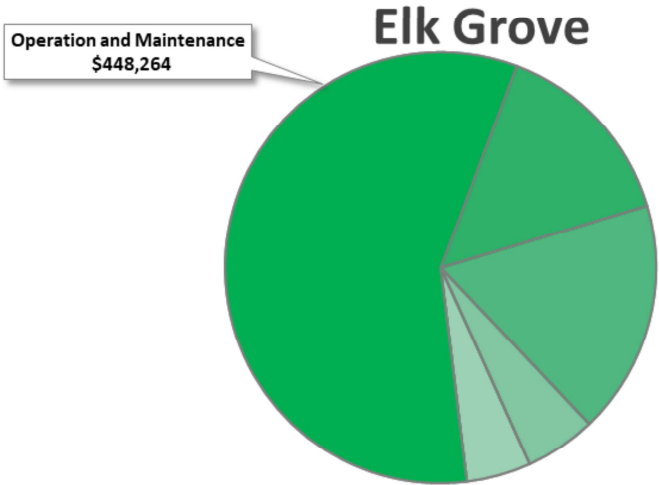


Moving on to the annual expenses for Elk Grove operations ... the expenses will be shown in a pie chart.



WATER AND SEWER SYSTEM BUDGET

ELK GROVE ANNUAL COSTS
\$448,264 **Operation and Maintenance**
 salaries, vehicles, insurance, etc.



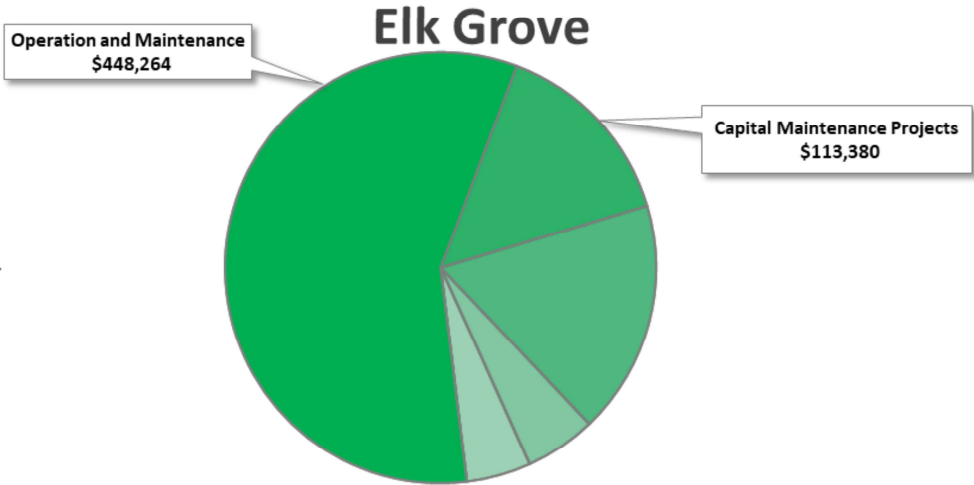
Operation and maintenance costs are the largest piece of the pie at \$448,264. This is for salaries, vehicles, insurance, etc.



WATER AND SEWER SYSTEM BUDGET

ELK GROVE ANNUAL COSTS

\$448,264	Operation and Maintenance salaries, vehicles, insurance, etc.
\$113,380	Capital Maintenance Projects small maintenance projects, consulting fees, etc.



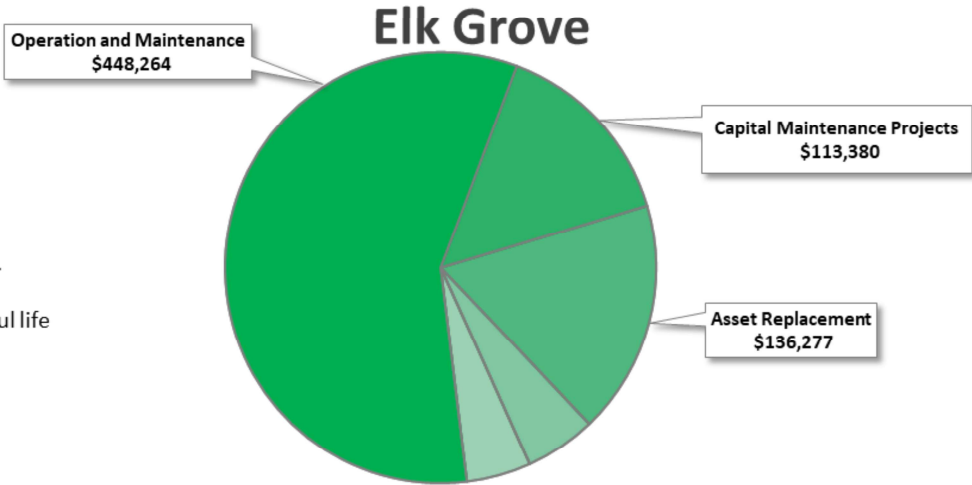
Capital maintenance projects are \$113,380 for the Elk Grove portion of system-wide maintenance projects.



WATER AND SEWER SYSTEM BUDGET

ELK GROVE ANNUAL COSTS

\$448,264	Operation and Maintenance salaries, vehicles, insurance, etc.
\$113,380	Capital Maintenance Projects small maintenance projects, consulting fees, etc.
\$136,277	Asset Replacement fund to reconstruct infrastructure at end of useful life



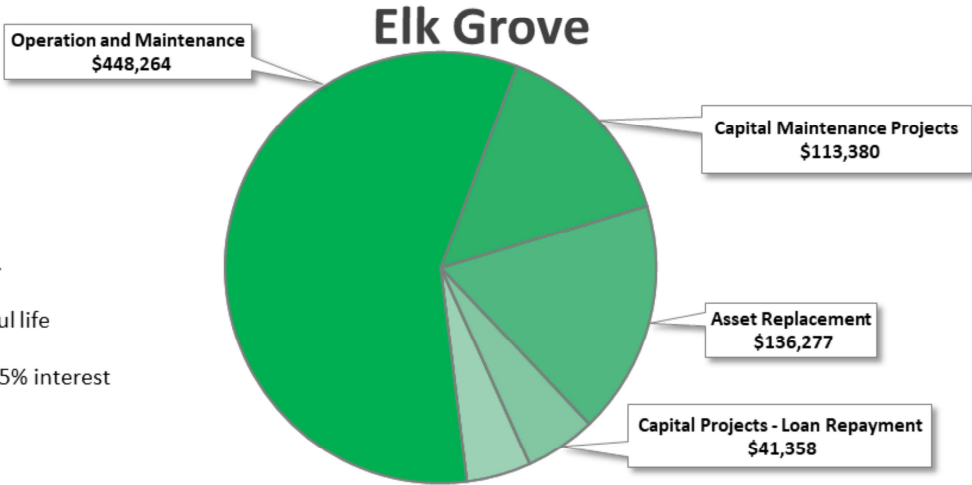
The asset replacement fund is \$136,277 on existing infrastructure.



WATER AND SEWER SYSTEM BUDGET

ELK GROVE ANNUAL COSTS

\$448,264	Operation and Maintenance salaries, vehicles, insurance, etc.
\$113,380	Capital Maintenance Projects small maintenance projects, consulting fees, etc.
\$136,277	Asset Replacement fund to reconstruct infrastructure at end of useful life
\$41,358	Capital Projects – Loan Repayment repay financing of capital projects, 15 years at 2.5% interest



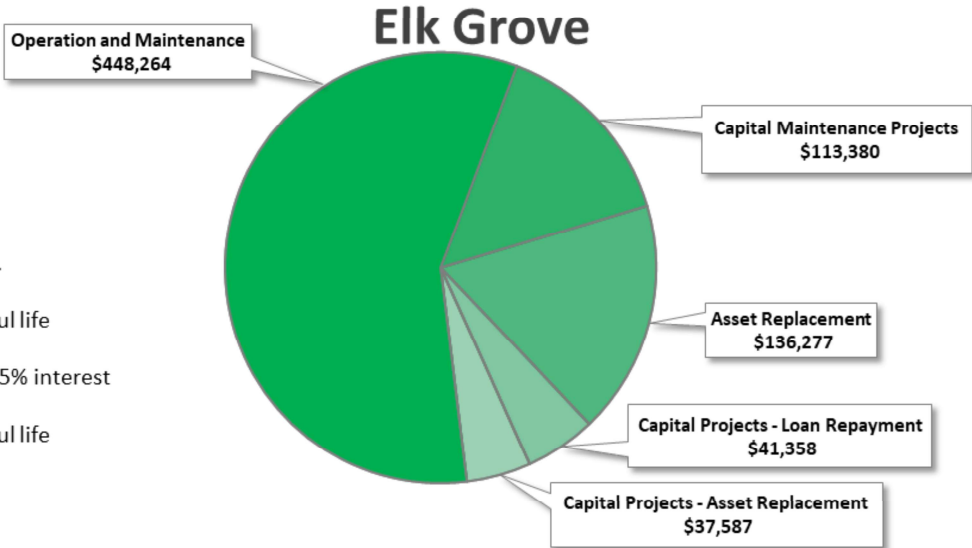
Capital projects described at the beginning of this presentation are a large expense. If the District provides the funding for the \$488,000 capital project expense, Elk Grove could pay back it back over a 15 year period. That would equate to an expense of \$41,358 per year at about a 2.5% interest rate.



WATER AND SEWER SYSTEM BUDGET

ELK GROVE ANNUAL COSTS

\$448,264	Operation and Maintenance salaries, vehicles, insurance, etc.
\$113,380	Capital Maintenance Projects small maintenance projects, consulting fees, etc.
\$136,277	Asset Replacement fund to reconstruct infrastructure at end of useful life
\$41,358	Capital Projects – Loan Repayment repay financing of capital projects, 15 years at 2.5% interest
\$37,587	Capital Projects – Asset Replacement fund to reconstruct infrastructure at end of useful life



Then we would also need to have an asset replacement fund of \$37,587 per year for the new infrastructure added to the system.

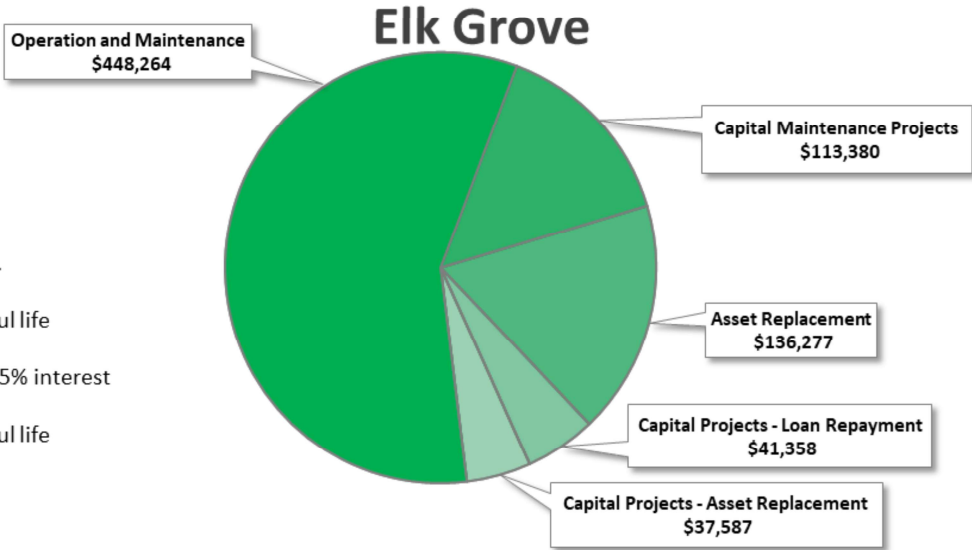


WATER AND SEWER SYSTEM BUDGET

ELK GROVE ANNUAL COSTS

\$448,264	Operation and Maintenance salaries, vehicles, insurance, etc.
\$113,380	Capital Maintenance Projects small maintenance projects, consulting fees, etc.
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\$37,587	Capital Projects – Asset Replacement fund to reconstruct infrastructure at end of useful life

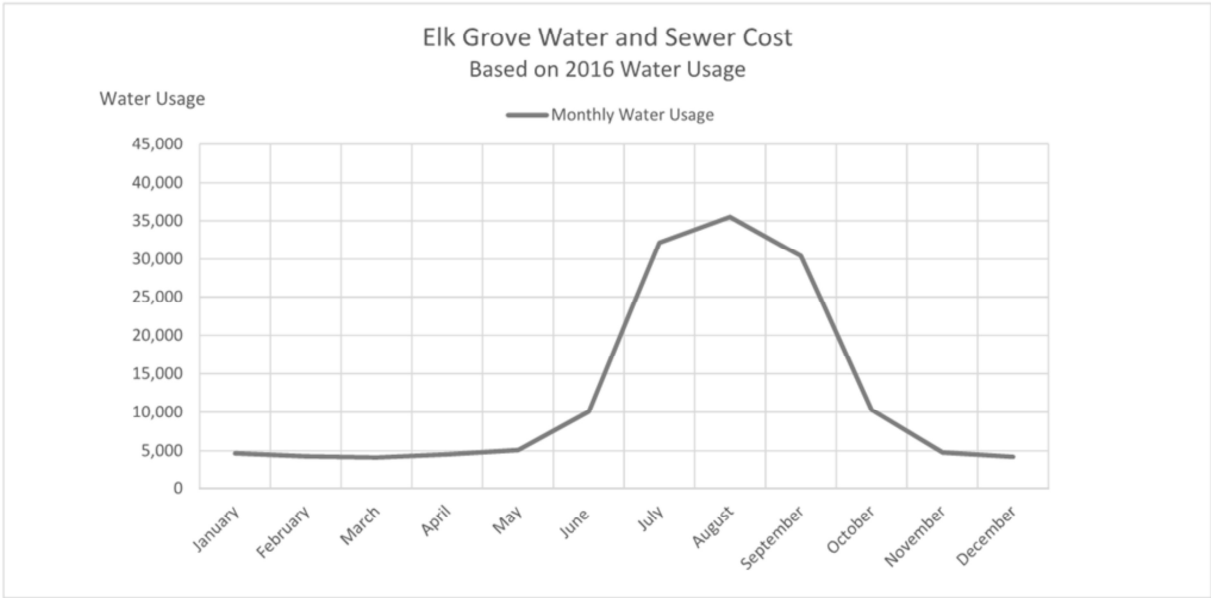
\$776,866 TOTAL ANNUAL COSTS



Total annual costs to operate, maintain, and fund asset replacement in the future are about \$777,000 per year for Elk Grove.



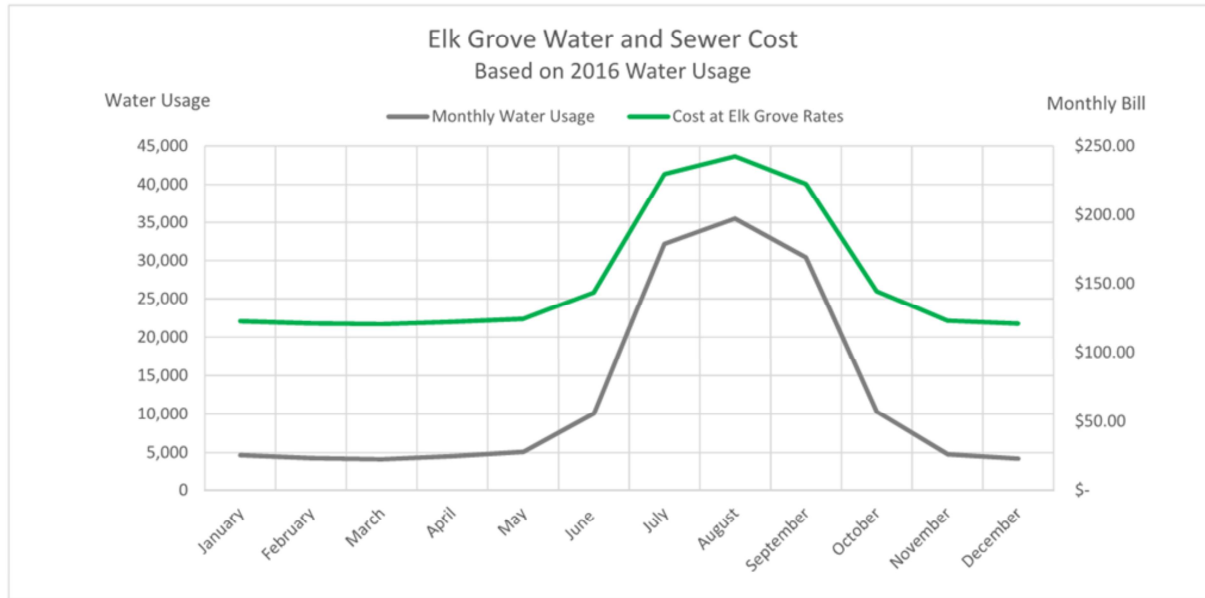
ELK GROVE 2016 WATER USAGE Average Monthly Usage in Gallons Per Month Per Account (288)



Now let's move on to usage and rates to determine the annual revenues from Elk Grove. This is the 2016 average monthly water usage per account. In the summer there is a significant increase in flow due to irrigation.



ELK GROVE RATES AT 2016 WATER USAGE / COST PER MONTH PER ACCOUNT



Rates	Elk Grove
Base W&S Rate	\$104.37
Volume Charge	\$3.89/1,000 gallons (above 0 gallons/month)
Tax	\$0.00

The average cost/month per account is plotted here with the average monthly flow rate. The green line corresponds with the monthly bill amount shown on the right side of the graph. The base water and sewer rate is currently \$104.37 and water is billed at \$3.89 per 1000 gallons, starting at zero gallons. There is no tax.

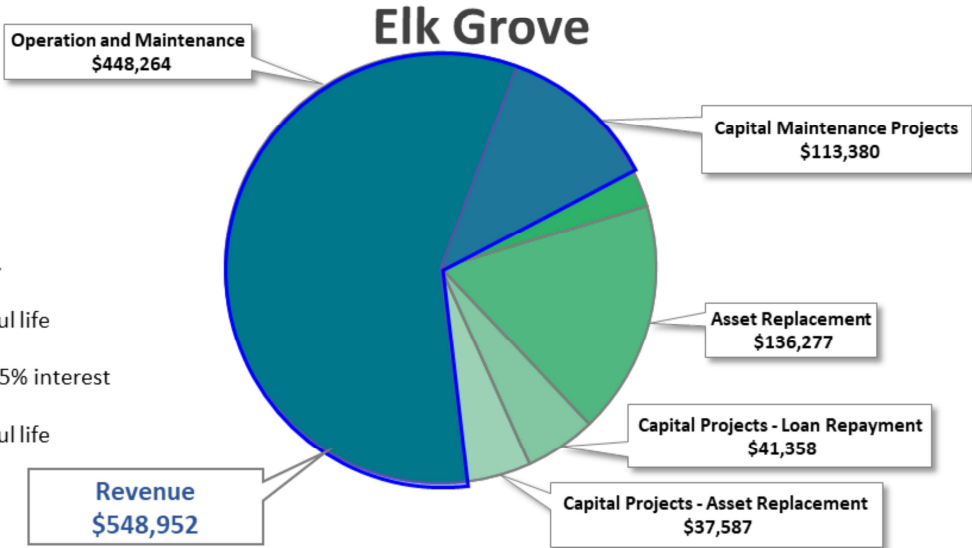


WATER AND SEWER SYSTEM BUDGET

ELK GROVE ANNUAL COSTS

\$448,264	Operation and Maintenance salaries, vehicles, insurance, etc.
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\$41,358	Capital Projects – Loan Repayment repay financing of capital projects, 15 years at 2.5% interest
\$37,587	Capital Projects – Asset Replacement fund to reconstruct infrastructure at end of useful life
\$776,866	TOTAL ANNUAL COSTS

\$548,952 TOTAL ANNUAL REVENUE

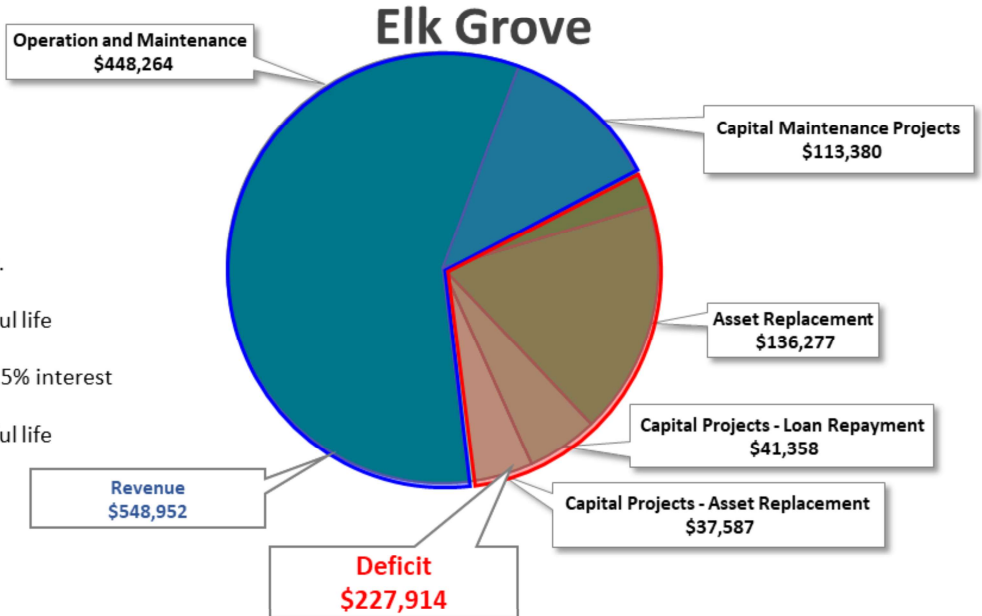


This is the projected annual revenue (in blue) for Elk Grove. Annual revenue from Elk Grove is about \$549,000 ... you can see that revenues fall short of expenses.



WATER AND SEWER SYSTEM BUDGET

ELK GROVE ANNUAL COSTS	
\$448,264	Operation and Maintenance salaries, vehicles, insurance, etc.
\$113,380	Capital Maintenance Projects small maintenance projects, consulting fees, etc.
\$136,277	Asset Replacement fund to reconstruct infrastructure at end of useful life
\$41,358	Capital Projects – Loan Repayment repay financing of capital projects, 15 years at 2.5% interest
\$37,587	Capital Projects – Asset Replacement fund to reconstruct infrastructure at end of useful life
\$776,866	TOTAL ANNUAL COSTS
\$548,952	TOTAL ANNUAL REVENUE
\$ 227,914	DEFICIT



The annual deficit (shown in red) is about \$228,000 ...



WATER AND SEWER SYSTEM BUDGET

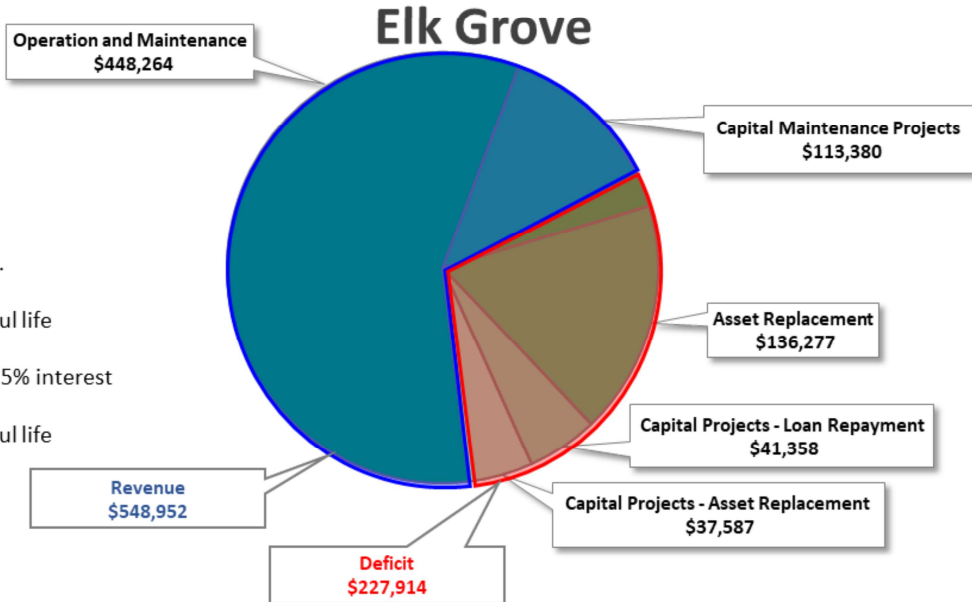
ELK GROVE ANNUAL COSTS

\$448,264	Operation and Maintenance salaries, vehicles, insurance, etc.
\$113,380	Capital Maintenance Projects small maintenance projects, consulting fees, etc.
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\$37,587	Capital Projects – Asset Replacement fund to reconstruct infrastructure at end of useful life
\$776,866	TOTAL ANNUAL COSTS

\$548,952 TOTAL ANNUAL REVENUE

\$ 227,914 DEFICIT

\$791/year per Elk Grove account
\$66/month per Elk Grove account



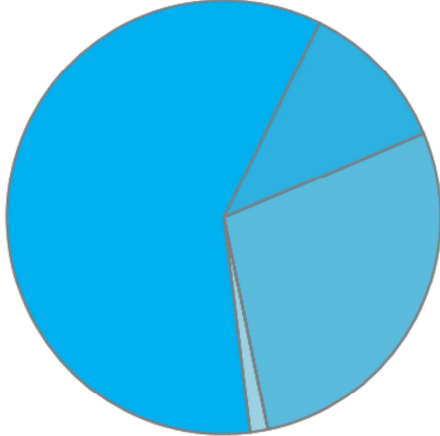
With 288 Elk Grove accounts, this amounts to a shortage of \$791/year per account ... or \$66/month.



WATER AND SEWER SYSTEM BUDGET

Entire District with Annexation of Elk Grove

DISTRICT WITH ANNEXATION OF ELK GROVE ANNUAL COSTS



Now we'll go over projected annual expenses for the entire District with annexation of Elk Grove factored in.

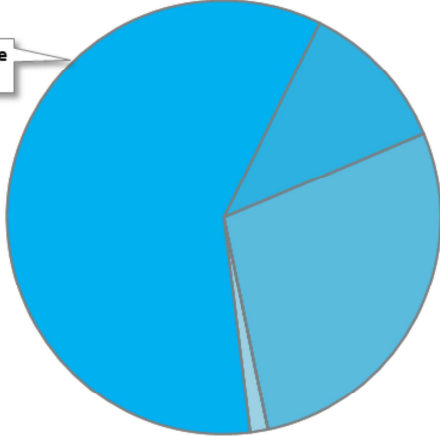


WATER AND SEWER SYSTEM BUDGET

Entire District with Annexation of Elk Grove

DISTRICT WITH ANNEXATION OF ELK GROVE ANNUAL COSTS
\$1,683,421 **Operation and Maintenance**
 salaries, vehicles, insurance, etc.

Operation and Maintenance
 \$1,683,421

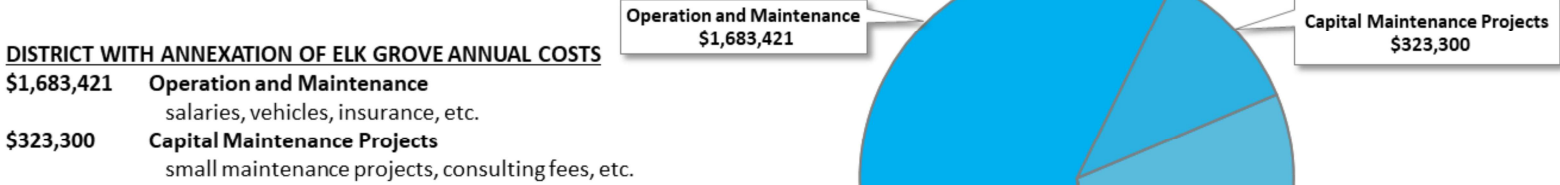


Operation and maintenance expenses are about \$1.7 million per year for 1,140 District accounts plus the 288 Elk Grove accounts ... for a total of 1,428 accounts and growing.



WATER AND SEWER SYSTEM BUDGET

Entire District with Annexation of Elk Grove



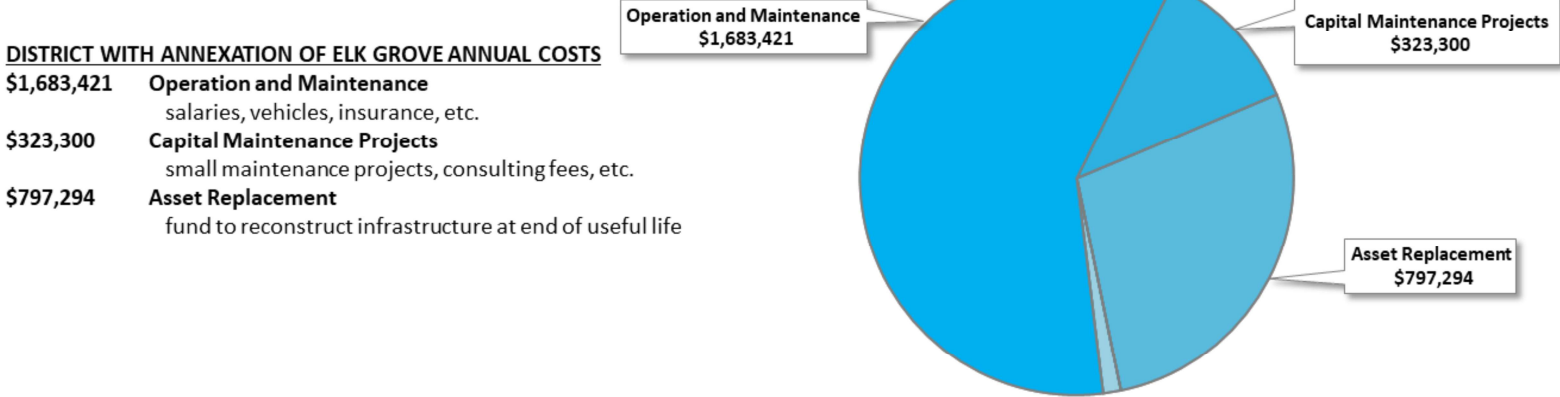
DISTRICT WITH ANNEXATION OF ELK GROVE ANNUAL COSTS
\$1,683,421 **Operation and Maintenance**
 salaries, vehicles, insurance, etc.
\$323,300 **Capital Maintenance Projects**
 small maintenance projects, consulting fees, etc.

Capital maintenance projects for both the District and Elk Grove cost \$323,300.



WATER AND SEWER SYSTEM BUDGET

Entire District with Annexation of Elk Grove



DISTRICT WITH ANNEXATION OF ELK GROVE ANNUAL COSTS

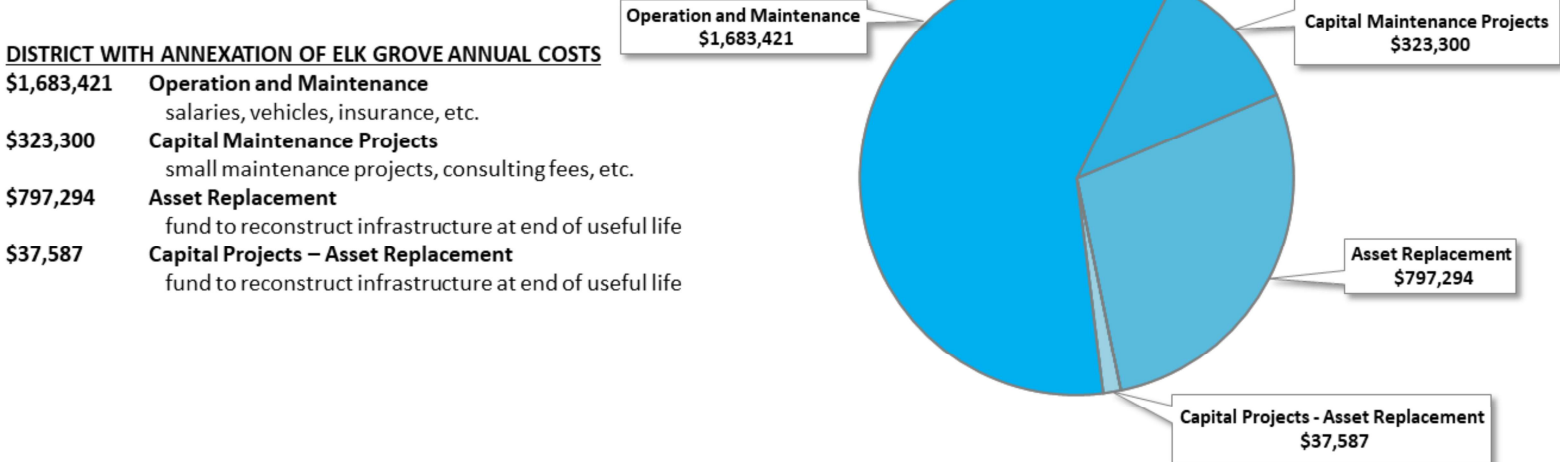
\$1,683,421	Operation and Maintenance salaries, vehicles, insurance, etc.
\$323,300	Capital Maintenance Projects small maintenance projects, consulting fees, etc.
\$797,294	Asset Replacement fund to reconstruct infrastructure at end of useful life

25% asset replacement costs for the larger group of 1,428 are about \$800,000 per year.



WATER AND SEWER SYSTEM BUDGET

Entire District with Annexation of Elk Grove



DISTRICT WITH ANNEXATION OF ELK GROVE ANNUAL COSTS

\$1,683,421	Operation and Maintenance salaries, vehicles, insurance, etc.
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\$37,587	Capital Projects – Asset Replacement fund to reconstruct infrastructure at end of useful life

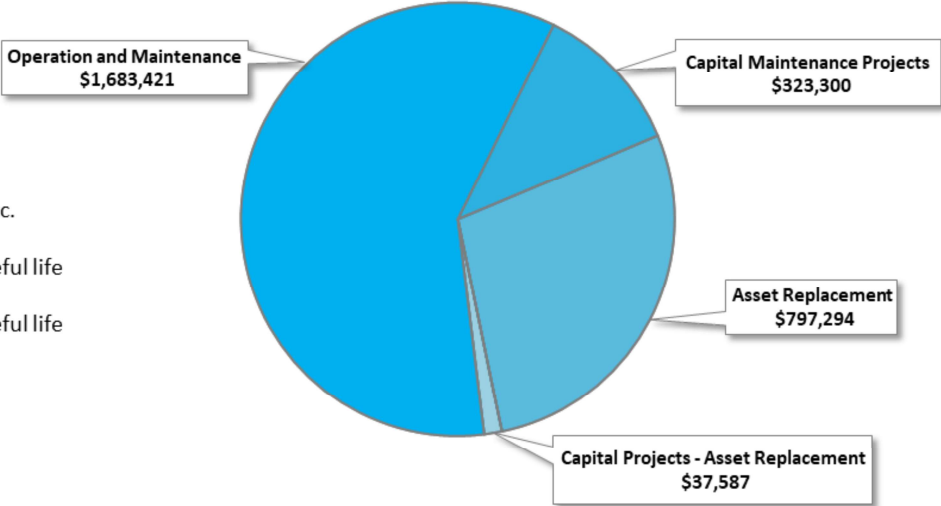
And the asset replacement fund for the Elk Grove capital projects is assumed by the District at same expense of about \$38,000.



WATER AND SEWER SYSTEM BUDGET

Entire District with Annexation of Elk Grove

DISTRICT WITH ANNEXATION OF ELK GROVE ANNUAL COSTS	
\$1,683,421	Operation and Maintenance salaries, vehicles, insurance, etc.
\$323,300	Capital Maintenance Projects small maintenance projects, consulting fees, etc.
\$797,294	Asset Replacement fund to reconstruct infrastructure at end of useful life
\$37,587	Capital Projects – Asset Replacement fund to reconstruct infrastructure at end of useful life
\$2,841,602	TOTAL ANNUAL COSTS



Total annual cost for operation of the entire District with annexation of Elk Grove is about \$2.84 million with the District absorbing the cost of Elk Grove repairs.



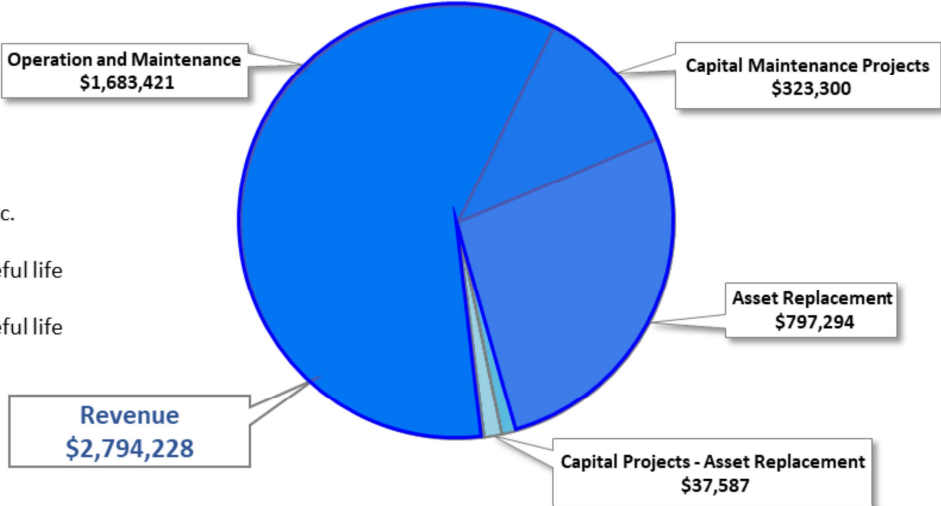
WATER AND SEWER SYSTEM BUDGET

Entire District with Annexation of Elk Grove

DISTRICT WITH ANNEXATION OF ELK GROVE ANNUAL COSTS

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\$37,587	Capital Projects – Asset Replacement fund to reconstruct infrastructure at end of useful life
\$2,841,602	TOTAL ANNUAL COSTS

\$2,794,228 TOTAL ANNUAL REVENUE



On the revenue side we still fall short with a projected income of \$2.8 million, but not by much. There are some operating advantages we'll have by organizing as a single entity and we may be able to save money by not having separate accounting systems and billing cycles for both the District and Elk Grove.



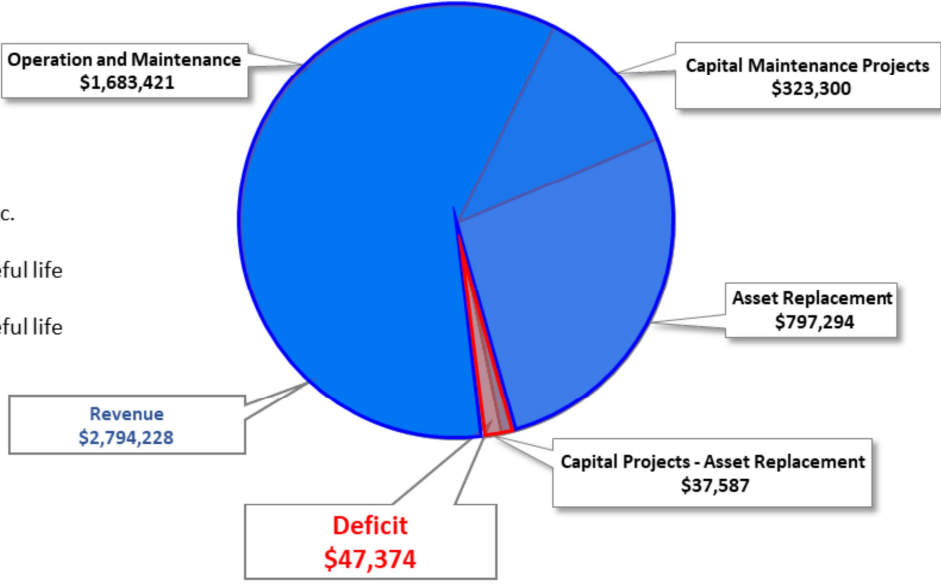
WATER AND SEWER SYSTEM BUDGET

Entire District with Annexation of Elk Grove

DISTRICT WITH ANNEXATION OF ELK GROVE ANNUAL COSTS

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\$2,841,602	TOTAL ANNUAL COSTS
\$2,794,228	TOTAL ANNUAL REVENUE

\$47,374 DEFICIT



The deficit is about \$47,000.



WATER AND SEWER SYSTEM BUDGET

Entire District with Annexation of Elk Grove

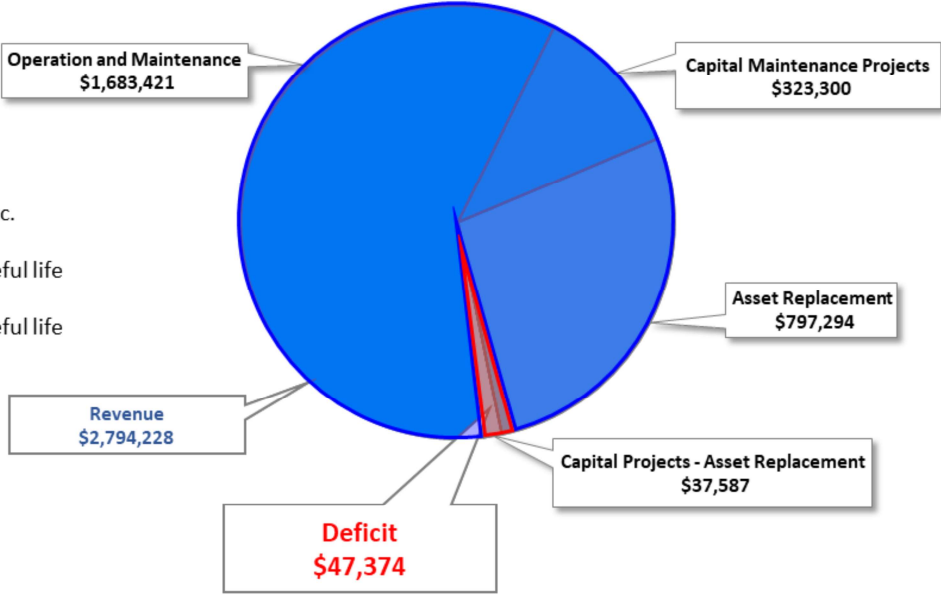
DISTRICT WITH ANNEXATION OF ELK GROVE ANNUAL COSTS

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\$2,841,602	TOTAL ANNUAL COSTS

\$2,794,228 TOTAL ANNUAL REVENUE

\$47,374 DEFICIT

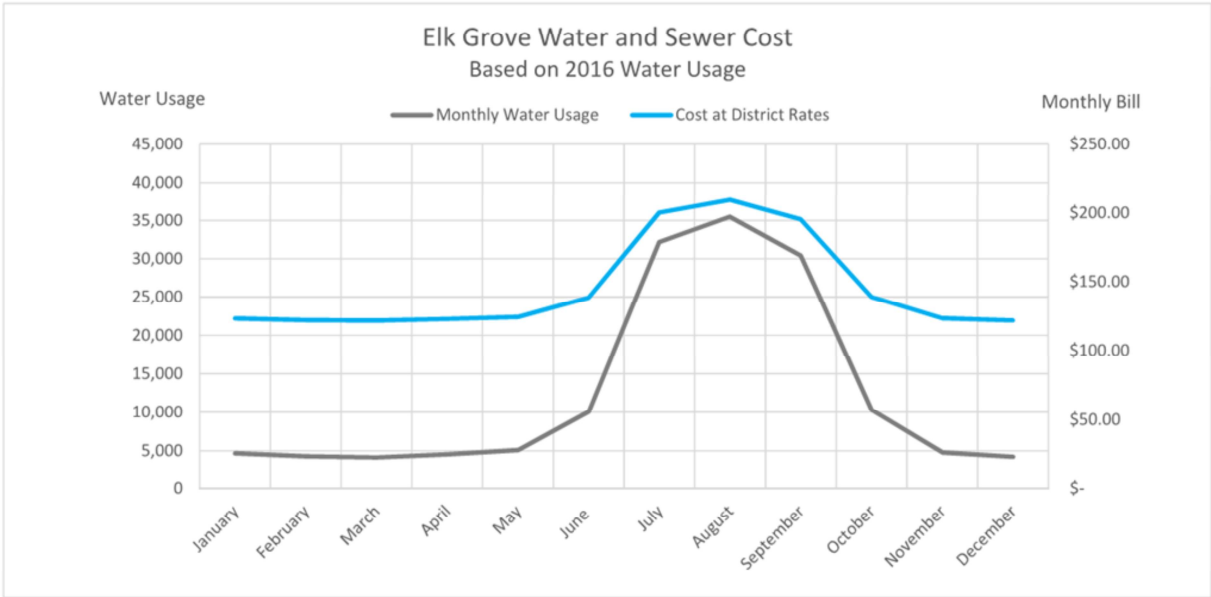
\$33/year per District account
\$2.75/month per District account



This deficit of \$47,374 equates to \$33/year or \$2.75/month when spread over the entire District (~1,428 accounts).



DISTRICT RATES (with Annexation of Elk Grove)

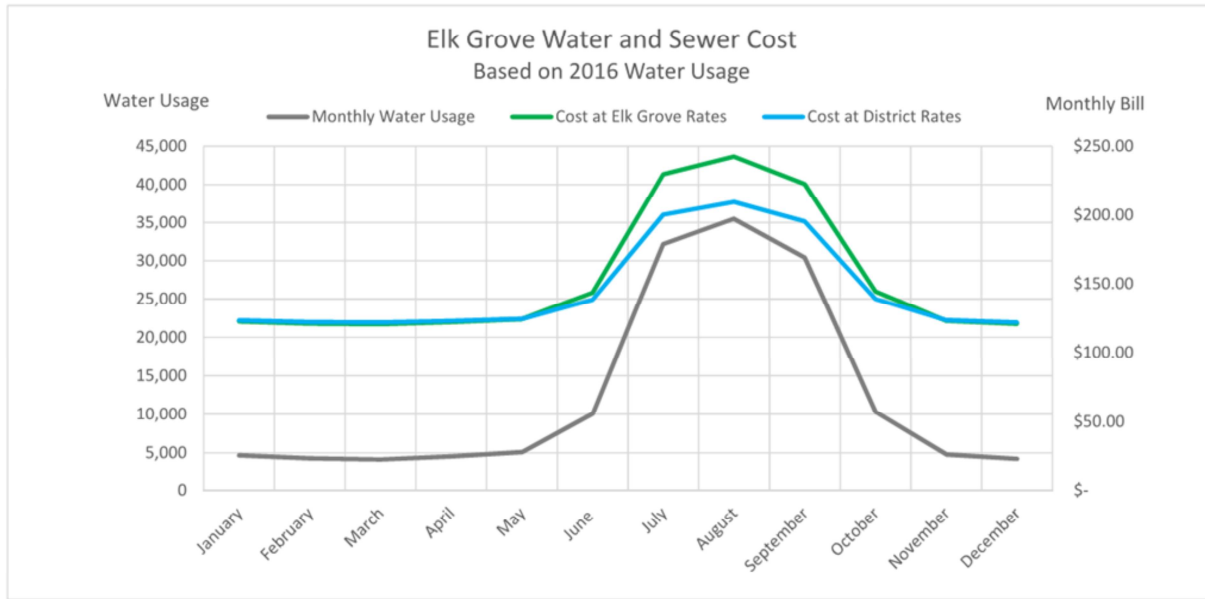


Rates	District with Annexation of Elk Grove
Base W&S Rate	\$80.00
Volume Charge	\$2.80/1,000 gallons (above 4,000 gallons/month)
Tax	\$41.36

If Elk Grove annexes into the District the tax per account goes down from \$50.69 to \$41.36 per month due to the higher number of lots paying the tax bond. The District residential water and sewer rate is \$80/month for a base of 4,000 gallons, then \$2.80 per thousand gallons. That rate with tax included is shown here plotted against 2016 Elk Grove water usage.



ELK GROVE AND DISTRICT RATE COMPARISON

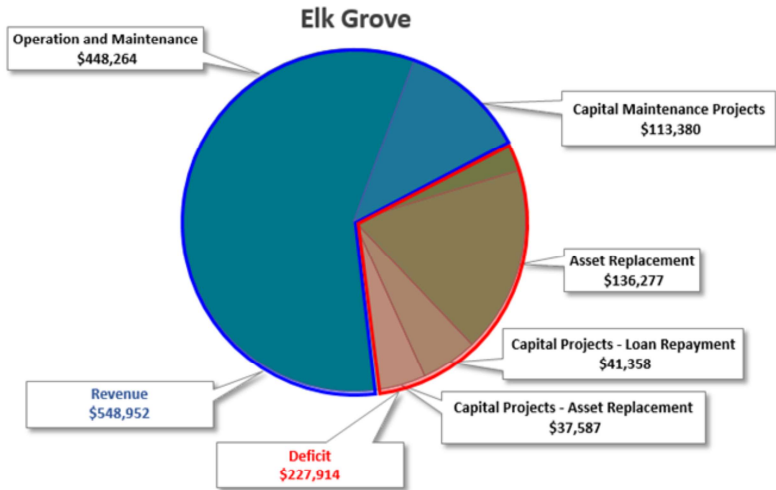


Rates	Elk Grove	District with Annexation of Elk Grove
Base W&S Rate	\$104.37	\$80.00
Volume Charge	\$3.89/1,000 gallons (above 0 gallons/month)	\$2.80/1,000 gallons (above 4,000 gallons/month)
Tax	\$0.00	\$41.36

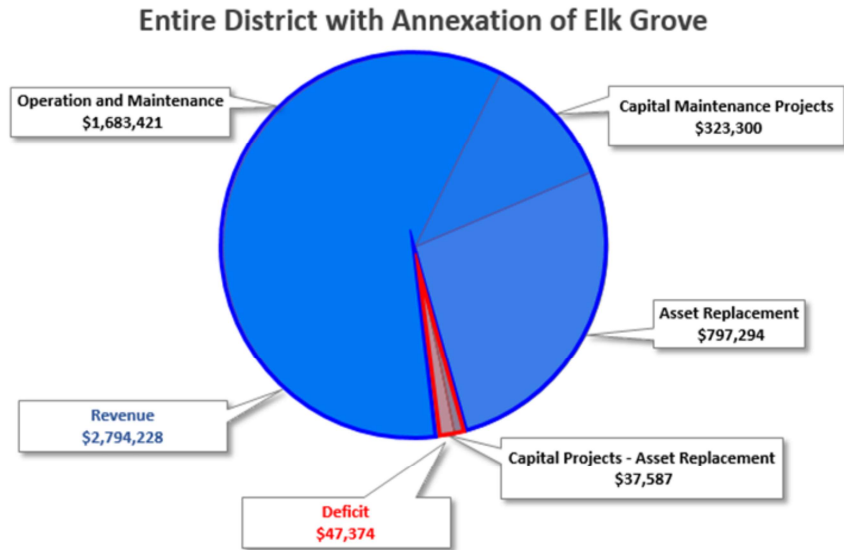
It is actually less expensive for Elk Grove residents to annex to the District when this tax amount is reduced. This chart compares the difference in the monthly rates against the 2016 water usage for Elk Grove. But adjustments may need to be made to the overall budget ... or we need to look for ways to reduce expenditures to stay at the same rate.



ELK GROVE AND DISTRICT BUDGET COMPARISON



\$791/year per Elk Grove account
\$66/month per Elk Grove account

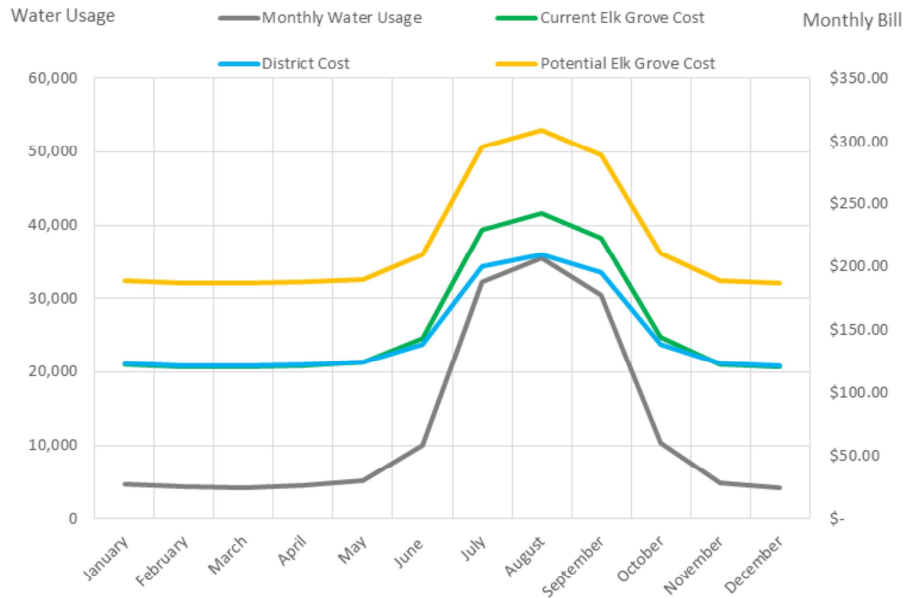


\$33/year per District account
\$2.75/month per District account

This slide shows the deficit in the overall budget in two scenarios. The one to the left is if Elk Grove chooses not to annex ... and the District would most likely need to make up for the deficit by serving Elk Grove as an Out-of-District customer. The scenario to the right still shows a slight deficit ... but a much smaller one ... if Elk Grove chooses to annex into the District.



ELK GROVE AND DISTRICT RATE COMPARISON



2016	Ave Usage Per Account in Elk Grove	Current Elk Grove Cost Per Account	FCWSD Cost Per Account with Annex	Potential Elk Grove Cost Per Account if Not Annexed
January	4,697	\$122.64	\$123.31	\$188.64
February	4,289	\$121.05	\$122.17	\$187.05
March	4,161	\$120.56	\$121.81	\$186.56
April	4,566	\$122.13	\$122.94	\$188.13
May	5,102	\$124.22	\$124.45	\$190.22
June	10,060	\$143.50	\$138.33	\$209.50
July	32,207	\$229.66	\$200.34	\$295.66
August	35,523	\$242.55	\$209.62	\$308.55
September	30,426	\$222.73	\$195.35	\$288.73
October	10,308	\$144.47	\$139.02	\$210.47
November	4,810	\$123.08	\$123.63	\$189.08
December	4,226	\$120.81	\$121.99	\$186.81
Average Annual Cost per Account		\$1,837.40	\$1,742.97	\$2,629.40

The yellow line shows how much the rate will need to increase to cover costs if there is no annexation of Elk Grove. The costs per account are plotted in the graph and chart so you can compare the three different scenarios. Annexation appears to be the least expensive option for Elk Grove residents.

Questions? Handouts are available showing the calculations/data used in this presentation. Next, if interested ... we'll discuss how the annexation process works. Susan Swimley will explain that process next