Planning Los Angeles's Non-potable Water Use Future

2011 CA/HI/NV Regional User Group Conference

February 23, 2011

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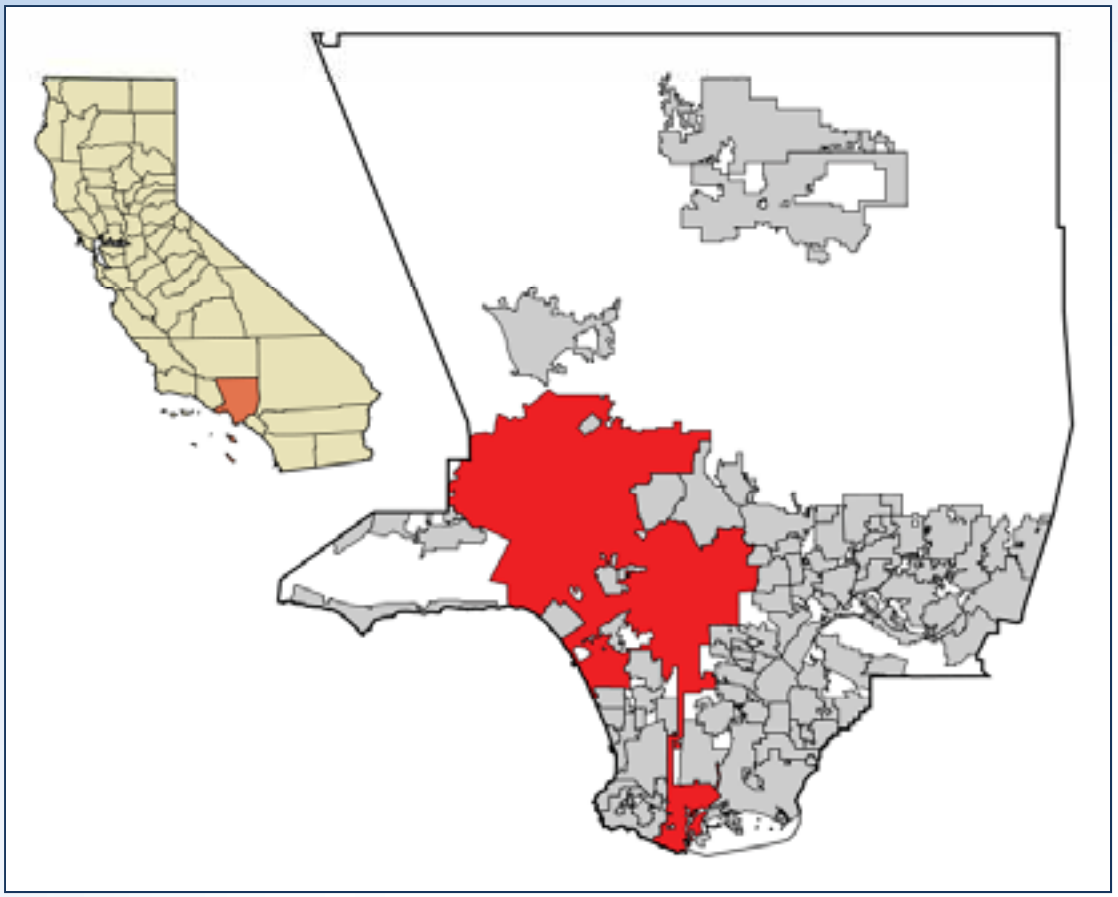
Outline

- Overview
- Existing recycled water system
- Customers
- Potential future non-potable system
- Potential partnerships

Overview: City of Los Angeles

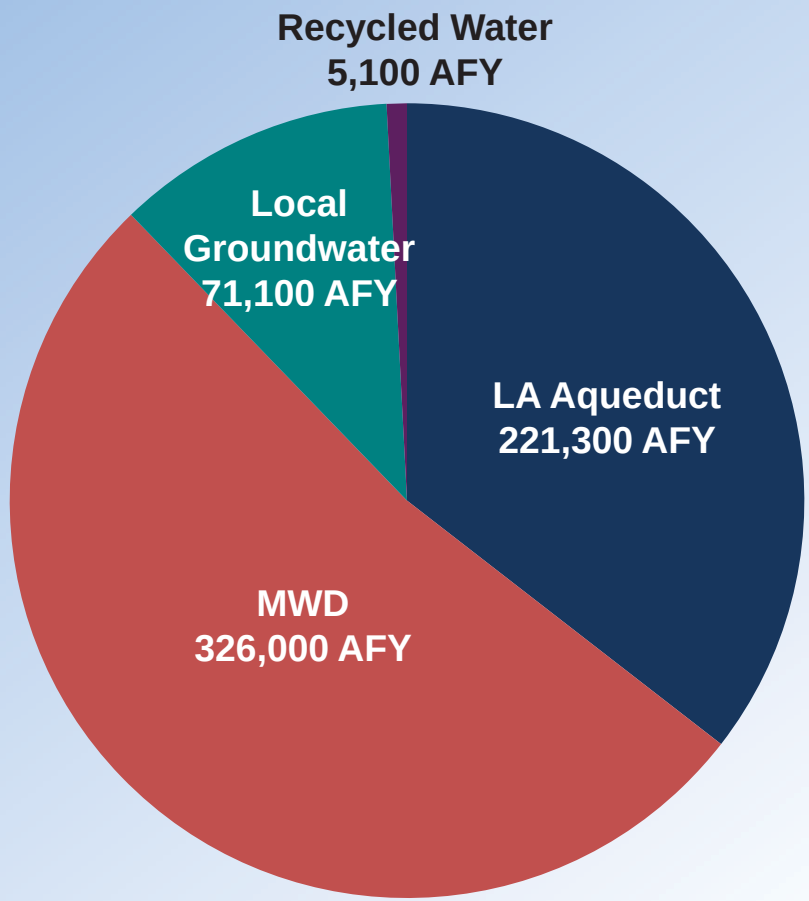
- 469 square miles in southern California
- Population of almost 4 million



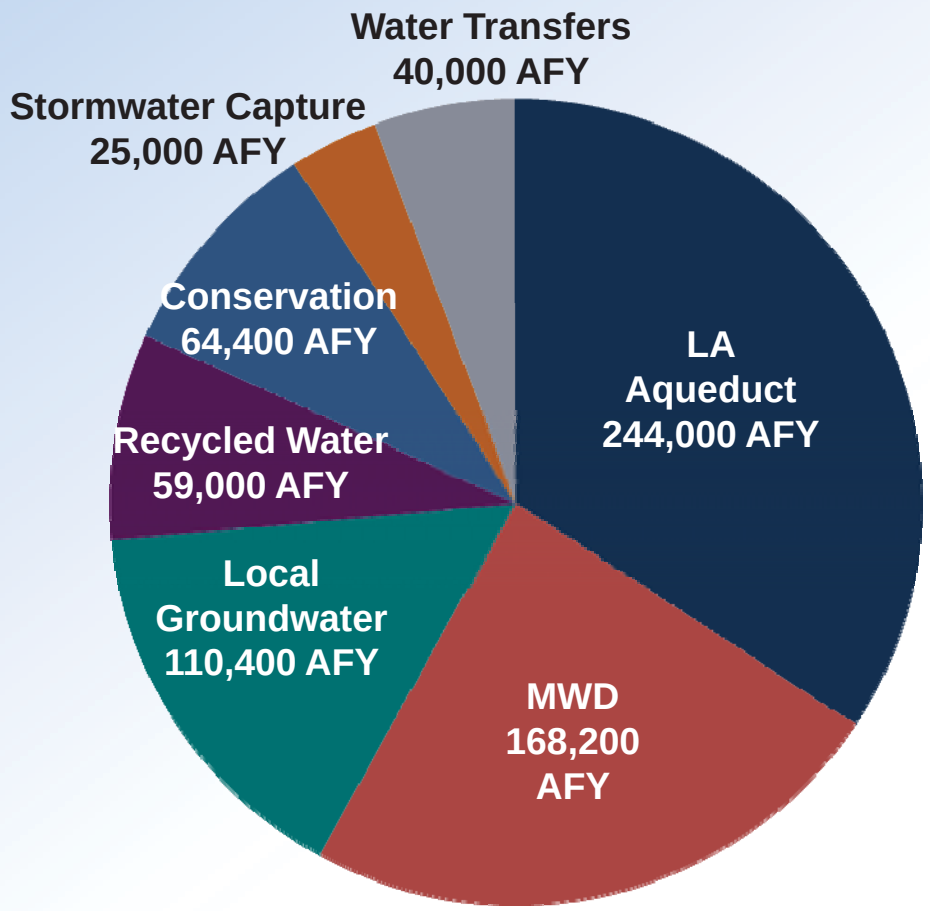
Overview: City Departments

- Los Angeles Department of Water and Power (LADWP)
  - Responsible for water service, including recycled water
- Los Angeles Department of Public Works, Bureau of Sanitation (BOS) & Bureau of Engineering (BOE)
  - Responsible for producing recycled water
  - Responsible for treating all City wastewater

Recycled Water will be an Integral Part of Los Angeles Future Water Supply



2006-2010 Average Demand: 623,500 AFY



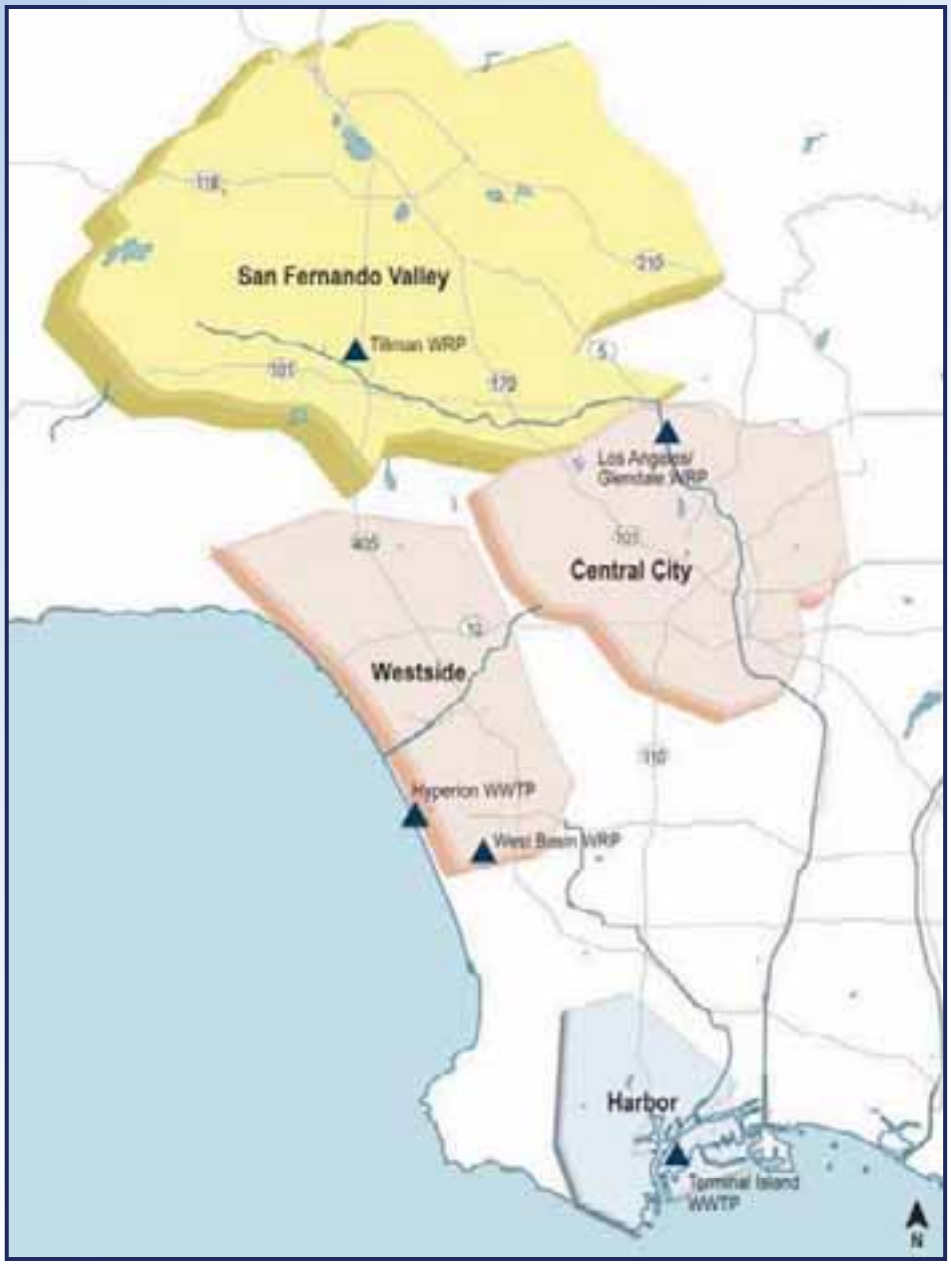
2035 Demand: 711,000 AFY

Recycled Water Plan Components

- Groundwater Replenishment Plan
- Non-Potable Reuse Plan
- Advanced Water Treatment Pilot Study
- Long Term Concept Report
- Existing System Reliability Report

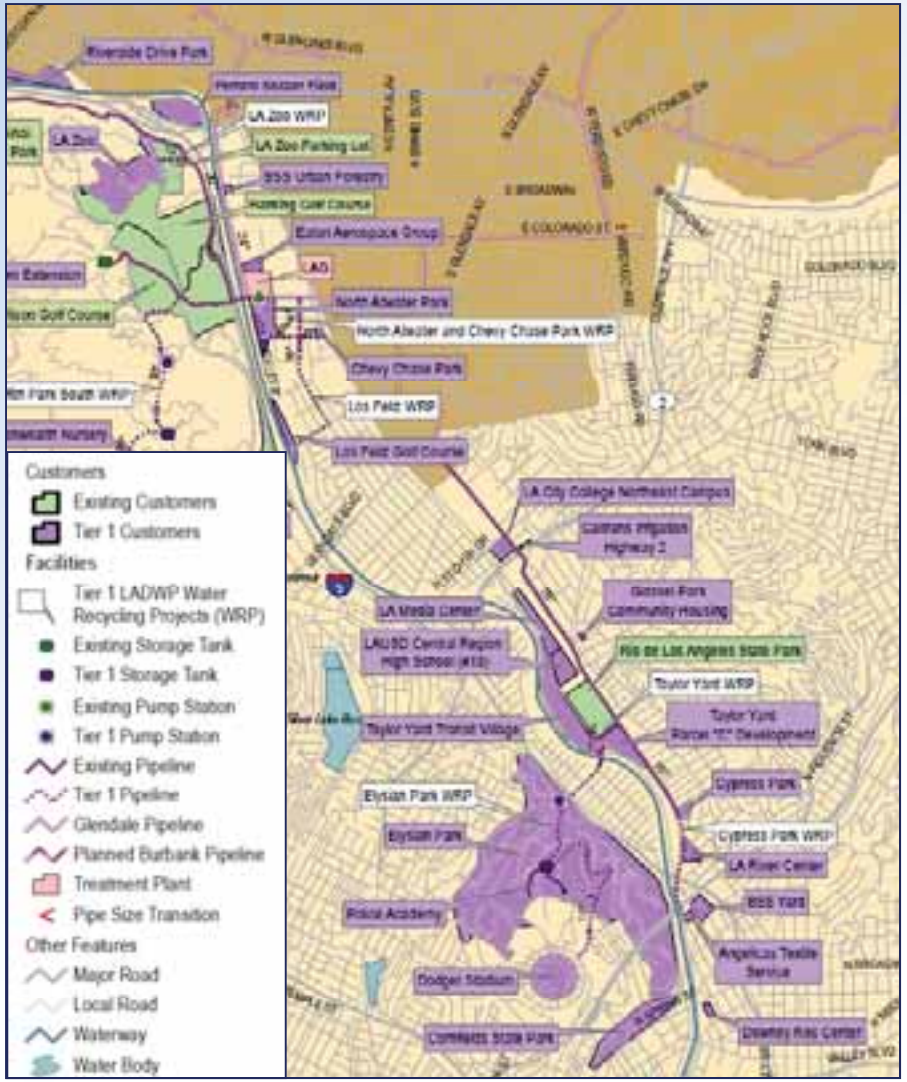
Non-potable Reuse Planning

- Optimize Customers
- Optimize Infrastructure
- Non-potable water uses: irrigation, cooling towers, commercial laundry, dust control, dual-plumbing, etc.



Existing Recycled Water System

- Created map of existing system and customers
- Challenges:
  - Provided both CAD and shapefiles of facilities
  - Most recent facilities not yet in shapefile
  - System components run by different agencies
  - No shapefiles of existing non-potable customers



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Non-potable Water Customers

- Mapped customers
  - Existing customer locations versus potential customers
  - Potential areas are for system expansion
- Challenges
  - Shapefile of potable meter points available, but very large
  - Potable customer database large, difficult to work with (around 200,000 accounts)

MTRNO	CONS1	CONS2	CONS3	CONS4
49186190	11	14	17	
90004252	16	16	21	
39876204	26	28	31	
50508255	34	29	30	
29923084	28	24	26	
50402232	26	24	33	
28924198	44	29	36	
49010408	19	21	32	
49109559	67	63	159	
49027541	51	42	45	
42806896	13	6	11	
31699618	34	32	31	
49256763	42	39	44	
49028758	30	29	32	
49028787	76	75	86	
49155128	54	55	67	
49028774	39	35	50	
33664217	46	44	56	
49139769	243	263	322	
31837325	85	95	106	
49128853	366	389	427	
49429201	105	95	107	
50802682	317	320	306	
49400401	84	70	107	
31608913	235	279	179	
90134893	73	77	77	
49156222	74	70	78	
49403412	287	308	299	
49256761	18	19	18	

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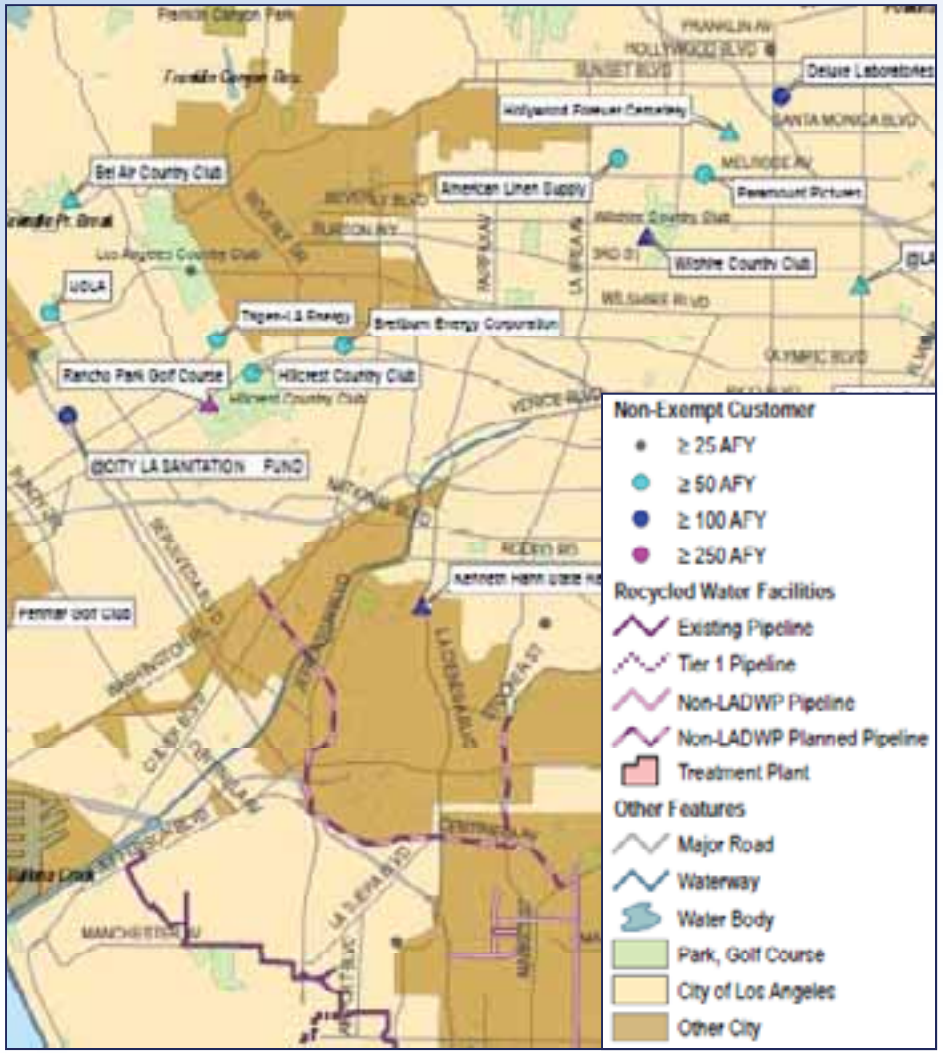
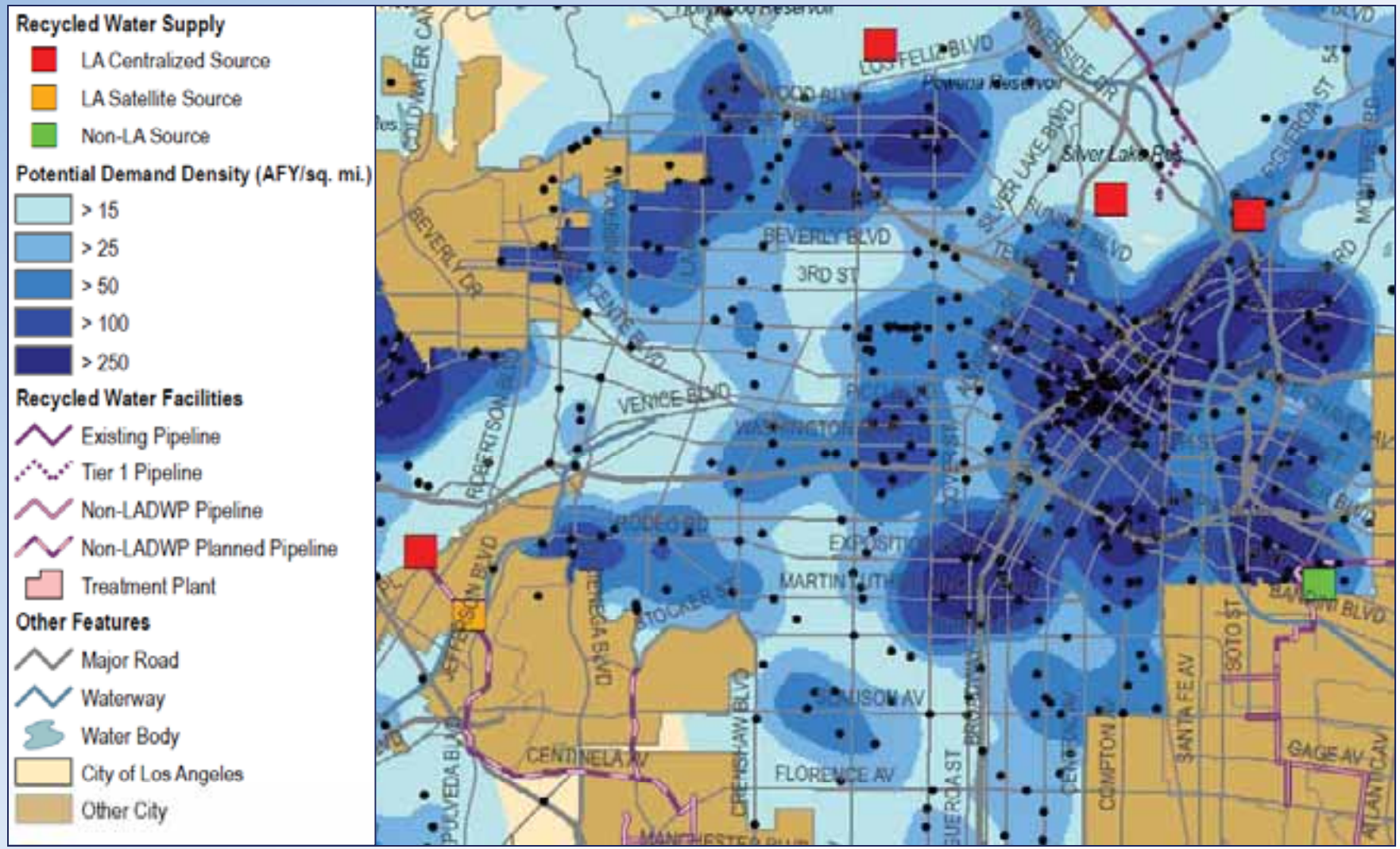
Non-potable Water Customers

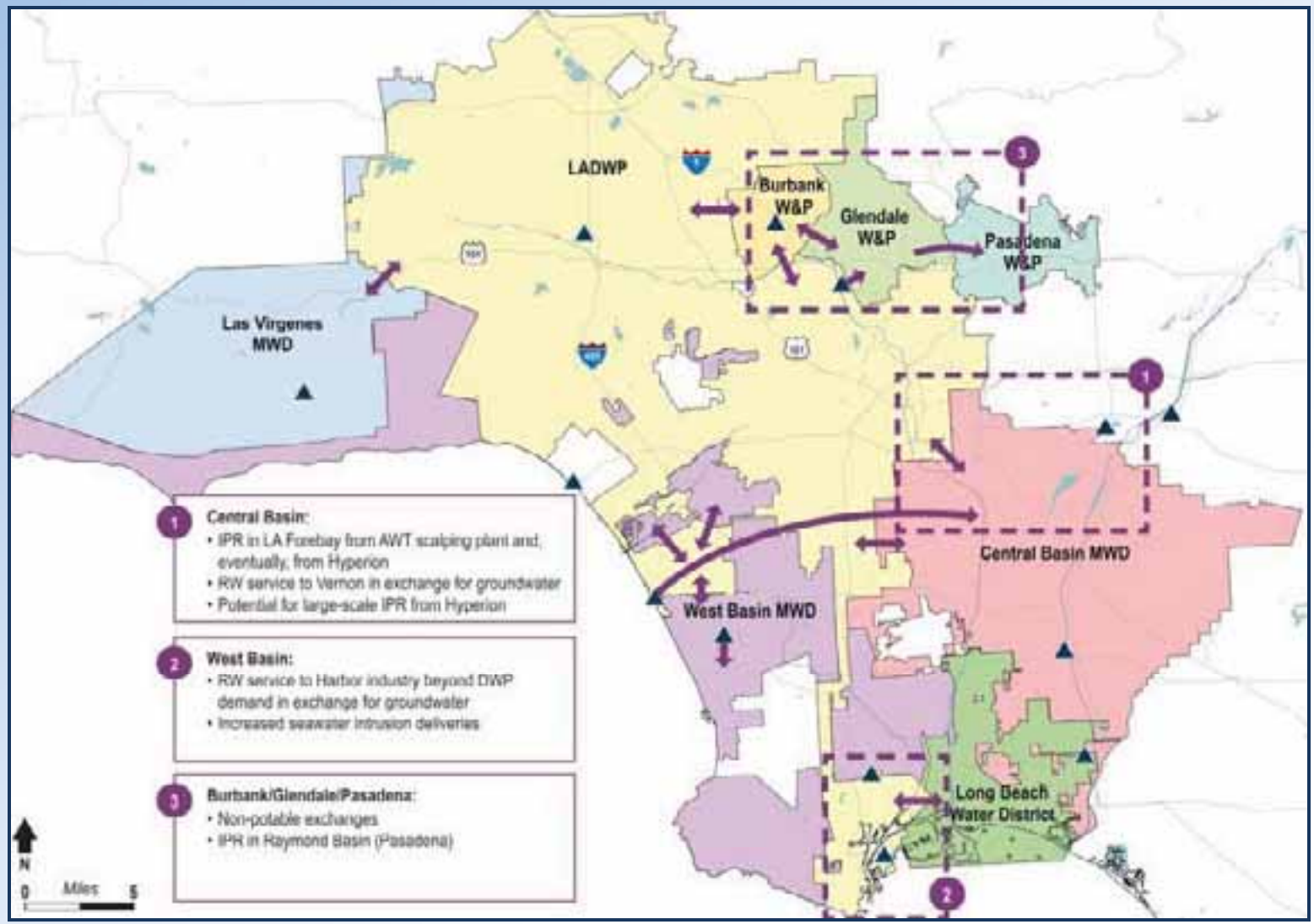
- Analysis Tools
  - Screened potable customer database
  - Located potential future customers using address matching tool
  - Joined new customer shapefiles with demand database
  - Utilized Spatial Analyst population density tool to see demand density



Non-potable Water Customers: Demand Density



Identify Potential Regional Partnerships



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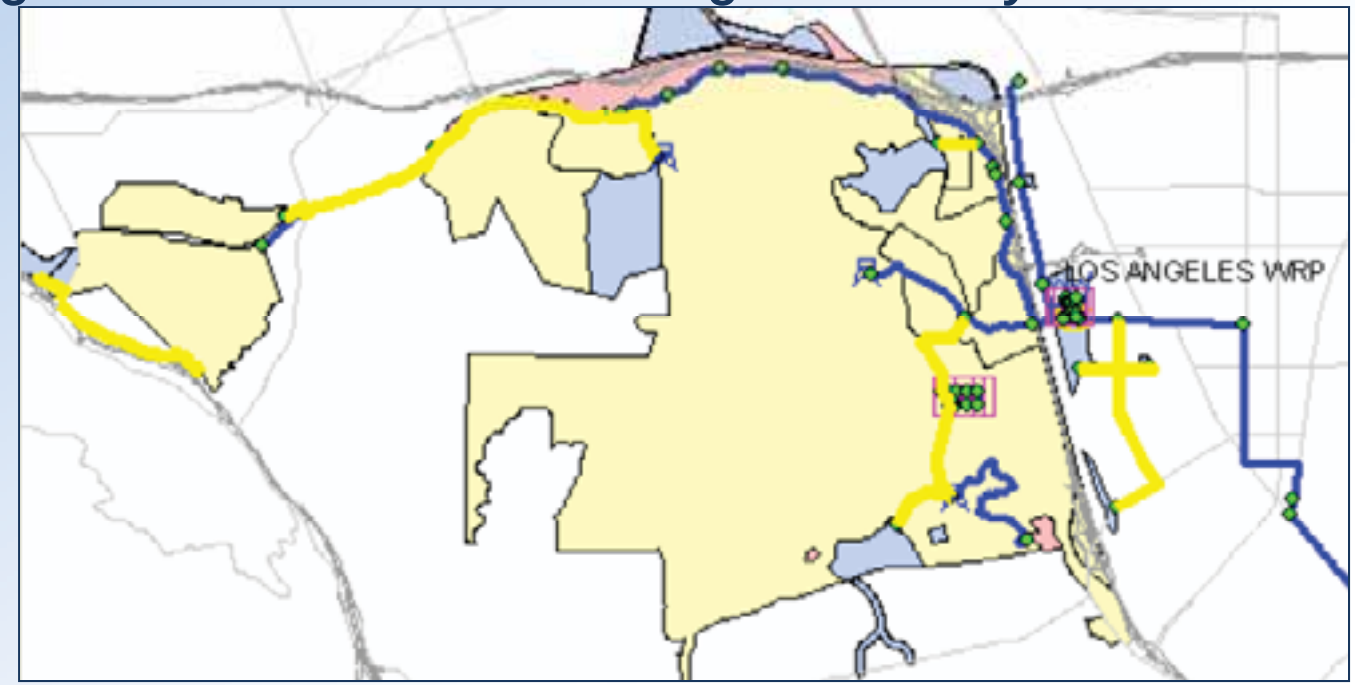
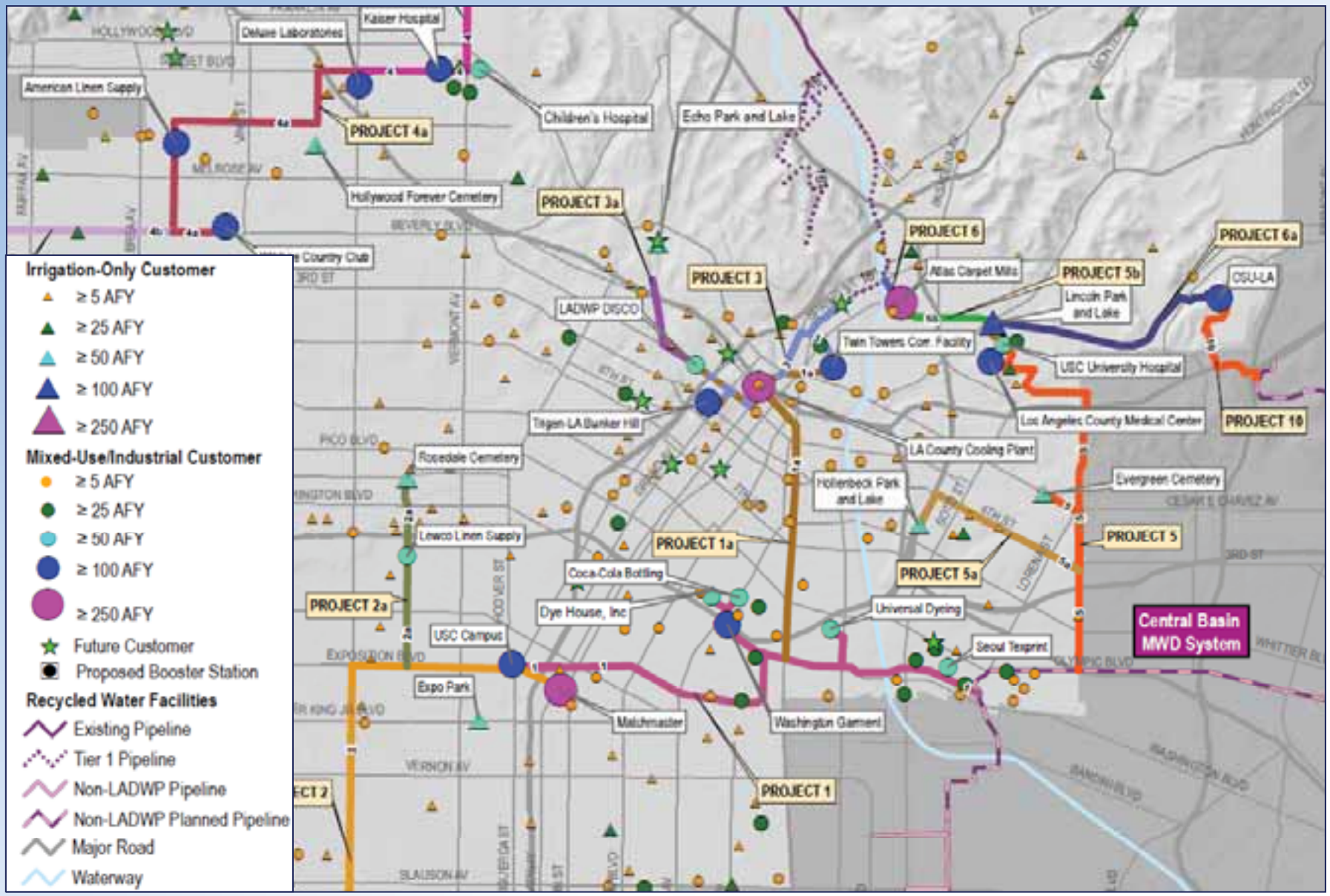
Creating the Future System

- Alternatives for future recycled water pipeline alignments were created based on the existing system and customer maps
- Alignments and demands given to hydraulic modelers





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Completion of the Non-potable Reuse Plan

- Future system options are only a part of the Plan
- Detailed customer research
- Meetings with various agencies
- Additional screening will be completed to create an optimal non-potable reuse option

Questions?

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