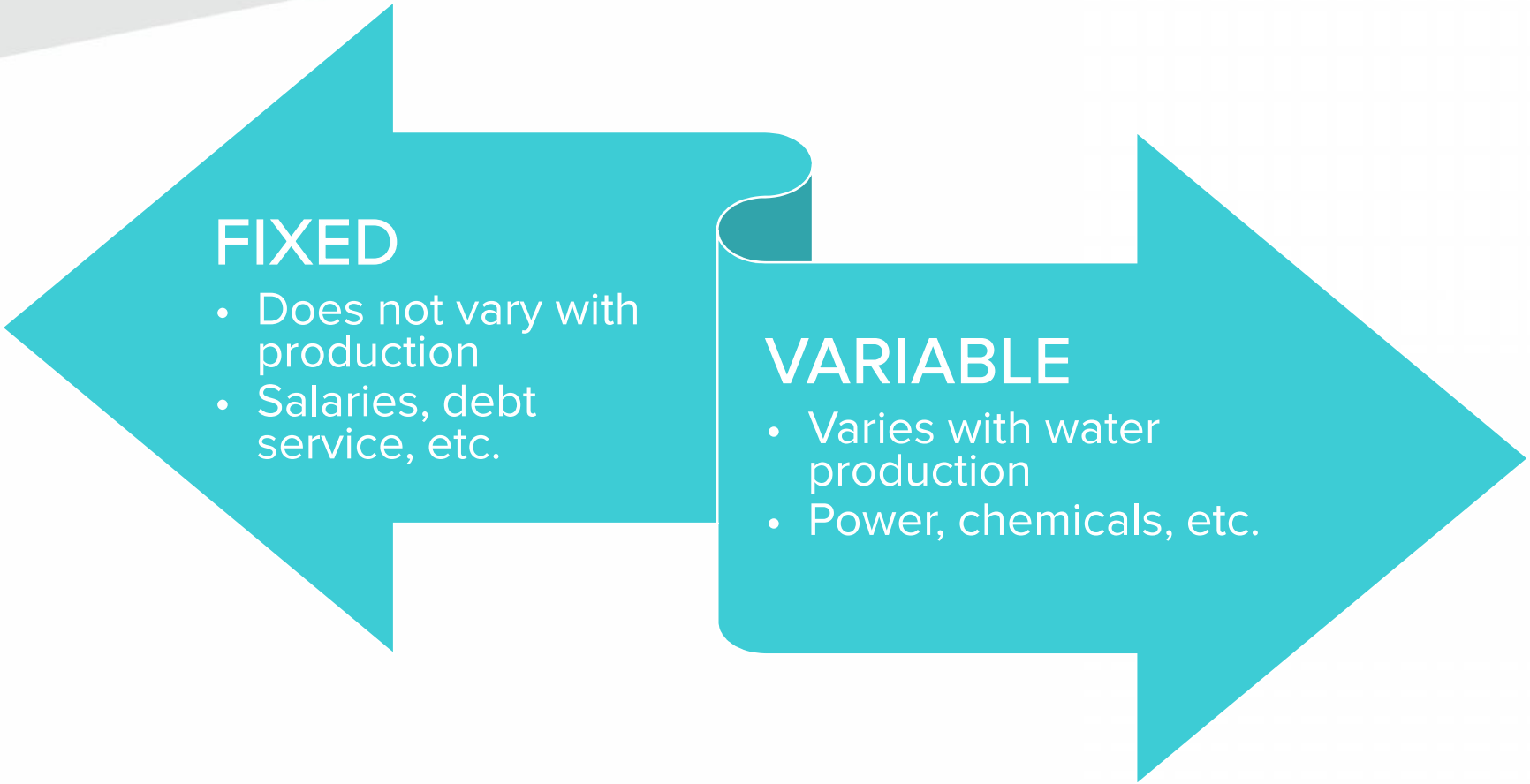
Water Rates and Trends - Where are We Going

CSMFO Annual Conference

January 30, 2020

RAFTELIS

Water System Cost Structure



Water System Cost Structure

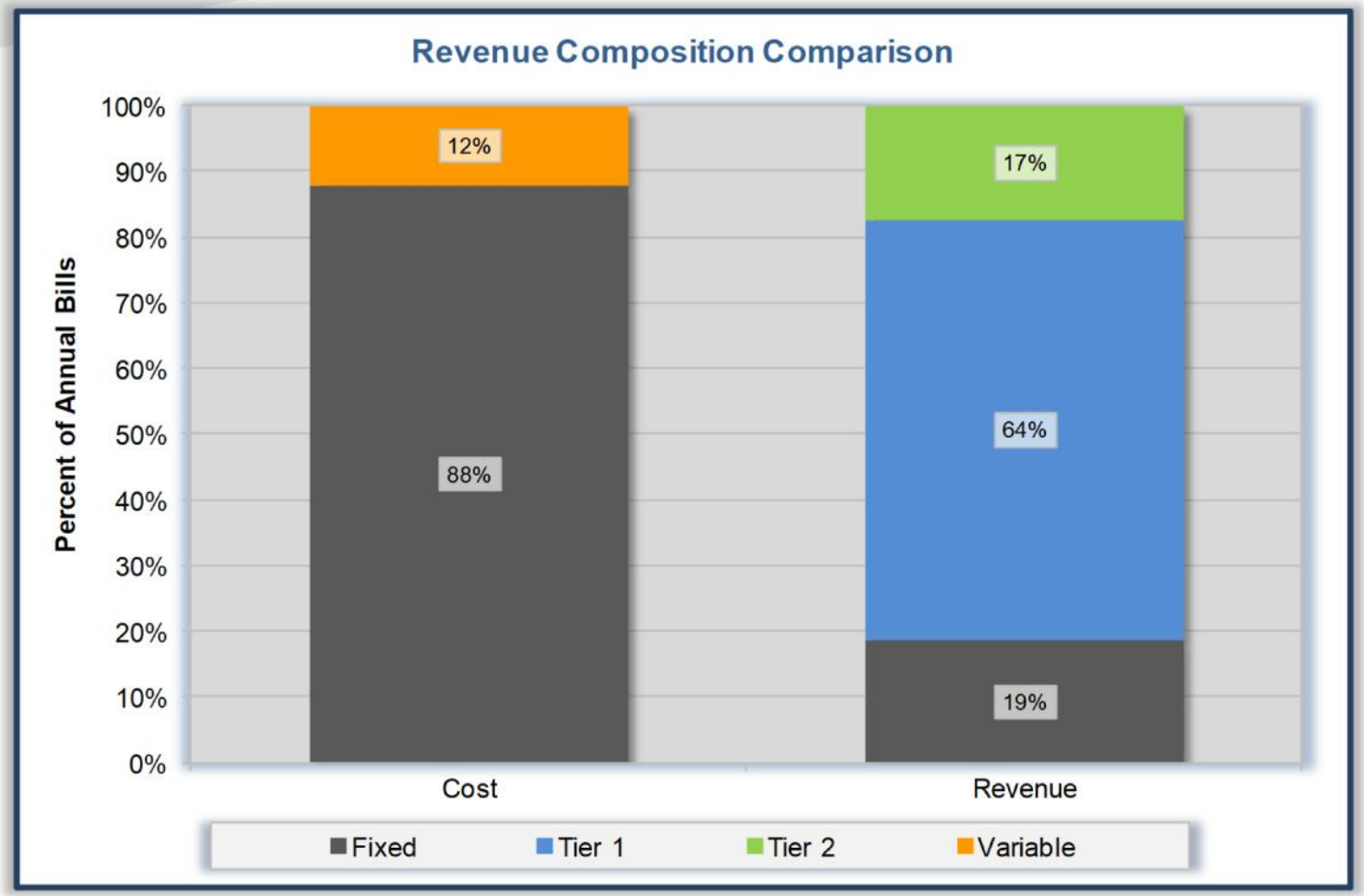
Fixed Costs Are High

55 TO 95%
of total annual costs

Variable Costs Are Low

5 TO 45%
of total annual costs

Water System
Cost and Revenue Imparity



Financial Nature of Fixed Cost / Variable Revenue Business Model

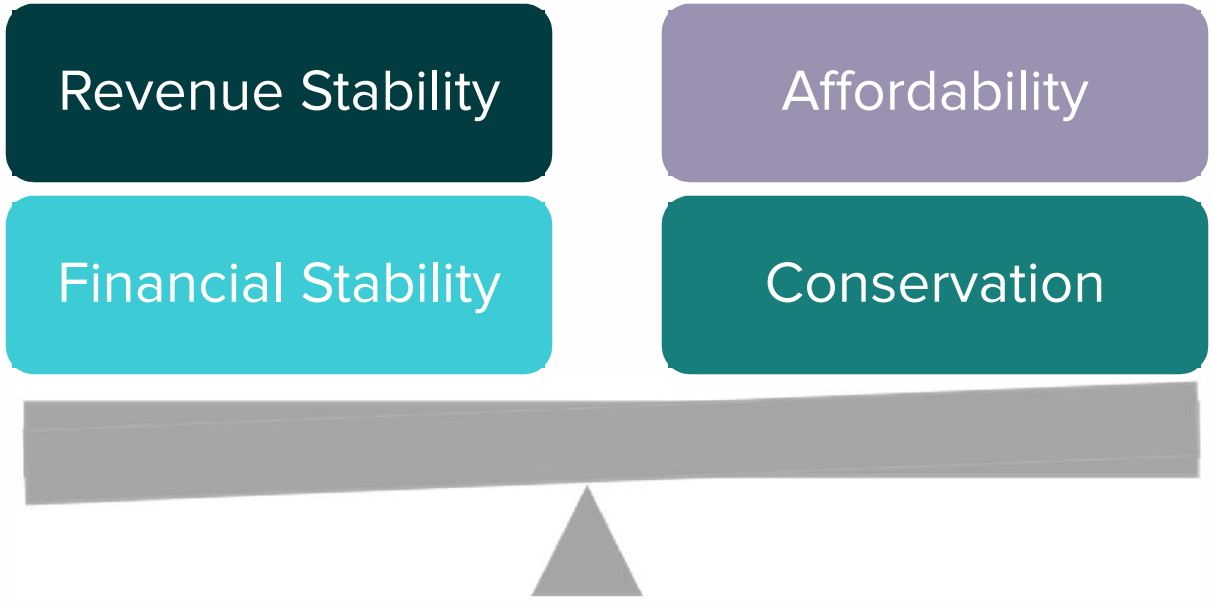
- During increased water sales, cost are spread over more water molecules
  - Lower pressure on rates
  - “Behind the Curtain Era”: 1960’s to 1980’s

- The reciprocal is true: Decreased water sales create pressure to increase rates
  - “In the Spotlight Era”: 1990’s to present

Challenges with Fixed Cost / Variable Revenue Business Model

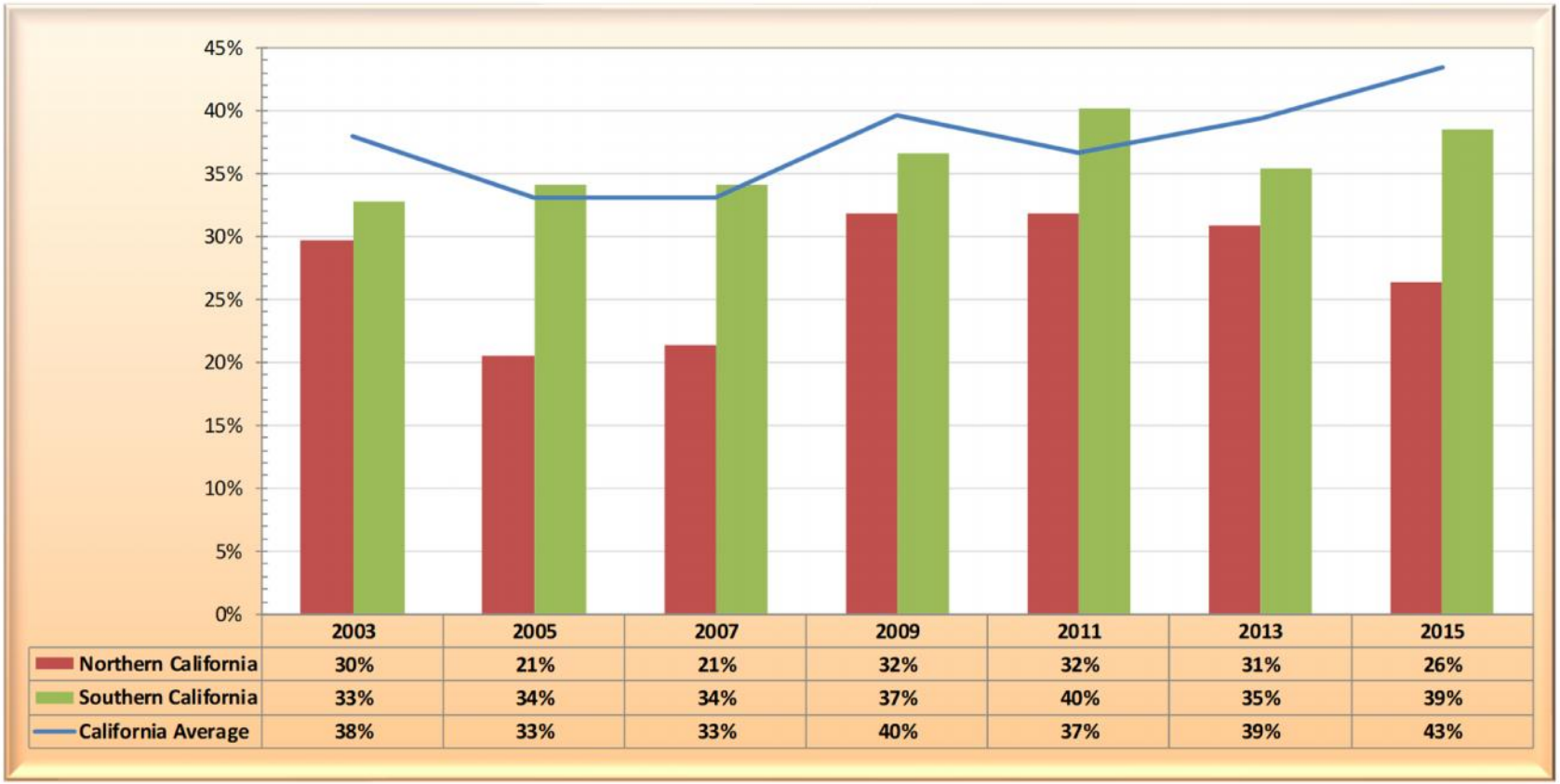
- Population has grown in CA, but water demand has not increased
  - Higher awareness of water scarcity
    - Periodical droughts / conservation message
  - Change in life style
    - Having a green lawn at home is not the norm
  - End-use appliances are using less and less water
  - Increased regulatory demand for efficient water use

Balancing Act in Increasing Fixed Charge



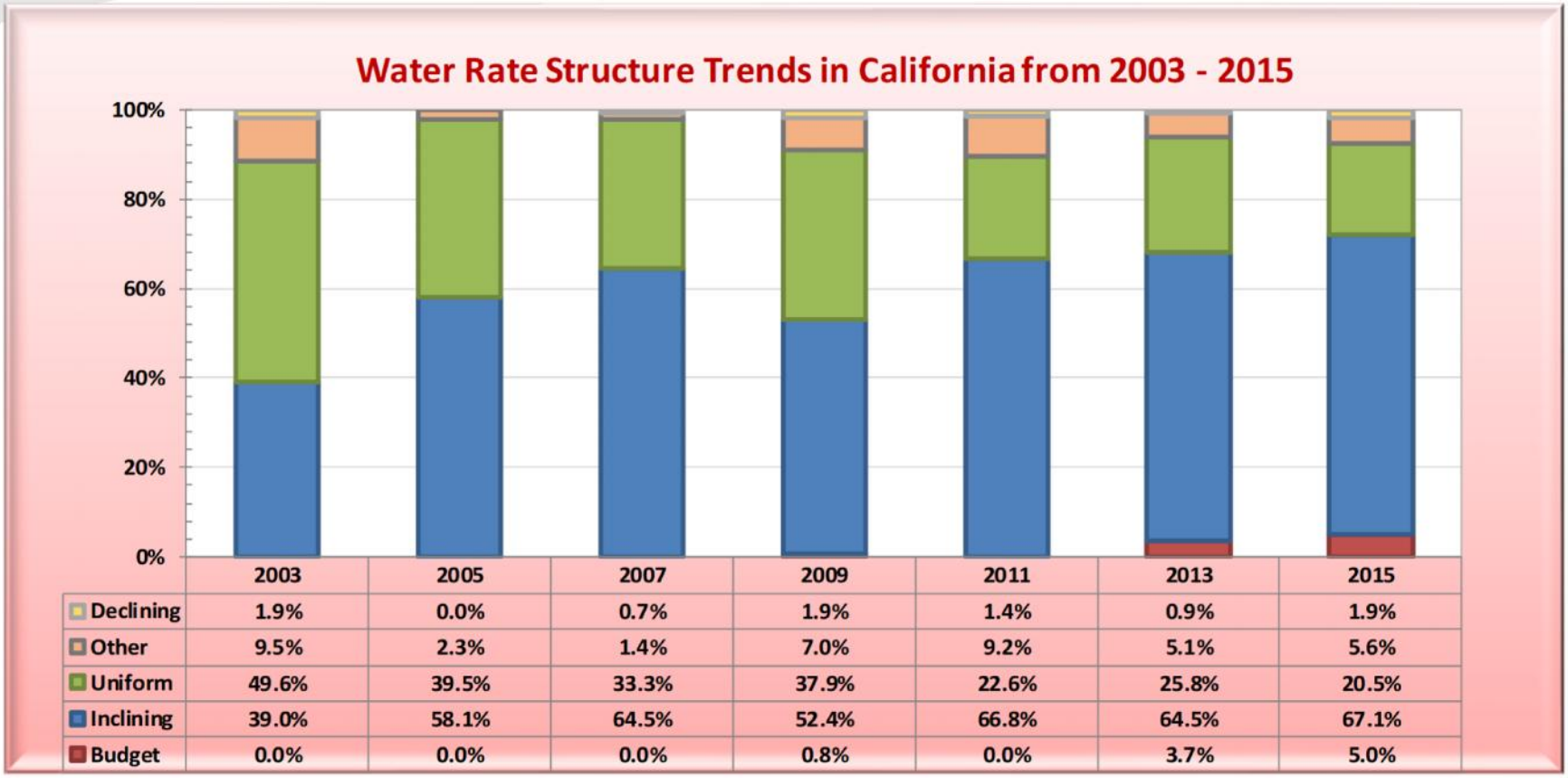
Fixed Charge Revenue Based on 15 hcf

- How much can we increase the fixed charge?



	2003	2005	2007	2009	2011	2013	2015
Northern California	30%	21%	21%	32%	32%	31%	26%
Southern California	33%	34%	34%	37%	40%	35%	39%
California Average	38%	33%	33%	40%	37%	39%	43%

70% of Water Agencies Have Tiered Rates



	2003	2005	2007	2009	2011	2013	2015
Declining	1.9%	0.0%	0.7%	1.9%	1.4%	0.9%	1.9%
Other	9.5%	2.3%	1.4%	7.0%	9.2%	5.1%	5.6%
Uniform	49.6%	39.5%	33.3%	37.9%	22.6%	25.8%	20.5%
Inclining	39.0%	58.1%	64.5%	52.4%	66.8%	64.5%	67.1%
Budget	0.0%	0.0%	0.0%	0.8%	0.0%	3.7%	5.0%

Fees and Taxes

- The fees associated with water service are **not** a tax
  - The associated revenues generated must be used to provide the water service
- Water service fees fall under Prop 218, since water service is provided to property owners
- Since water service falls under Prop 218, there needs to be a clear nexus between the cost of providing service and the associated fee
  - What is the rationality behind the rate structure?
  - How does it mirror the cost structure of the utility?

case study | San Juan Capistrano

- Recent Litigation: CTA vs. City of SJC
  - Rate payers (Capistrano Taxpayer Association, CTA) sued the City of San Juan Capistrano over its water budget rate structure
- The Orange County Superior court ruled that the rates did not meet the nexus requirement in August 2013
- Key factors:
  - Lack of administrative record
  - City used multipliers to justify the tiered rates without any administrative record of an underlying rationale

San Juan Capistrano Ruling

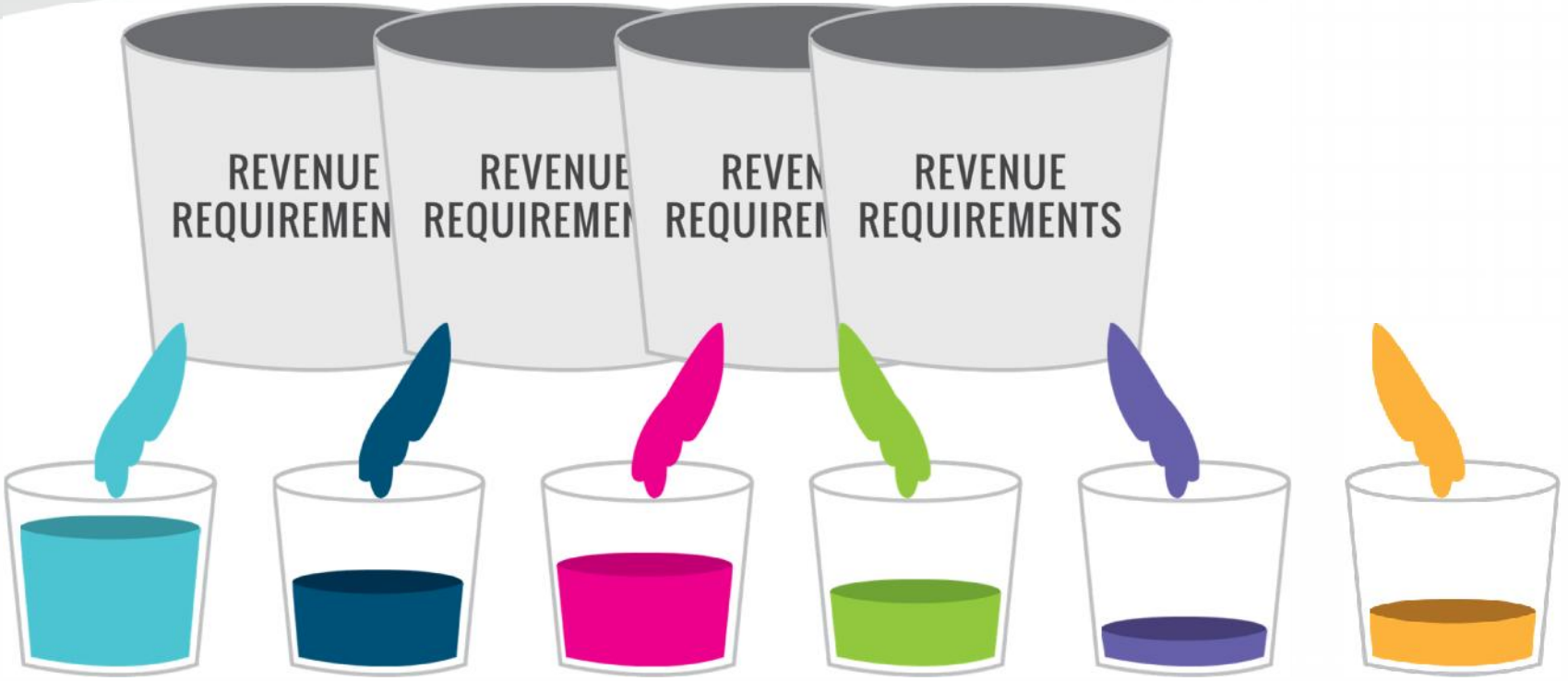
There needs to be a nexus between cost of providing services and rates

- Some have viewed the ruling a limitation on rate setting, since the water agency is a fixed cost business and changes in water sales have limited effect on short-term costs
- Crux of the question is how do we view cost?
  - Short-term accounting perspective
  - Long-term economist / engineering perspective

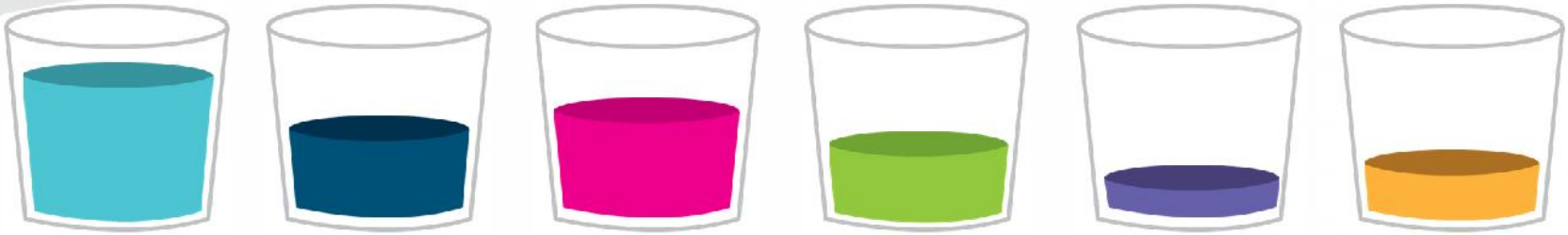
Additional burden on water agencies to articulate the logic behind their rate structures

Cost of Service Evaluation

Allocation to Cost Components



Distribute Costs to Customer Classes



SUPPLY
Use

DELIVERY COSTS
Use: Same for All Classes

CONSERVATION
Distributed to High Vol Users

EXTRA CAPACITY (PEAKING)
Peaking Factors or Meter Cap Ratios

METER MAINTENANCE
Meter Size

CUSTOMER SERVICE
# of Cust Bills

Distribute Costs to Each Class

CUSTOMER CLASSES
Cost to Serve Each Class
(Single Family, Multi-family, Commercial etc.)

Proposition 218 Requirements *(Post-Capistrano Decision)*

SUPPLY
Water supply rate ($ /HCF)

DELIVERY
Delivery rate ($ /HCF)

EXTRA CAPACITY (Peaking Costs)
Peaking rate ($ /HCF)

CONSERVATION
Conservation program rate ($ /HCF)

TOTAL VOLUMETRIC RATE FOR EACH TIER
($ /HCF)

- Agencies must develop a **nexus** between their tiered rates and their costs to serve those tiers and **document** the methodology used in a report
- We develop a **nexus** between rates and cost of service by adding unit rates for each cost component

case study

City of Long Beach

	Water Supply	Delivery	Peaking	Conservation	Revenue Offset	Proposed FY 2017
Residential						
Tier I	$1.055	$0.579	$0.361	$0.000	-$0.074	**$1.921**
Tier II	$2.645	$0.579	$0.454	$0.000	$0.000	**$3.678**
Tier III	$2.907	$0.579	$0.651	$1.229	$0.000	**$5.366**

case study

City of Thousand Oaks

	Water Supply	Delivery	Peaking	Conservation	Pass-Thru	Proposed FY 2017
Residential						
Tier I	$3.11	$0.83	$0.16	$0.03	$0.11	**$4.22**
Tier II	$3.11	$0.83	$0.47	$0.03	$0.11	**$4.51**
Tier III	$3.11	$0.83	$0.86	$0.03	$0.11	**$4.81**

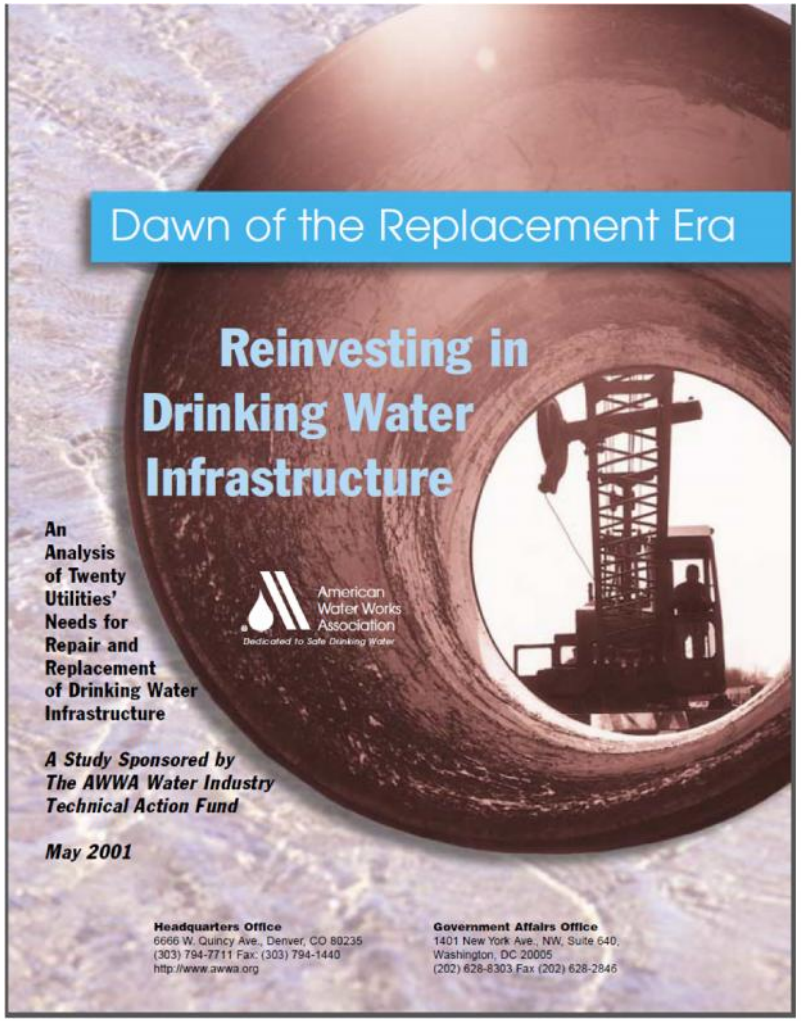
Historic Underinvestment Spawns Growing Capital Requirement

The US is funding just **one-third of its water infrastructure needs**

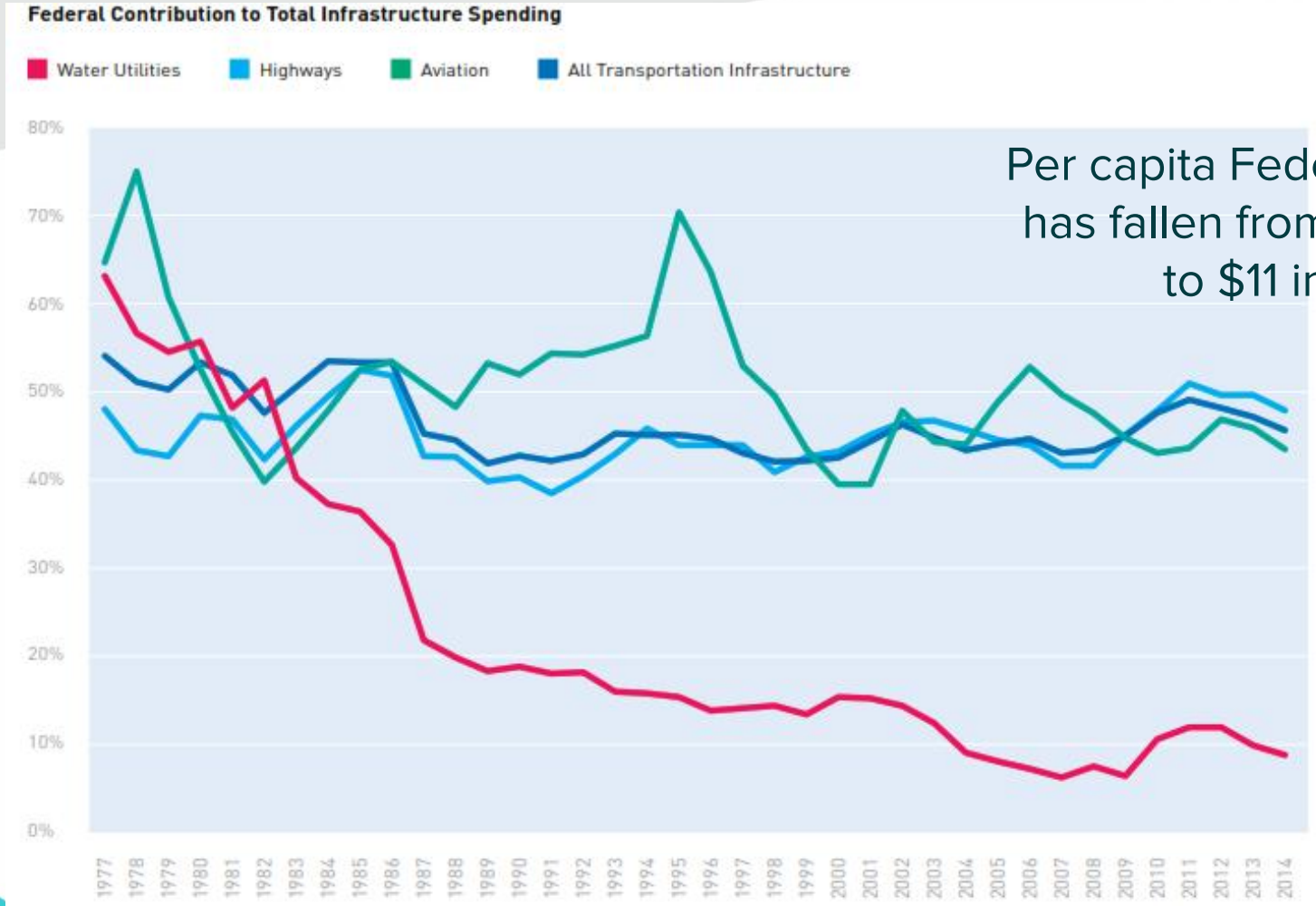
US needs to invest a minimum of **$123 billion per year** in water infrastructure **over the next 10 years**

National investment gap: $82 billion per year

ASCE (American Society of Civil Engineers). 2016. Failure to Act: Closing the Infrastructure Investment Gap for America's Economic Future.



Uncle Sam is Not Going to Help Us

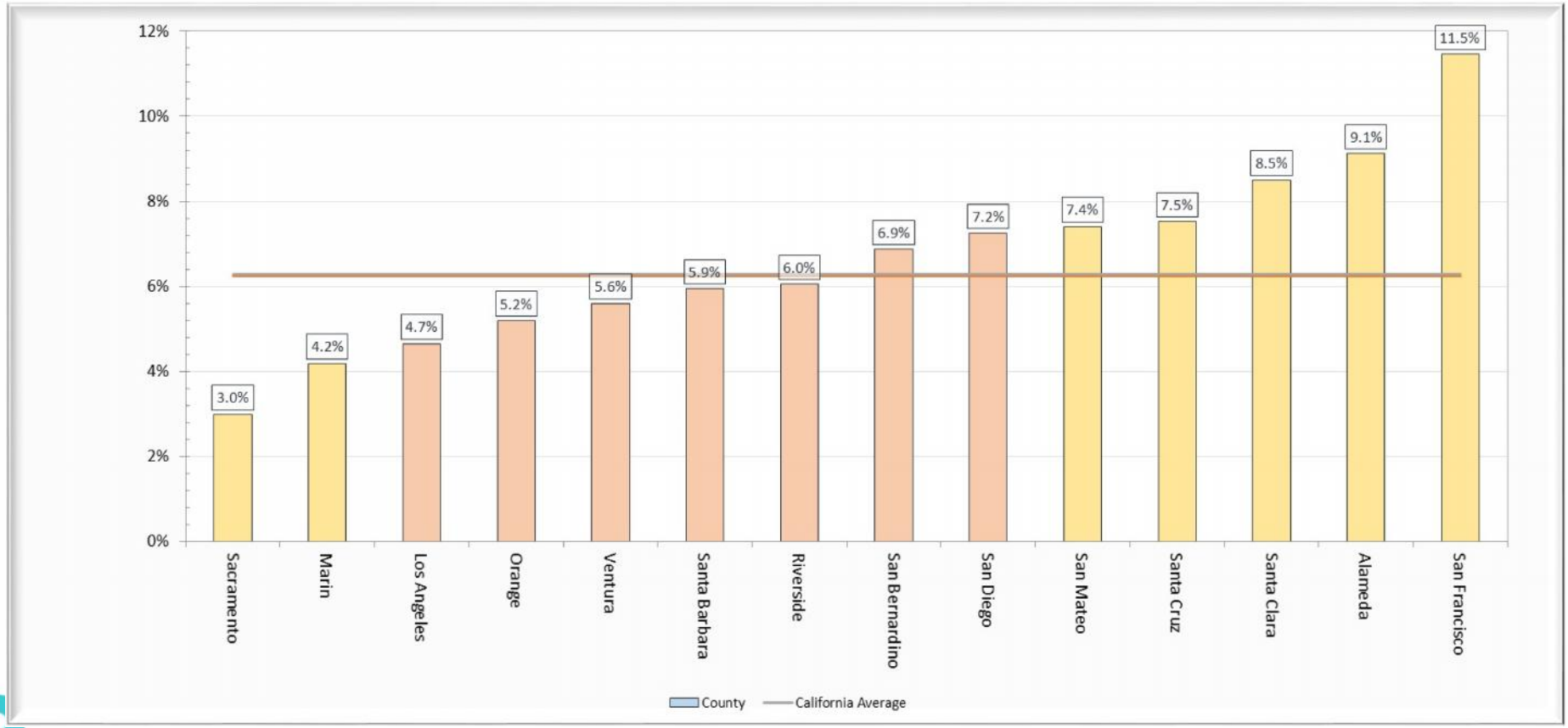


Per capita Federal spending has fallen from $76 in 1977 to $11 in 2014

From: Economic Impact of Investing in Water Infrastructure, Value of Water Campaign

ANNUALIZED INCREASE IN MONTHLY BILLS
SINGLE FAMILY (15 HCF BY COUNTY)

Average Annual Growth Rate from 2003 - 2015



Is This the New Normal?

REDUCTION IN WATER SALES

- Drought / conservation pressure
- Increase water / wastewater bill
- Economic cycle
- Water-efficient appliances

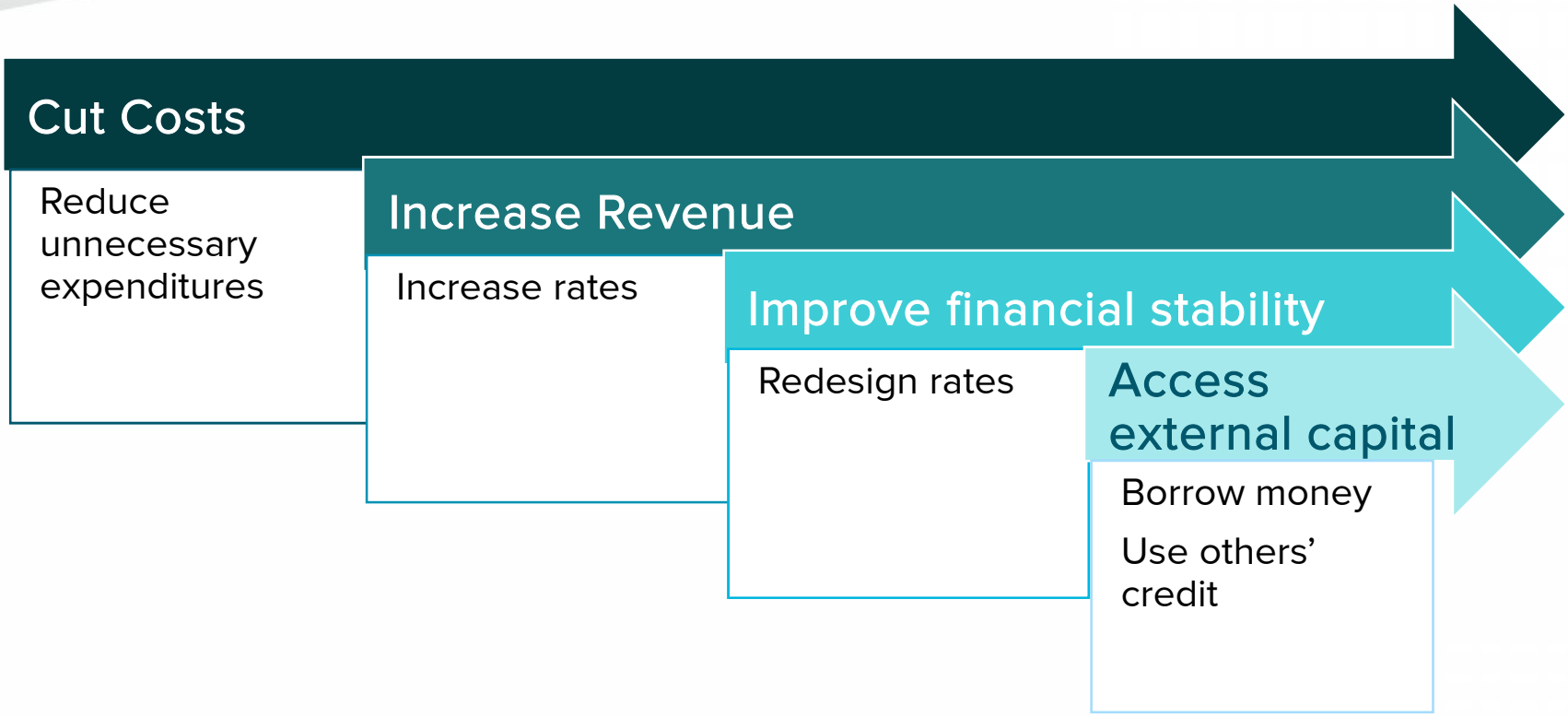
DECLINES IN OTHER REVENUE

- Connection Fees (aka, Impact Fees, System Development Fees)
- Interest earnings

INCREASING COSTS

- Future source requirements
- Regulatory requirements
- Environmental investments
- Growing replacement needs
- Seismic resiliency

Options to Increase Financial Capabilities



Summary

- As population grows, water consumption is falling
- Greater desire to increase the fixed revenues, which is meeting political outcry
- Water agencies need to articulate / document their rate structure given the litigious environment
- We are almost at the end of the useful life of our infrastructure
- The average water bill has increased annually by 6% for the last 10 years
- Is water a commodity, a service, or even a right?

Given these challenges Water Utilities will need to be proactive in communicating the value they provide

Thank you!

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