

A Review of the SFPUC Retail and Wholesale Customer Demand Projections



Sustainable Water Supply Briefing

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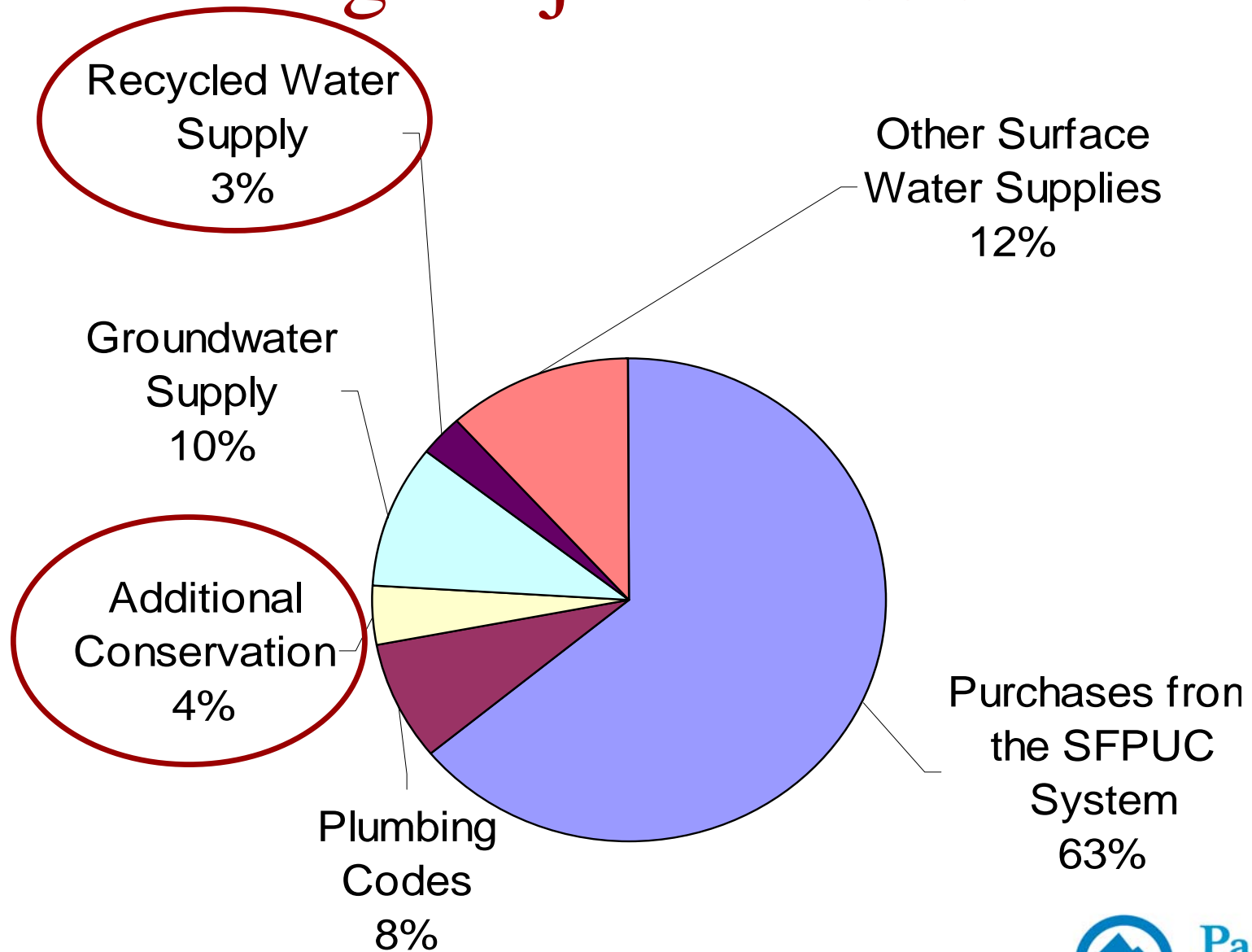
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Summary

- We reviewed current and projected water demand and conservation programs for SFPUC wholesale and retail customers.
- Demand increases are projected to vary dramatically from user to user.
- Demand increases are driven by non-residential and outdoor uses.
- Projected conservation programs inadequately address projected demand.
- Better efficiency studies are needed.

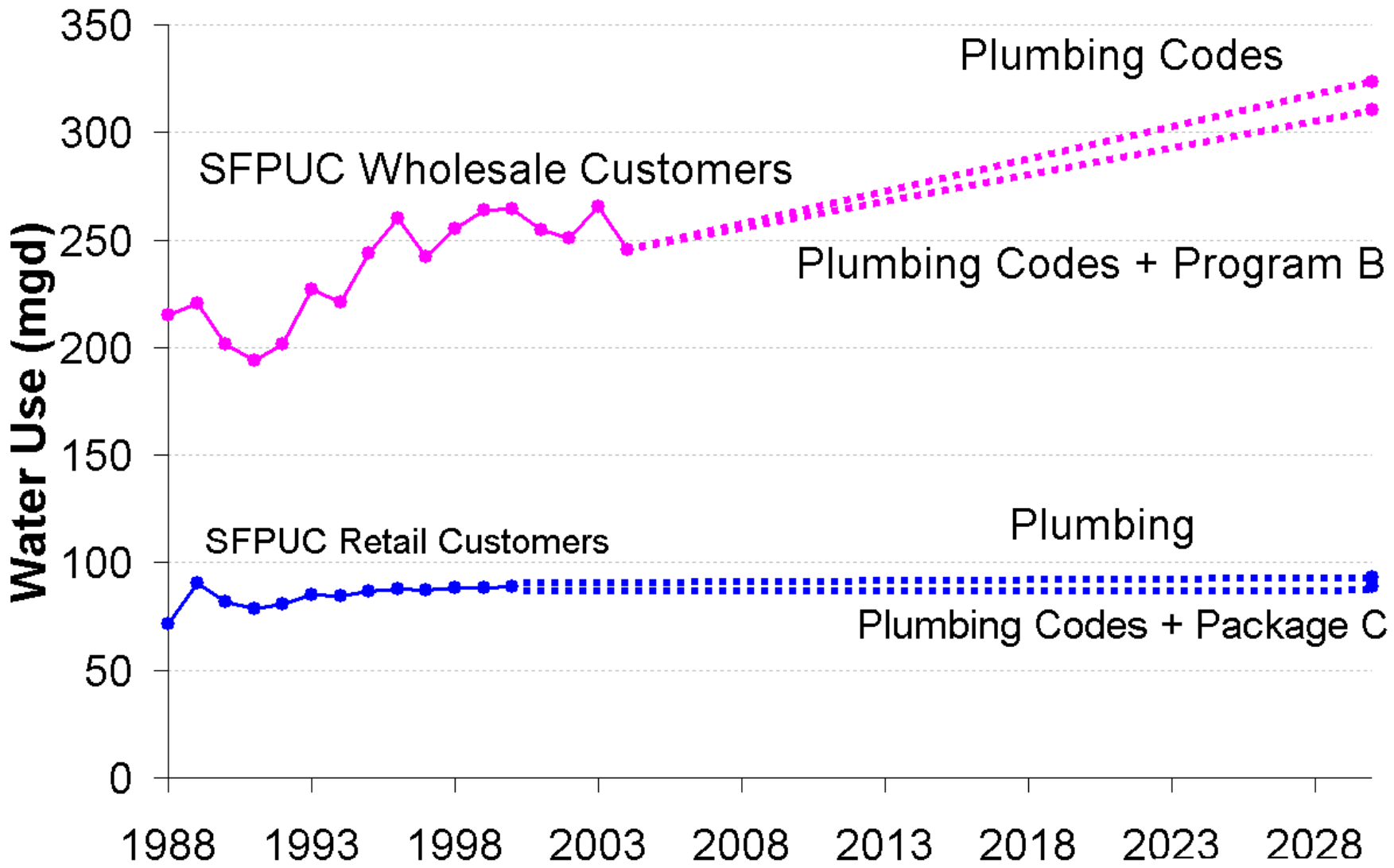
Meeting Projected 2030 Demand



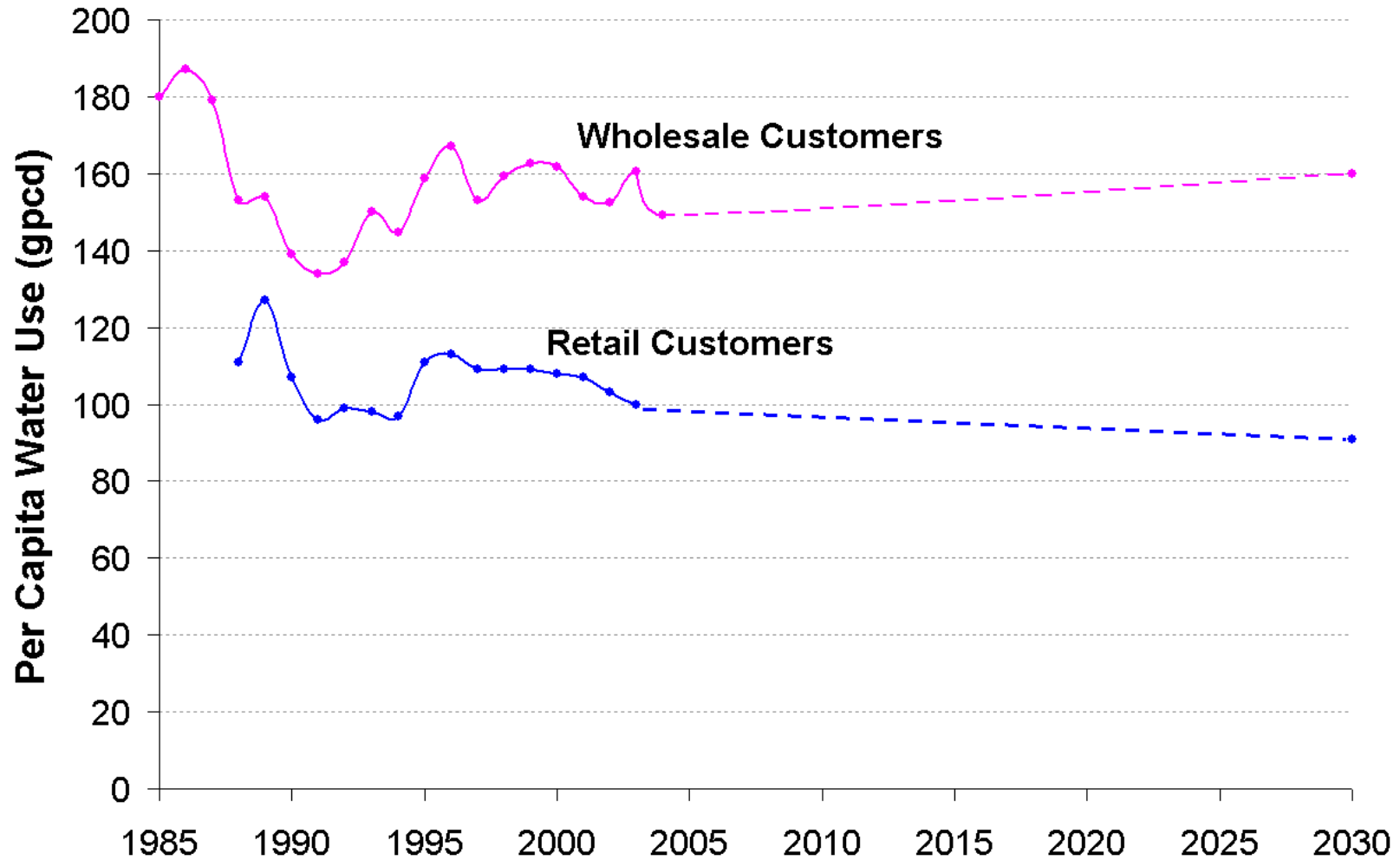
SFPUC Assumed Conservation Programs

- Wholesale Customers (Program B)
 - Fewer than 10 measures
 - Estimated savings: 13.4 mgd
- Retail Customers (Package C)
 - 38 measures
 - Estimated savings: 4.5 mgd

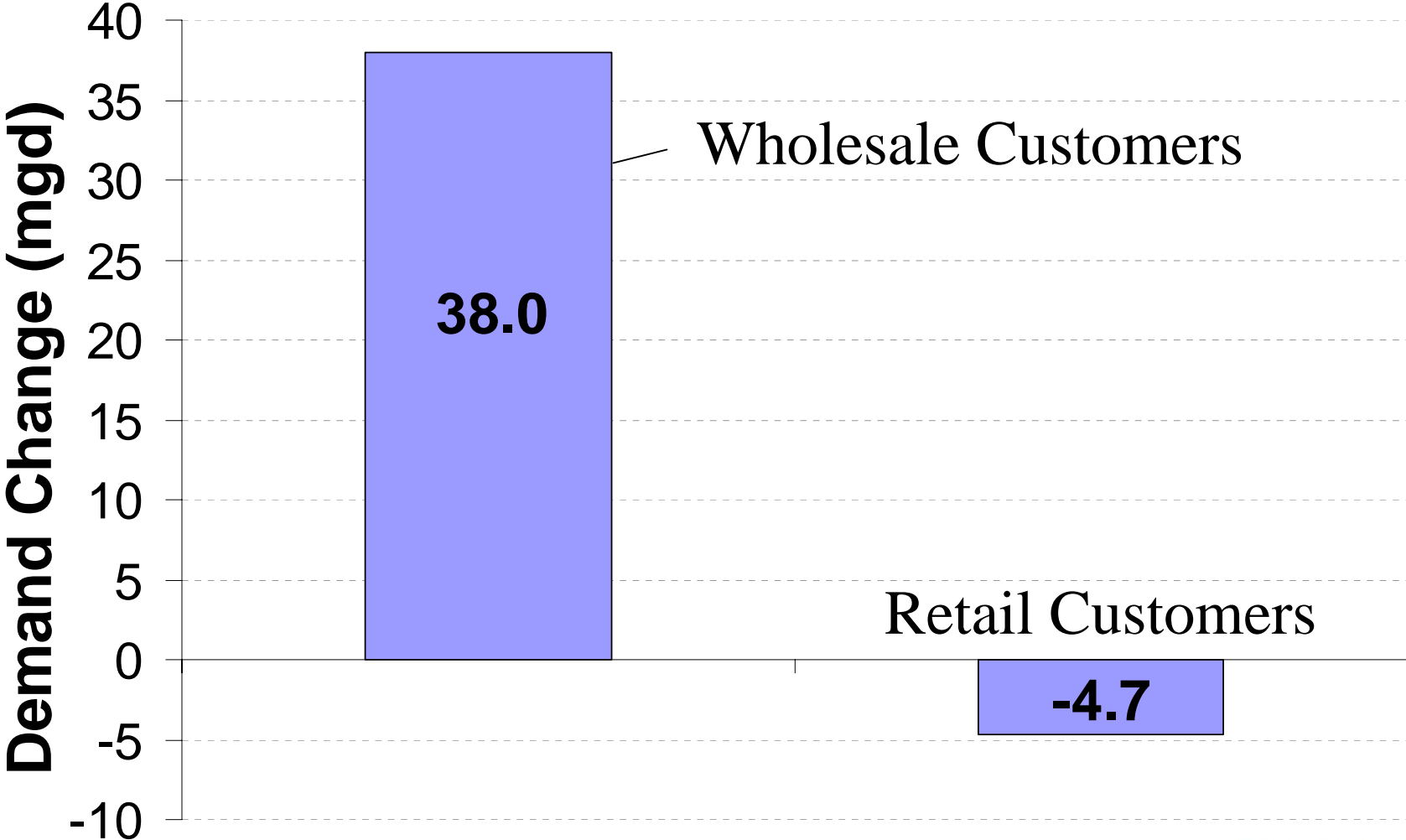
Historic and Projected Water Demand



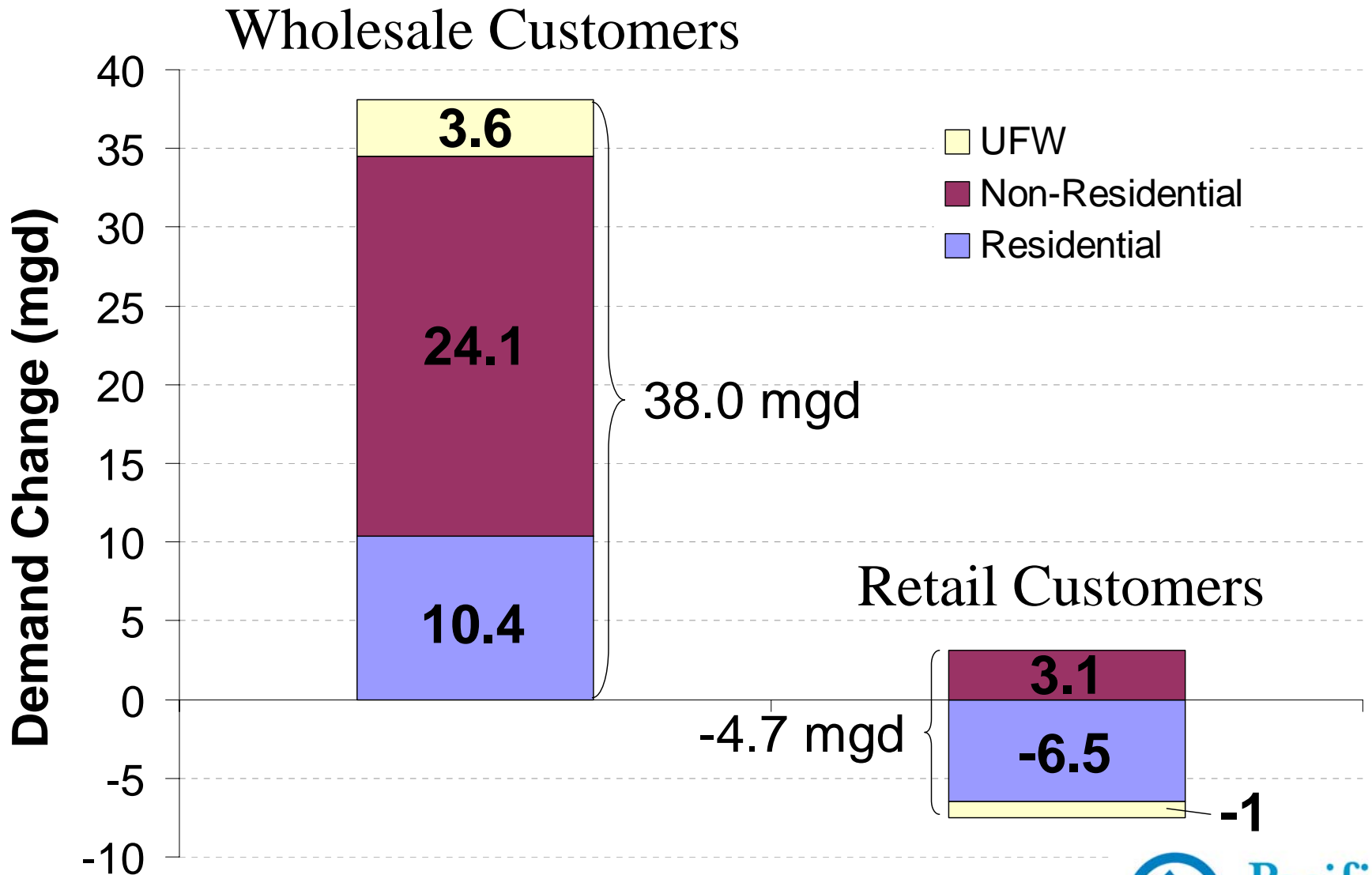
Historic and Projected Gross Per-Capita Demand



Demand Change (Current - 2030)



Demand Change (Current - 2030)



Residential Per-Capita Demand (gpcd)

		Current		2030	
Customer	Sector	Indoor	Outdoor	Indoor	Outdoor
Wholesale	Single-family	69	39	58	40
Retail	Single-family	56	4	47	5

Efficient Indoor Water Use

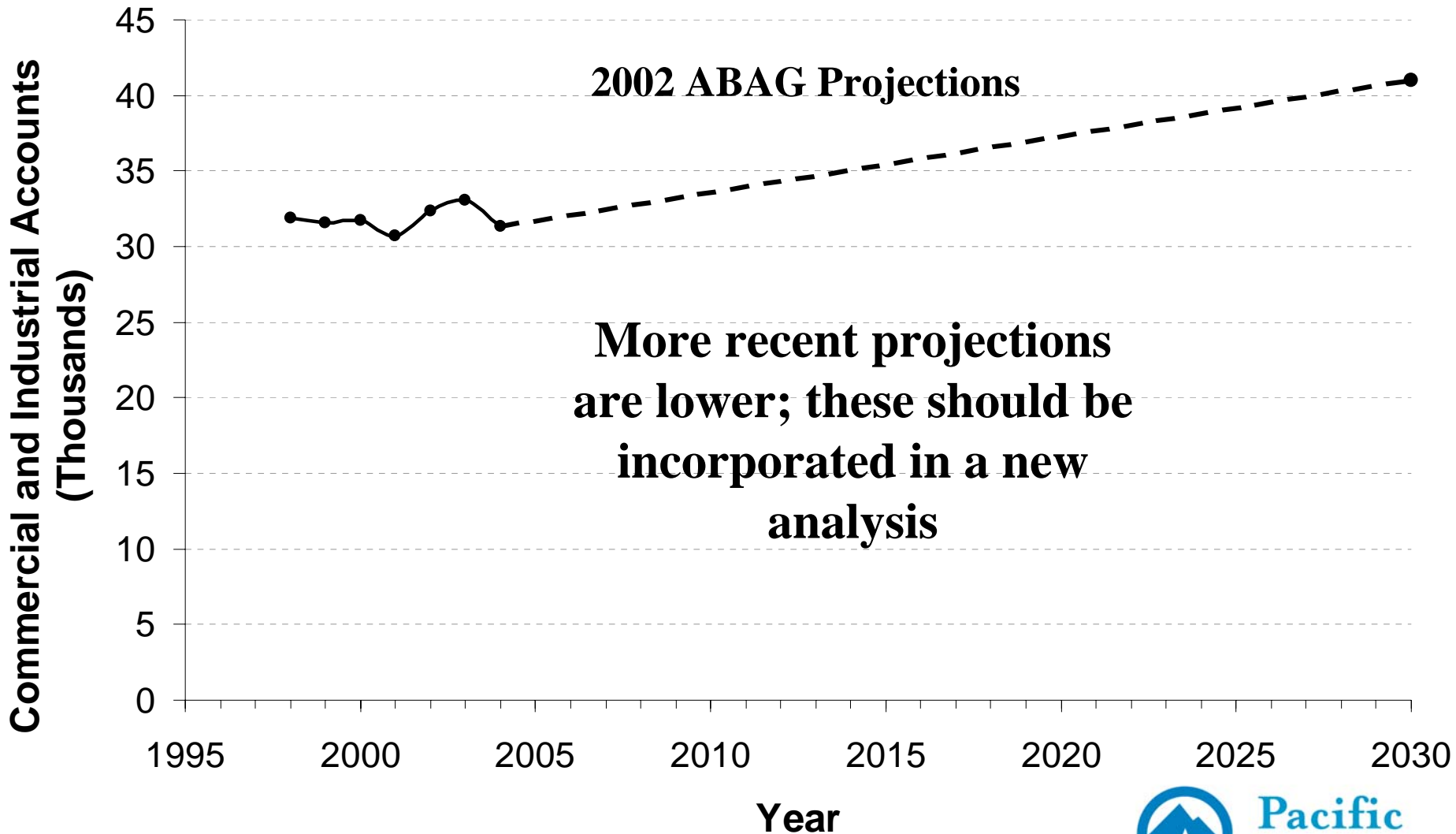
AWWA: 45 gpcd

Seattle Study: 40 gpcd

Non-Residential Demand

- Accounts for over **80%** of demand increase
- Employment projections too high
- Forecast method for wholesale customers is inadequate.
- Conservation measures fail to reduce demand to levels achieved elsewhere.

Employment Projections



Forecast Method (Wholesale, Non-Residential Customers)

- Assumes that all non-residential users grow at the same rate (31.3% in accounts by 2030)
- Assumes water use among these non-residential users is the same
- This approach appears to overestimate 2030 demand.

Non-Residential Conservation

- Proposed conservation reduces non-residential demand by 4%.
- Santa Clara Valley Water District study: 38%
- Pacific Institute study: 39% (minimum cost-effective savings of 26%)

Price-Driven Efficiency

- Price-driven efficiency improvements are **not** considered separately.
- But we know that water demand **IS** elastic.
- Water prices projected to quadruple by 2015 (in real dollars).

Conclusions

- Demand increases are driven by non-residential and outdoor uses.
- Proposed conservation programs do not address these projected demands.
- Non-residential demand and conservation potential are inadequately evaluated.
- Price-driven conservation is not included.
- Projected recycled water use is small.

Recommendations

- More emphasis needs to be placed on reducing outdoor water use.
- Non-residential demand and conservation potential must be reassessed using industry-specific data on economic growth, water use, and conservation potential.
- Price-driven conservation must be included.
- Recycled water use must be expanded.

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