

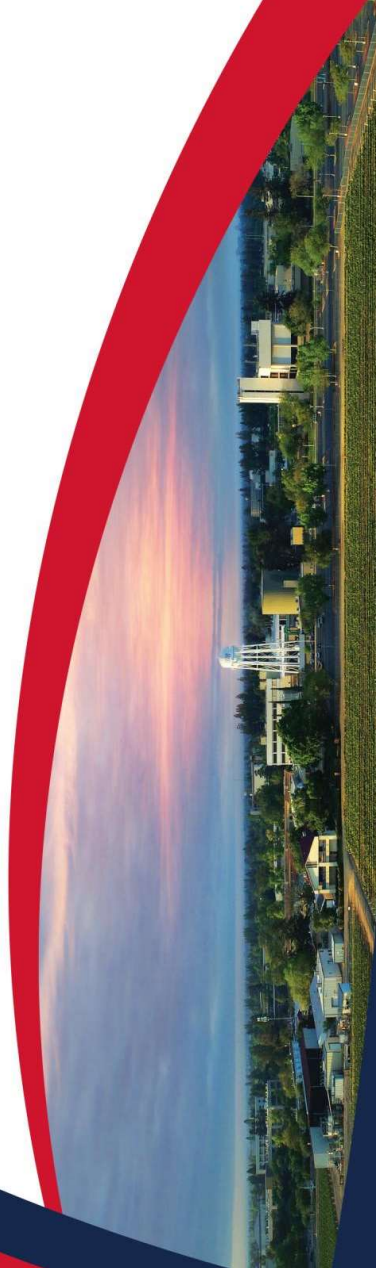


FRESNOSTATE

California Water Institute

System Consolidation as a Solution for Water Contamination in Disadvantage Communities

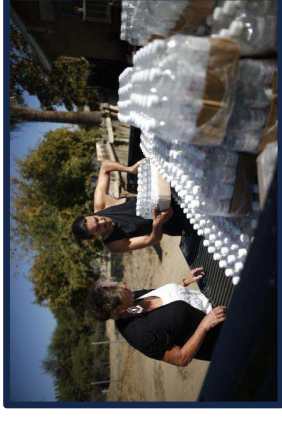
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www.californiawater.org

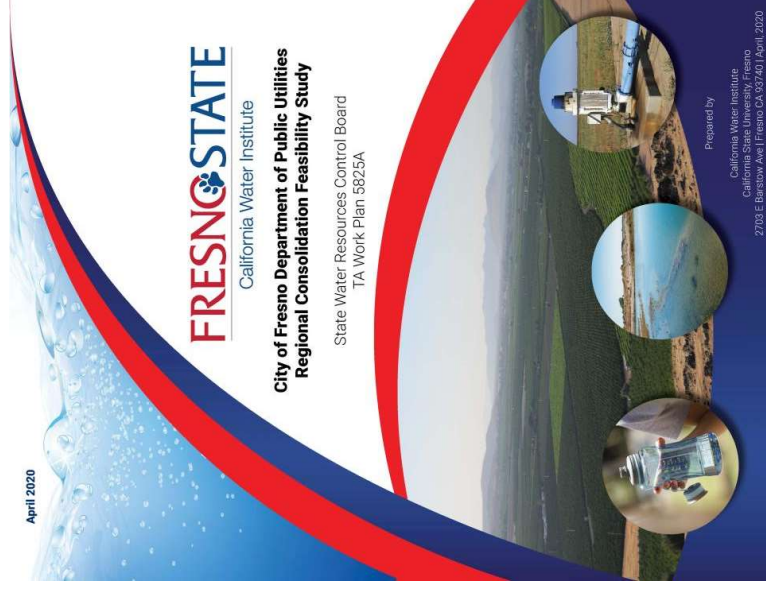
Public Water Systems in California

1. Public water systems serving California (39.6 million residents)
7,897 total water systems
 - a. 6,745 (85-percent) serve 1,000 persons or less
 - b. 4,056 (51-percent) serve 100 persons or less
2. Public water systems serving the San Joaquin Valley (4.2 million residents)
1,976 total water systems
 - a. 1,768 (89.5-percent) serve 1,000 persons or less
 - b. 1,022 (51.7-percent) serve 100 persons or less



Consolidation

1. Conduct Feasibility Study (technical, operational, and financial feasibility – Preliminary Go/No Go Decision)
2. Negotiate Extra-Territorial Service Agreement (***City and Small System***)
3. Negotiate Incentives (***Water Board and City***)
4. Designate an Applicant to serve at Lead Agency for Consolidation
 - a. Small Water System
 - b. City of Fresno
5. Conduct Preliminary Engineering (Technical Assistance Grant)
6. Conduct Final Design, Service During Construction, Startup Testing, Project Closeout (Construction Grant)

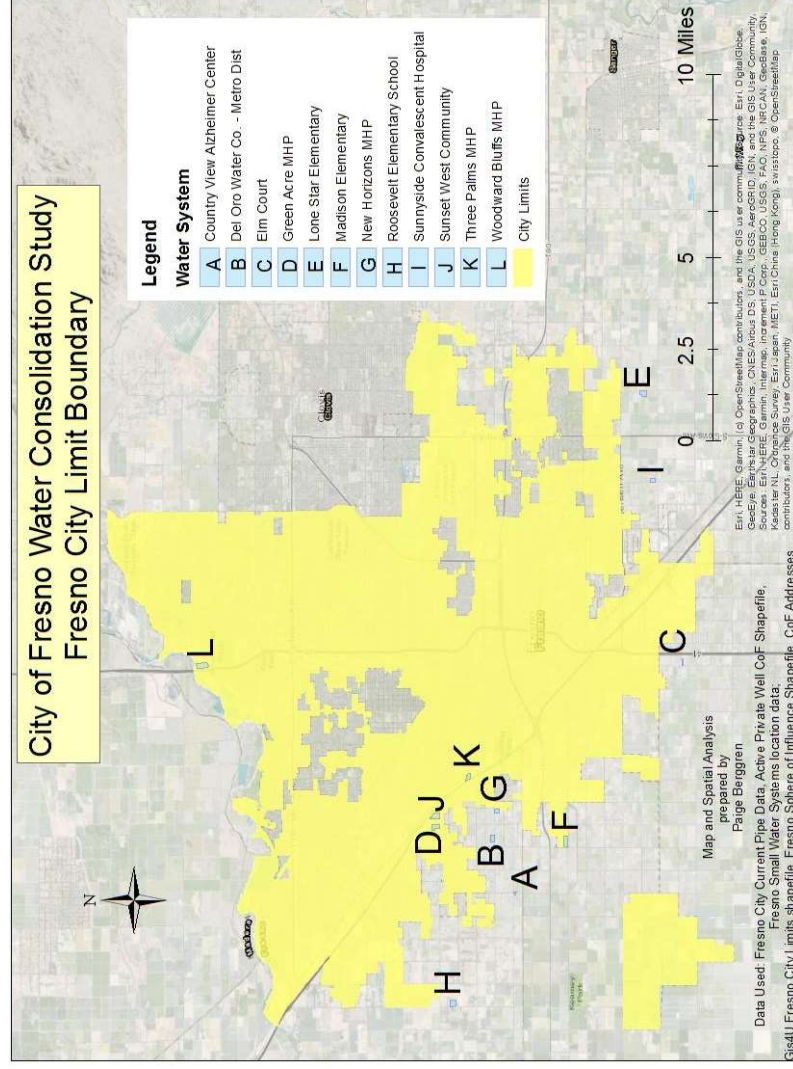


Potential Benefits

- No certified operator cost
 - No monthly utility cost to pump water
 - No water sampling requirements
 - No reporting requirements to Department of Drinking Water
 - Annual inspections
 - Annual reports
 - Any upcoming changes/requirements to water systems
 - No well maintenance
- Well Replacement if/when well fails
 - Need to haul water in case well goes dry or is irreparable
 - Concerns over water quality:
 - *Current and future changes to the water contaminant list*
 - Free up personnel regarding maintaining/ensuring safe drinking water standards
 - Economies of Scale

Monthly Water Bill Comparisons			
Water Bill Factors/Costs	Small Water System (29 Connections)	City of Fresno (133,000 Connections)	Cost Differential, %
Monthly Meter Charge	\$26.74	\$13.50	98.07%
Usage Charge, \$/HCF	\$2.27	\$1.74	30.23%
Total Water Bill @ 6 HCF	\$40.34	\$23.94	68.49%
Total Water Bill @ 12 HCF	\$53.93	\$34.38	56.87%
Total Water Bill @ 18 HCF	\$67.53	\$44.82	50.66%

System Name	Water Board Concern
Green Acres MHP	Single well vulnerability
New Horizons MHP	Single well vulnerability
Elm Court	Single well vulnerability
Woodward Bluffs MHP	Single well vulnerability
Three Palms MHP	MCL violation (1,2,3-TCP), single well vulnerability
Sunnyside Convalescent	Single well vulnerability
Sunset West MHP	Two wells, but single well vulnerability exists for systems
Country View Alzheimer Center	Single well vulnerability
Madison Elementary	Single well vulnerability
Del Oro Metropolitan	MCL violation (1,2,3-TCP), single well vulnerability
Lone Star Elementary	Single well vulnerability
Roosevelt Elementary	Single well vulnerability



Consolidation Options

- Option A – No action
- Option B – Direct Connection
- Option C – Looped Connection

Consolidation Method Direct-Connect vs Looped Connect

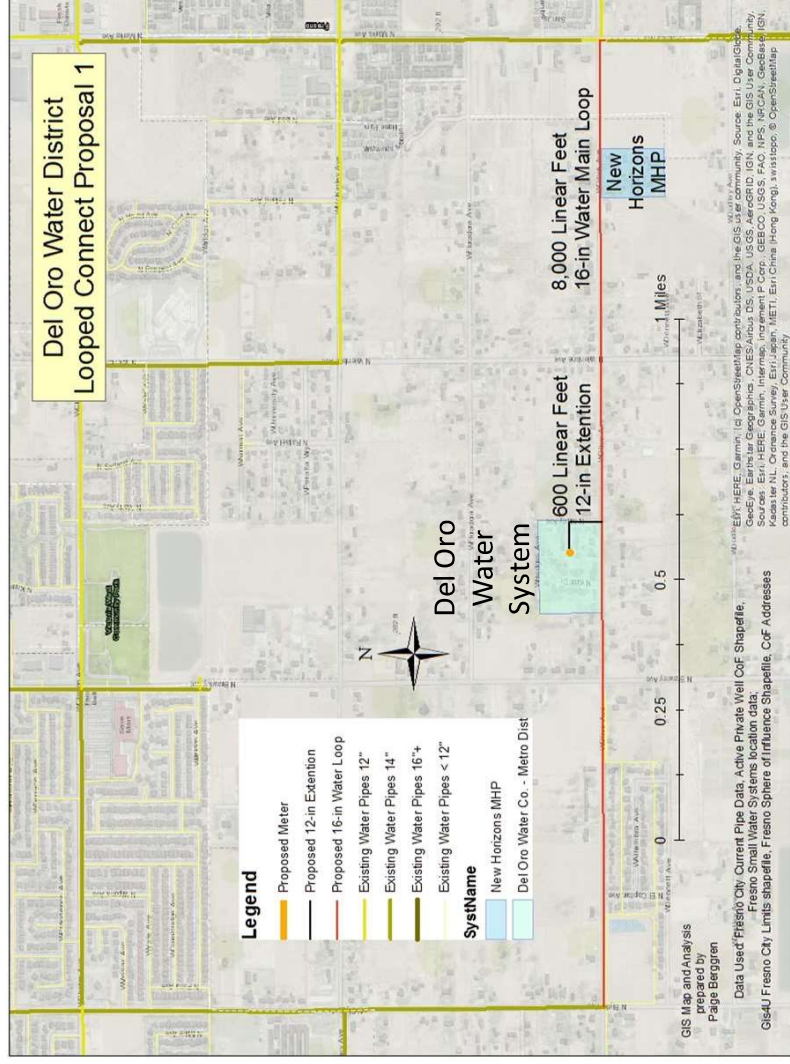
Capital Cost Comparison

- Direct = \$875,000
- Looped = \$2.1 million

Eligible Funding = \$785,000
(@ \$30,000 per service connection)

Preliminary Assessment

- Looped and Direct technically feasible
- Looped not financially feasible
- Direct not operationally feasible



Estimated water charges for consolidation

Water Charge Description	Cost
Water Capacity Fee	\$ 268,836
Water Supply Development Fee	\$ 122,888
Total Annual Meter Charges (fixed)	\$ 8,460
Total Annual Water Use Charges (variable)	\$ 9,330
Total Annual Water Charges	\$ 17,790
20-Year Cummulative Annual Water Charges	\$ 478,026

Estimated Capital Costs

Item Description	Looped Connect (Del Oro)	Looped Connect (Fresno)
16-inch Water Line Install	\$ 728,000	\$ 728,000
12-inch Water Line Install	\$ 48,000	\$ -
8-inch Water Line Install	\$ -	\$ 160,800
Water Meter and Service Line Installation	\$ 20,000	\$ 290,000
Subtotal - Direct Construction Cost	\$ 796,000	\$ 1,178,800
General Conditions (15%)	\$ 119,400	\$ 176,820
Contingency (30%)	\$ 238,800	\$ 353,640
Subtotal - Total Construction Cost	\$ 1,154,200	\$ 1,709,260
Engineering Legal Admin (25%)	\$ 288,550	\$ 427,315
Total Estimated Capitol Cost	\$ 1,442,750	\$ 2,136,575

Types Funding Available

- Planning grants
 - Population less than 10,000
 - Community MHI lower than 80% of Statewide MHI
 - Funding is based on service connections – 29 for Del Oro
- Construction grants

Potential State Funding

1. The **eligible funding** available for water system consolidations is defined annually in the Water Board's Intended Use Plan (IUP).
2. The Water Board's IUP for Fiscal Year **2019-2020** indicates the following for **eligible funding**:
 - a. The construction project financing limitation for a public water system extending water service to a small disadvantaged community is \$30,000 per connection.
 - b. Consolidation projects that provide regional benefit can be eligible for up to \$60,000.

Updated IUP at

https://www.waterboards.ca.gov/water_issues/programs/grants_loans/docs/dwsrf_iup_fact_sheet_final.pdf

Potential State Funding – Del Oro

- Based on **2019-2020** IUP's
 - \$875,000 based on initial construction limitations of \$30,000 per connection or
 - \$1.7 million if the consolidation project provides regional benefits for more than one small water system.

Water System Consolidation Process

- ✓ Conduct Feasibility Study (*technical, operational, and financial feasibility – Preliminary Go/No Go Decision*)
2. Letter of intent to State Water Board
3. Evaluate potential economic savings
 - a. Validate water usage
 - b. Validate potential water system cost savings
4. Negotiate Agreement (**City and Small System**)
5. Designate an Applicant to serve at Lead Agency for Consolidation
 - a. Small Water System
 - b. City of Fresno
6. Apply for Funding
 - a. Conduct Preliminary Engineering (Technical Assistance Planning Grant)
 - b. Conduct Final Design, Service During Construction, Startup Testing, Project Closeout (Construction Grant)

Questions