

Fallbrook Plant Nurseries Recycled Water Distribution System Expansion

June 6, 2017

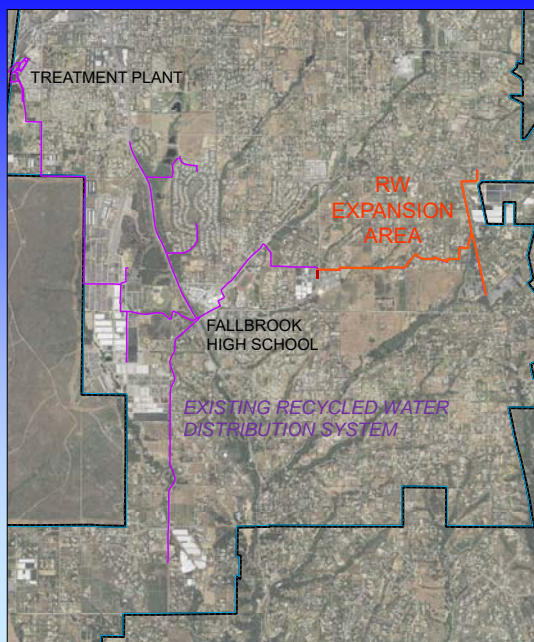
FPUD Recycled Customers

- Goodearth Nursery
- Silverthorne Nursery
- ColorSpot Nursery (Recently Expanded Service)
- Olive Hill Nursery
- Olive Hill Greenhouses (Recently Added)
- Roseland Nursery (Recently Added)
- Premier Color Nursery
- Fallbrook Sports Park
- Fallbrook Youth Baseball
- Fallbrook High School
- Peppertree Park HOA
- Mission Road Median
- Fallbrook Airpark
- Mission Oaks HOA
- California Department of Transportation (Caltrans)
- Orange Grove Energy

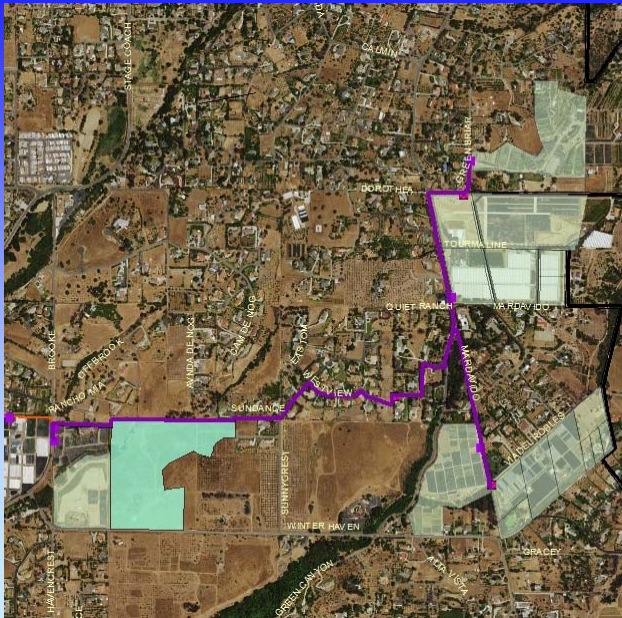
FPUD Historical Recycled Usage

	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Total
WWTP Influent Flow (AF)	172	156	168	156	167	158	161	158	151	152	156	163	1918
Recycled Water Sales (AF)	33	30	40	56	70	72	78	80	78	60	36	26	660
% Monthly Sales of Total Sales	4.9%	4.5%	6.1%	8.5%	10.6%	11.0%	11.9%	12.1%	11.8%	9.2%	5.5%	3.9%	
Unused Recycled Water (AF)	140	126	127	100	97	85	82	79	73	91	120	137	1258
% Recycled Usage	19%	19%	24%	36%	42%	46%	49%	50%	52%	40%	23%	16%	34%

Fallbrook Recycled Water Distribution System



**RW
Distribution
Expansion
Area
&
New
Nursery
Customers**



Summary of Project

- Installed 10,200 ft of 12-inch PVC Pipe.
- Staff Support for Retrofit, Design and Construct 4 New Nursery RW Meters.
- Installed 3 New Nursery Meters.
- Last Meter Scheduled for July 2017.

Construction Photographs



Goals of Project

- Reduce Potable Water Demands
 - Convert Large Users to Recycled Water
 - Commercial Nursery Operations
 - Reduce Imported Water Purchases
 - Decrease Net Diversions from Bay-Delta
 - Contribute to 20x2020 Goals

- Local Supply Development
 - Increase Recycled Water Usage & Sales
 - Reduce Vulnerabilities

Goals of Project

- Environmental Benefits
 - Reduce Net Production of Green House Gases.
 - Avoid Social Costs of GHG Emissions
 - Reduce Discharge to Ocean Outfall
 - Reduce Need for Fertilizer
- Reduce Costs for Agriculture Users.
 - Access to Non-Interruptible Water Source
 - Reduced Water Costs for Agricultural Users by 14.5% from M&I Water costs.
 - Decrease Need for Fertilizer

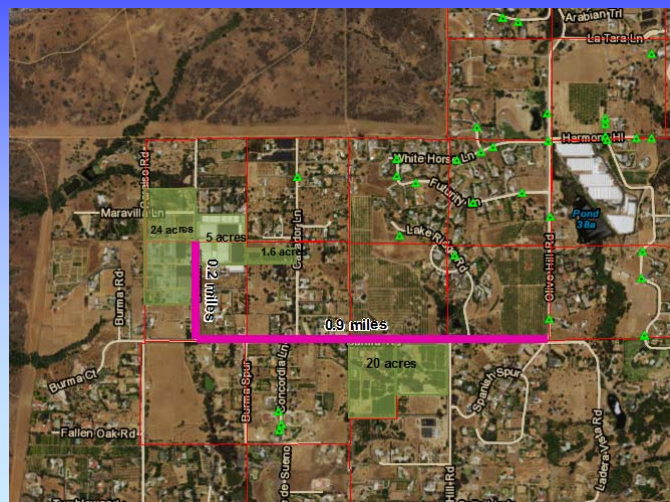
FPUD Projected Recycled Usage

	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Total
WWTP Influent Flow (AF)	172	156	168	156	167	158	161	158	151	152	156	163	1918
Current Recycled Water Sales (AF)	32	26	39	59	59	59	69	61	65	46	22	21	557
Project Additional Usage (AF)	32	29	39	55	68	70	76	77	76	59	35	25	642
Total Projected Sales (AF)	63	55	79	113	127	130	145	138	141	105	57	45	1199
Maximum Potential Usage (Maximum Month - 95%)	70	59	87	129	131	131	152	134	144	101	48	45	1232
Unused Recycled Water (Ocean Disposal) (AF)	103	98	81	27	36	27	8	24	7	50	108	117	686
% Maximum Recycled Usage	40%	37%	52%	83%	78%	83%	95%	85%	95%	67%	31%	28%	64%

Results of Project

- All Pipe and appurtenances are installed.
- Meters are installed.
- Project Monitoring Report for Goals
 - Will provide measurements with respect to Project Goals.
 - Will be reported on an annual basis for 5 years.

Future Planning



Lessons for Other Project Sponsors

- Providing Recycled Permitting Assistance
- Benefits for TSAWR Customers

Questions