

Workshop

2020 System Evaluation and Capacity Assurance Plan Update

South Placer Municipal Utility District



Eric Nielsen, District Engineer

August 1, 2019

Agenda

- Objectives
- Preliminary Results
- Timeline
- Next Steps
- Process

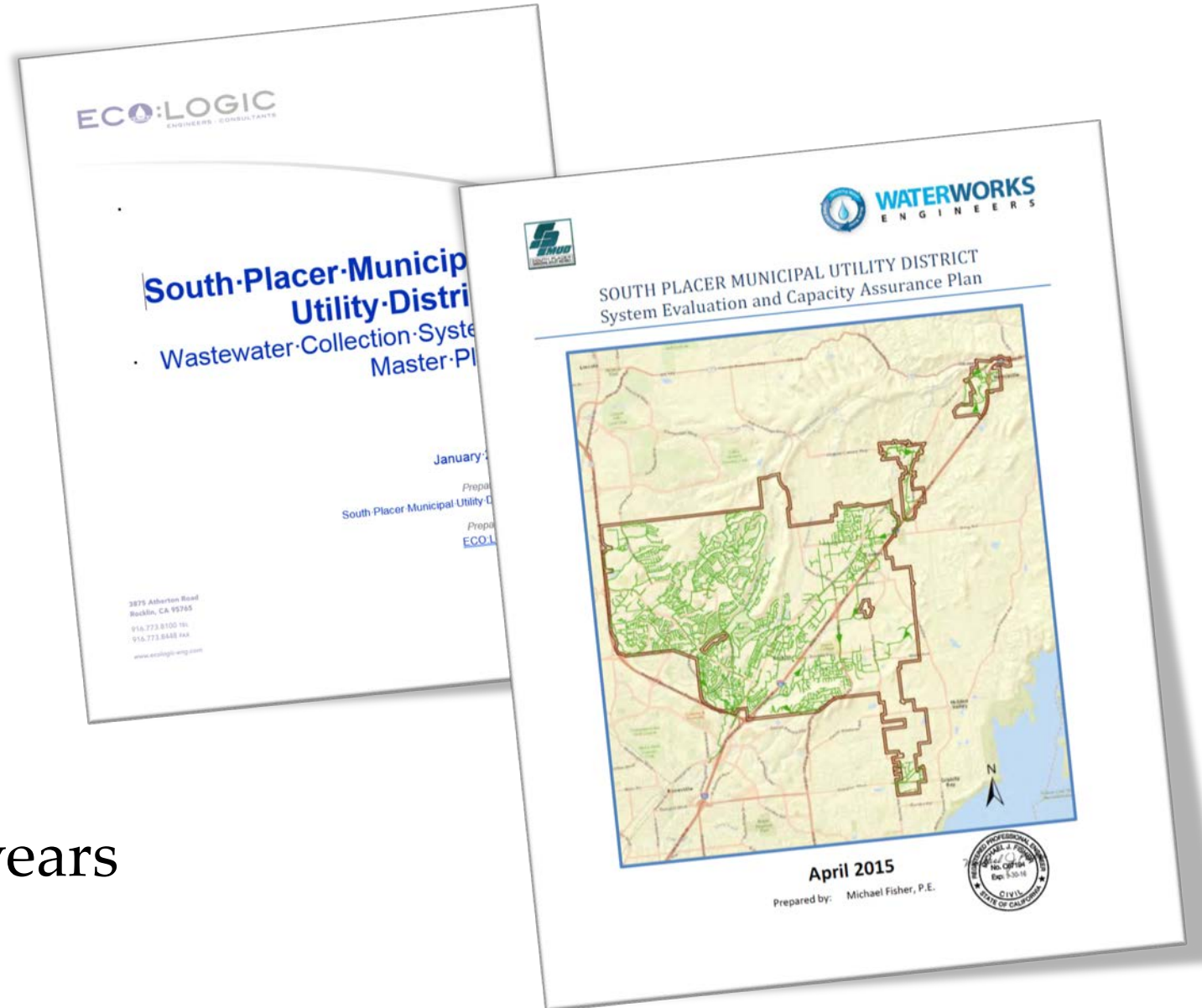
Objectives

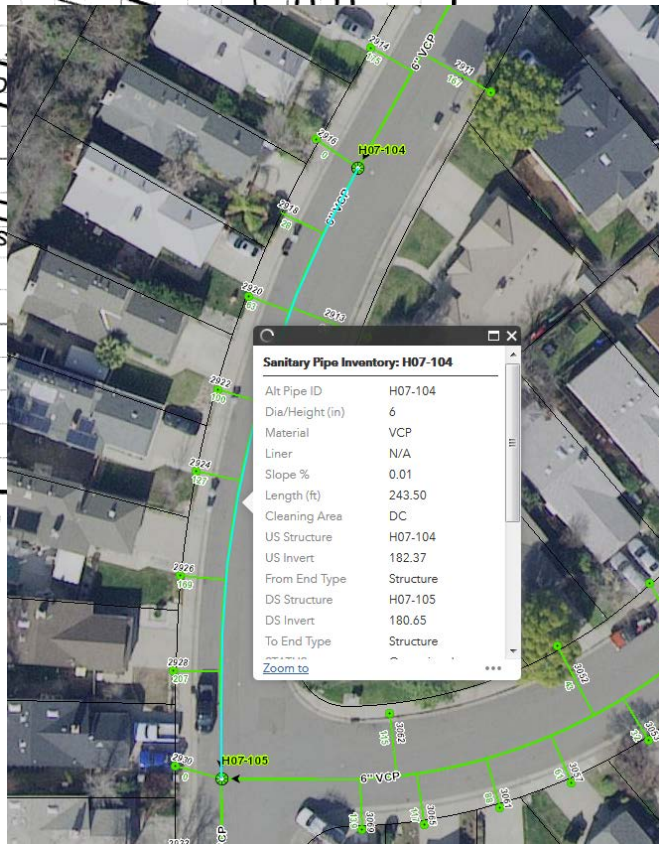
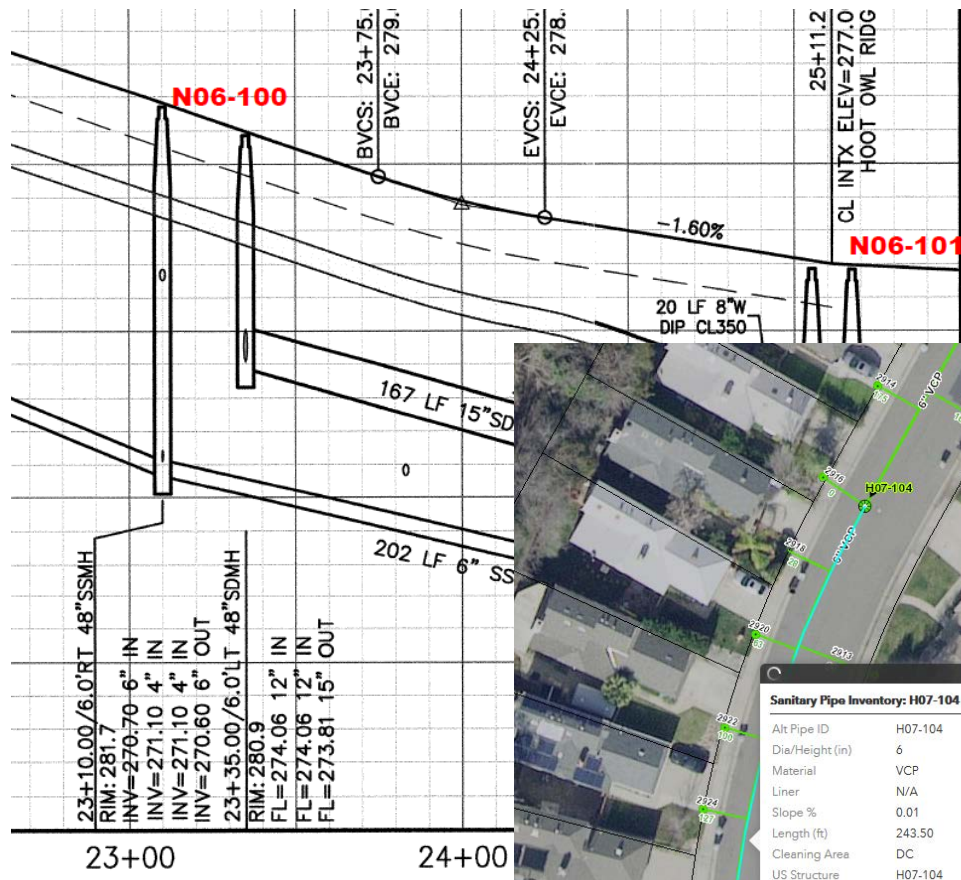
- Compliance
 - General Waste Discharge Reqs
 - Nexus Study
- Sustainability
 - Repeatable process
- Leverage investments in technology



Timeline

- 2009
 - Master Plan
- 2015
 - SECAP
- 2020
 - SECAP Update
- Update SECAP every 5 years

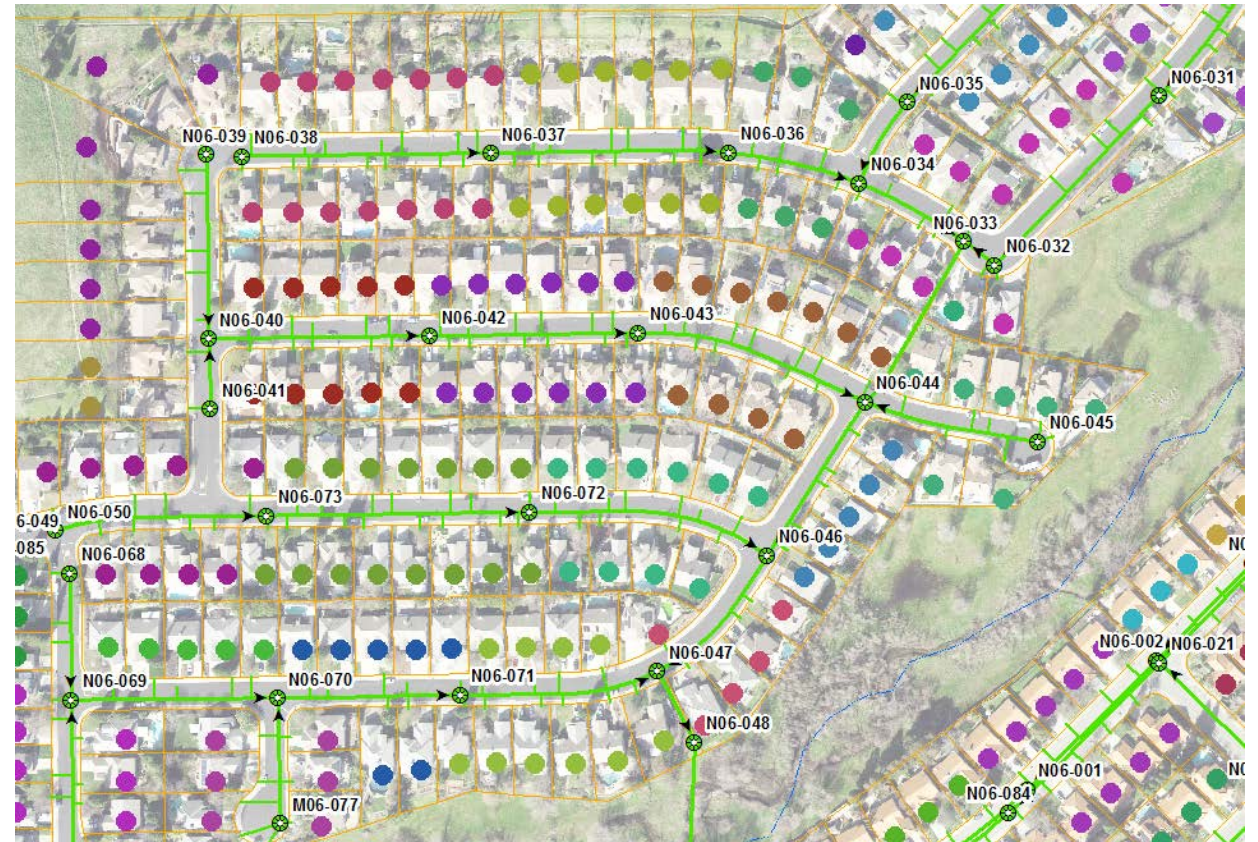
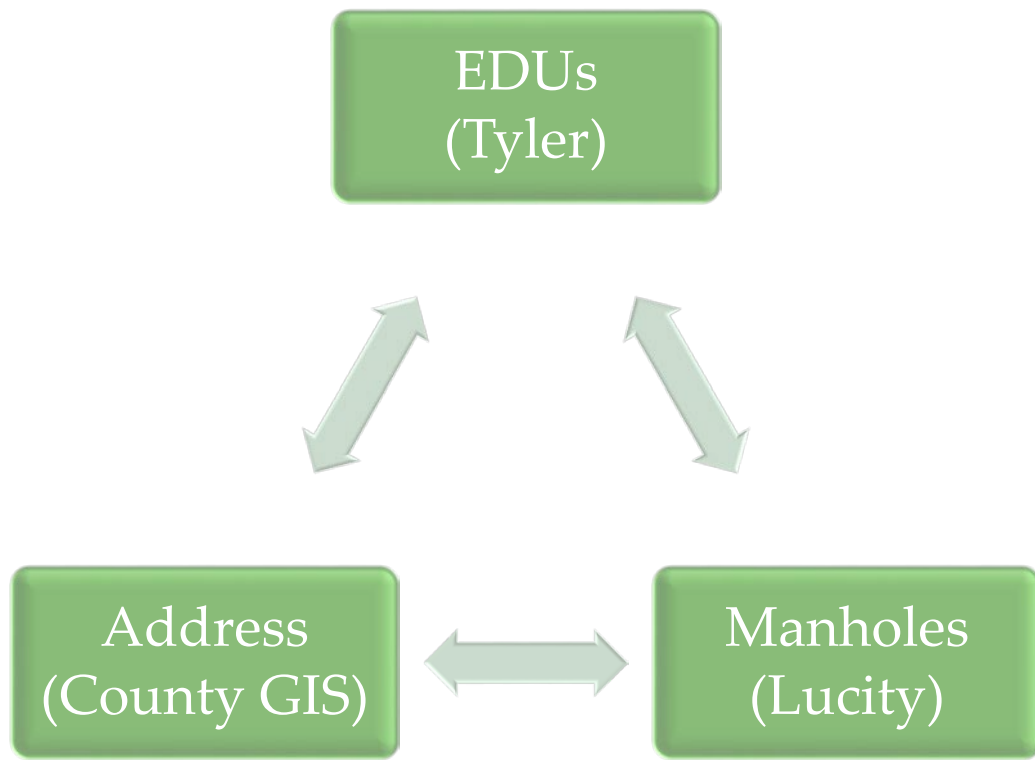




Physical Model

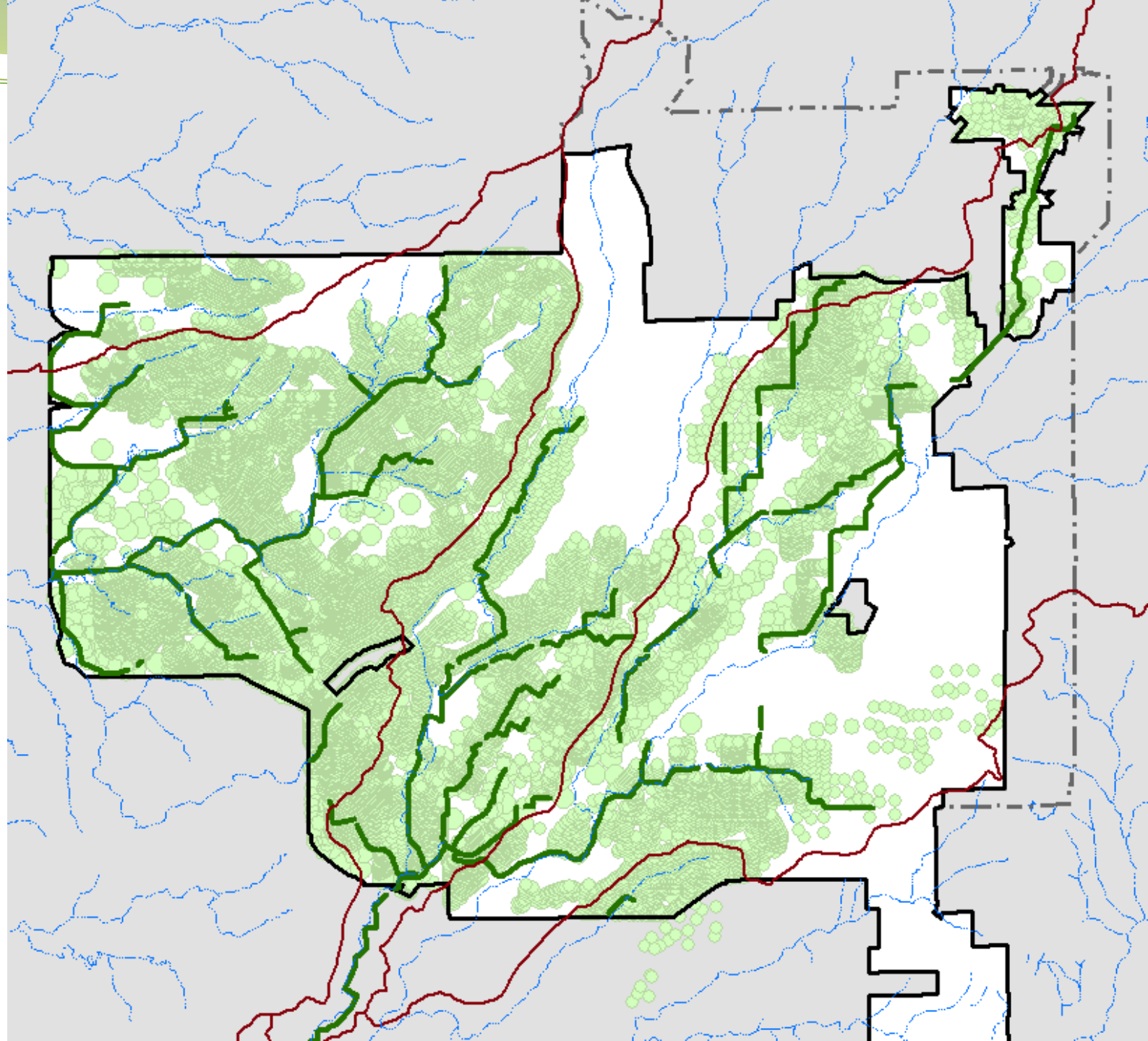
- Model all pipes in system
- Data input
 - pipe invert elevations
 - manhole rim elevations
- Stored in GIS for other uses

Hydraulic Loading



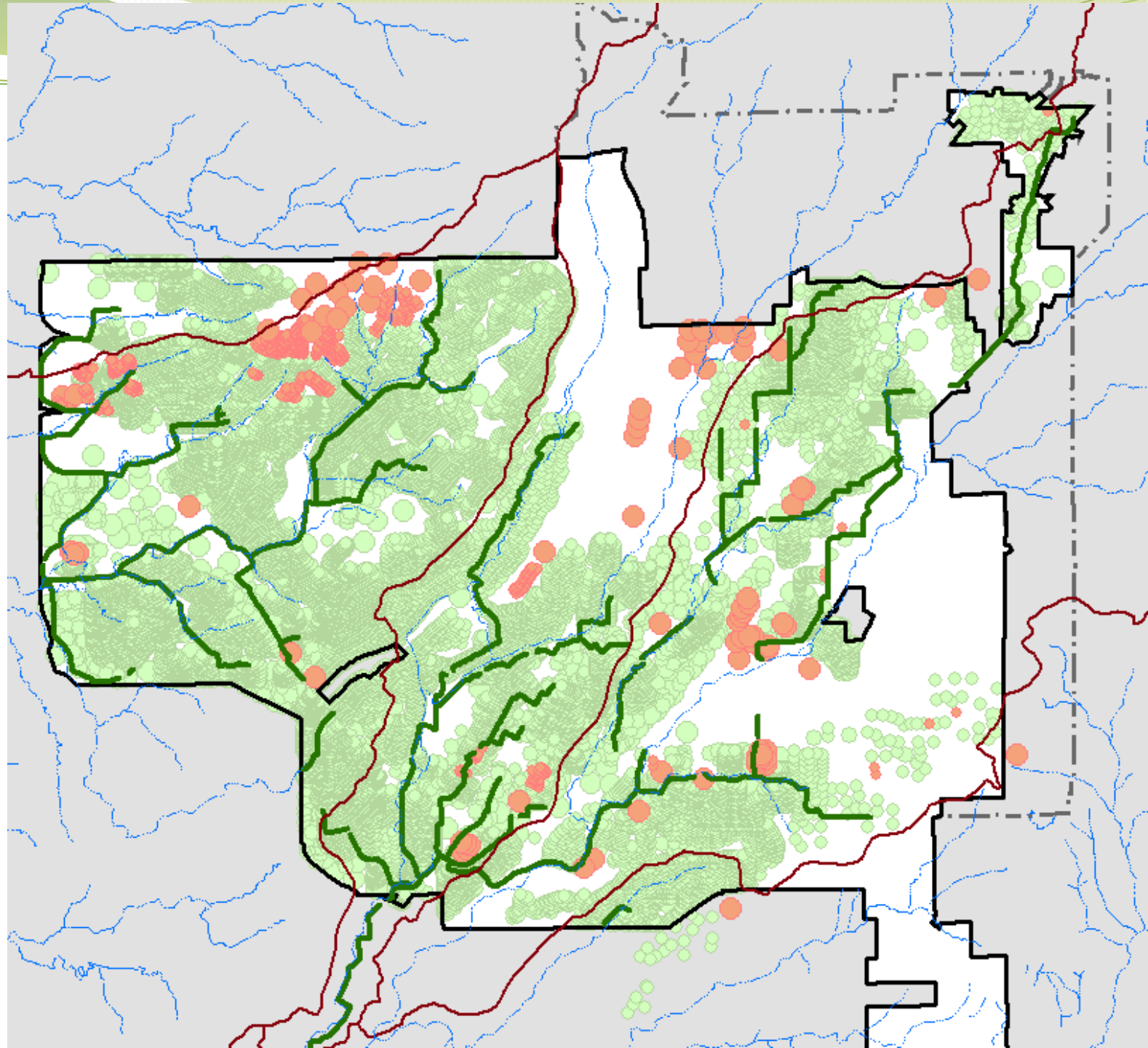
Existing

- Year 2020
- Calibrate against flow recorder data
- 190 gpd/EDU
 - (same as SPWA)



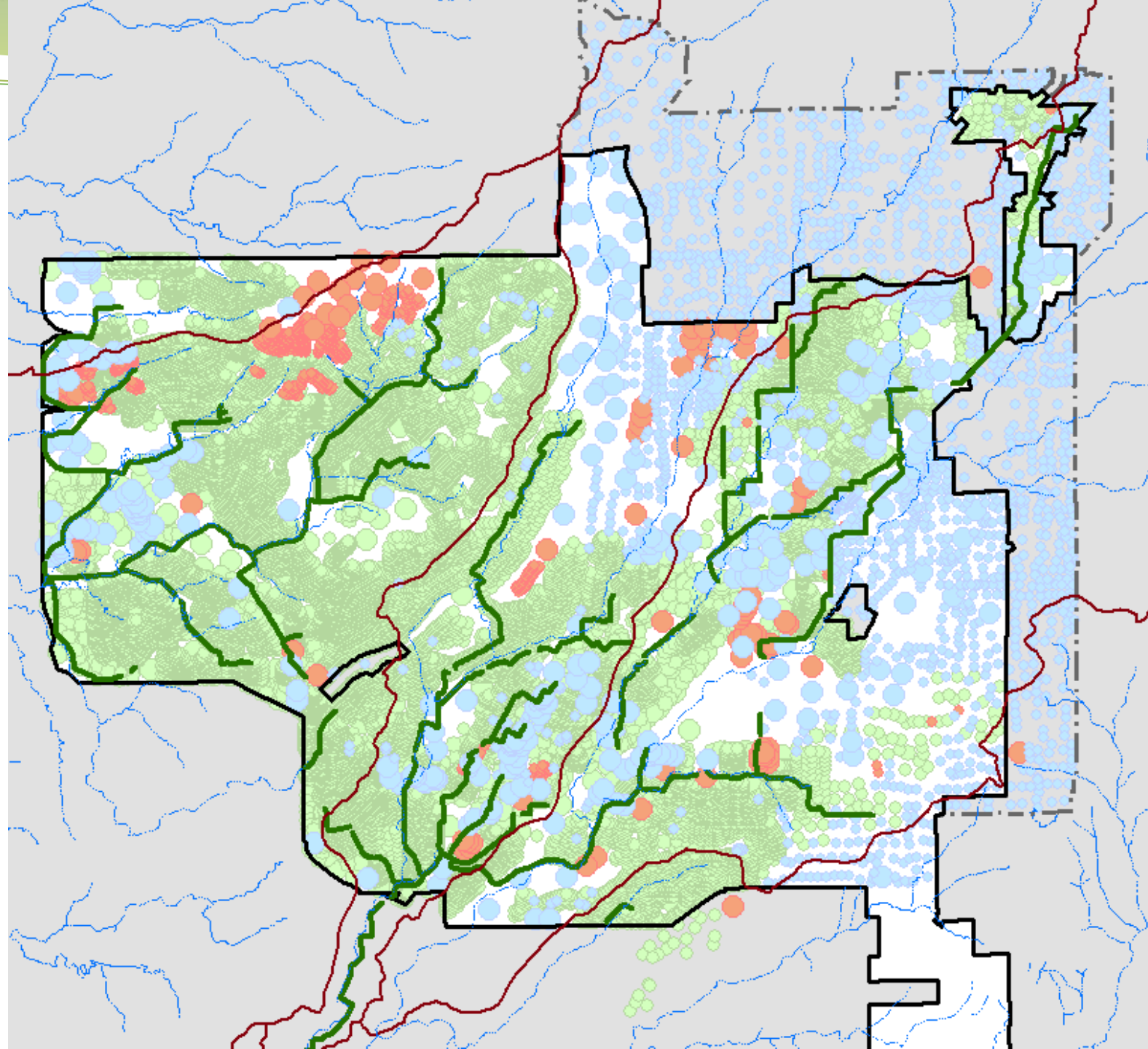
Near-Term

- Year 2025



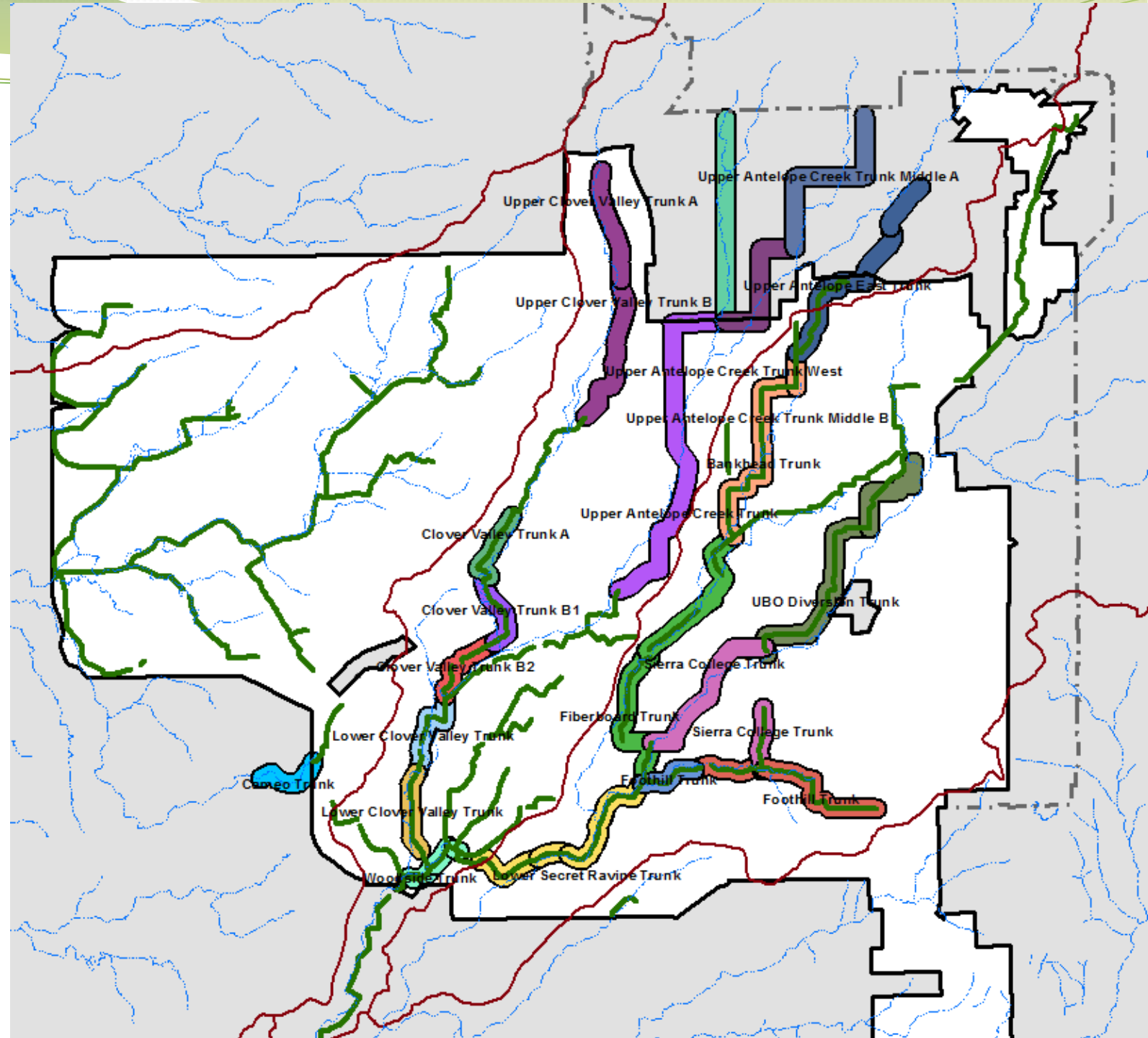
Long-Term

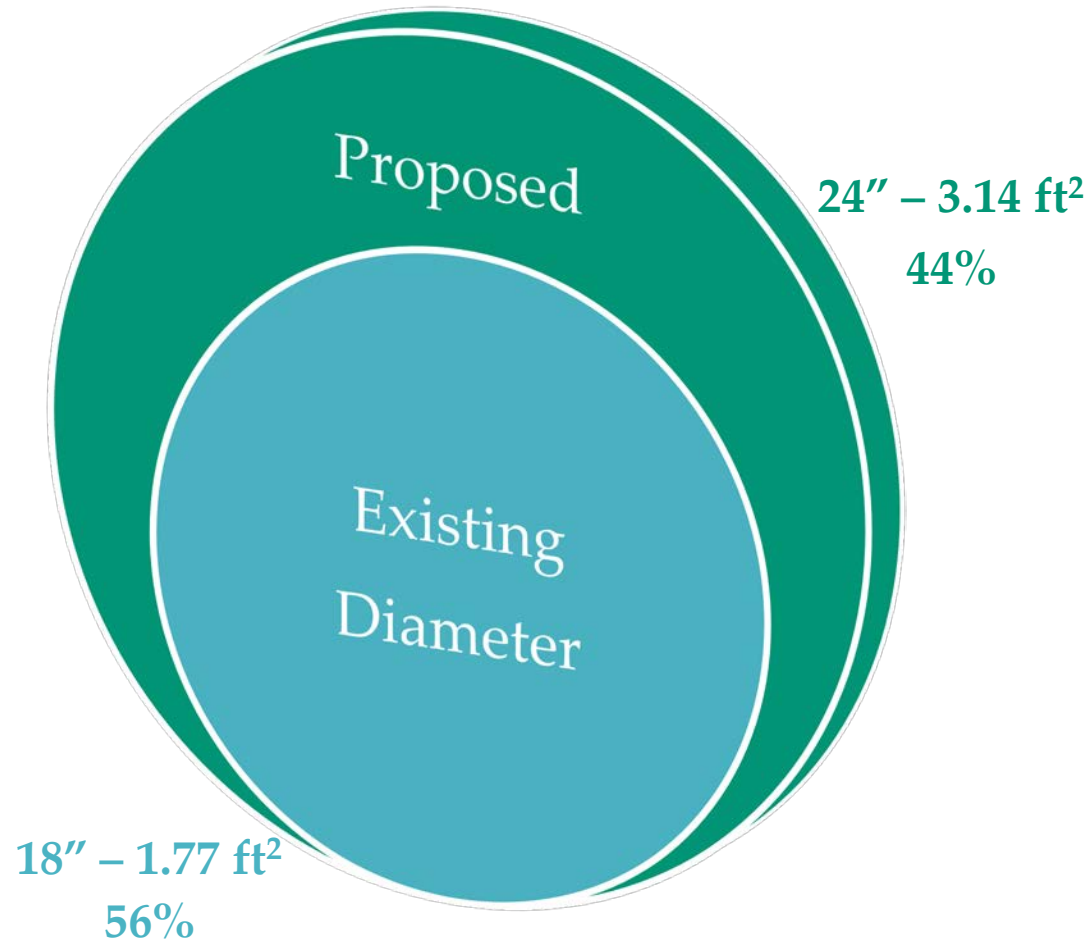
- Year 2060
 - (same as SPWA)
- Urban Growth Area (UGA)
 - (same as SPWA)



Projects

- To provide needed capacity for planned growth





Project Costs

- Based on adopted Schedule of Values
- Split between
 - Fund 300 - SECAP
 - Fund 400 - R&R
 - Cross-sectional area based



Project Costs

- New Projects
- Updates
 - Review timing
 - Revisit naming

Near-Term System Improvements

	Existing Diameter	Proposed Diameter	Length	2020 SECAP Cost	2020 R&R Cost	2020 Total Cost
Boyington Diversion	10"	12"	3,240	\$ 370,639	\$ 842,361	\$ 1,213,000
Clover Valley A	8"	15"	6,250	\$ 1,928,422	\$ 766,578	\$ 2,695,000
Clover Valley B	10"	18"	3,260	\$ 1,058,469	\$ 472,531	\$ 1,531,000
Foothill	12"	24"	2,275	\$ 2,140,000	\$ 1,000,000	\$ 3,140,000
Lower Clover Valley	18"	24"	5,174	\$ 2,396,625	\$ 3,081,375	\$ 5,478,000
				\$ 7,894,155	\$ 6,162,845	\$ 14,057,000

Long-Term System Improvements

Upper Antelope Creek East	8"	10"		\$ 144,000	\$ 256,000	\$ 400,000
Bankhead	12"	15"	9,575	\$ 1,227,600	\$ 2,182,400	\$ 3,410,000
Fiberboard A	15"	18"	6,260	\$ 690,556	\$ 1,569,444	\$ 2,260,000
Fiberboard B	18"	21"	6,735	\$ 992,776	\$ 2,749,224	\$ 3,742,000
Lower Clover Valley A	18"	24"	3,730	\$ 1,018,500	\$ 1,309,500	\$ 2,328,000
Lower Clover Valley B	24"	27"	3,115	\$ 354,691	\$ 1,335,309	\$ 1,690,000
Lower Loomis Diversion	18"	21"	11,945	\$ 1,331,837	\$ 3,688,163	\$ 5,020,000
Sierra College	15"	18"	2,400	\$ 378,889	\$ 861,111	\$ 1,240,000
Foothill A	10"	12"	5,300	\$ 507,833	\$ 1,154,167	\$ 1,662,000
Foothill B	15"	24"	2,720	\$ 1,034,719	\$ 663,281	\$ 1,698,000
Lower Secret Ravine A	24"	30"	4,680	\$ 1,173,600	\$ 2,086,400	\$ 3,260,000
Lower Secret Ravine B	27"	36"	4,000	\$ 1,385,125	\$ 1,780,875	\$ 3,166,000
Woodside A	24"	30"	1,165	\$ 274,320	\$ 487,680	\$ 762,000
Woodside B	30"	36"	1,150	\$ 260,333	\$ 591,667	\$ 852,000
				\$ 10,774,778	\$ 20,715,222	\$ 31,490,000

New Trunk Sewers

Sierra College Trunk	-	18"	6300	\$ 4,536,000	\$ -	\$ 4,536,000
Cameo Trunk	-	15"	2600	\$ 1,170,000	\$ -	\$ 1,170,000
Upper Clover Valley A	-	8"	8,130	\$ 1,310,000	\$ -	\$ 1,310,000
Upper Clover Valley B	-	10"	7,040	\$ 2,112,000	\$ -	\$ 2,112,000
Upper Antelope Creek West	-	8"	7,850	\$ 1,260,000	\$ -	\$ 1,260,000
Upper Antelope Creek Middle A	-	8"	7,900	\$ 1,270,000	\$ -	\$ 1,270,000
Upper Antelope Creek Middle B	-	10"	5,170	\$ 1,551,000	\$ -	\$ 1,551,000
Upper Antelope Creek	-	15"	15,200	\$ 6,840,000	\$ -	\$ 6,840,000
Brace Road East	-	12"	27,500	\$ 9,900,000	\$ -	\$ 9,900,000
Brace Road Pump Station			EA	\$ 3,000,000	\$ -	\$ 3,000,000
				\$ 32,949,000	\$ -	\$ 32,949,000



2020 SECAP	2020 SECAP Cost	2020 R&R Cost	2020 Total Cost
Construction	\$ 51,617,934	\$ 26,878,066	\$ 78,496,000
30% Contingency	\$ 15,485,380	\$ 8,063,420	\$ 23,548,800
10% Design	\$ 5,161,793	\$ 2,687,807	\$ 7,849,600
Total	\$ 72,265,107	\$ 37,629,293	\$ 109,894,400



Participation Fee

Total SECAP Improvement Costs	\$ 72,265,107
Existing CIP Fund Balance 2019 (includes NSD debt)	- \$ 22,440,000
Funds needed for SECAP Improvements	\$ 49,825,107
Additional EDUs (2060)	12,500
Resulting Participation Fee	\$ 3,986

Current Fee = \$ 4,014

Next Steps

- Complete Modeling Efforts
 - Verify list of SECAP projects
 - Verify project costs
- Complete SECAP Report
- Complete Nexus Study
 - FY 20-21 fees based on results

