

Water for a Growing Bay Area: Overview

Water-Wise Development for the Bay Area
SPUR Digital Discourse
May 6, 2021

Anne Thebo, Ph.D.
Senior Researcher, Pacific Institute



Background

Report: Water for a Growing Bay Area (Summer 2021)

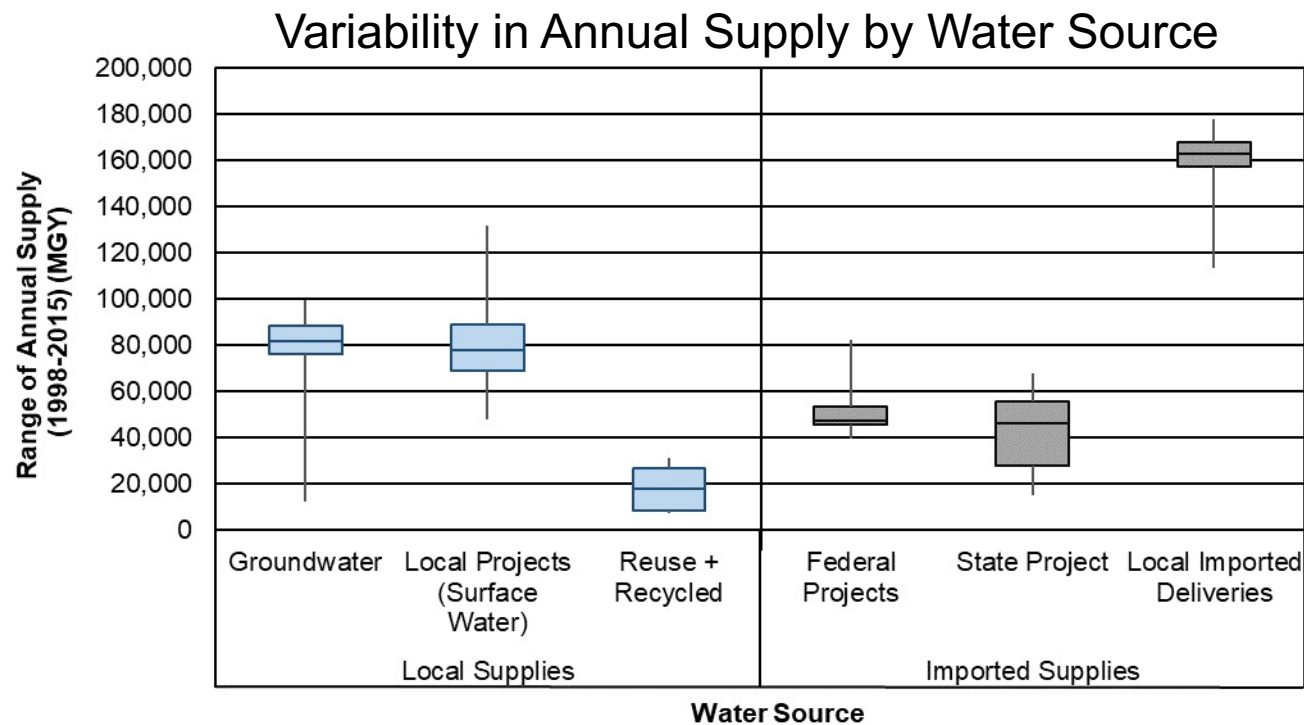
- 2070 Demand Projection Scenario Analysis
- 8 Case Studies
- Recommendations

Partners: SPUR + Pacific Institute + Greenbelt Alliance

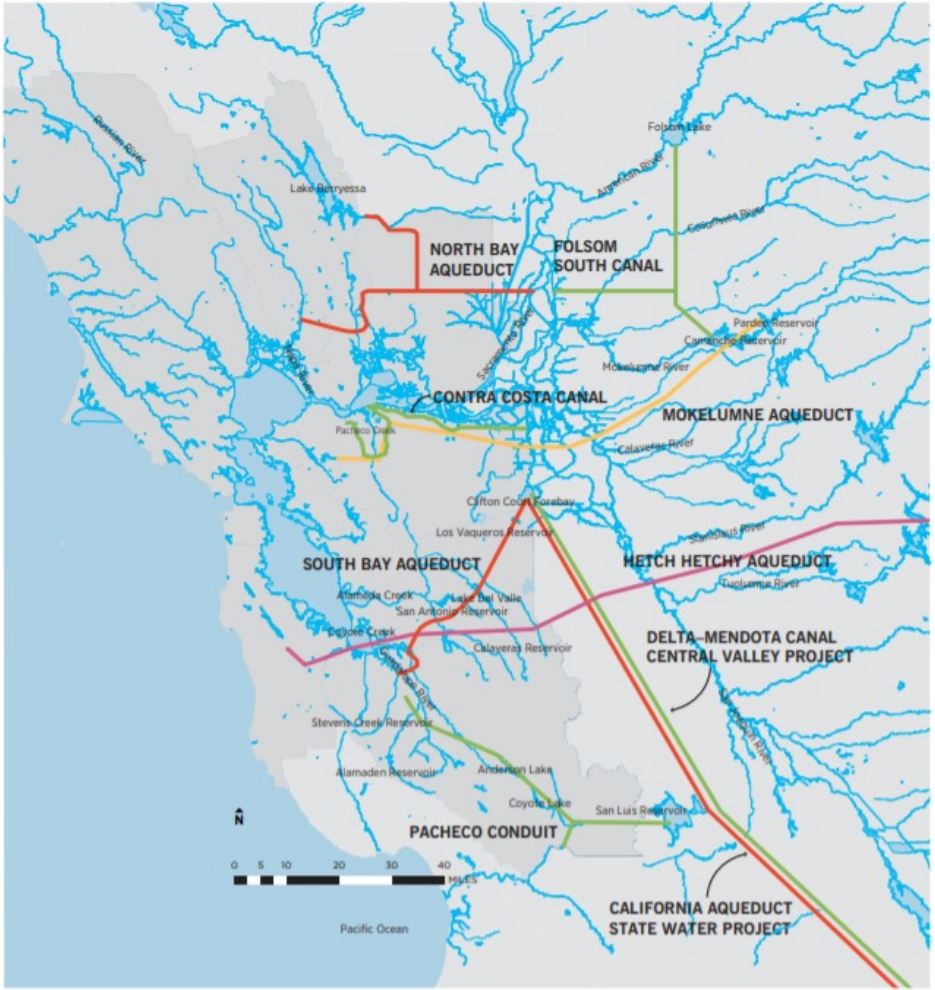
Presentations:

- Motivation and Estimating Water Demand in 2070
- Overview of Case Studies and Recommendations
- Corporate Campus Reuse and Efficiency
- Water Neutral Development and Reuse

The Bay Area's Water Supply

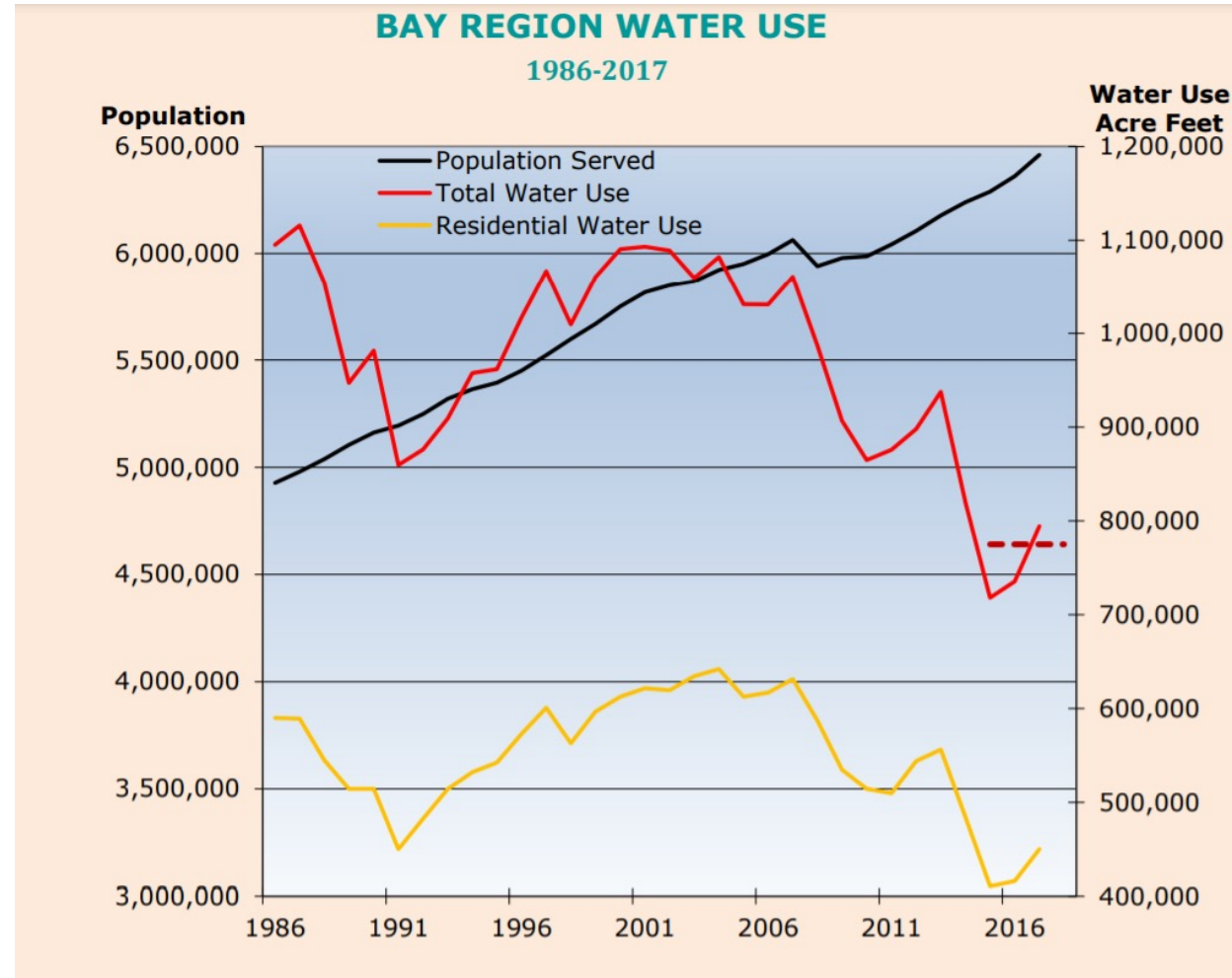


Data Source: DWR 2018 Water Plan Water Balance Data



Source: SPUR 2013

Bay Area Water Use Declining Even With Increasing Population and Economic Growth



Estimating Water Demand in 2070: Scenario Analysis

6 Efficiency and Development Scenarios (+ Baseline)

3 Classes of Water Use:

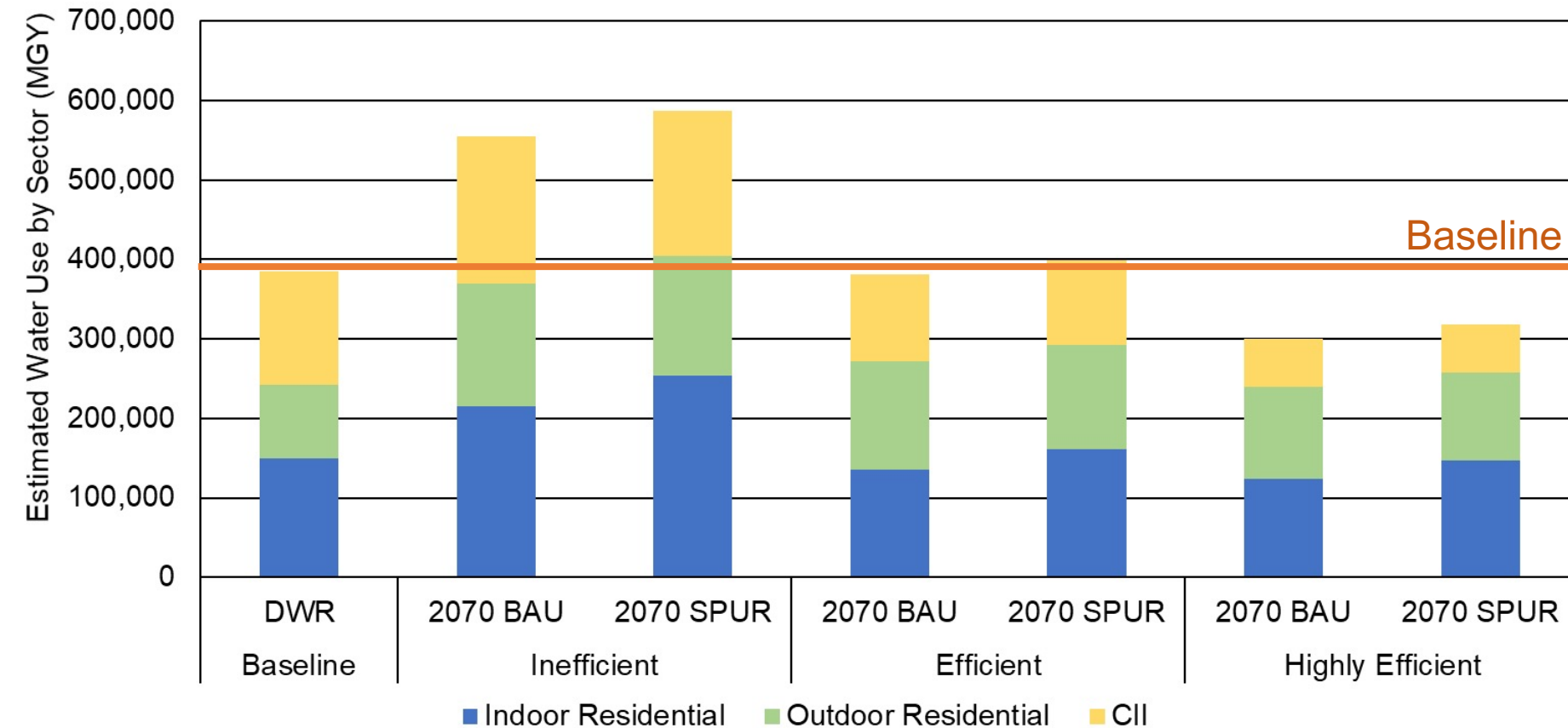
- Indoor Residential
- Outdoor Residential
- Commercial, Industrial, and Institutional (CII)



		Water Efficiency Scenarios		
		Inefficient	Efficient	Highly Efficient
Development Scenarios	2070 Business as Usual (BAU)	Inefficient + BAU	Efficient + BAU	Highly Efficient + BAU
	2070 SPUR	Inefficient + SPUR	Efficient + SPUR	Highly Efficient + SPUR

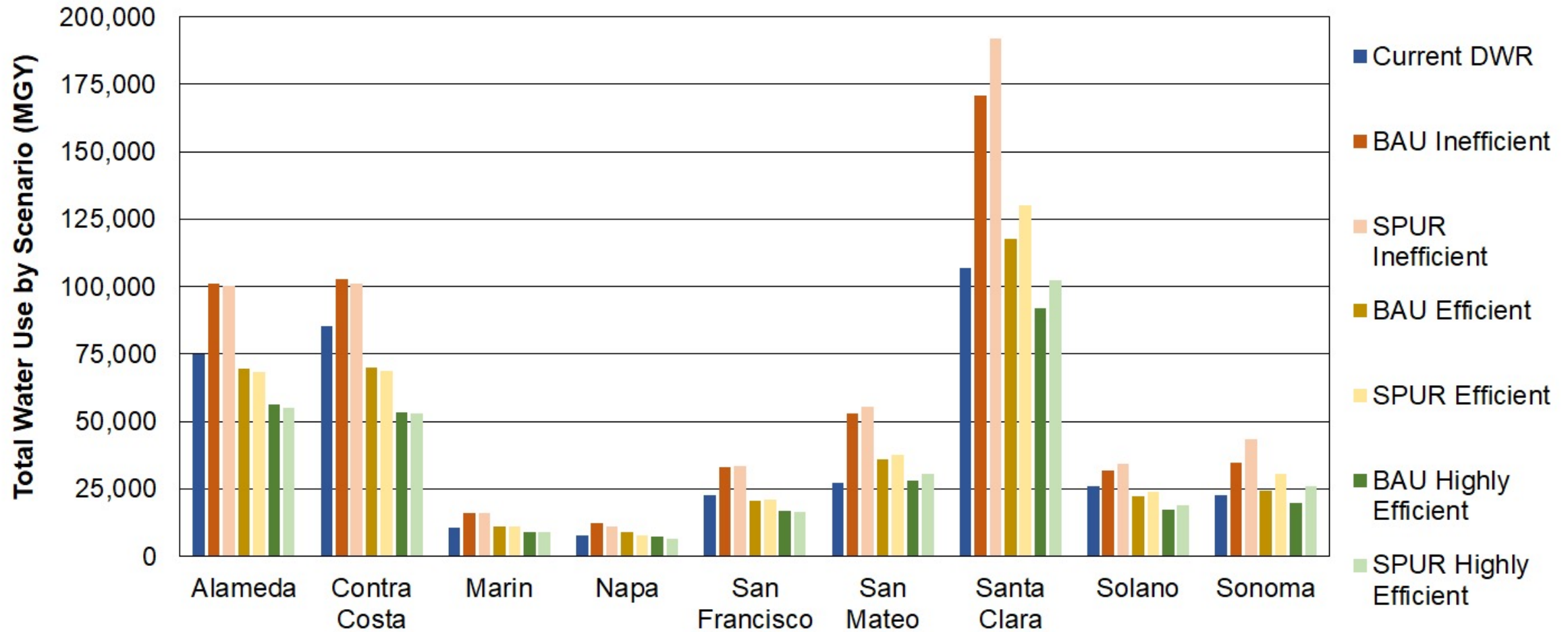
Scenario	Housing	Population	Jobs
Baseline	3.0 M	8.2 M	5.5 M
2070 BAU	+1.4 M	+4.5 M	+2.1 M
2070 SPUR	+2.2 M	+6.8 M	+2.1 M

2070 regional water demand holds steady or declines with modest improvements in efficiency



2070 SPUR
Scenario adds
800,000 additional
units of housing vs.
2070 BAU

Local water demand may increase in counties where population or job growth is concentrated



Thank You

Anne Thebo
Senior Researcher, Pacific Institute

athebo@pacinst.org
www.pacinst.org

Efficiency Scenarios

Water Use	Inefficient	Efficient	Highly Efficient
Indoor Residential	2017 standards stay in place through 2070	Passive uptake of efficient fixtures; Cut leaks by 50%	Universal uptake of efficient fixtures; Cut leaks by 75%
Outdoor Residential	Only new housing adopts outdoor efficiency standards (MWELO)	50% of existing and all new housing adopt outdoor efficiency standards	All existing and new housing adopt outdoor efficiency standards
Commercial, Industrial, and Institutional	No change from existing water factors	10% gain in efficiency per decade	20% gain in efficiency per decade

Development Scenarios Evaluated

Scenarios	Housing Units (Million)	Estimated Population (Million)	Jobs (Million)
Current (Baseline)	2.98	8.20	5.52
2070 Business as Usual (BAU)	4.38	12.65	7.62
2070 SPUR	5.18	14.98	7.62