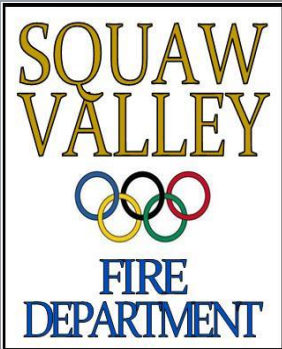


Squaw Valley Public Service District

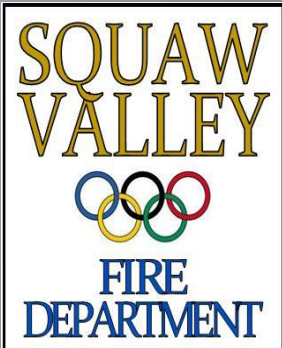
Rate Workshop

February 15, 2017



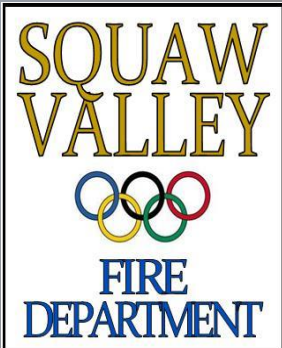
Rate Structure Policy Objectives

- Comply with case law and state law
- Maintain the fiscal health of the District
- Implement equity amongst customers
- Encourage water conservation



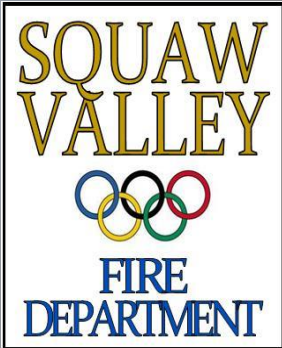
Five-Year Strategic Plan

- **Goal 4 – Finance. Maintain a well-planned, proactive financial condition that minimizes rate shocks and impacts on customers while meeting all service needs.**
- **4.1.0 - Maintain adequate funding to meet long-term District obligations, including asset replacement, maintenance, expansion and employee benefits**
 - ❖ 4.1.1 - Continue Strong Reserve Funding of the Capital Replacement Programs by setting rates that include contributions to asset replacements.
 - ❖ 4.1.2 - Prepare Deferred Maintenance / Replacement Schedules including cost estimates for all District Facilities, Equipment and Fixed Assets and assign funding responsibilities to beneficiary service department by allocations developed from Work Order System.
 - ❖ 4.1.3 - Prepare **Capital Replacement Programs** for each service department (water, sewer, fire, administration, dumpster facility, parks and recreation) that include Needs Analyses, Budget Forecasts and Funding Plans. Clearly justify capital replacement contributions collected from User Fees. Incorporate in to an update of Master Plans for each service upon completion of improvements prompted by new development.



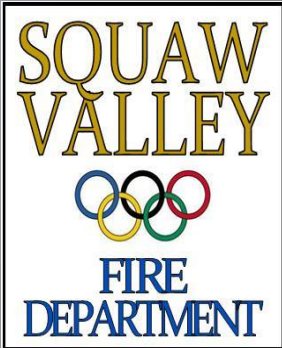
Five-Year Strategic Plan

- **4.3.0 - Continue to review and update Water, Sewer, Fire, Garbage, Park/Public Recreation Facilities connection fees and user fees. Include capital replacement fees in user fees.**
- ❖ 4.3.1 - Utilize annual budget process to update User Fees to cover operating expenses. Use Capital Replacement Programs to determine asset replacement contributions to User Fees. Update Connection Fees. Utilize cost allocations for shared resources developed from Work Order System.
- **5.3.0 - Implement an effective GIS-based Work Order System and Asset Management System and improve it over time to improve governance and accountability**
- ❖ 5.3.2 - Utilize the Asset Management System to inform and improve the accuracy of the Capital Replacement Programs, rate setting and apportionment of costs and benefits. Provide long-term financial stability that avoids rate shocks and special assessments.



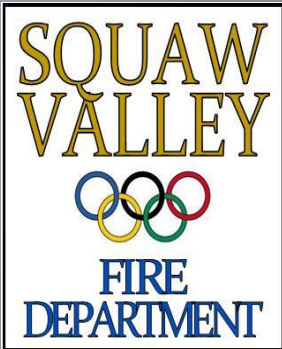
History

- 1995 – Creation of Water and Sewer FARF's
- May 2004 – EES, Inc. – Technical Review of the District's Water Rate Designs
- June 2005 – ECO:LOGIC – Task 4 - Lifecycle Analysis Report - Water System
- October 2005 – HDR Engineering – Proposal to Review & Provide Recommendations for the District's Sewer and Water Asset Replacement Programs
- March 2006 – ECO:LOGIC – Water Asset Replacement Program Review & Recommendations
- March 2006 – ECO:LOGIC – Sewer Asset Replacement Program Review & Recommendations



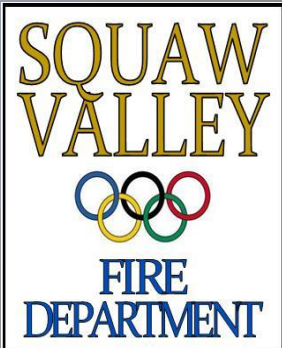
Why Fund the Asset Replacement Program?

- Develop funding to replace infrastructure as assets reach the end of their useful life
- Promote rate stability and avoid rate shock
- Avoid debt financing and paying interest
- Promote rate equity by spreading burden of replacement cost between existing customers and future customers.



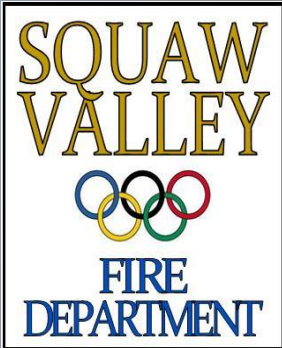
Connection Fees vs. User Fees

- User Fees – for operating expenses; asset replacements.
 - Projects in Capital *Replacement* Plans (CRP's)
- Connection Fees – for system expansions; new assets; capacity increases.
 - Projects in Capital *Improvement* Plans (CIP's)



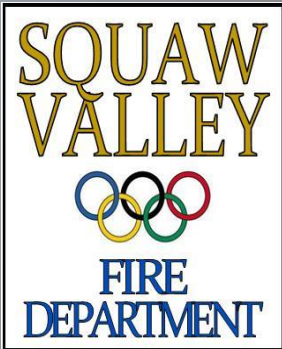
Capital Replacement Plan (CRP)

- Inventory of Assets
 - Age, Design Life, Original Cost
- Unit Cost Estimates for Maintenance and Replacement
- VueWorks Budget Forecast for GIS Assets
- Higher Cost Maintenance Activities for Facilities
- Replacement Cost for Facilities and Equipment
- *Develop 100-Year Capital Replacement Plan*

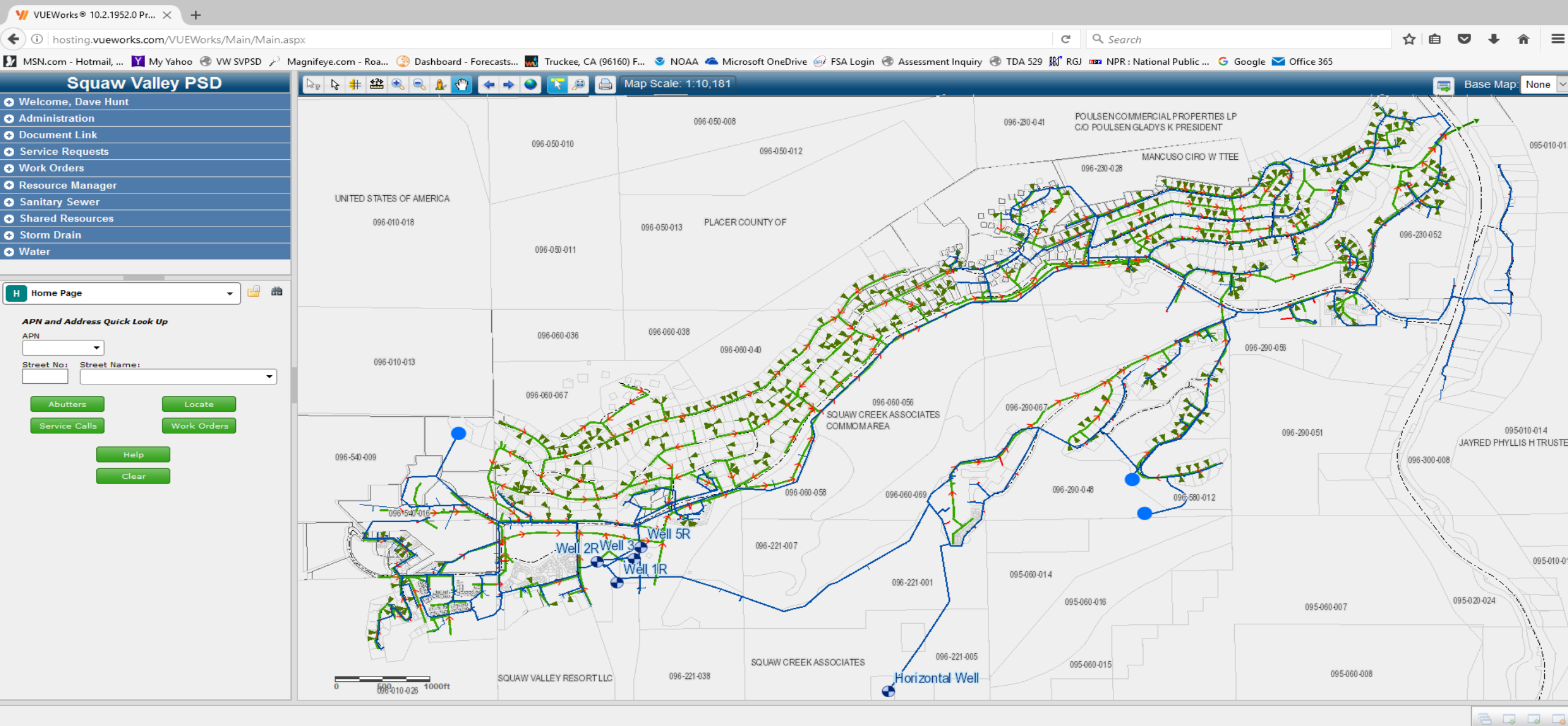


Assets in the CRP

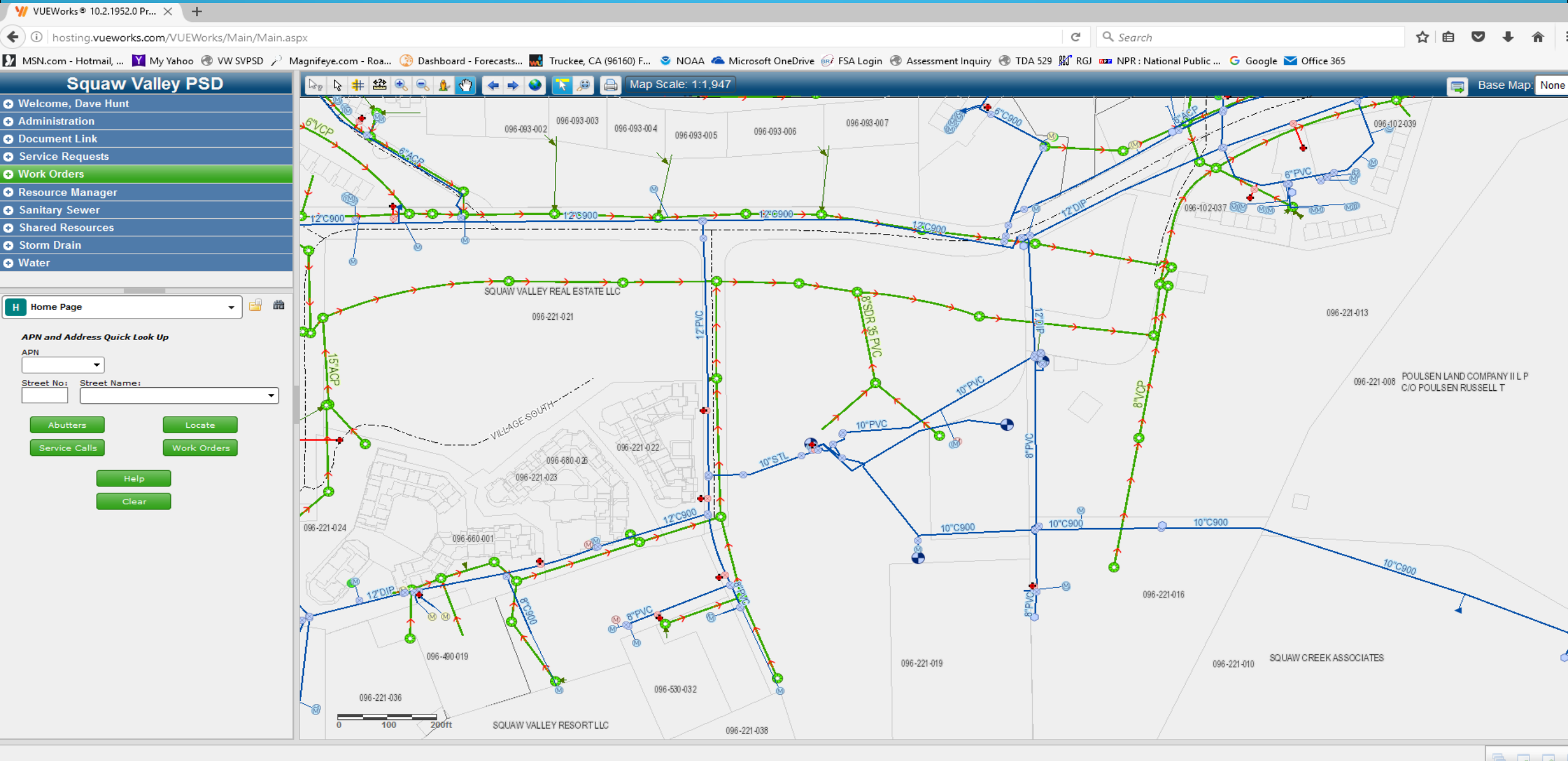
- Water & Sewer Infrastructure (e.g., buried assets)
 - VUEWorks & GIS – Asset Management
 - Sewer pipes, manholes, service laterals, cleanouts
 - Water pipes, valves, meters, service laterals, hydrants, tanks
- Equipment
 - Rolling Stock (Fleet and Equipment)
 - Small Tools and Equipment
- Facilities
 - Wells and Pump Stations
- Shared Facilities
 - 305 and 1810 Squaw Valley Road



Water & Sewer Infrastructure

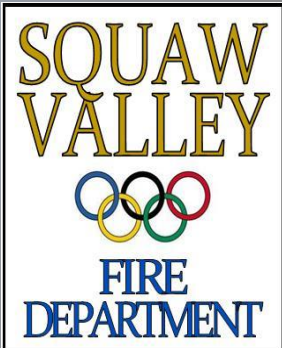


Water & Sewer Infrastructure



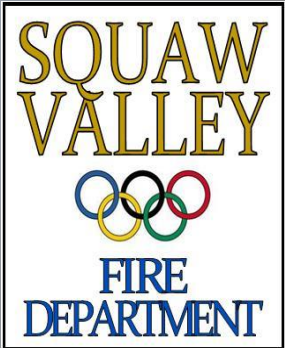
Unit Replacement Costs

Mains - On Road							
Diameter (in.)	Replacement Pipe Type	Main Replacement \$/ft (w/o AC)	Main Replacement AC Width (in.)	Main AC Patch \$/sf	Main AC Patch \$/ft main	Total Replacement \$/ft	Total Replacement \$/ft (adjusted for 25% Soft Costs)
4	C900 PVC	\$76.00	22	\$9.00	\$16.50	\$92.50	\$115.63
6	C900 PVC	\$83.00	24	\$9.00	\$18.00	\$101.00	\$126.25
8	C900 PVC	\$90.00	26	\$9.00	\$19.50	\$109.50	\$136.88
10	C900 PVC	\$97.00	28	\$9.00	\$21.00	\$118.00	\$147.50
12	C900 PVC	\$104.00	30	\$9.00	\$22.50	\$126.50	\$158.13
8	Ductile Iron	\$110.00	26	\$9.00	\$19.50	\$129.50	\$161.88
10	Ductile Iron	\$120.00	28	\$9.00	\$21.00	\$141.00	\$176.25
12	Ductile Iron	\$140.00	30	\$9.00	\$22.50	\$162.50	\$203.13
Mains - Off Road							
Diameter (in.)	Replacement Pipe Type	Main Replacement \$/ft (w/o AC)	Main Replacement AC Width (in.)	Main AC Patch \$/sf	Main AC Patch \$/ft main	Total Replacement \$/ft	Total Replacement \$/ft (adjusted for 25% Soft Costs)
4	C900 PVC	\$76.00	NA	NA	NA	\$76.00	\$95.00
6	C900 PVC	\$83.00	NA	NA	NA	\$83.00	\$103.75
8	C900 PVC	\$90.00	NA	NA	NA	\$90.00	\$112.50
10	C900 PVC	\$97.00	NA	NA	NA	\$97.00	\$121.25
12	C900 PVC	\$104.00	NA	NA	NA	\$104.00	\$130.00
8	Ductile Iron	\$110.00	NA	NA	NA	\$110.00	\$137.50
10	Ductile Iron	\$120.00	NA	NA	NA	\$120.00	\$150.00
12	Ductile Iron	\$140.00	NA	NA	NA	\$140.00	\$175.00



Equipment

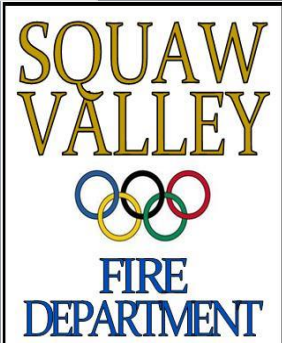
Fleet - Rolling Stock				
Equipment	Purchase Year	Economic Life (Years)	Purchase Price	Cost 2016 \$ (2.5% inflation)
Ford F-250	1999	10	\$ 30,432.00	\$ 46,305.89
Ford F-350	2007	10	\$ 34,393.00	\$ 42,952.14
Dodge Ram 2500	2014	10	\$ 30,749.00	\$ 32,305.67
Ford F-150 Service Truck	2015	10	\$ 26,913.00	\$ 27,585.83
Ford Explorer PI	2016	10	\$ 27,544.00	\$ 27,544.00
Equipment - Rolling Stock				
JCB Backhoe	1994	25	\$ 49,571.00	\$ 85,340.02
JD Loader	1998	25	\$ 45,663.00	\$ 71,218.70
Ford Dump Truck	2007	20	\$ 67,754.00	\$ 84,615.46
SnoQuip Trackless MT Snow Blower	2014	15	\$ 107,812.00	\$ 113,269.98
VacCon	2009	20	\$ 256,552.50	\$ 304,960.30
Towable 6" Bypass Pump	2000	20	\$ 21,099.00	\$ 31,321.58
Prowler Easement Machine	2010	20	\$ 34,382.37	\$ 39,873.01
New Holland Snow Blower	2007	15	\$ 63,138.00	\$ 78,850.71
Small Tools and Equipment				
Air Compressor	1998	20	\$ 12,633.00	\$ 19,703.17
SCBA	1999	15	\$ 6,220.00	\$ 9,464.47
Miller Trailblazer Welder	2009	15	\$ 6,126.00	\$ 7,281.89
Ditch Bridge	2009	50	\$ 8,533.00	\$ 10,143.06
Cues Sewer Lateral Camera	2009	20	\$ 12,948.00	\$ 15,391.10
Hydraulic Trench Shoring	2012	15	\$ 5,749.00	\$ 6,345.82
Trimble GPS	2013	10	\$ 9,230.00	\$ 9,939.70
Confined Space Harnesses	2015	15	\$ 6,145.00	\$ 6,298.63



Facilities

Well 2R Maintenance & Replacement Summary

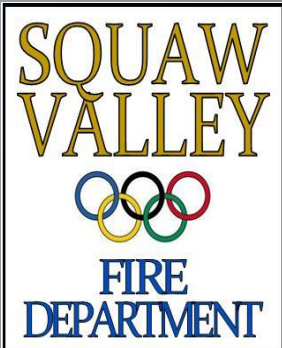
Maintenance Activity	Install Year	Frequency (Years)	Cost (2011)	Cost (2016)	w/ Soft Costs (25%)
Exterior - AC Repaving	2011	15	\$17,000.00	\$19,269.79	
Interior/Exterior - Painting	2011	15	\$24,500.00	\$27,771.17	
Exterior - Stucco/EIFS	2011	50	\$16,000.00	\$18,136.27	
Exterior - Replace Roof (Asphalt Shingles)	2011	25	\$17,000.00	\$19,269.79	
Interior/Exterior - Replace Doors/Windows	2011	25	\$20,500.00	\$23,237.10	
Interior/Exterior - Replace Overhead Door	2011	25	\$6,000.00	\$6,801.10	
Mechanical - HVAC	2011	20	\$20,000.00	\$22,670.34	
Mechanical - Replace Submersible Pump	2011	20	\$60,000.00	\$68,011.03	
Mechanical - Replace Fire Suppression System	2011	50	\$12,000.00	\$13,602.21	
Mechanical - Replace Chemical Feed Equipment	2011	25	\$40,000.00	\$45,340.68	
Interior - Seal Concrete Flooring	2011	20	\$6,500.00	\$7,367.86	
Electrical - Replace Light Fixtures and Controls	2011	20	\$9,000.00	\$10,201.65	
Electrical - Replace Primary Power	2011	50	\$240,000.00	\$272,044.10	
Electrical - Replace Instrumentation and Controls	2011	50	\$50,000.00	\$56,675.85	
Electrical - Replace Generator	??	35	\$100,000.00	\$113,351.71	
Redrill Well	2011	50	\$200,000.00	\$226,703.42	\$283,379.27
Demo and Reconstruct Building (including Redrill Well)	2011	100	\$1,300,000.00	\$1,473,572.22	\$1,841,965.27



Shared Assets

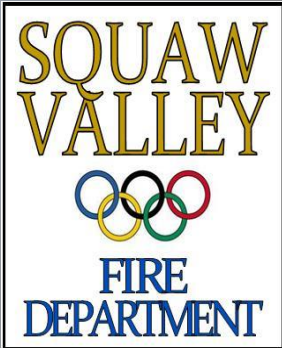
305 SV Road Maintenance & Replacement Summary

Maintenance Activity	Install Year	Frequency (Years)	Cost
Exterior - AC Slurry Seal	2014	4	\$5,000.00
Exterior - AC Repaving	2005	16	\$147,000.00
Exterior - Replace Concrete Curb and Gutter, Sidewalk	2005	30	\$128,000.00
Exterior - Paint Exterior Wood Surfaces	2005	10	\$18,000.00
Exterior - Replace Roof (Low Slope Roofing System)	2005	25	\$270,000.00
Interior - Replace Appliances (Common Area Kitchen)	2005	15	\$5,000.00
Interior - Replace Appliances (FD Kitchen)	2005	15	\$10,000.00
Interior - Replace Water Heater	2016	10	\$11,000.00
Interior - Replace HVAC Equipment	2005	20	\$258,000.00
Interior - Replace Elevator	2005	25	\$50,000.00
Interior - Replace Windows	2005	25	\$152,000.00
Interior - Replace Window Coverings	2005	20	\$13,000.00
Interior - Kitchen Remodel (Common Area Kitchen)	2005	20	\$15,000.00
Interior - Kitchen Remodel (FD Kitchen)	2005	20	\$20,000.00
Interior - Replace Fire Suppression System	2005	50	\$112,000.00
Interior - Replace Carpet	2005	15	\$85,000.00
Interior - Replace Linoleum	2005	25	\$30,000.00
Interior - Replace Tile	2005	25	\$45,500.00
Interior - Paint Walls	2005	15	\$65,000.00
Interior/Exterior - Replace Doors	2005	50	\$132,500.00
Interior/Exterior - Replace Rollup Doors	2005	25	\$83,000.00
Electrical - Replace Light Fixtures	2005	20	\$75,000.00
Electrical - Replace Phone System	2005	15	\$55,000.00
Electrical - Replace IT Hardware	2005	8	\$40,000.00
Demo and Reconstruct Building	2005	100	\$13,800,000.00



Capital Improvement Plan (CIP)

- Planned System Expansion and Capacity Projects (District-Funded)
 - Water
 - Redundant Water Supply Project
 - Zone 1A PRV Station
 - East Booster Pump Station Replacement
 - Sewer
 - Truckee River Siphon Replacement
 - Sewer Flow Meter
- Future System Expansion and Capacity Projects (Developer-Funded)
 - Sewer Interceptor Replacement
 - Sewer Flow Meters
 - RSC Phase 2 PRV Station and Well 18-3R
 - VSVSP New Water Sources and Tank



Questions / Comments

