SANTA CRUZ COUNTY
ENVIRONMENTAL HEALTH

Feasibility Analysis for Small Water System Consolidation

Water Advisory Commission Meeting
April 2, 2025

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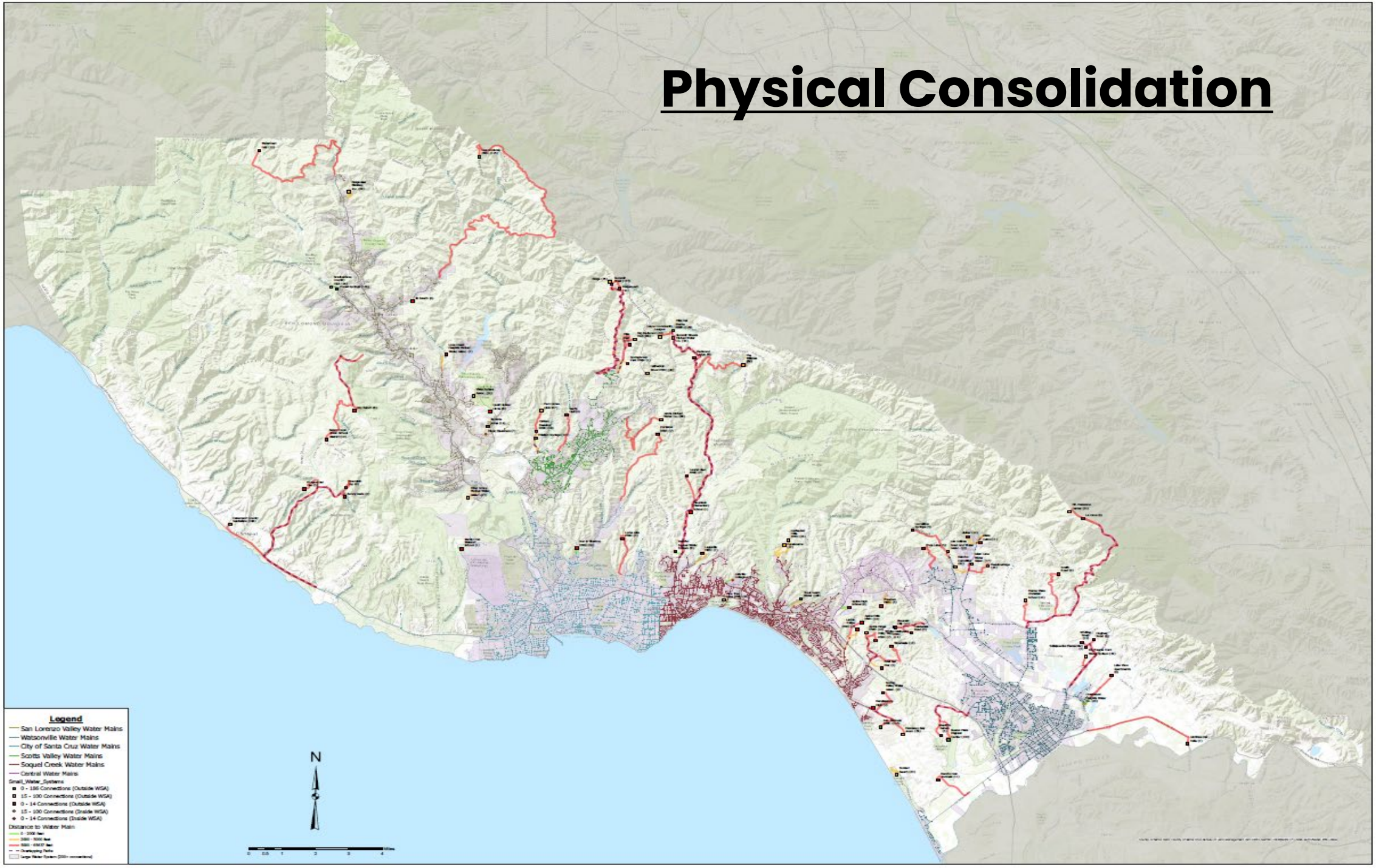
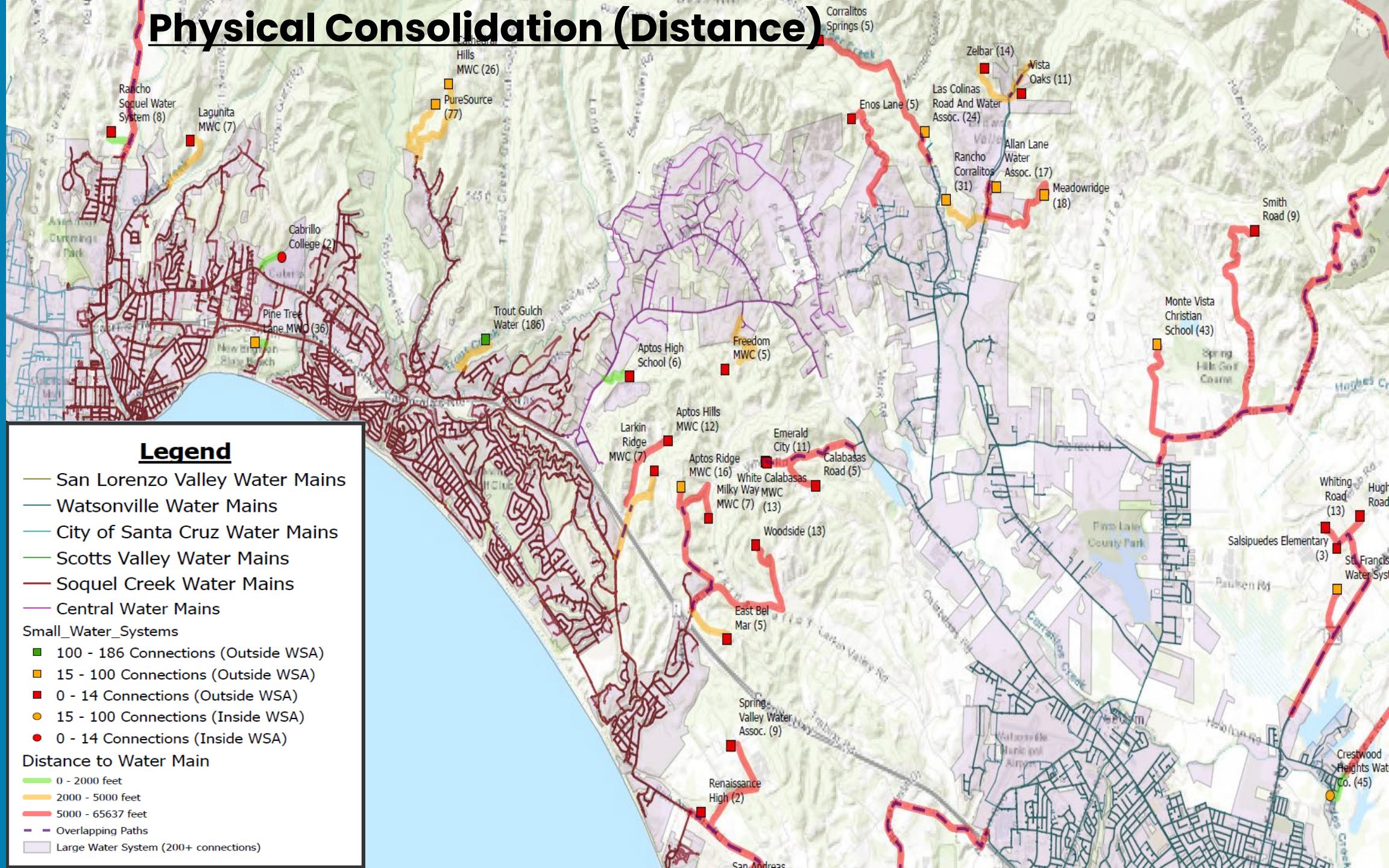
Overview of Feasibility Analysis Performed

1. Physical Consolidation
   - Assess opportunities for connecting small public water systems to larger, more established systems.
     - Sinks (85 total): State Small Water Systems(5-14 connections), Public Water Systems (15-199 connections, excluding business and campgrounds)
     - Sources (6 total) : Large Water Systems (200+ connections)
2. Managerial (TMF) Cooperation
   - Integrates administration and operations, including shared billing, equipment, and staff to streamline operations and reduce costs.
     - Involves travel time between Public Water Systems (74 total).
3. Proximity Analysis
   - Involving distance between Individual Water Systems (1-4 connections) and Large Water Systems

Physical Consolidation



Physical Consolidation (Distance)



Legend

- San Lorenzo Valley Water Mains
- Watsonville Water Mains
- City of Santa Cruz Water Mains
- Scotts Valley Water Mains
- Soquel Creek Water Mains
- Central Water Mains

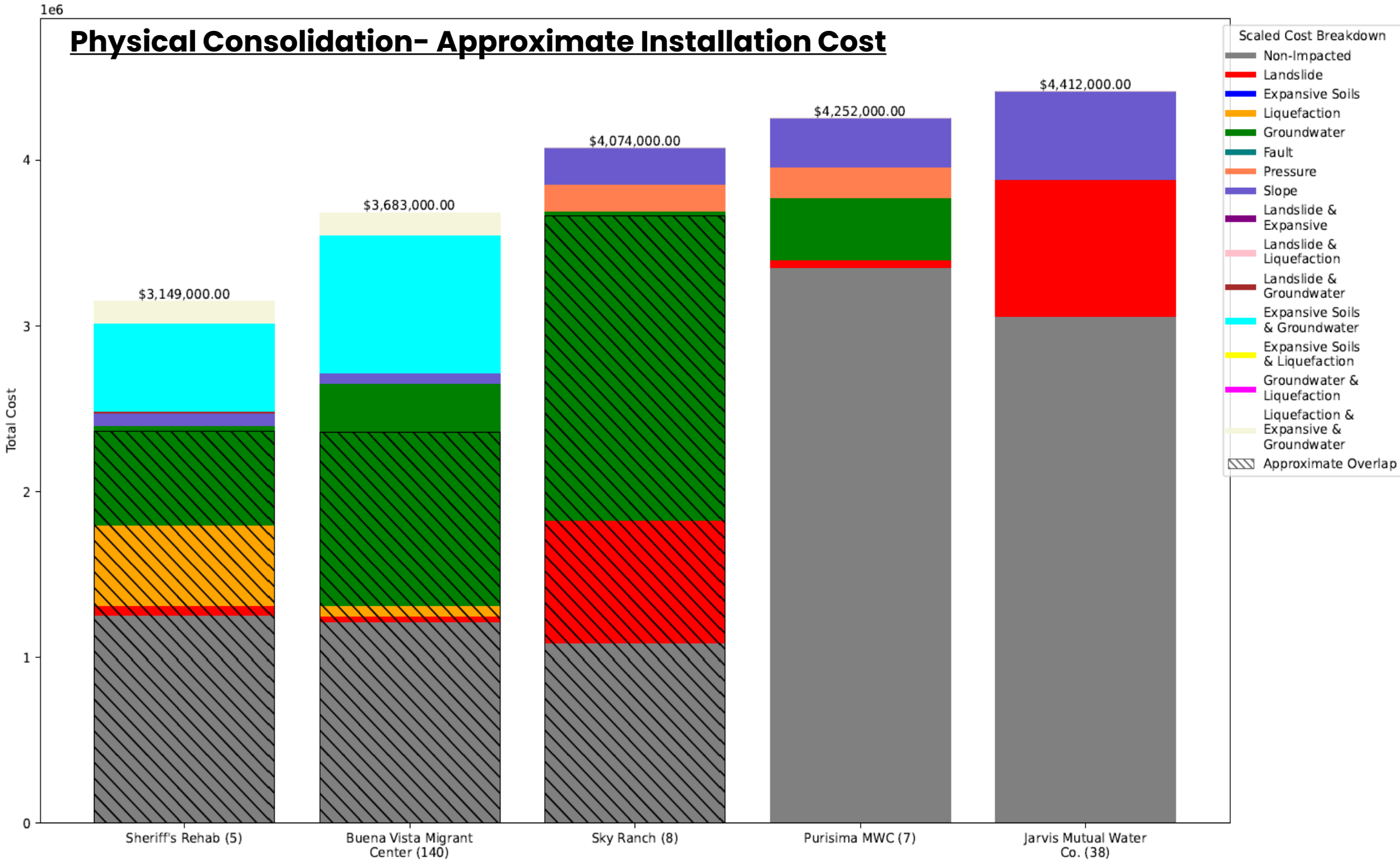
Small_Water_Systems

- 100 - 186 Connections (Outside WSA)
- 15 - 100 Connections (Outside WSA)
- 0 - 14 Connections (Outside WSA)
- 15 - 100 Connections (Inside WSA)
- 0 - 14 Connections (Inside WSA)

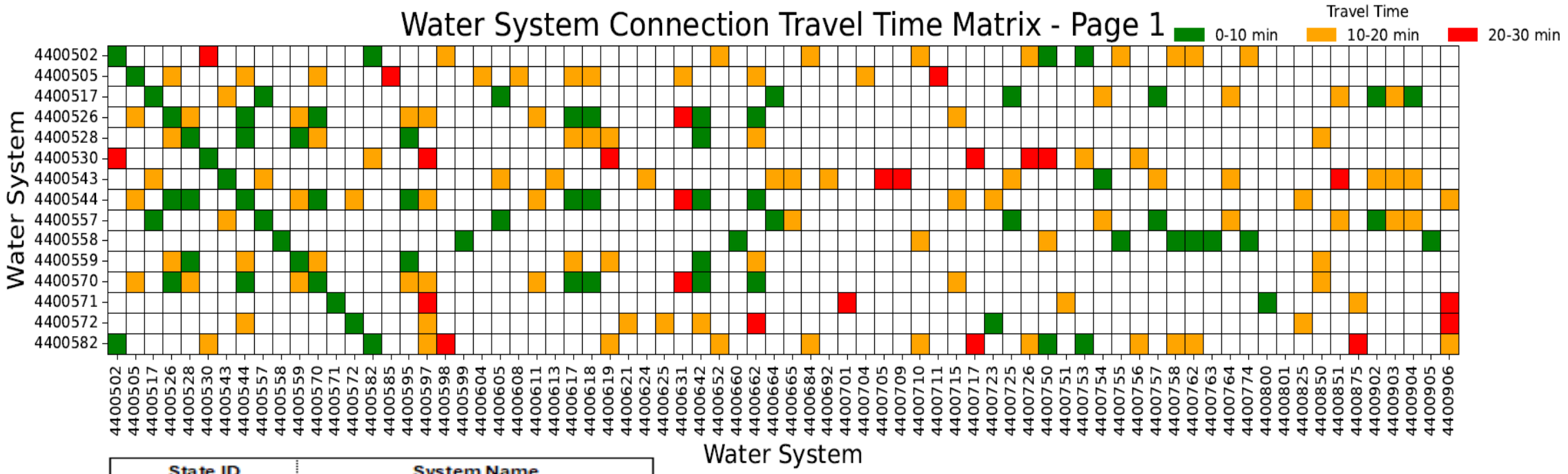
Distance to Water Main

- 0 - 2000 feet
- 2000 - 5000 feet
- 5000 - 65637 feet
- Overlapping Paths
- Large Water System (200+ connections)

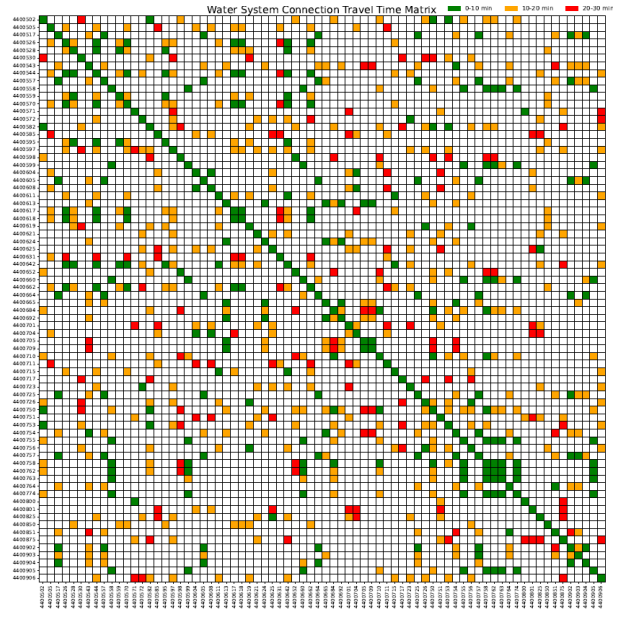
Physical Consolidation- Approximate Installation Cost



Managerial (TMF) Cooperation Opportunities



State ID	System Name
4400502	Trout Gulch Water
4400505	David Bruce Winery
4400517	Lake View Apartments
4400526	Big Redwood Park
4400528	Laurel Community League
4400530	Land Of Medicine Buddha
4400543	R&A Farms
4400544	Springbrook Park MWC
4400557	St. Francis Tract Water System
4400558	San Andreas MWC
4400559	Summit Woods Mutual Water Co.
4400570	Mtn Summit Water System
4400571	Davenport County Sanitation
4400572	Fern Grove Club
4400582	Pine Tree Lane MWC
4400585	Ridgeview Estates, Inc.



Small Water System Key Results and Takeaways

Physical Consolidation Feasibility:

- **Average cost:** $3.4M (median: $1.75M), ranging from $16K to $17M.
- **Primary cost driver:** Distance (median: 6,500 ft, avg: 12,500 ft).
- **Geotechnical constraints:** Impact 50% of total potential pipeline lengths, highlighting widespread challenges.
- **Regulatory context:** 3 small water systems are within a WSA and 19 are within a sphere of influence boundary administered by LAFCO.
- **Cost-saving opportunities:** 56 of 85 systems share pipeline paths, with an average overlap of 43%.

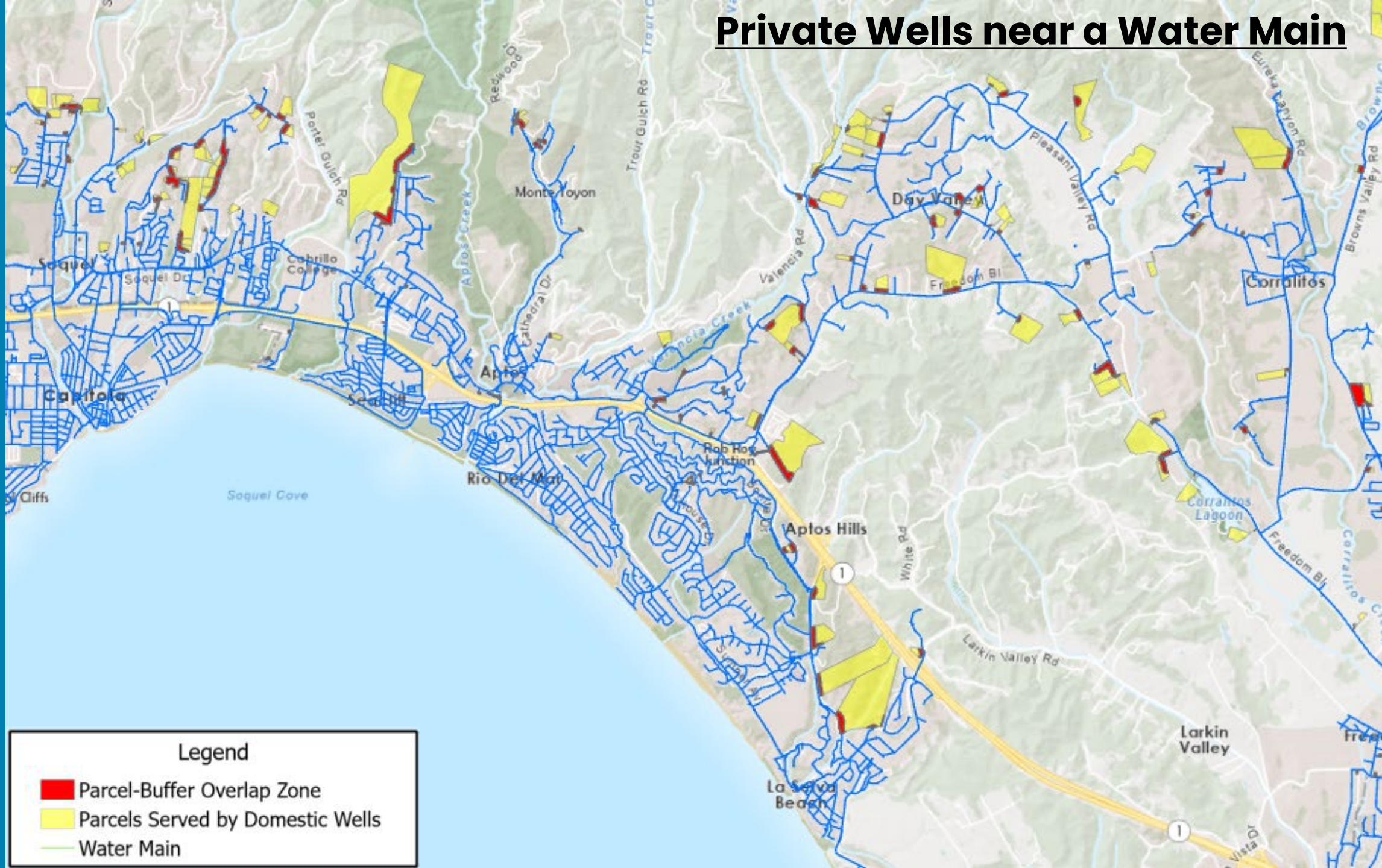
Managerial Cooperation Feasibility:

- **Proximity:** 61 of 74 public water systems have at least one potential managerial connection within 10 minutes.
  - 34 systems have three or more viable connections within 10 minutes.

Takeaways:

- Physical consolidation is costly and complex but may benefit from resource pooling.
- Managerial connections present a more immediate, cost-effective alternative considering the number of nearby systems.

Private Wells near a Water Main



Household Wells Key Results and Takeaways

Physical Consolidation Feasibility:

- Of the ~8,000 parcels served by a private well, 605 parcels were identified that had some portion of the parcel within 150’ of a large water suppliers water main
- There are likely fewer than 605 parcels that can be consolidated
- **Shared costs potential:** Multiple areas had clusters of household wells, which may allow for sharing connection costs.

Takeaways:

- Despite a small buffer zone, a significant number of parcels could feasibly be consolidated with a large water supplier