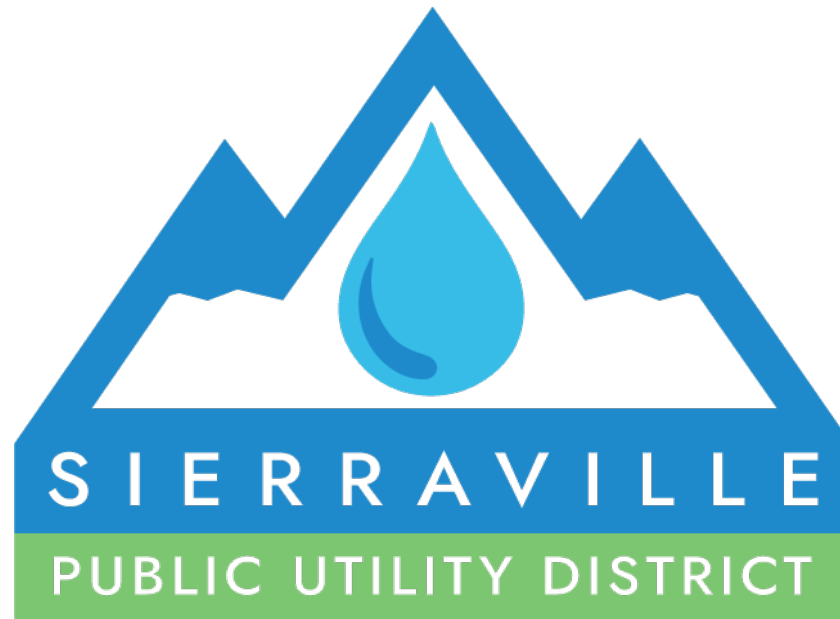


# 2021 Water Rate Study



**04/26/2021 Board Meeting Presentation**

# Purpose of the Rate Study

- **Revenue Sufficiency** – to operate the water system for the next 5 years to provide residents and businesses with clean, safe potable water
- **Fund the CIP** – create adequate revenue for funding of Capital Improvement Projects (CIP)
- **Create adequate Reserves** – per District Policy adopted January, 2021
- **Fulfill financial agreement Obligations** – per USDA
- **Revisit the Rate Structure** – comply with California law and meet multiple District objectives

# California Law: Proposition 218

1. Revenues from the fee shall not exceed funds required to provide the service.
2. Revenues from the fee shall not be used for any purpose other than that for which it was imposed.
3. The amount of the fee imposed as an incident of property ownership shall not exceed the proportional cost of service to the parcel.
4. No fee may be imposed for service unless the service is used OR is immediately available to the parcel.
5. No fee may be imposed for general governmental services (such as police, fire, library) where the service is available to the public at large in much the same manner as to the parcels charged the fee.

# Why Change Monthly Water Fees?

<b>Revenue Sufficiency</b>	<b>Ensure the District can continue to operate the system per State Mandates</b>
1. Capital Improvements	Identified improvements needed for the water system.
2. Operations & Maintenance Costs	Professional services, supplies, insurance, utilities, testing services.
3. Prudent Reserves	District policy – minimum - of 6 months operating expenses plus \$100,00 for capital projects
<b>California laws for water fees</b>	<b>Cost of Service demonstration</b>
1. Proposition 218	The amount of a fee or charge imposed upon any parcel or person as an incident of property ownership shall not exceed the proportional cost of the service attributable to the parcel.



# Sierraville PUD Water System

-- (Paul Rose, District Water Operator)

- Water Source RR Springs
- Booster Pump Station
- Tank
- Gravity Distribution System
- 109 customers with Service Pipes and Meters



Ye Olde (Current) SPUD  
Pump Station





- Single 5HP Pump



- Older Storage Tank – still in service
- This tank needs leaks in the seams repaired and the outside painted.





- Overflow from Railroad Springs
- SPUD's only source of drinking water

# Completed Improvements

## -- (Bill Quesnel, District Engineer)

### **New Tank**

- 200,000 gallons
- Completed Fall of 2019
- Provides storage for max. day demands and needed fire protection flow
- Cost \$682,000
- Funded by USDA - \$306,000 grant, \$376,000 loan

# Old and New Tank Project



# Needed Improvements (Bill & Paul)

- Replacement Meters and New Meter-Reading System
- Booster Pump Station Improvements
- Replace and Upgrade Major Pipeline from the Tanks to the Highway
- Water Tank Maintenance



# Why are new Meters needed?

Installation of a new AMR (Automated Meter Read) system provides the following improvements:

- All new meters, old meters have reached the end of their useful life
- Monthly meter reading regardless of weather or snow
- Ability of the District to promote water conservation
- Identify the presence of system and lateral leaks as they occur
- Integrates easily with Customer Utility Billing Software for accurate billing and transparency



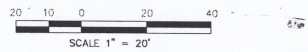
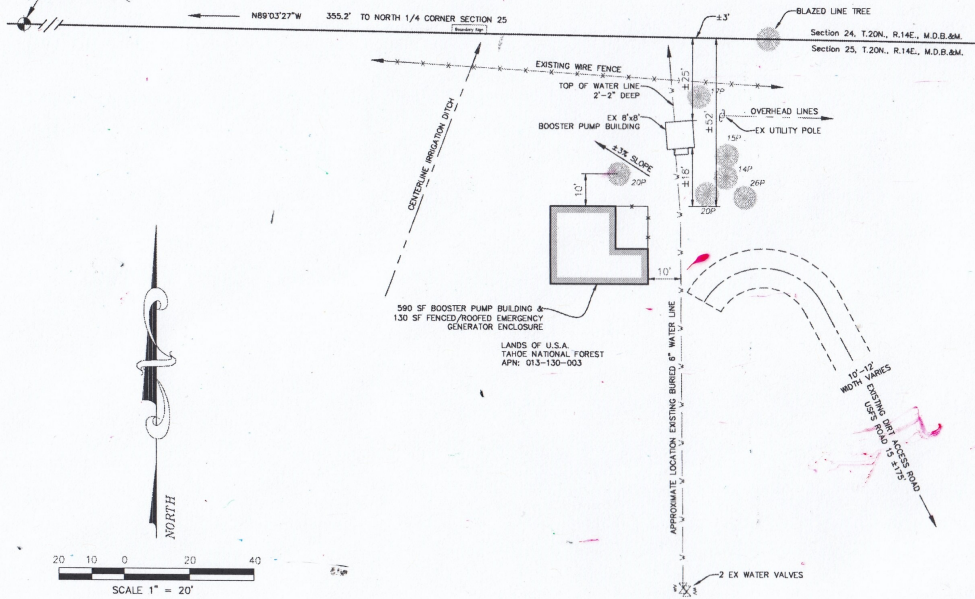
- Badger E Series Ultrasonic Water Meter

# New Booster Pump Station Site Plan

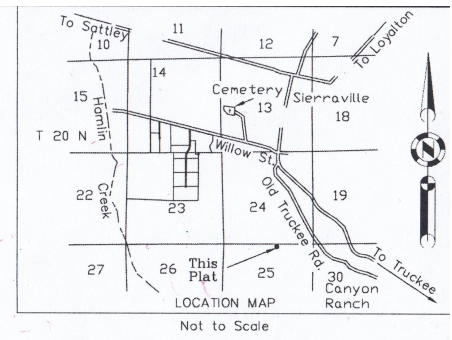
THE APPROXIMATE NORTH LINE OF SECTION 25, AS SHOWN HEREON, IS RECORD PER 8 US 130-145 AS DETERMINED FROM THE FOUND NORTH 1/4 CORNER OF SECTION 25, US'S BOUNDARY SIGN, AND BLAZED LINE TREE.

2" I.P. W/ 3-1/4" BRASS CAP IN M.O.S. MARKED FOR 1/4 CORNER.

L.D.S. RECREATION PROPERTIES, LLC APN: 130-110-030 DOCUMENT 2010-154135



12' ○ DENOTES PINE TREE - SIZE D.B.H. AS INDICATED



Applicant: Sierraville Public Utility District  
P.O. Box 325  
Sierraville, CA 96126  
APN: 013-130-003, Sierra County



Steven A. Alfred LS 8463  
PROFESSIONAL LAND SURVEYOR  
P.O. Box 916  
Loyalton, CA 96118  
(530) 826-4587

Booster Pump Site Plan  
for  
U.S.F.S Use Permit,  
Sierraville P.U.D.

Situate in the NE 1/4 of Section 25,  
Township 20 North, Range 14 East, M.D.B.&M.

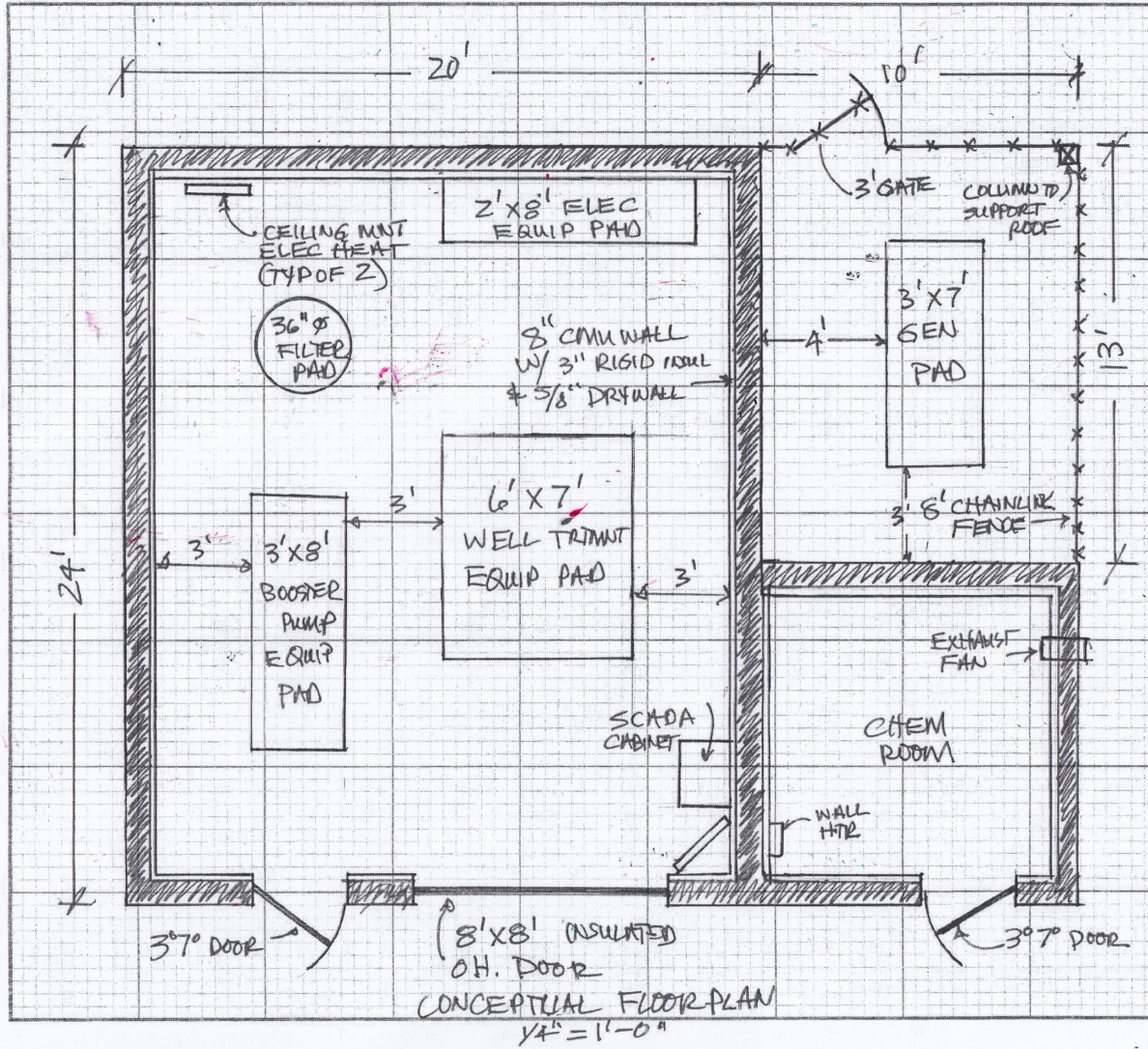
Sierra County ~ California  
Scale 1" = 20', January, 2014  
UPDATED MARCH 2021



# New Booster Pump Station Floor Plan

Job SPLD BOOSTER TRMNT PUMP STATION  
 Sheet No. CONCEPT DESIGN OF Date 3-3-21  
 Calculated by WGB  
 Checked by \_\_\_\_\_ Date \_\_\_\_\_  
 Scale  $1/4" = 1'-0"$

**ACUMEN ENGINEERING**  
 CONSULTANTS  
 530.550.8068 • fax 530.550.8069  
 Post Office Box 3497 • Truckee, CA 96160  
 email: bquesnel@1toll.com





# New Booster Pump Station

Job SPLUD BOOSTER - TRMUNT PUMP STATION

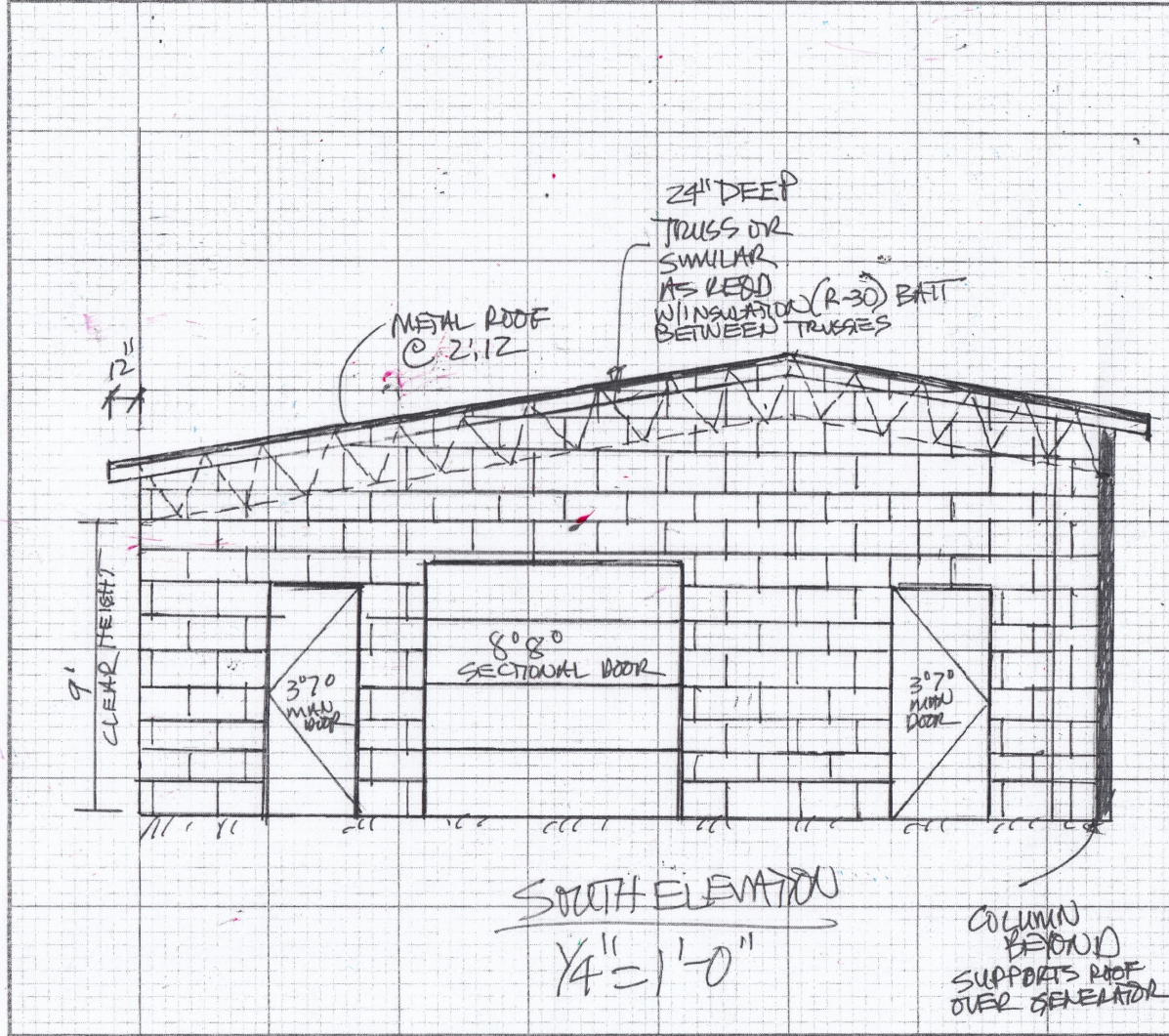
Sheet No. CONCEPT DESIGN

Calculated by WGB Date 3-3-21

Checked by \_\_\_\_\_ Date \_\_\_\_\_

Scale \_\_\_\_\_

**ACUMEN ENGINEERING**  
CORPORATION  
530.550.8068 • fax 530.550.8069  
Post Office Box 3497 • Truckee, CA 96160  
email: bquesnel@itol.com



# Needed Improvements & Project Costs

(figures in inflated dollars)

Improvements	Estimated Cost
Water Tank Maintenance	\$38,300
Major Pipe Replacement from Tanks to the Hwy	\$334,300
Pump Station Improvements	\$973,200
Replacement Meters	\$126,000
<b>TOTAL</b>	<b>\$1,471,800</b>
Funded by Rates	\$164,300
Funded by Grants	\$691,800
Funded by New Debt	\$615,700

# District Revenue Requirements

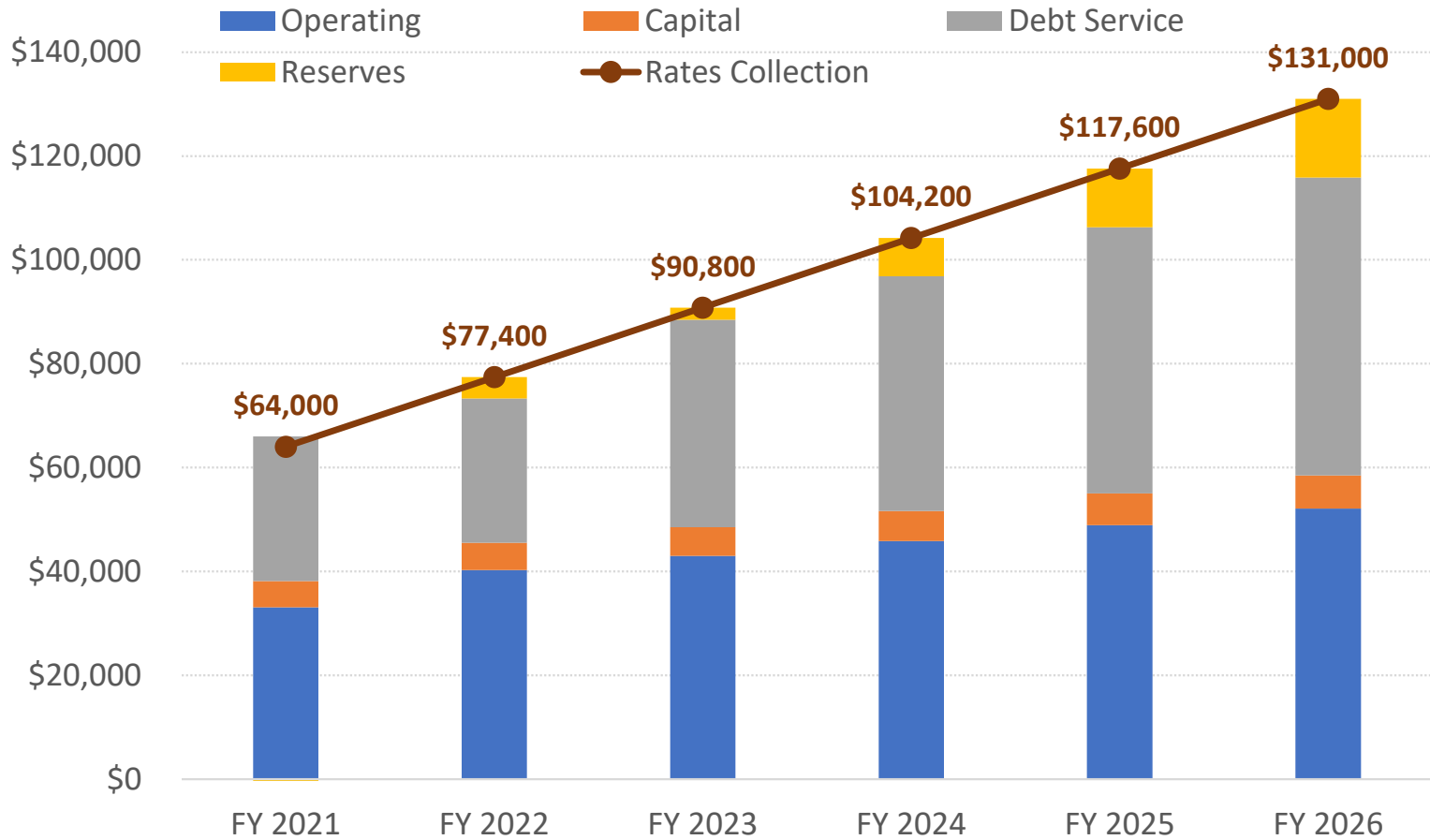


Determine funding needed to meet financial obligations

- Operations & Maintenance
- Capital Improvements
- Debt Service
- Prudent Fund Reserves

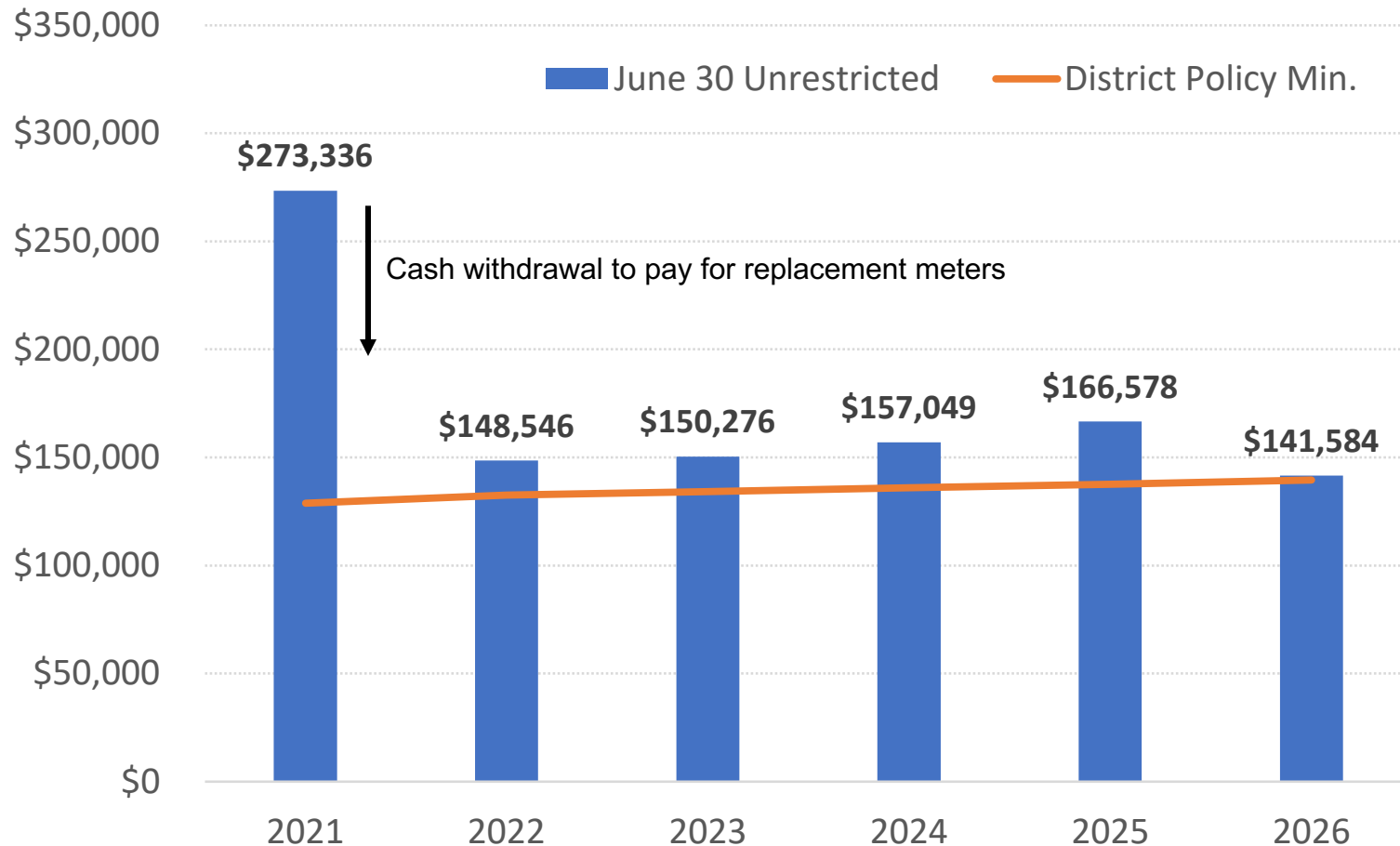
# Projected Revenue Requirements

(amount to be collected in monthly water fees)

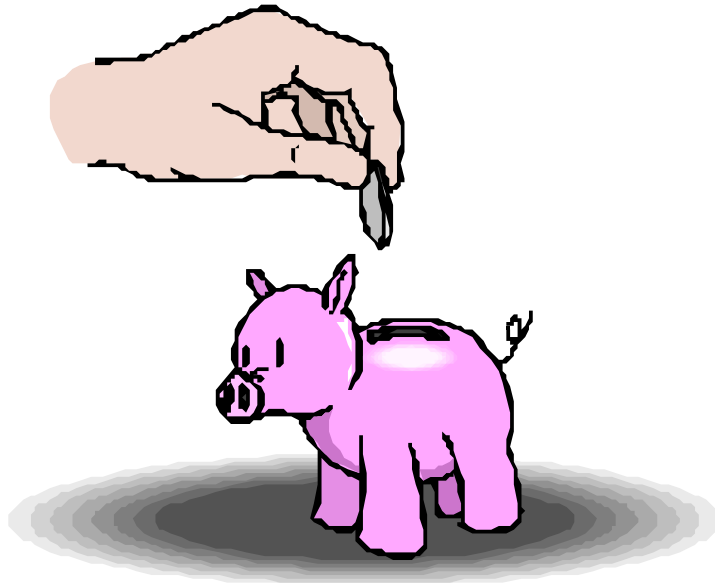




# Water Fund Projected Cash Flow



# Rate Structure



How SPUD will collect the necessary revenue requirements

- Monthly Water Service and Usage Charges
- Reflect local customer water needs & align with State Mandates

# Summary of Rate Structure Changes

Topic	Current	Proposed
<b>Standby Customers</b>	Any customer that has their water service turned off either permanently or during winter months	Redefined as possessing EDUs with a will-serve for a lot without a building or a lot with a building that has not yet connected to the District's facilities
<b>Base Monthly Fee</b>	Fee per EDU is multiplied by the customer's number of EDUs	Base Fee is separated into 2 components: customer charge and capacity charge  All customers pay the customer charge (including standby customers) every month  All full-service EDUs (excludes standby) pay every month based on # of EDUs
<b>Base Monthly Allowance</b>	40,000 galls / month <i>Included with base monthly fee</i>	30,0000 galls/ month <i>Included with base monthly fee</i>
<b>Use Fee</b>	Overage charges applied when water use exceeds base allowance	No change
<b>LDS Church</b>	Undefined Customer	Wholesale Customer – base monthly fee plus use fees, zero base monthly allowance

# Functional Cost Allocation

• Customer Charge	}	<b>Fixed Charges</b>	36%	<b>= 95%</b>
• Capacity Charge			59%	
• Commodity Charge		<b>Overage Charges</b>		<b>= 5%</b>

❖ Customer Charge = per Account (includes standby)

❖ Capacity Charge = per EDU (excludes standby)

❖ Overage Charges = per 1,000 gallons above monthly base allowance

# Proposed Water Rates

Fee Category	Current	9/1/2021	7/1/2022	7/1/2023	7/1/2024	7/1/2025
<b>Base Monthly Fees</b>						
		<b>flat fee per month includes customer + EDU charge</b>				
Customer Charge per Customer	\$0.00	\$21.16	\$24.83	\$28.49	\$32.15	\$35.82
Capacity Charge per Full-Service EDU [1]	\$41.00	\$28.17	\$33.00	\$37.83	\$42.66	\$47.49
<b>Total Base Monthly Fees for 1 EDU [2]</b>	<b>\$41.00</b>	<b>\$49.34</b>	<b>\$57.83</b>	<b>\$66.32</b>	<b>\$74.81</b>	<b>\$83.31</b>
<b>Use Fees per 1,000 Gallons</b>	<b>[3]</b>	<b>Per EDU Allowance @ 30,000 galls</b>				
Base Monthly Allowance	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00
Overage Charge [3]	\$3.50	\$3.68	\$4.32	\$4.96	\$5.60	\$6.23
<b>Wholesale Customers (LDS Camp)</b>						
Monthly Customer Charge	\$0.00	\$21.16	\$24.83	\$28.49	\$32.15	\$35.82
Charge per 1,000 Gallons (all water)	\$0.00	\$1.39	\$1.78	\$2.18	\$2.57	\$2.96

[1] Standby (lot) customers do not pay an EDU charge. Customers with a full-time EDU and a lot pay one customer charge and one full-service EDU charge per month.

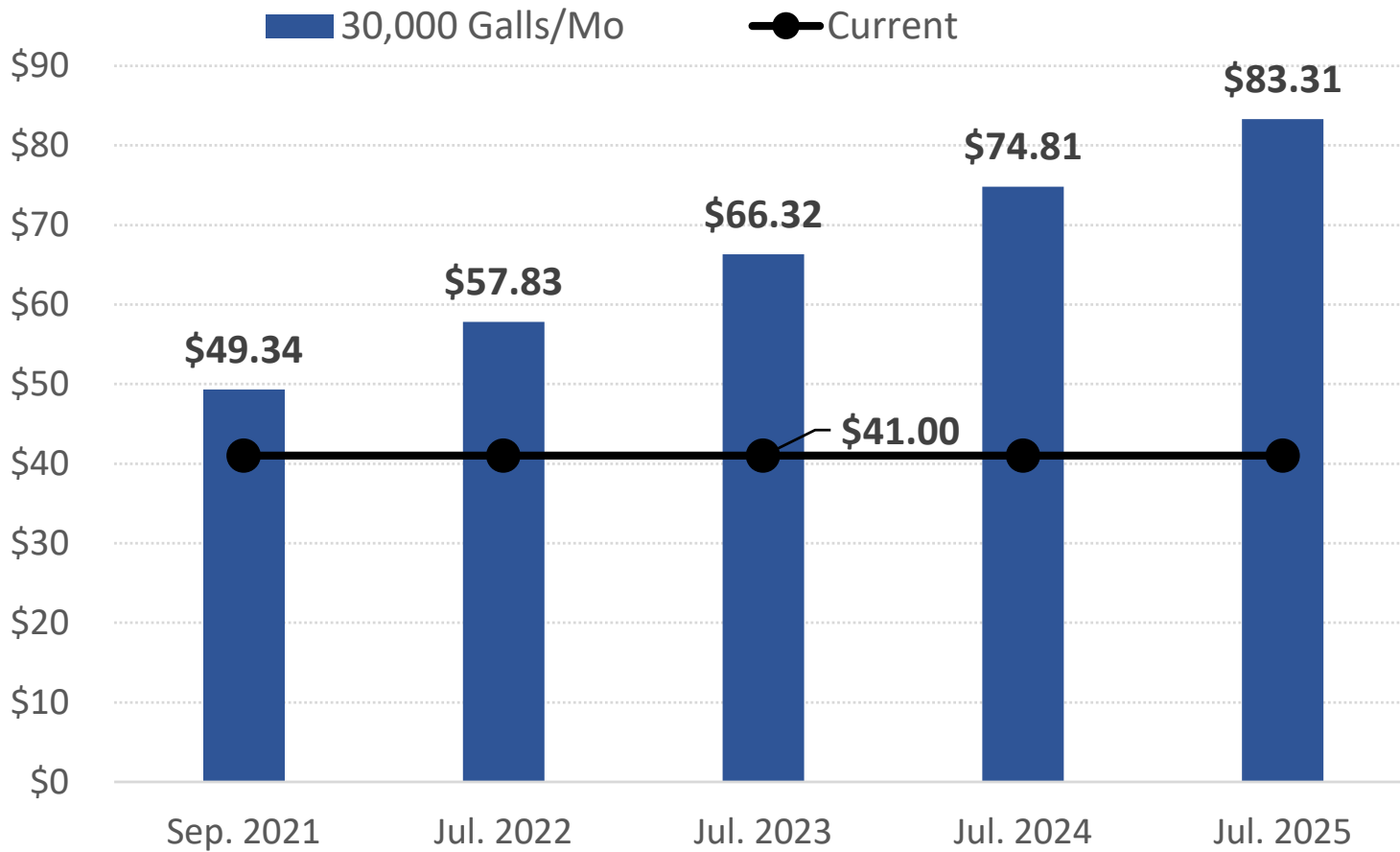
[2] Customers that are connected and receiving service with one EDU. Greater base monthly fees will be due for customers with more than one EDU.

[3] The overage charge is currently for use exceeding 40,000 gallons per EDU per month.

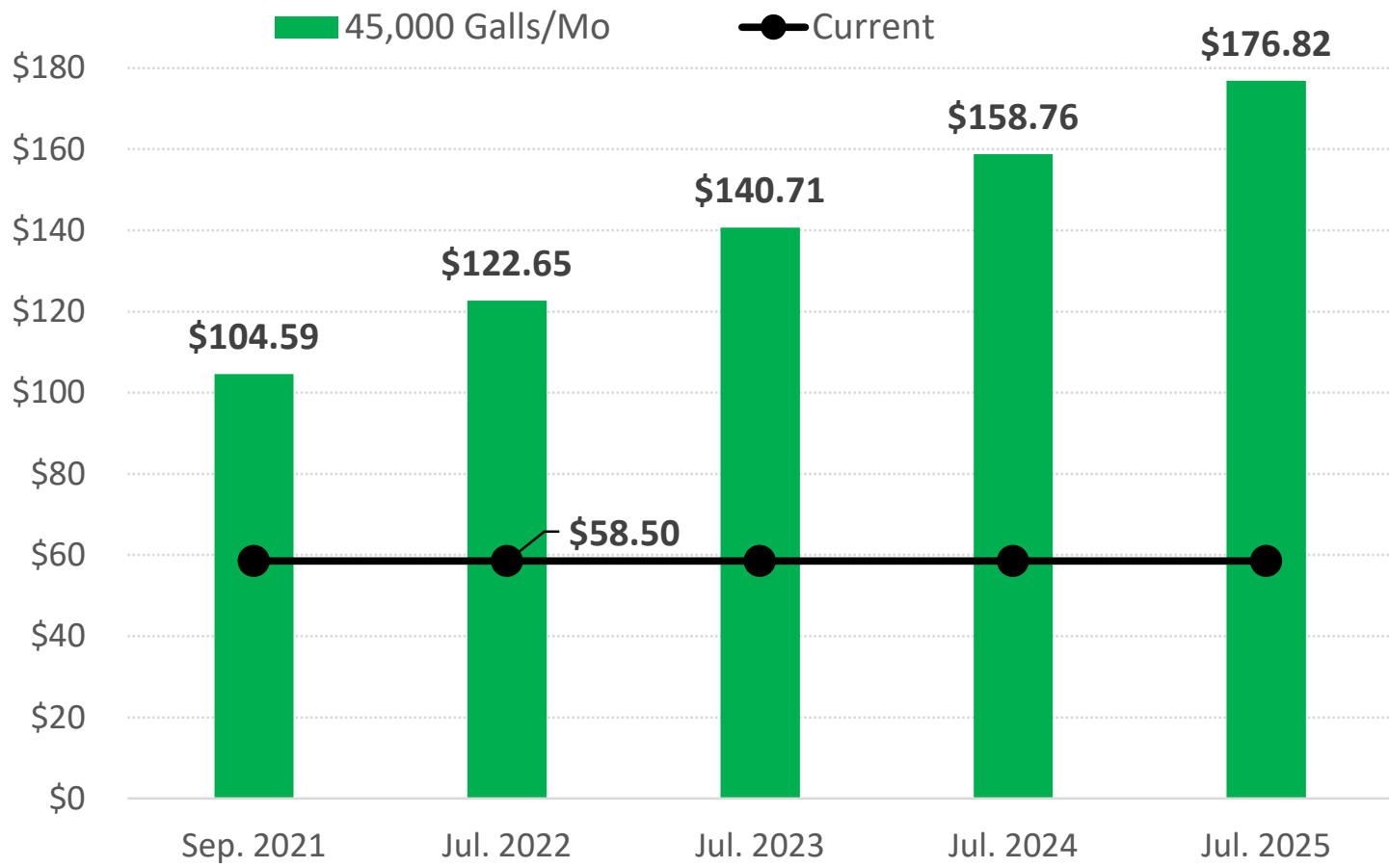
# Monthly Bill Change for a Residence beginning September 2021 with New Rates

Water Use	Current			1-Sep-21		
	Base	Use	Total	Base	Use	Total
	<i>base allowance 40,000 galls/EDU/mo</i>			<i>base allowance 30,000 galls/EDU/mo</i>		
20,000	\$41.00	\$0.00	<b>\$41.00</b>	\$49.34	\$0.00	<b>\$49.34</b>
22,000	\$41.00	\$0.00	<b>\$41.00</b>	\$49.34	\$0.00	<b>\$49.34</b>
24,000	\$41.00	\$0.00	<b>\$41.00</b>	\$49.34	\$0.00	<b>\$49.34</b>
26,000	\$41.00	\$0.00	<b>\$41.00</b>	\$49.34	\$0.00	<b>\$49.34</b>
28,000	\$41.00	\$0.00	<b>\$41.00</b>	\$49.34	\$0.00	<b>\$49.34</b>
30,000	\$41.00	\$0.00	<b>\$41.00</b>	\$49.34	\$0.00	<b>\$49.34</b>
32,000	\$41.00	\$0.00	<b>\$41.00</b>	\$49.34	\$7.37	<b>\$56.70</b>
34,000	\$41.00	\$0.00	<b>\$41.00</b>	\$49.34	\$14.73	<b>\$64.07</b>
36,000	\$41.00	\$0.00	<b>\$41.00</b>	\$49.34	\$22.10	<b>\$71.44</b>
38,000	\$41.00	\$0.00	<b>\$41.00</b>	\$49.34	\$29.47	<b>\$78.81</b>
40,000	\$41.00	\$0.00	<b>\$41.00</b>	\$49.34	\$36.84	<b>\$86.17</b>
42,000	\$41.00	\$7.00	<b>\$48.00</b>	\$49.34	\$44.20	<b>\$93.54</b>
44,000	\$41.00	\$14.00	<b>\$55.00</b>	\$49.34	\$51.57	<b>\$100.91</b>
46,000	\$41.00	\$21.00	<b>\$62.00</b>	\$49.34	\$58.94	<b>\$108.27</b>
48,000	\$41.00	\$28.00	<b>\$69.00</b>	\$49.34	\$66.30	<b>\$115.64</b>
50,000	\$41.00	\$35.00	<b>\$76.00</b>	\$49.34	\$73.67	<b>\$123.01</b>

# Projected Water Bill for One EDU (typical home) using less than 30,000 Gallons



# Projected Water Bill for One EDU (typical home) using 45,000 Gallons (summertime)





# Implementation & Next Steps in 2021

- April – Public hearing notices were mailed to all property owners of record and a workshop held to hear community perspectives
- June 16 – Public Hearing and 1<sup>st</sup> reading of the Ordinance (absent required protests)
- July 21 – 2<sup>nd</sup> reading of the Ordinance
- September 1<sup>st</sup> – New rates become effective (applied to August water meter reads)