This meeting will start at 1:00pm

Please ensure you have the latest version of Zoom

Wednesday, May 11, 2022

CALIFORNIA Water Boards

Making Conservation a California a Way of Life:

How forthcoming efficiency standards may impact local wastewater management

CALIFORNIA
Water Boards

Office of Research, Planning, and Performance

Agenda

1:00 – 1:10 PM	Introduction and background
1:10 – 1:25 PM	Presentation on residential indoor water use*
1:30 – 2:15 PM	Review of methods & presentation of results
2:15 – 2:25 PM	Break
2:25 – 2:45 PM	Comments and questions
2:45 – 3:25 PM	Panel discussion on adaptation methods*
3:25 – 3:40 PM	SWRCB DFA presentation on funding opportunities*
3:40 – 4:00 PM	Comments, questions, and wrap-up *

After presentation, 5-10 minutes will be allotted for questions and comments

Logistics

- Ensure your screen name reflects name and affiliation
- Chat is disabled
- To ask a question: use Q&A box or speaker card form: bit.ly/ww_qs
- Participants will be invited to unmute once called upon
- For phone callers: *9 to raise hand, *6 to speak
- Meeting is being recorded
  - Recording will be posted to the Water Efficiency Legislation program page: bit.ly/we_leg

Marielle Rhodeiro

Mary Yang

Max Gomberg

Paola Gonzalez

Chris Martinez, presenter

Office of Research
Planning and Performance

Climate & Conservation Team

Beti Girma

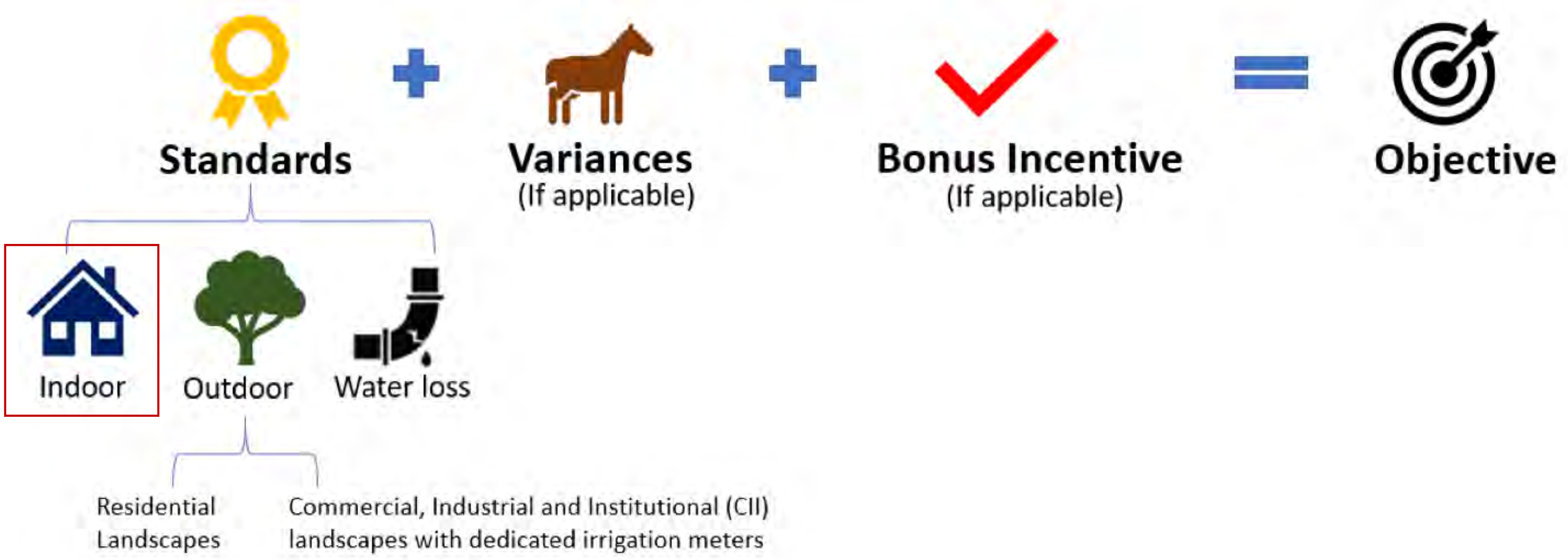
Chris Hyun

Charlotte Ely, presenter

Karina Herrera

Bethany Robinson

Making Conservation a CA way of life: Implementing AB 1668 and SB 606



Wastewater, Parklands, and Trees

CWC Section 10609.2(c)

- (c) When adopting the standards under this section, the board shall consider the policies of this chapter and the proposed efficiency standards’ ***effects on local wastewater management, developed and natural parklands, and urban tree health***. The standards and potential effects shall be identified by May 30, 2022. The board shall allow for public comment on potential effects identified by the board under this subdivision.

Trends in Residential Indoor Use

Results of the Indoor Residential Water Use Study

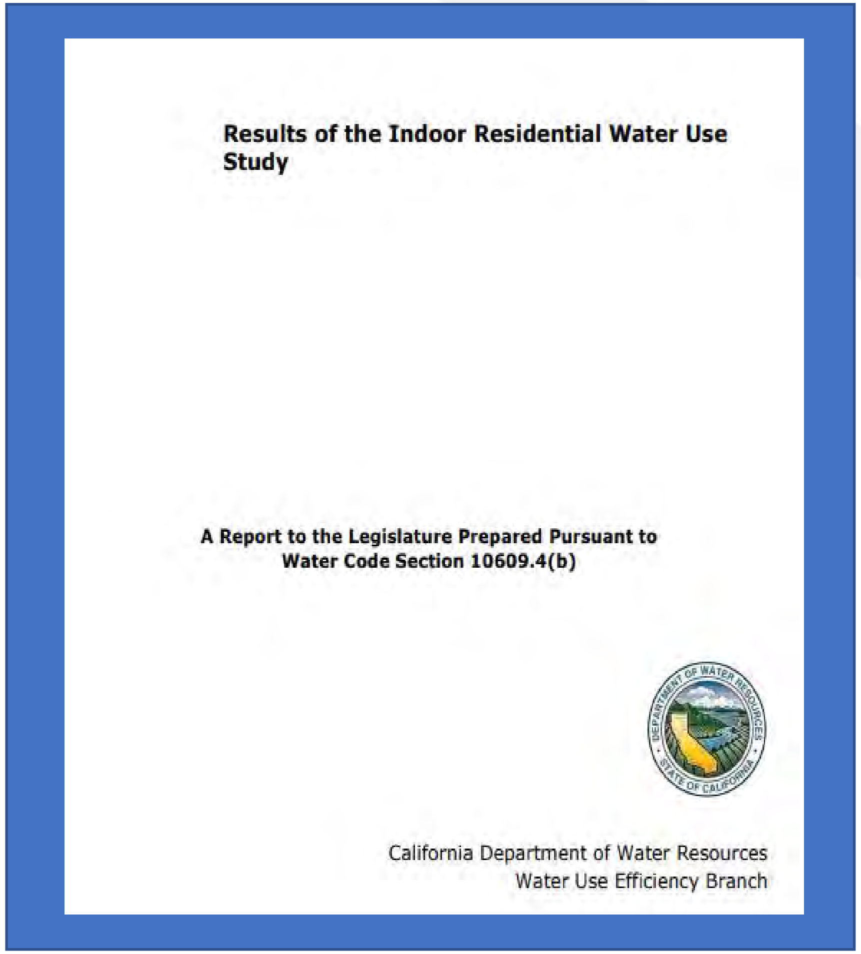
Charlotte Ely, Conservation Supervisor, State Water Board

Examining California's Residential Indoor Water Use

Joe Fazio, Flume, and Peter Mayer, WaterDM

CALIFORNIA Water Boards

Report on Residential Indoor Use: Findings


Results of the Indoor Residential Water Use Study

A Report to the Legislature Prepared Pursuant to Water Code Section 10609.4(b)

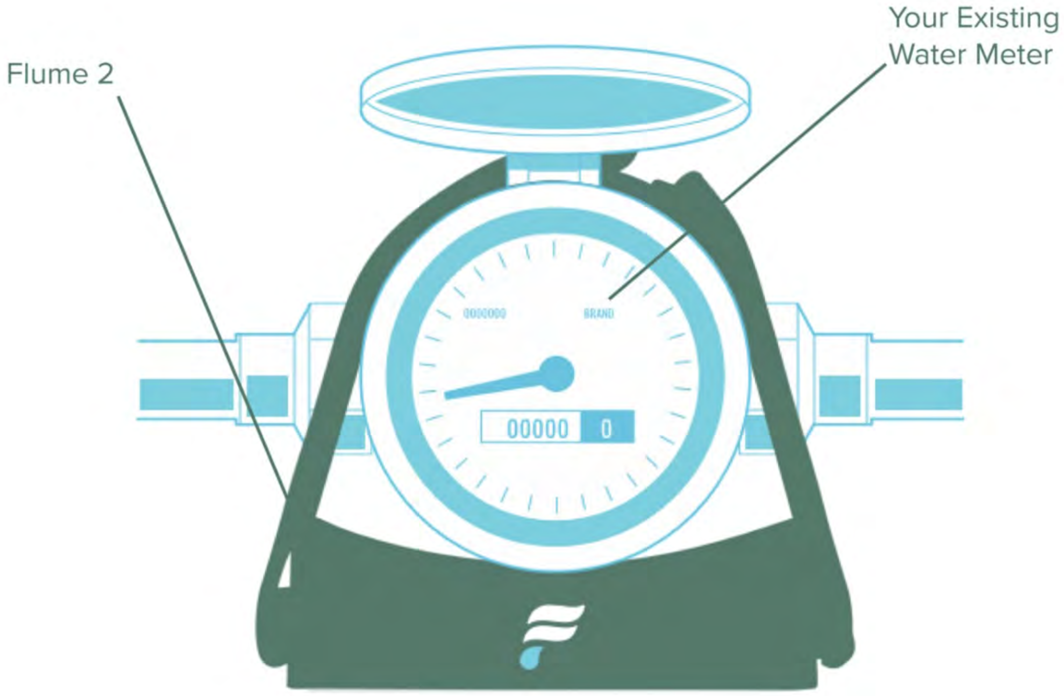
California Department of Water Resources
Water Use Efficiency Branch

- Informed by:
  - 1 million customer accounts
  - Water deliveries from 157 URWS
- Findings, based '17- '19 data:
  - Statewide average was **51** GPCD
  - Statewide median was **48** GPCD
- Relevant Appendices:
  - Appendix I
  - Appendix J

https://water.ca.gov/-/media/DWR-Website/Web-Pages/Programs/Water-Use-And-Efficiency/AB-1668-and-SB-606-Conservation/Results-of-the-Indoor-Residential-Water-Use-Study.pdf

Report on Residential Indoor Use: Recommendations

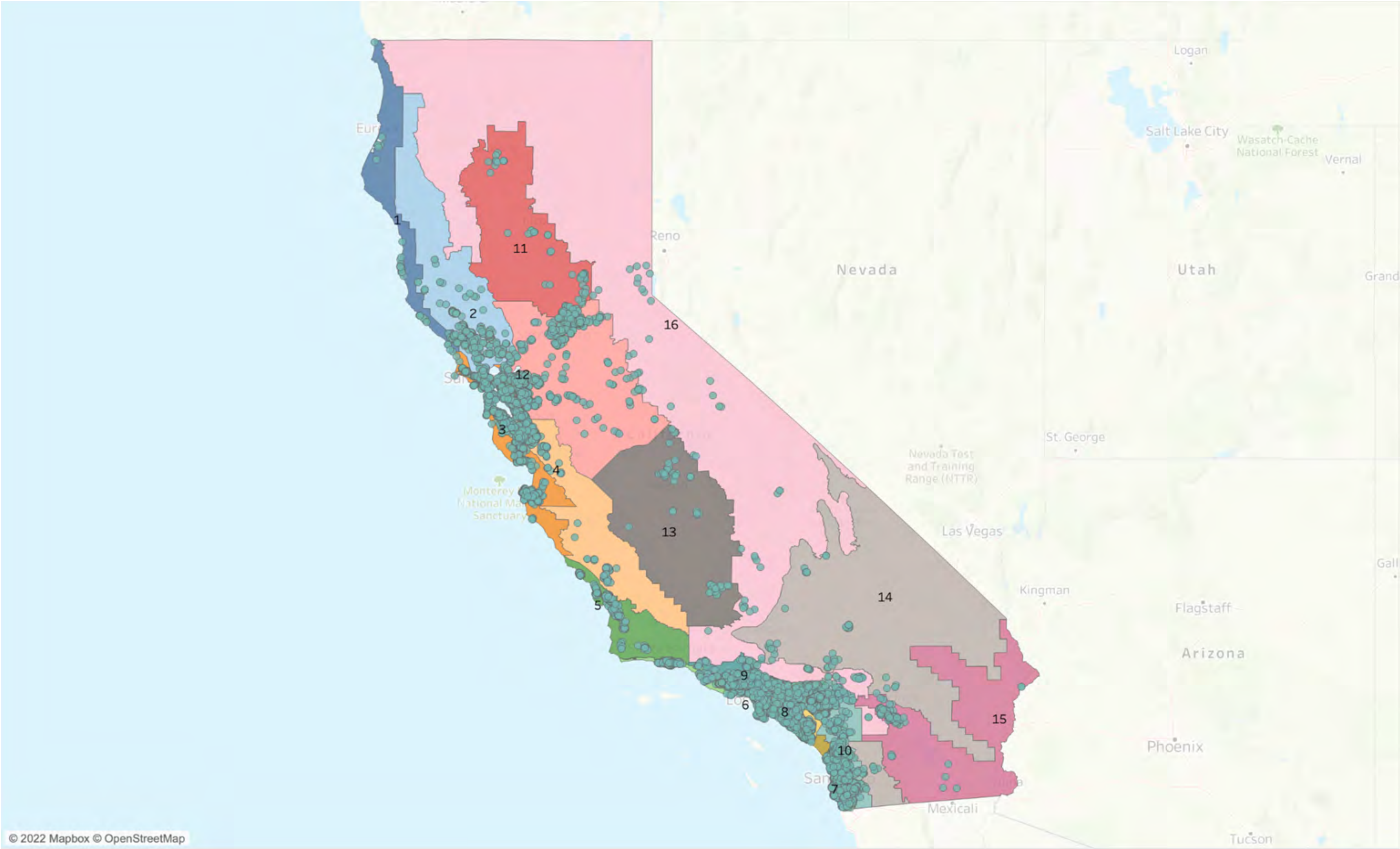
Year	Statute	DWR-SWB Recommendation
2020	55	No change
2025	52.5	47
2030	50	42



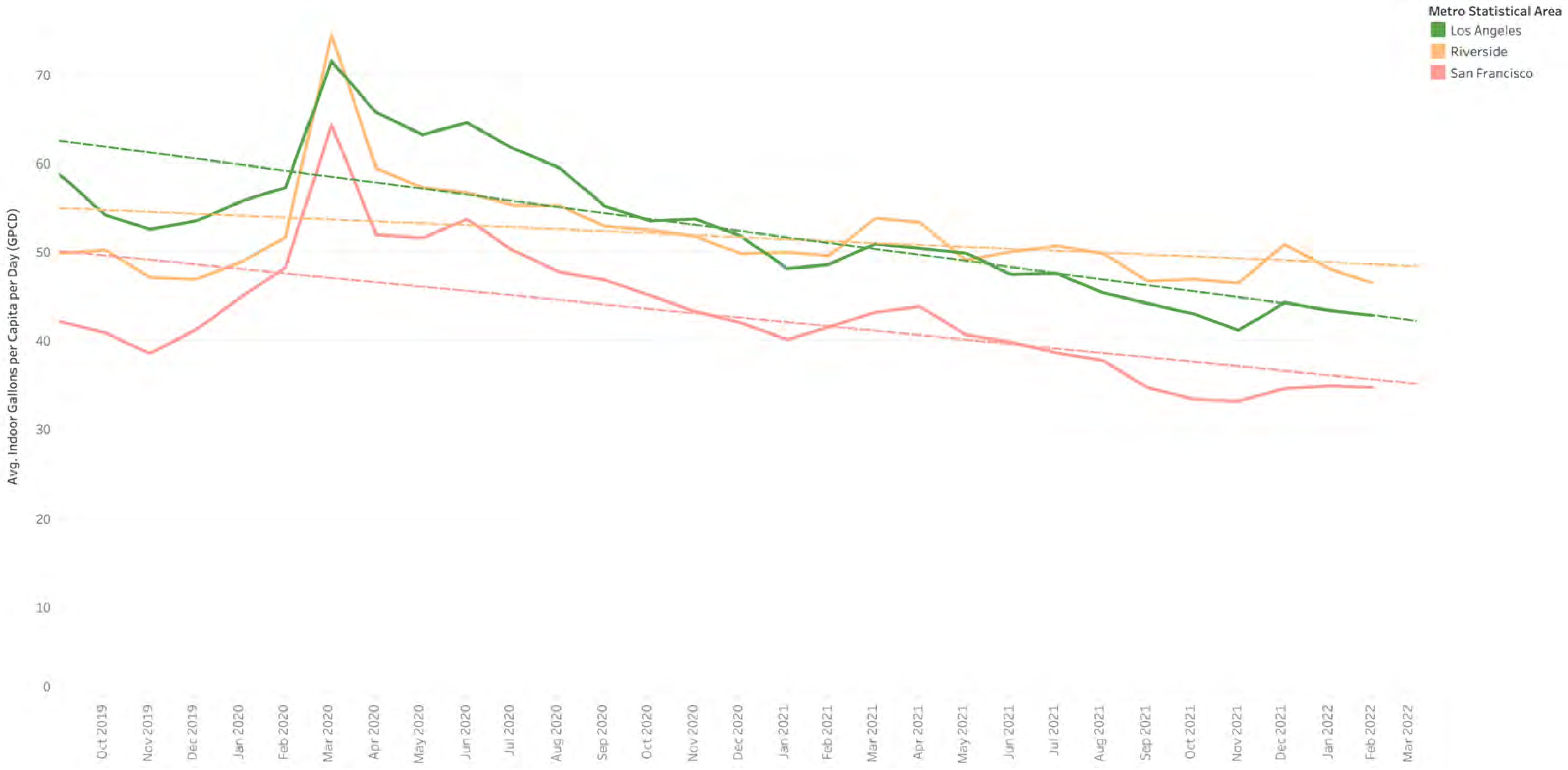
Examining US Residential Water Use

Our in-depth analysis utilizes a network of high-resolution sensors that are already deployed throughout the nation.

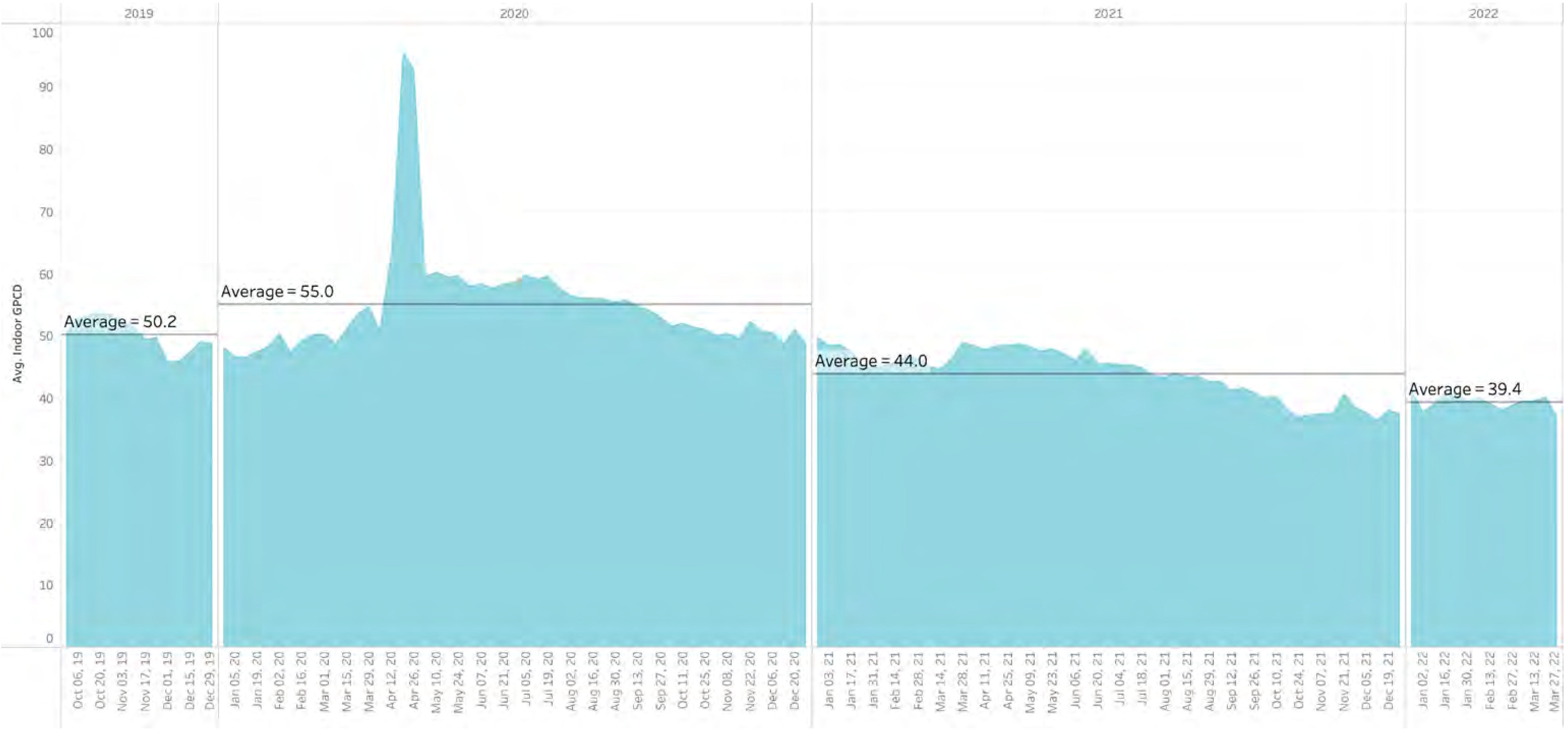
Flume Sensors in California



Indoor Water Use in California (Selected MSA's)



Indoor Water Use in California (all Flume Sensors)



Questions?

To ask a question: use Q&A box or speaker card form: bit.ly/ww_qs

For phone callers: *9 to raise hand, *6 to speak

How proposed efficiency standards may affect wastewater management

Overview

Charlotte Ely, State Water Board

Reviewing Methods and Presenting Results

Erik Porse, Harold Leverenz, and Caitlyn Leo
Office of Water Programs, CSU Sacramento

CALIFORNIA
Water Boards

Benefits of Efficient Indoor Use

- Water savings
- Energy savings
- Reduced water bill
- Protects water quality
- Reduced need for infrastructure investments
- Mitigated rate increases

Adapting to and mitigating the impacts of climate change

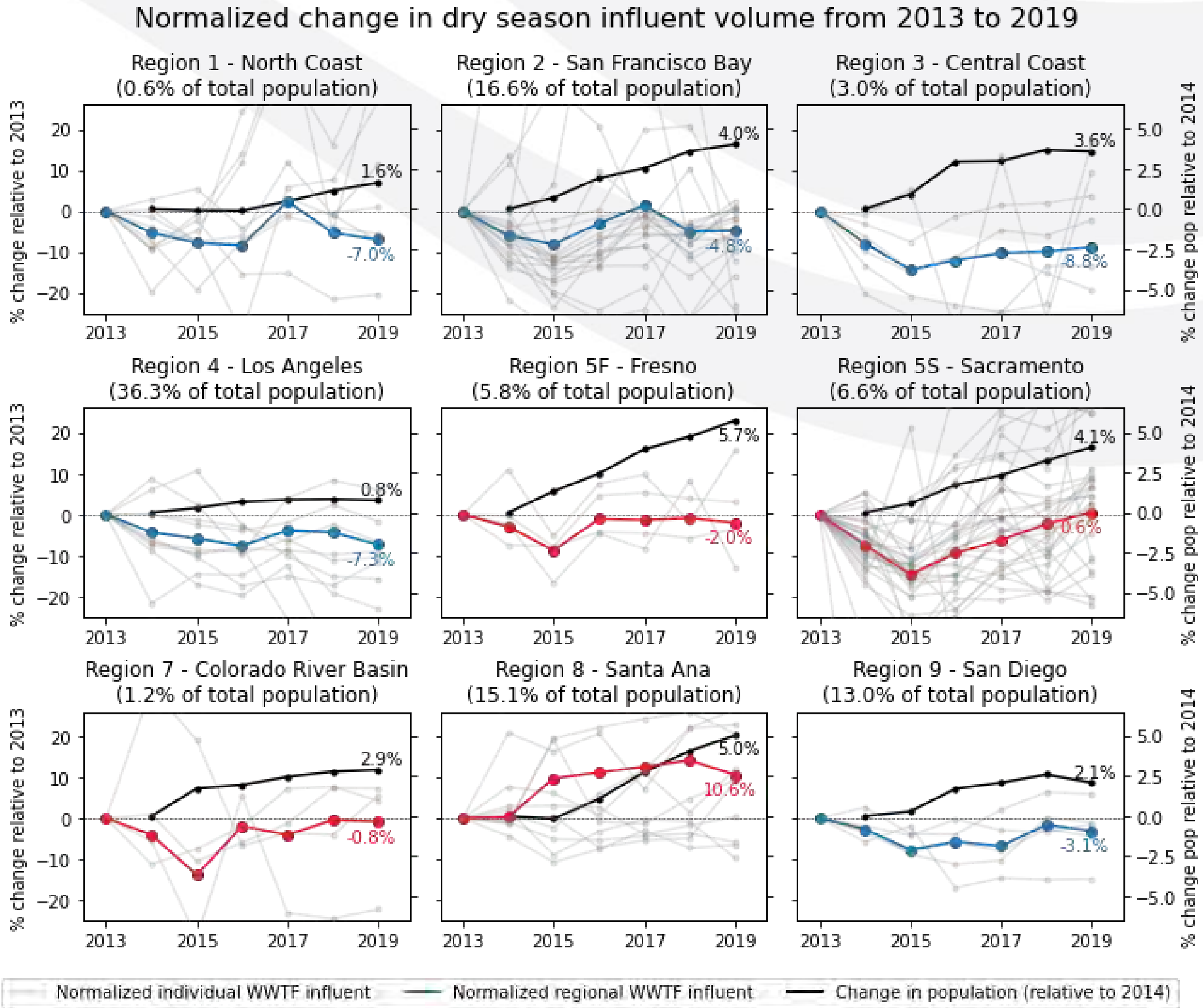
Analytical approach

What we evaluated	What we did not evaluate
• Connected water service areas to sewer-sheds • Ran three different scenarios to identify systems that may be affected by 1668-606 implementation • Modeled how changes in influent flow rates may affect operations • Used survey results to scope analysis and benchmark findings • Estimated prospective O&M and capital costs	• For collection systems, how influent composition might change for a specific facility • For treatment systems, how influent composition and chemical usage might change for a specific facility; capital upgrade needs with site-specific considerations • For reuse systems, how facility-specific changes in influent quality could affect operations

Across the state, annual dry-weather influent flow has declined in most regions

Linear fit indicates decreasing trend in influent volume

Linear fit indicates increasing trend in influent volume



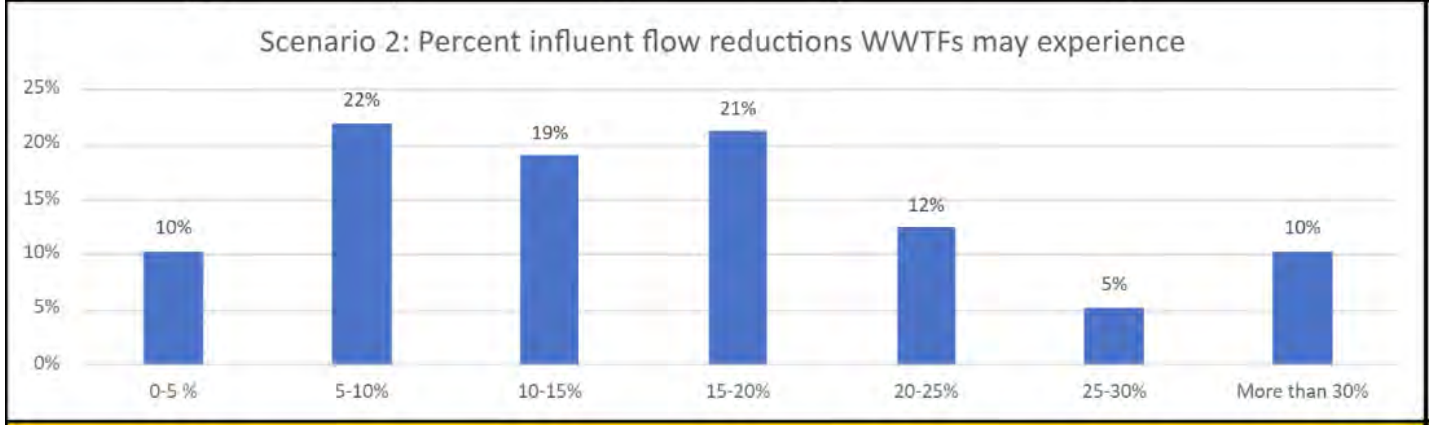
Future scenarios evaluated

Parameter	Scenario 1	Scenario 2	Scenario 3
Indoor residential	Until 2025: 55 GPCD 2025 to 2030: 52.5 GPCD **After 2030: 50 GPCD**	Until 2025: 55 GPCD 2025 to 2030, 47 GPCD **After 2030, 42 GPCD**	Until 2025: 50 GPCD 2025 to 2030, 42.5 GPCD **After 2030, 35 GPCD**
Outdoor Residential	**100% of Irrigable Irrigated (II) area @ 70% of ETo (II @ 70%).**	Until 2030: II @ 70% **After 2030: II @ 62%**	Through 2025: II @ 70% Through 2030: II @ 62% **After 2030: II @ 55%**

20% of Irrigable Not Irrigated (INI) area included

Scenario 2: WWTFs that may be impacted

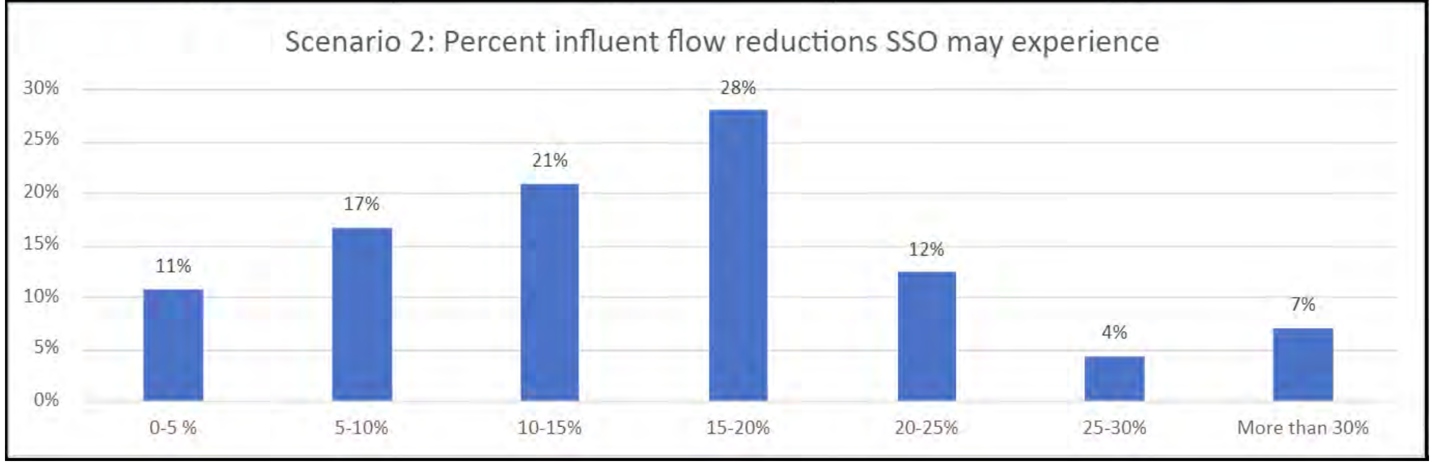
Scenario 2 (42 GPCD for r-indoor; 62% ETF for r-outdoorapplied to 100 of II area + 20% of INI area)		
Percentage of systems that may experience lower/more concentrated flows		
61%		
Percentage of systems that may experience lower flows	*median % reduction*	*Percentage of systems that may experience more concentrated flows*
38%	15%	23%



Scenario 2, assumed that, in 2030, the residential indoor standard would be 42 GPCD and the residential outdoor standard would be an ETF of 62%, applied to 100% of II and 20% of INI area.

Scenario 2: Collection systems that may be impacted

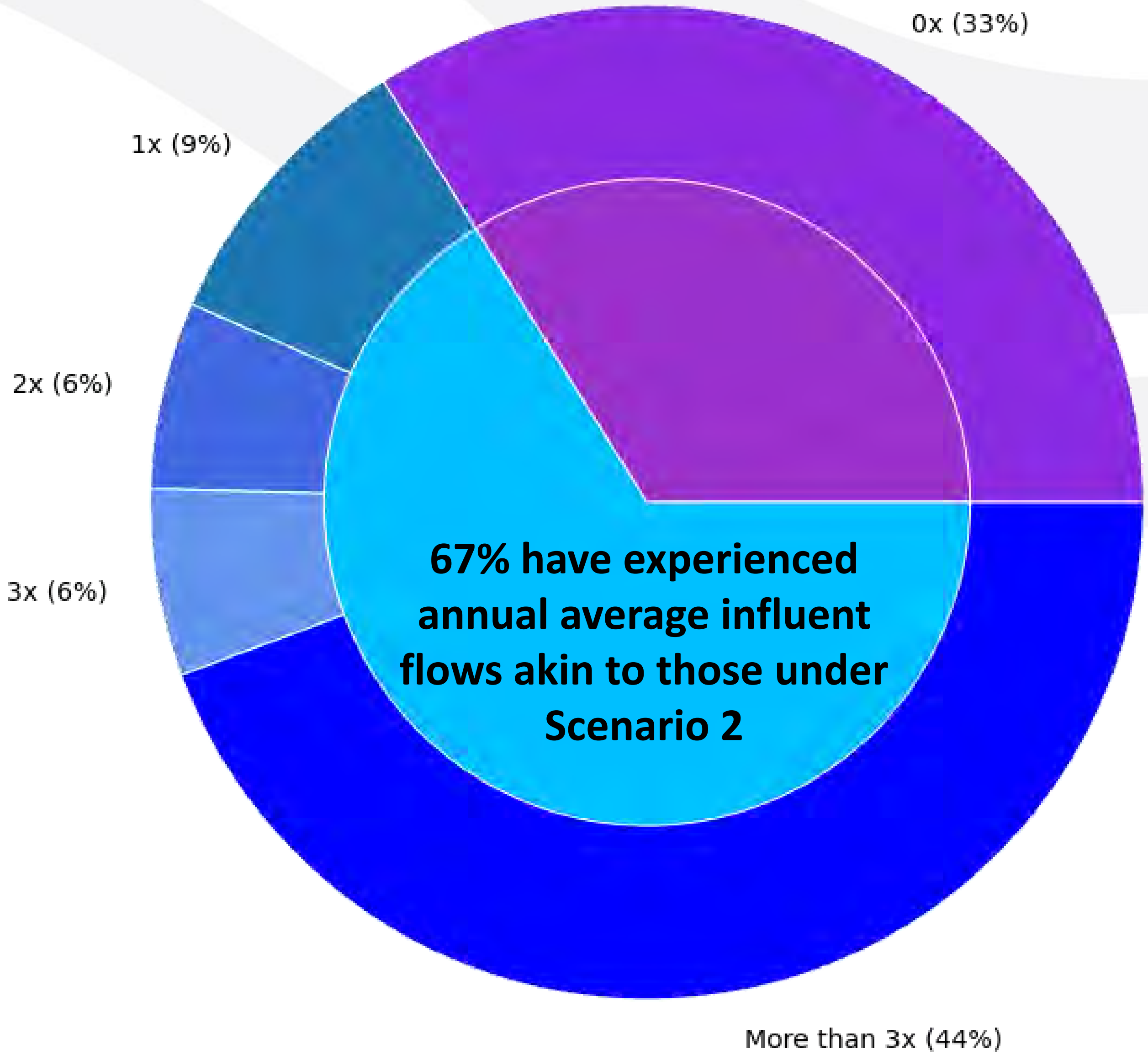
Scenario 2 (42 GPCD for r-indoor; 62% ETF for r-outdoorapplied to 100 of II area + 20% of INI area)		
Percentage of systems that may experience lower/more concentrated flows		
62%		
Percentage of systems that may experience lower flows	*median % reduction*	*Percentage of systems that may experience more concentrated flows*
45%	15%	17%



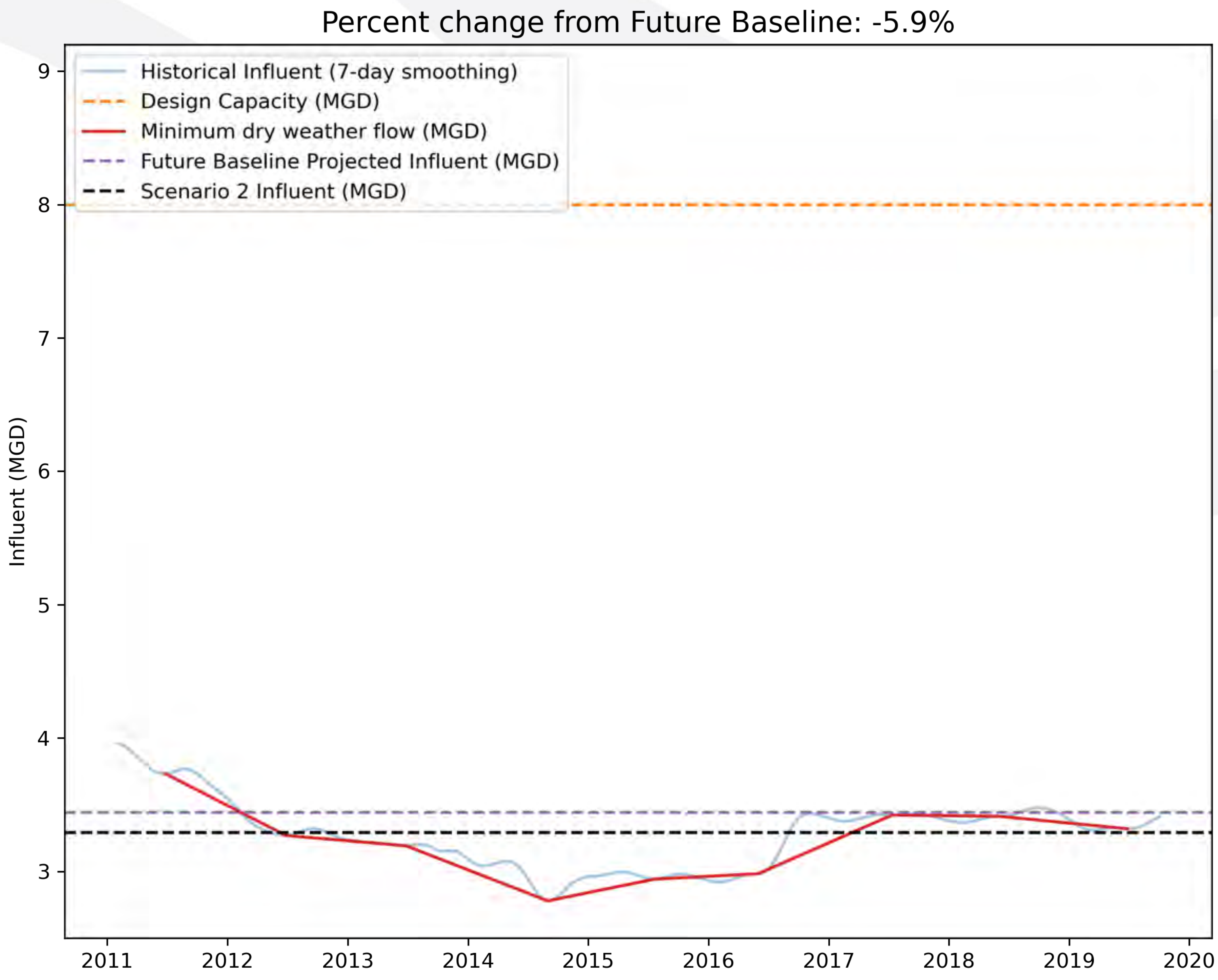
Scenario 2, assumed that, in 2030, the residential indoor standard would be 42 GPCD and the residential outdoor standard would be an ETF of 62%, applied to 100% of II and 20% of INI area.

Comparing annual average historic influent flows (2011-2019 CWIQS data) to theoretical flows under Scenario 2:

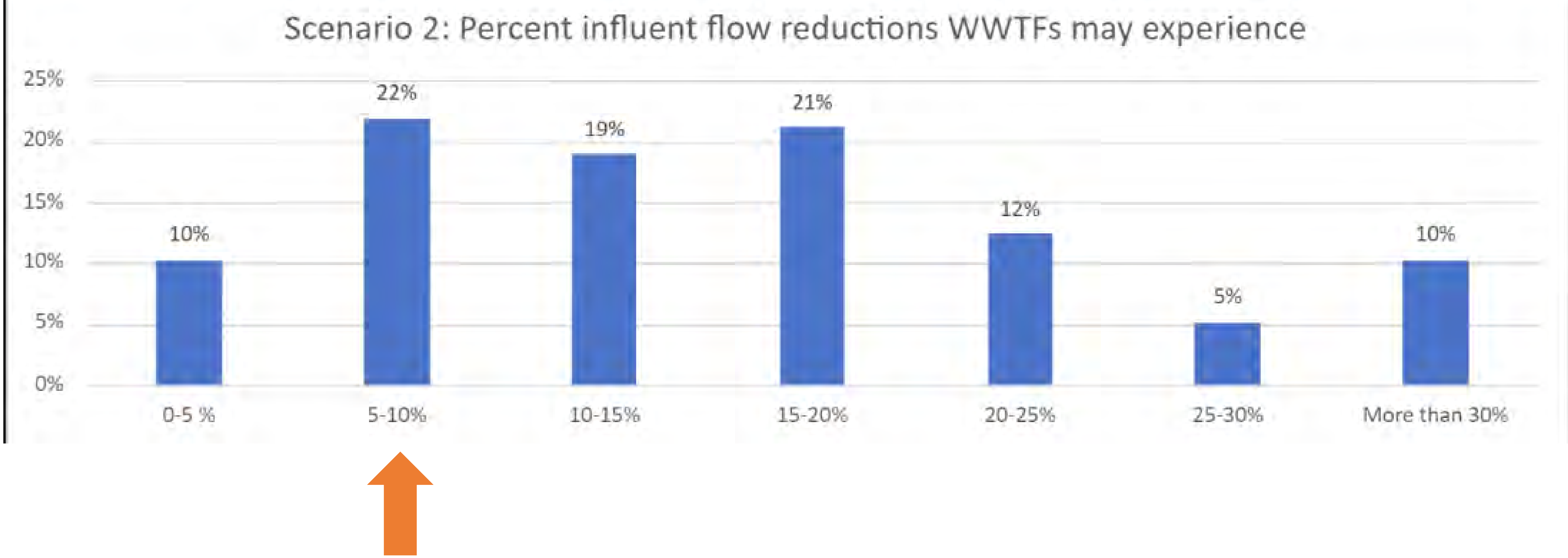
How many times has influent historically dropped below the volume forecasted under Scenario 2?

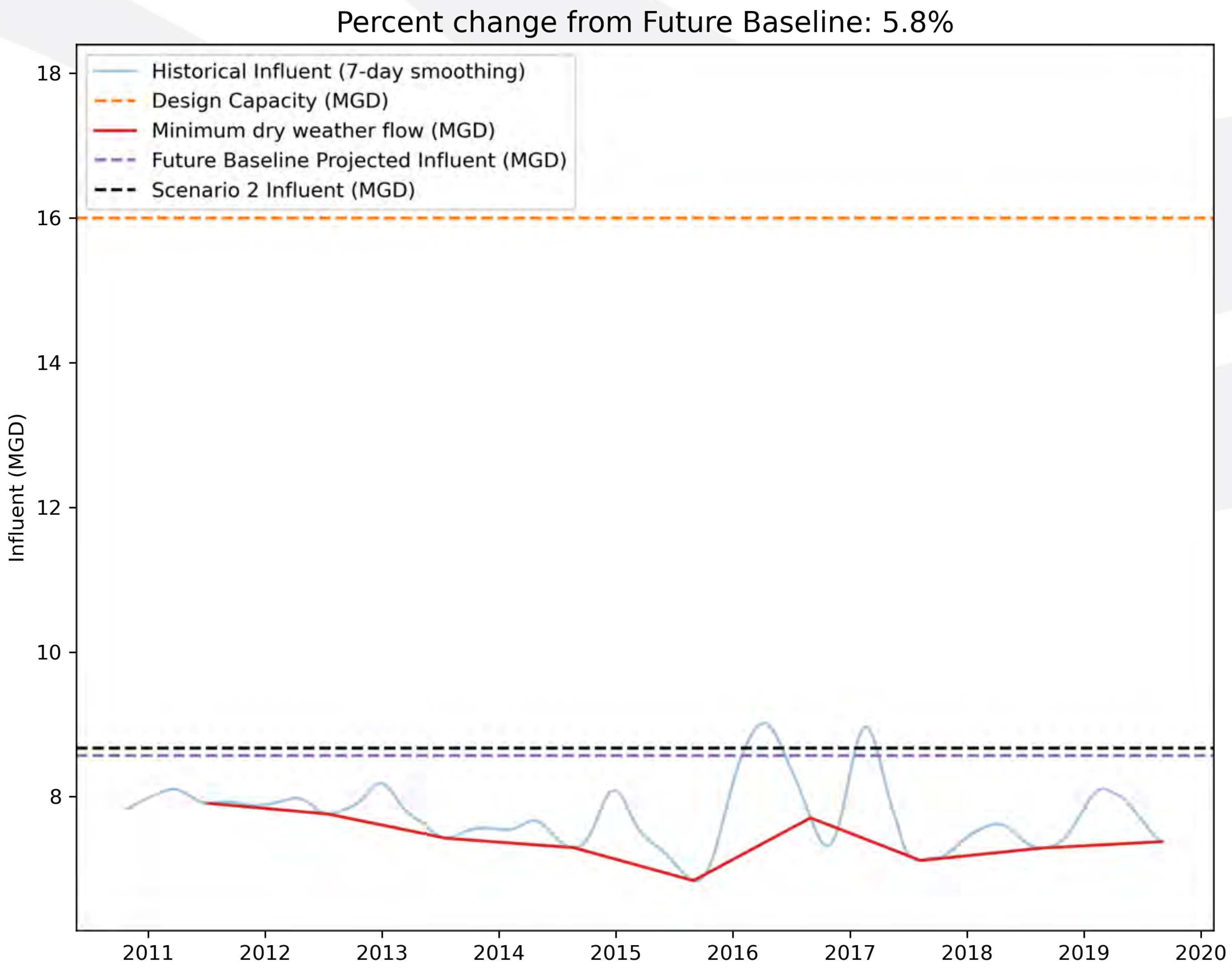


Scenario 2: 42 GPCD and an ETF of 62%, applied to 100% of II area + 20% of INI area

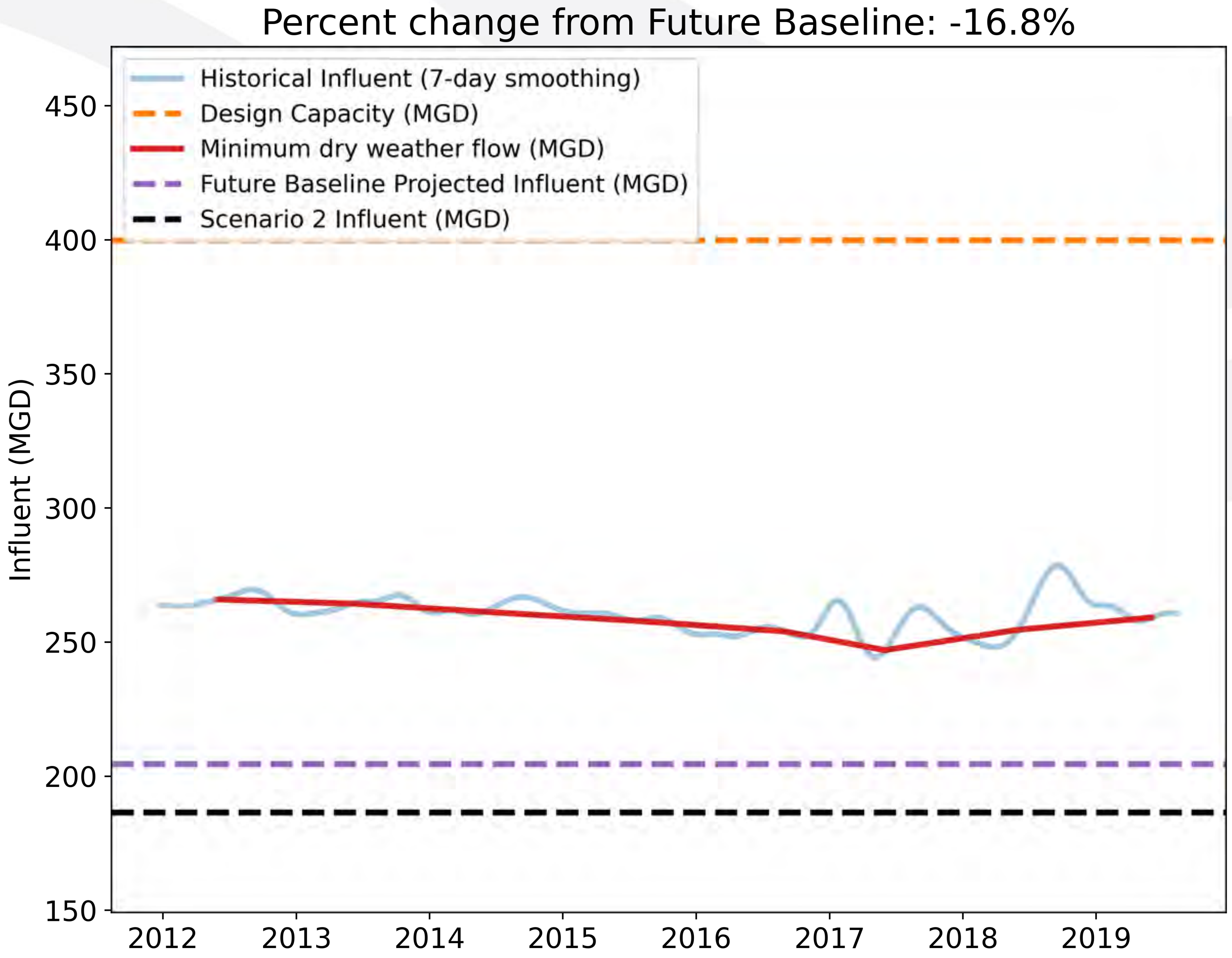


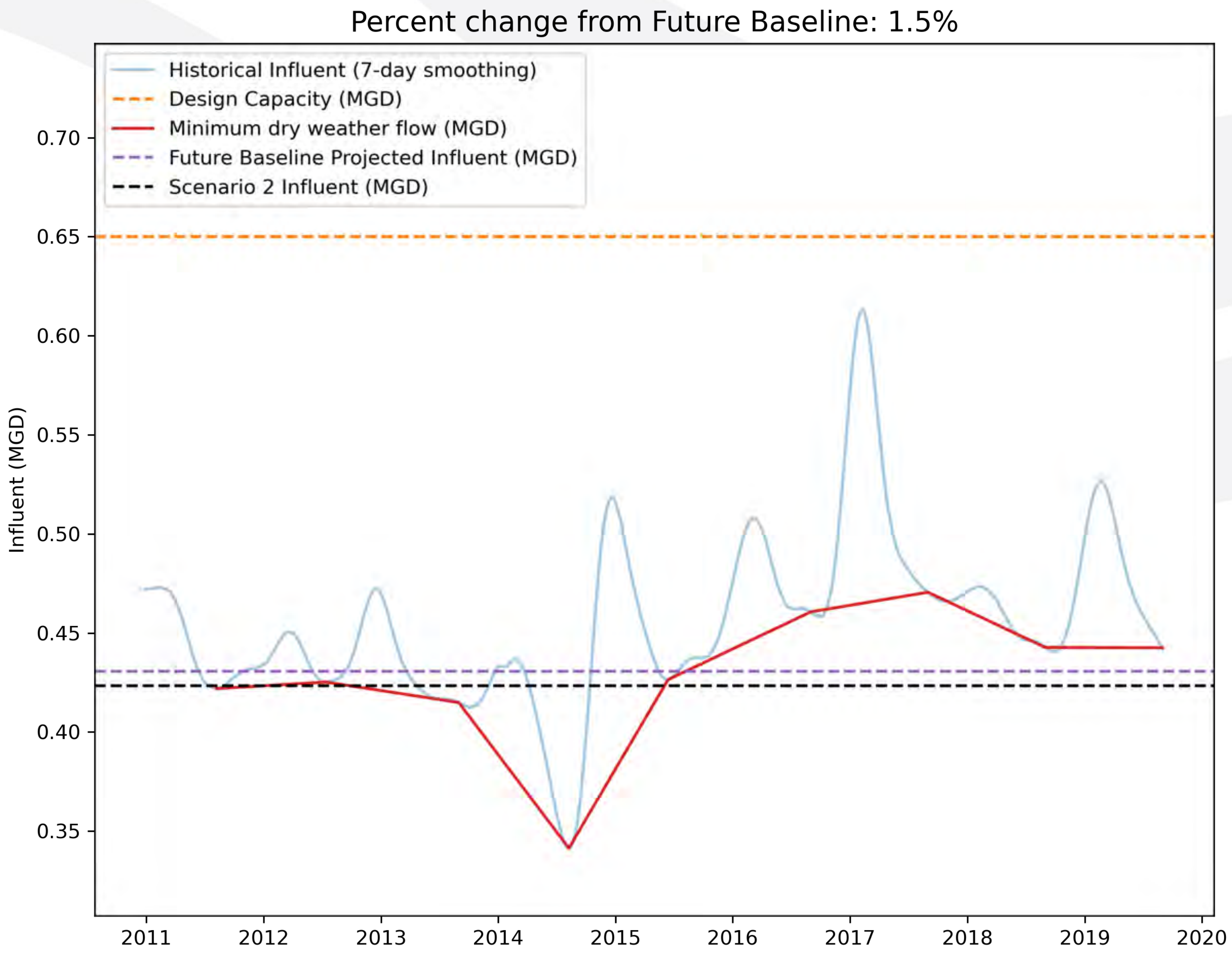
Scenario 2 (42 GPCD for r-indoor; 62% ETF for r-outdoorapplied to 100 of II area + 20% of INI area)		
Percentage of systems that may experience lower/more concentrated flows		
61%		
Percentage of systems that may experience lower flows	*median % reduction*	*Percentage of systems that may experience more concentrated flows*
38%	15%	23%

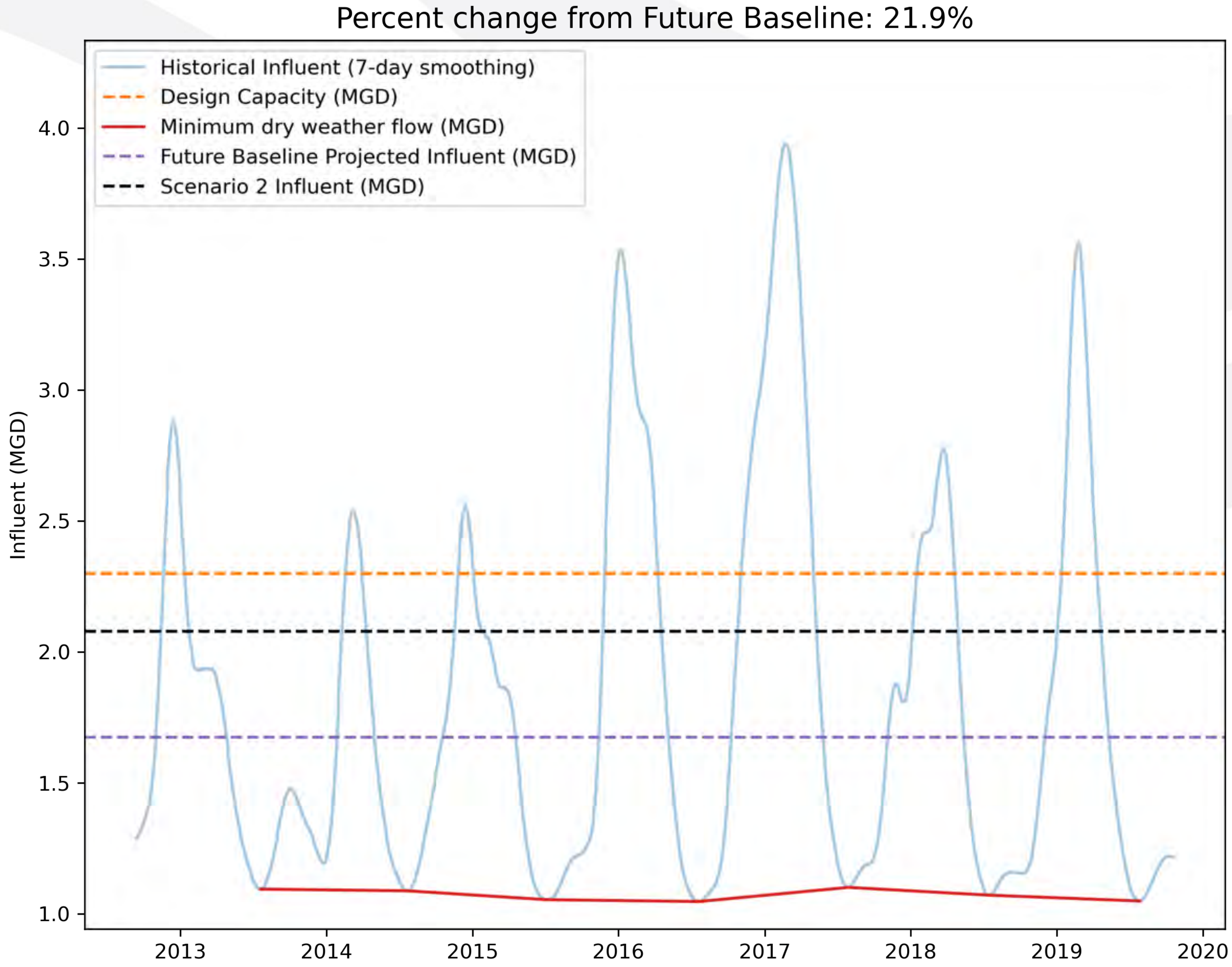



Percent change from Future Baseline: 5.8%
Historical Influent (7-day smoothing)
Design Capacity (MGD)
Minimum dry weather flow (MGD)
Future Baseline Projected Influent (MGD)
Scenario 2 Influent (MGD)
Influent (MGD)
18
16
14
12
10
8
2011
2012
2013
2014
2015
2016
2017
2018
2019
2020

Scenario 2: 42 GPCD and an ETF of 62%, applied to 100% of II area + 20% of INI area




Percent change from Future Baseline: 1.5%
Historical Influent (7-day smoothing)
Design Capacity (MGD)
Minimum dry weather flow (MGD)
Future Baseline Projected Influent (MGD)
Scenario 2 Influent (MGD)
Influent (MGD)
0.70
0.65
0.60
0.55
0.50
0.45
0.40
0.35
2011
2012
2013
2014
2015
2016
2017
2018
2019
2020



Percent change from Future Baseline: 21.9%
Historical Influent (7-day smoothing)
Design Capacity (MGD)
Minimum dry weather flow (MGD)
Future Baseline Projected Influent (MGD)
Scenario 2 Influent (MGD)
Influent (MGD)
4.0
3.5
3.0
2.5
2.0
1.5
1.0
2013
2014
2015
2016
2017
2018
2019
2020

Economic and Environmental Effects of AB 1668-SB 606

Effects on wastewater management systems

May 11, 2022

Erik Porse, PhD, OWP at Sacramento State | UCLA
Caitlyn Leo, OWP at Sacramento State
Harold Leverenz, PhD, OWP at Sacramento State | UC Davis

WATER PROGRAMS Sacramento State

UCLA Institute of the Environment and Sustainability

Full Project Scope

Key sectors:

- Urban Retail Water Suppliers: costs & benefits, low-income communities
- Wastewater: conveyance, treatment, and reuse
  - Odor & corrosion, water quality, recycled water production potential
- Developed and natural parklands within service areas
  - Effects of irrigation regimes on vegetation
- Urban trees
  - Effects of irrigation regimes on health and number of trees

Full Project Team

Expertise in urban water supply, wastewater management, urban ecology, and economics related to AB 1668-SB 606

WATER PROGRAMS Sacramento State

Erik Porse, PhD
Jonathan Kaplan, PhD
Maureen Kerner, PE
John Johnston, PhD, PE
Harold Leverenz, PhD, PE
Caitlyn Leo
Khalil Lezzaik, PhD
Dakota Keene
David Babchanik
Patrick Maloney
Scott Meyer
Samira Moradi
Ramzi Mahmood, PhD

UCLA Institute of the Environment and Sustainability

Stephanie Pincetl, PhD
Lawren Sack, PhD
Felicia Federico, PhD
Robert Cudd
Julia Skrovan
Hannah Gustafson
Marvin Browne
Lauren Strug

The University of California Davis

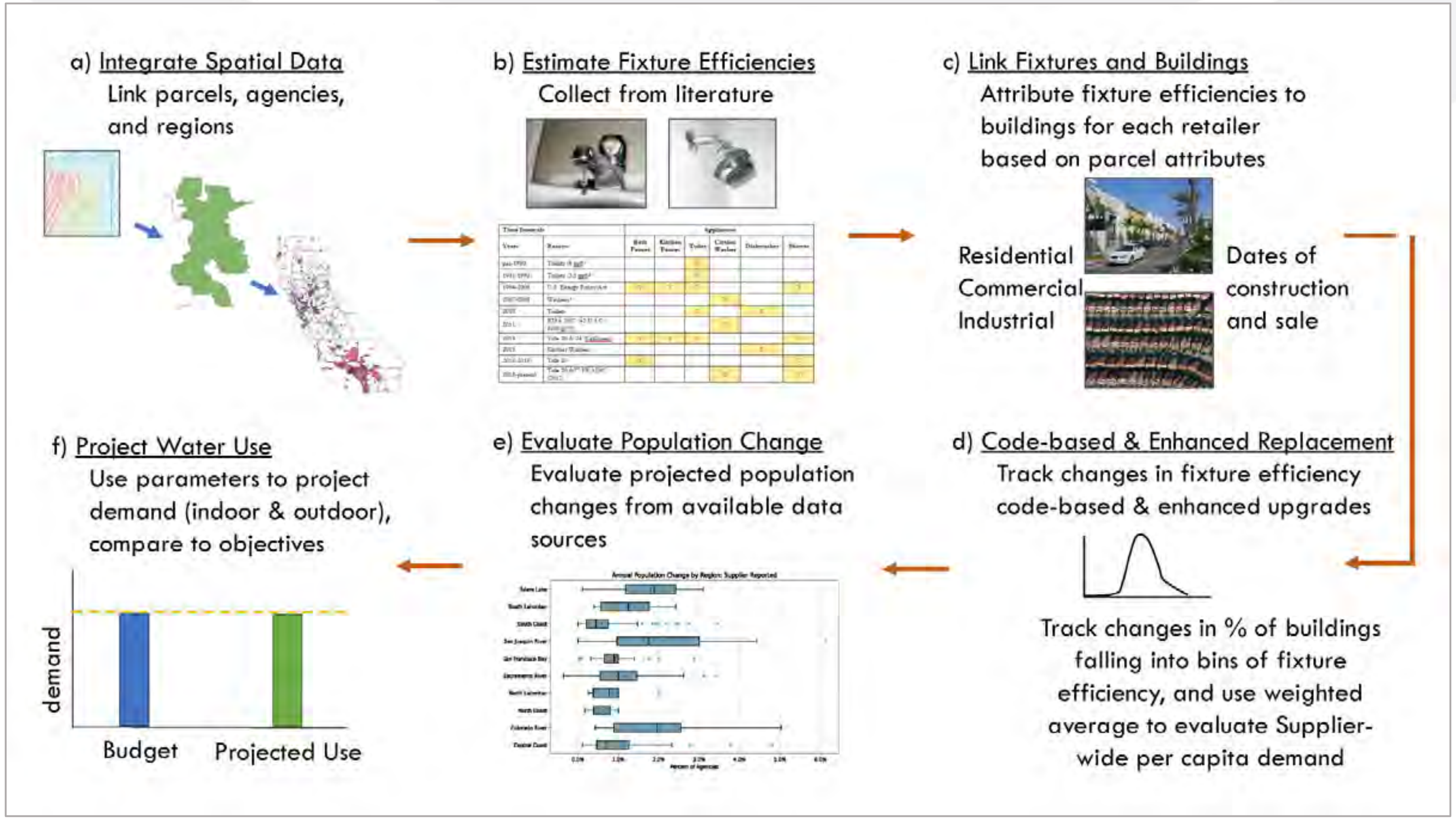
Mary Cadenasso, PhD
Joanna Solins, PhD
Bogumila Backiel

Humboldt State University

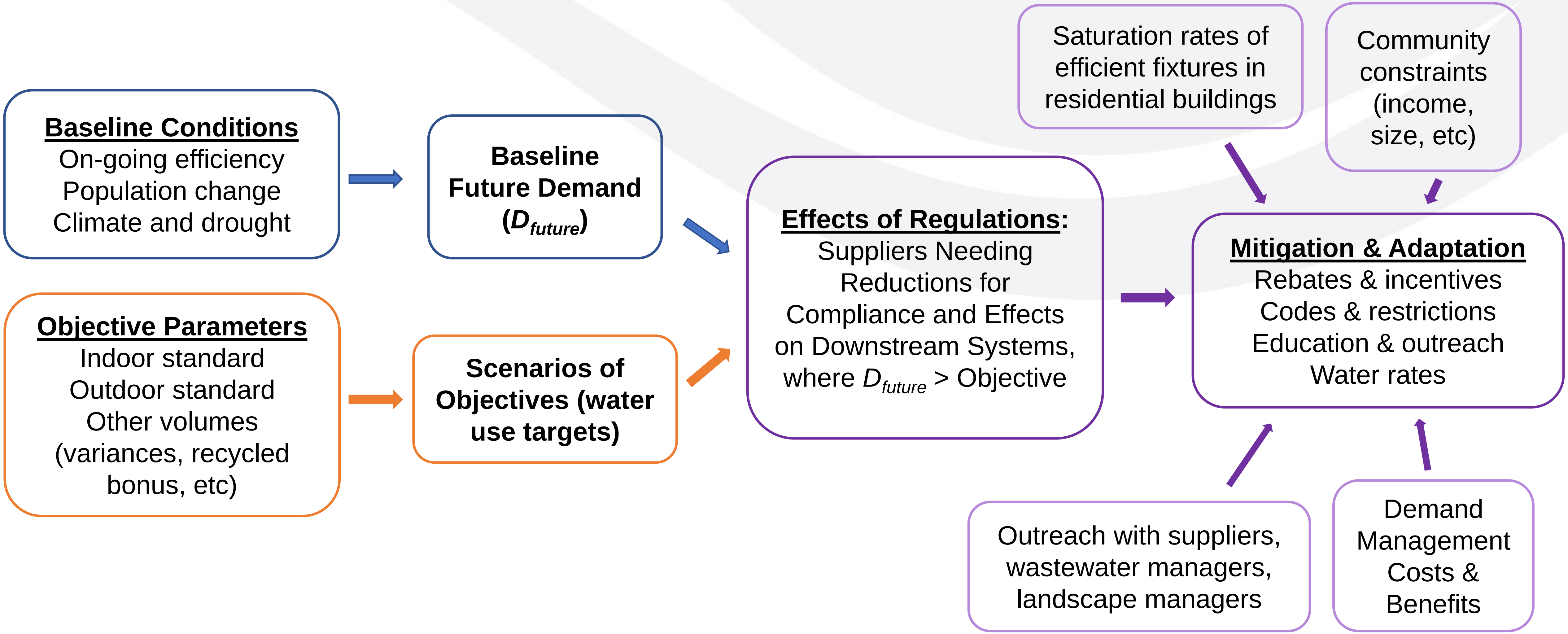
Erick Eschker, PhD
Jonathan Sander

Baseline: Future Indoor and Outdoor Demand

- Estimated a "baseline" of what would happen in the absence of regulations through 2030
  - Parcel data
  - Evaluate existing conservation and estimated saturation rates of efficient indoor fixtures
  - Code-based & enhanced replacement of indoor fixtures
  - Turf replacement



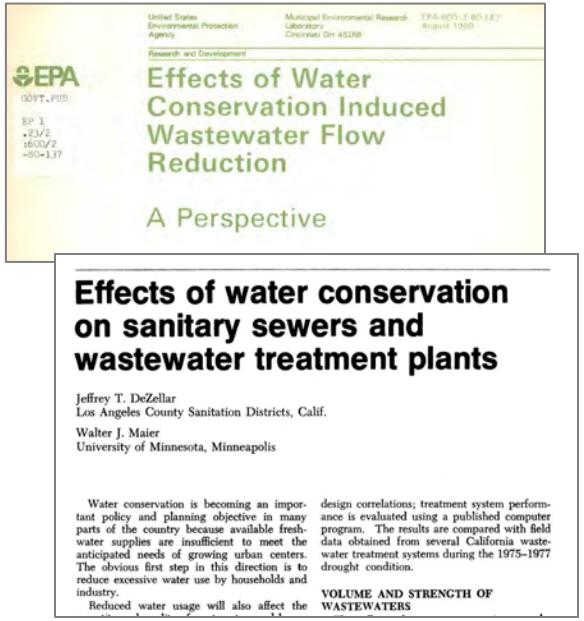
Evaluating Mitigation and Adaptation Actions



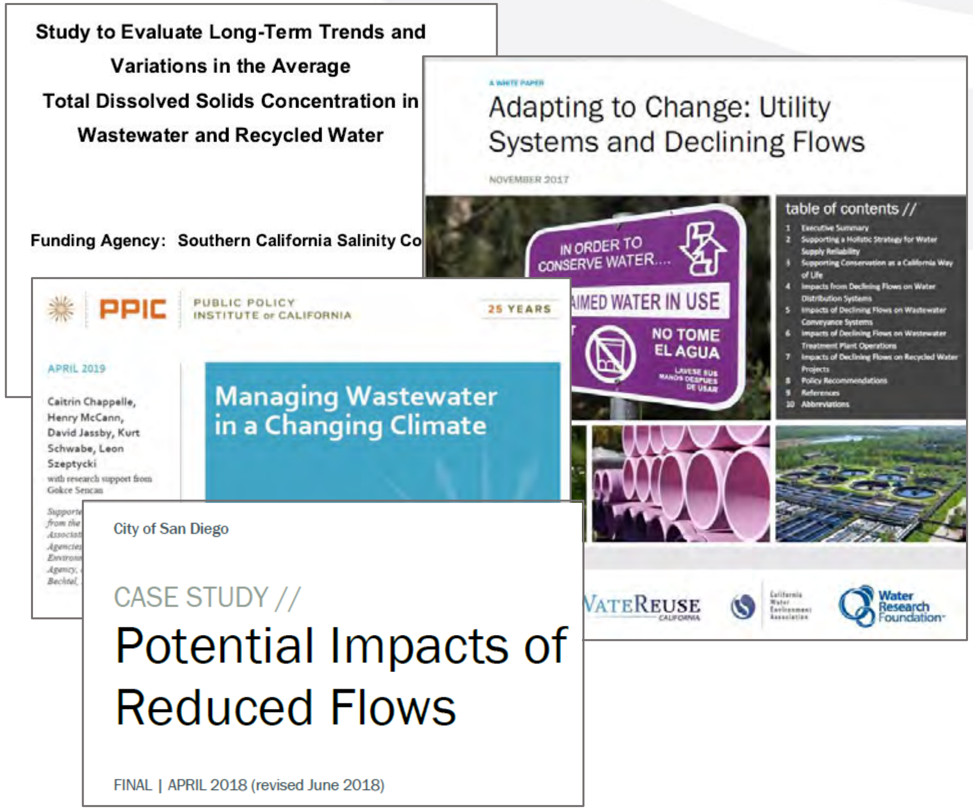
Effects on Wastewater Management: Sources

No statewide tool(s) existed to estimate quantitative impacts on wastewater facilities from water demand changes

Historical Studies



Recent Evaluations



Messy Data

Effects on Wastewater Management

How will demand reductions affect wastewater management systems and facilities?

Indoor demand reductions in Suppliers lead to reduced wastewater generation and influent flows

→

Network modeling to evaluate flow changes for collection and treatment systems

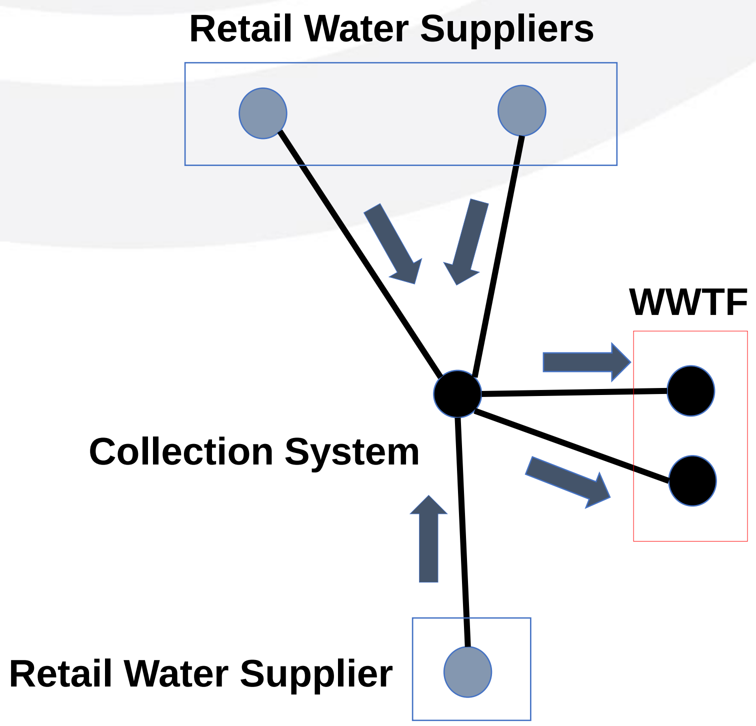
Reductions for AB 1668-SB 606 Compliance

Baseline indoor reductions

Water Use Efficiency Objective Impact Factor:

$$WEO_{wwtf} = \frac{\sum_r^R V_{wwtf,future}}{\sum_r^R V_{wwtf,actual}}$$

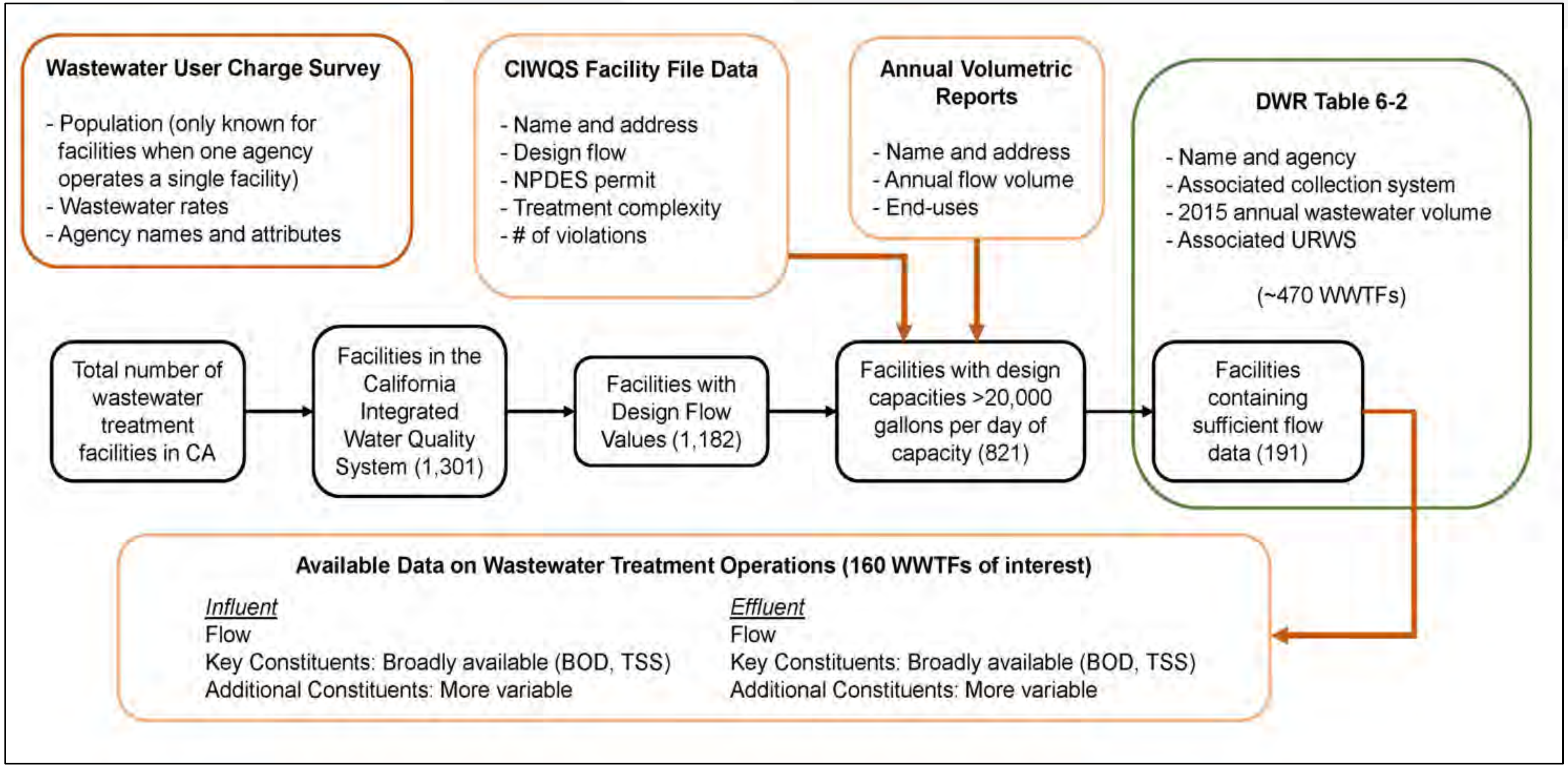
Network Modeling to Project Effects



WWTF = Wastewater Treatment Facility

Integrating Historical Operations Data

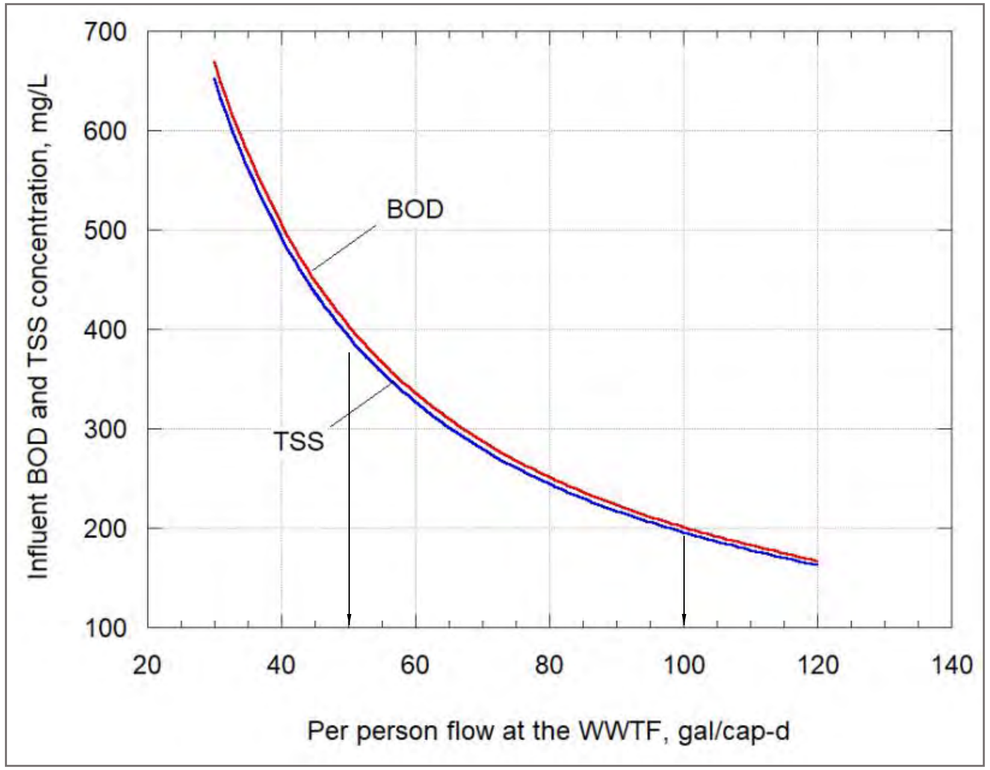
- Data does not exist for all facilities. Must use percentages and extrapolations



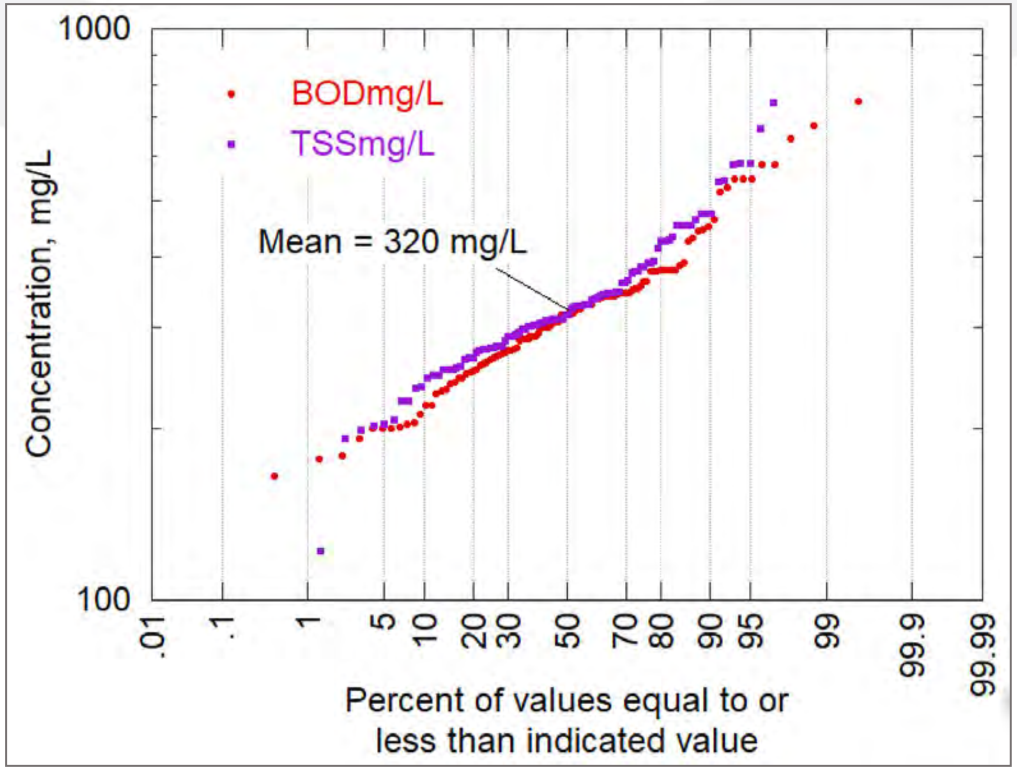
Lower Flows and Concentrations

- To project effects in wastewater management, we must incorporate changes in flow, population, and concentration over 10 years

Influent Changes & Per Capita Use



Influent Concentrations at WWTFs



Outreach with the Wastewater Management Community

Outreach Results: Uncertainty in Impacts

Used more electricity (or other energy sources)	25	61%
increased frequency of inspections	20	67%
Used more staff/ hired labor	7	17%
Increased frequency of preventative clean-outs (i.e., sewer flushing, pipe routing)	24	80%
Employed more outside technical consultants or specialized services	14	34%
Purchased replacement equipment sooner than expected	11	27%
Purchased more or different chemicals	8	27%

Wastewater Collection Systems

In what processes were capital improvements implemented (or planned) to address the challenges? Select all that apply.	Responses	42
Headworks/pretreatment	19	45%
Primary sedimentation	6	14%
Biological system and/or secondary sedimentation	27	64%
Disinfection system	8	19%
Filtration System	6	14%
Blower/Diffuser	21	50%

In the future, given current capacity of your systems, over what range would low influent flows require remediation actions?	Responses	65
Less than 5% flow reduction	*	
Between 5% and 10% flow reduction	7	11%
Between 10% and 20% flow reduction	7	11%
Greater than 20% flow reduction	13	20%
Not Sure	37	57%

** Asterisk denotes four or fewer responses*

Wastewater Treatment Facilities

In the future, given current capacity of your systems, over what range would low influent flows require remediation actions?	Responses	79
Less than 5% flow reduction	*	
Between 5% and 10% flow reduction	*	
Between 10% and 20% flow reduction	6	8%
Greater than 20% flow reduction	29	37%
Not Sure	39	49%

** Asterisk denotes four or fewer responses*

Wastewater Collection Systems:

Estimating Impacts

Summary of Effects on Wastewater Collection

Low Flow Effects

- Increased deposition of solids
- Blockages in pipes and lift stations
- Increased hydrogen sulfide production
- Increased generation of odors and methane
- Increased corrosion
- Increased root intrusion
- Reduction in pumping efficiency

Responses

- Increased labor
- Increased chemical usage
- Changes in energy use
- Additional equipment needs
- Increased repair and replacement (especially due to corrosion)

Modeling Collection System Effects

System Inputs:		
Sewer System Characteristics:		
Population	44311	
Per Capita Use	78.0	gal/capita/d
Average Flow	3.5	MGD
Miles of Sewer	224	miles
Time b/w Flushing Events	100	days
Collection System Influent:		
Temperature	42.2	°C
TSS Concentration	292	mg/L
Total COD Concentration	654	mg/L
Biodegradable COD	588	mg/L
Readily Biodegradable	392	mg/L
Slowly Biodegradable	196	mg/L
Inert COD	65	mg/L
BOD Concentration	307	mg/L
Total Kjeldahl Nitrogen as N	44.7	mg/L
Ammonia as N	26.1	mg/L
Total Sulfur	13.5	mg/L
Sulfate Concentration	39.2	mg/L
Sulfide Concentration	0.47	mg/L

Model Inputs:

- Population
- Per Capita Influent Flow
- Miles of Sewer Network
- Pipe Size Distribution
- Temperature

Modeled Processes:

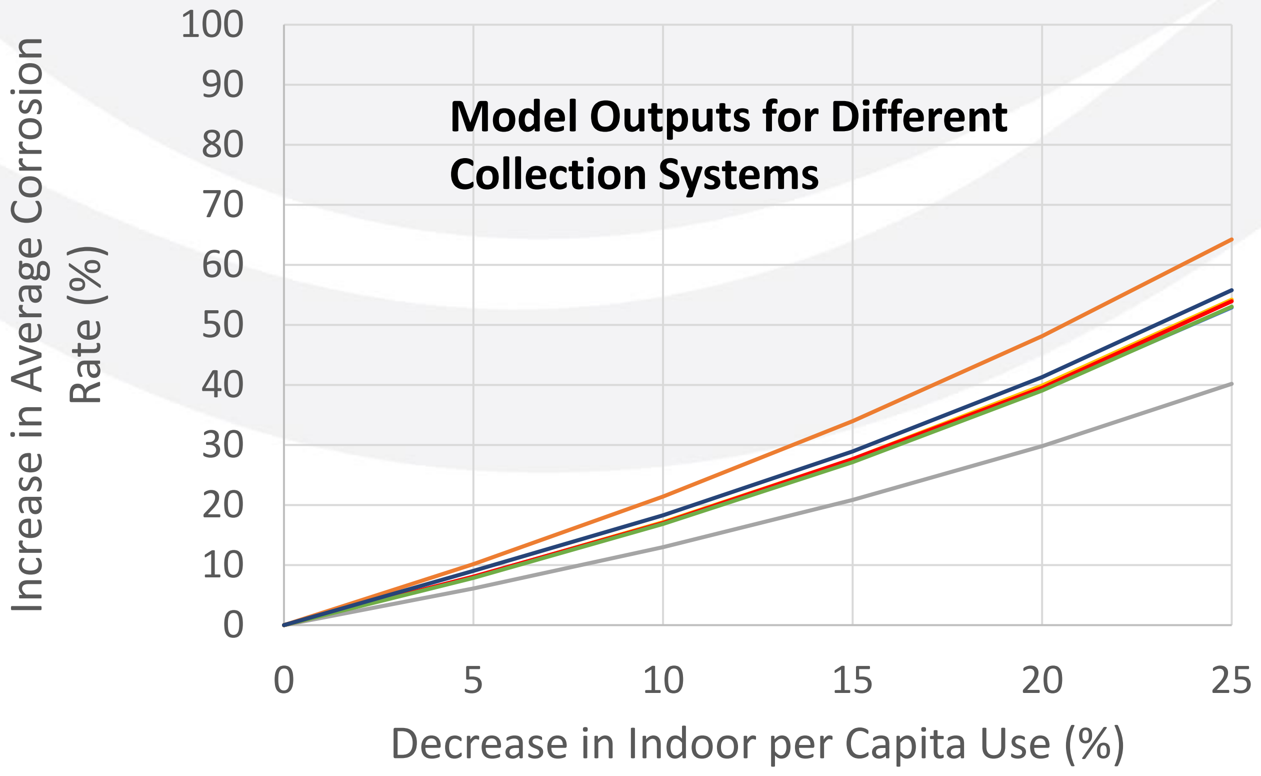
- Flow velocities
- Sediment deposition
- Reaeration
- BOD consumption
- COD transformation
- Corrosion rate
- H_2S production and emissions
- CH_4 production
- NH_3 production
- Chemical addition
- Pumping energy requirements

Model Outputs

Outputs:
- Average sediment depth
- Average corrosion rate
- H_2S emissions per mile

↓

- Annual chemical costs
- Annual pipe replacement costs
- Pumping energy costs

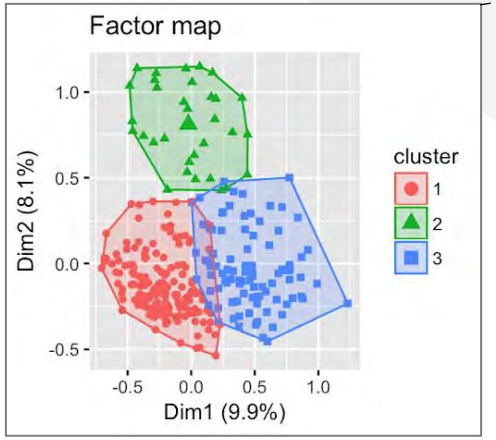


- Ran model for 50 collection systems using data from SSO questionnaire reducing current per capita flow by 25% in increments of 5%

Estimating Effects of Reduced Flows

Use existing data to cluster collections systems

SSO Database and other sources



System Characteristics, by Cluster

Cluster	Average System Characteristics
1	• Percent Pipes < 8”: 63.2% • Climate Zone Score: 2.3 • Estimated Flow: 139.7 gpd • Avg. Summer Temp: 22.7°C
2	• Percent Pipes < 8”: 73.3% • Climate Zone Score: 2.9 • Estimated Flow: 74.2 gpd • Avg. Summer Temp: 27.4°C
3	• Percent Pipes < 8”: 74.9% • Climate Zone Score: 4.1 • Estimated Flow: 84.6 gpd • Avg. Summer Temp: 36.8°C

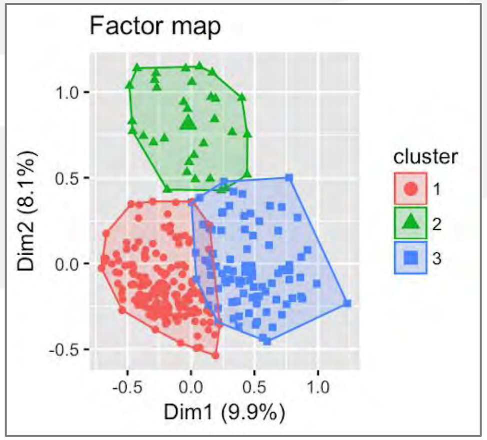
Estimating Effects of Reduced Flows

Use model outputs to assign characteristics to clusters

Model Outputs (50 systems)

Collection System	% Increase per % Decrease in Per Capita Use			
	Corrosion Rate	H_2S Emissions	Sedimentation	Chemical Addition
1	1.98	0.34	0.31	0.38
2	2.00	2.52	0.24	0.61
3	3.20	0.46	0.19	0.76
4	1.98	1.67	0.30	0.35
… 50				

Assign modeled systems to clusters



Develop cluster characteristics

Cluster	% Increase per % Decrease in Per Capita Use			
	H_2S Emissions	Corrosion Rate	Sedimentation	Chemical Addition
1	1.29	2.15	0.22	0.42
2	2.01	1.88	0.26	0.37
3	2.05	2.01	0.25	0.49

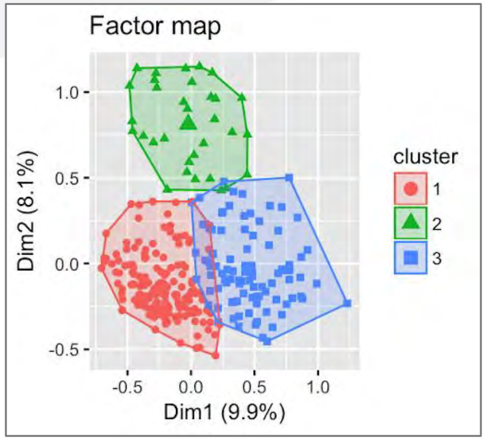
Estimating Effects of Reduced Flows

Extrapolate effects statewide

Cluster characteristics

Cluster	% Increase per % Decrease in Per Capita Use			
	H_2S Emissions	Corrosion Rate	Sedimentation	Chemical Addition
1	1.29	2.15	0.22	0.42
2	2.01	1.88	0.26	0.37
3	2.05	2.01	0.25	0.49

Statewide Collection Systems



Modeled Impacts, by Cluster

	Cluster			
Output (Average % Increase)	1	2	3	All
H_2S Emissions	14.5%	26.6%	27.5%	26.4%
Corrosion Rate	24.2%	24.9%	26.9%	25.5%
Sedimentation	2.5%	3.4%	3.3%	3.3%
Chemical Addition	7.7%	24.1%	18.9%	21.9%
Pipe Replacement Costs	24.1%	28.0%	28.44%	28.0%
Pumping Costs	-11.3%	-13.2%	-13.4%	-13.2%

Wastewater Treatment and Reuse Systems

Estimating Impacts

Summary of Effects on Wastewater Treatment

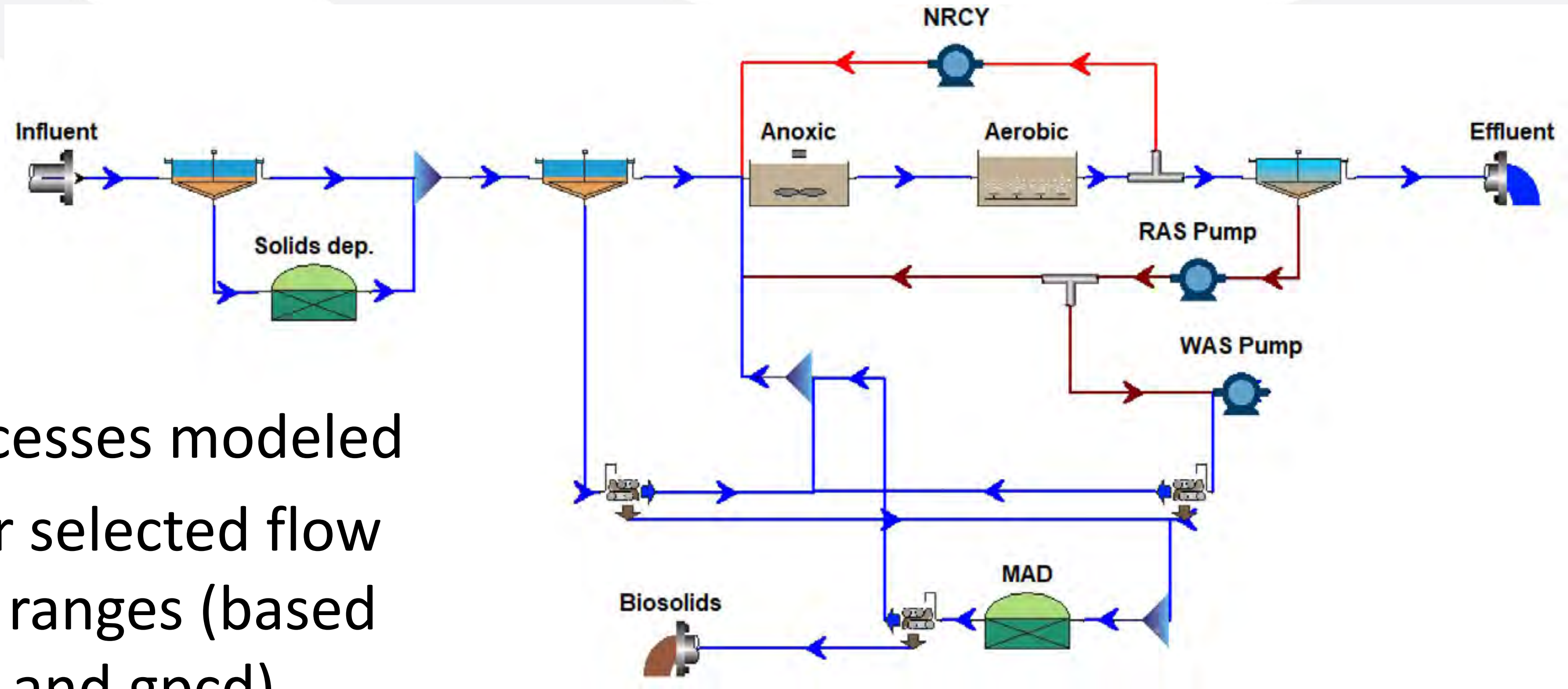
Low Flow Effects

- Grit removal problems
- Increased hydrogen sulfide at headworks
- Process deterioration of activated sludge and trickling filters
- Increased ammonia concentrations for some WWTPs
- Disinfection problems
- Increased TDS in effluent
- Decreased volumes for recycling

Responses

- Increased energy use
- Increased labor
- Increased chemical usage
- Increased repair and replacement (especially due to corrosion)
- Increased need for process upgrades
- Revenue losses (lower recycling flows)

Modeling Process Operations



Biowin model example for Nitrification/denitrification process

- Typical facility processes modeled
- Simulations run for selected flow and concentration ranges (based on design capacity and gpcd)
- Used Biowin modeling to estimate chemical and energy use for different flow scenarios

Model Results

- Operational impacts estimated for 133 facilities for Scenario 2, based on data availability

Normalized Changes in Operations & Costs

Facilities	Number	Average Change	Median Change	Population-Weighted Average Change
All	133	3.1%	-0.8%	2.2%
WWTFs with energy use increases	63	11.1%	8.7%	7.6%
WWTFs with energy use decreases	70	-7.5%	-4.9%	-5.4%

Assumes 7% population increase through 2030 per Department of Finance, but not facility-specific

Capital Improvement Needs

Facilities	Number
Number of Facilities Needing Upgrades*	36/133
Affected Population	1,500,000
Affected % of Population That Was Modeled	5%

* Based on a threshold of a 15% reduction in influent volume through 2030

What Capital Improvements are Needed?

Facilities are reaching end-of-life faster and need upgrades:

- Older aeration systems need to be upgraded or replaced
- Trickling filters need to be upgraded or replaced
- Nitrogen removal systems cannot meet effluent standard without chemical addition and increased pumping
- Operations and capital needs increase proportional to gpcd reductions
- Shorter lifespan >> Increased life-cycle costs

Effects on Water Reuse Facilities

In Scenarios 2 and 3, the potential available wastewater for recycling is reduced

Scenario	Baseline**	Scenario 1	Scenario 2	Scenario 3
Indoor standard: 2030 Final	-	50	42	35
Outdoor standard: 2030 Final	-	0.7	0.6	0.55
% of Reuse Facilities Affected (out of 138)	-	49%	68%	75%
Change in Potential Influent Volume to Reuse Facilities vs. Current (ac-ft)	21,000	51,000	-24,000	-41,000
Net Change* in Influent Flow from Baseline (ac-ft)	-	N/A	-45,000	-62,000

* Net change = Baseline change – Objective-based change
** Median indoor per capita demand is 44-45 gpd in Baseline

In Scenario 1, potential influent is greater if Suppliers use water up to the objective values

Comparing savings to influent flow reductions at reuse facilities

Scenario	Scenario 1	Scenario 2	Scenario 3
Indoor standard: 2030 Final	50	42	35
Outdoor standard: 2030 Final	0.7	0.6	0.55
Anticipated total statewide water savings through 2030 (ac-ft)	240,000	500,000	830,000
Assumed indoor-related water savings through 2030 (ac-ft)	**36,000**	**75,000**	**124,000**
Change in Potential Influent Volume to Reuse Facilities vs. Current (ac-ft)	51,000	-24,000	-41,000

Key Themes

- **Wastewater data**
  - Data availability and quality is a challenge
- **Impacts from lower flows**
  - Many WWTFs already experience low flow impacts; many others are unsure of future conditions
  - Impacts on collection systems and underground infrastructure is a significant concern and costly to mitigate
- **Adaptation**
  - Treating more concentrated wastewater requires more energy
  - Many WWTFs are reaching the end of their design life faster than expected
- **Recycled water**
  - Some recycled water programs cannot meet peak demands for effluent
  - Salt buildup makes recycled water less suitable for irrigation

Modeling how much adapting to lower or more concentrated influent flows might cost

Statewide average annual wastewater costs may increase by 4%*

Wastewater sector	Annual O&M Costs*	Annual Capital Costs*
Statewide average annual treatment costs	$2.5 billion	$4.5 billion
Additional statewide costs due to Scenario 2	**$61 million**	**$267 million**
Statewide Average Annual Collection costs	$1.1 billion	$1.7 billion
Additional statewide costs due to Scenario 2	**$5 million**	**$40 million**

* These are nominal costs, based on "Class 5" estimates, that do not take inflation into consideration

10 Minute Stretch Break

Questions?

To ask a question: use Q&A box or speaker card form: bit.ly/ww_qs

For phone callers: *9 to raise hand, *6 to speak

Impact of Conservation on Wastewater Treatment

Agenda

- Pulse check: https://www.menti.com/emwcet8qbg

  Go to **www.menti.com** & use code 1226 5043

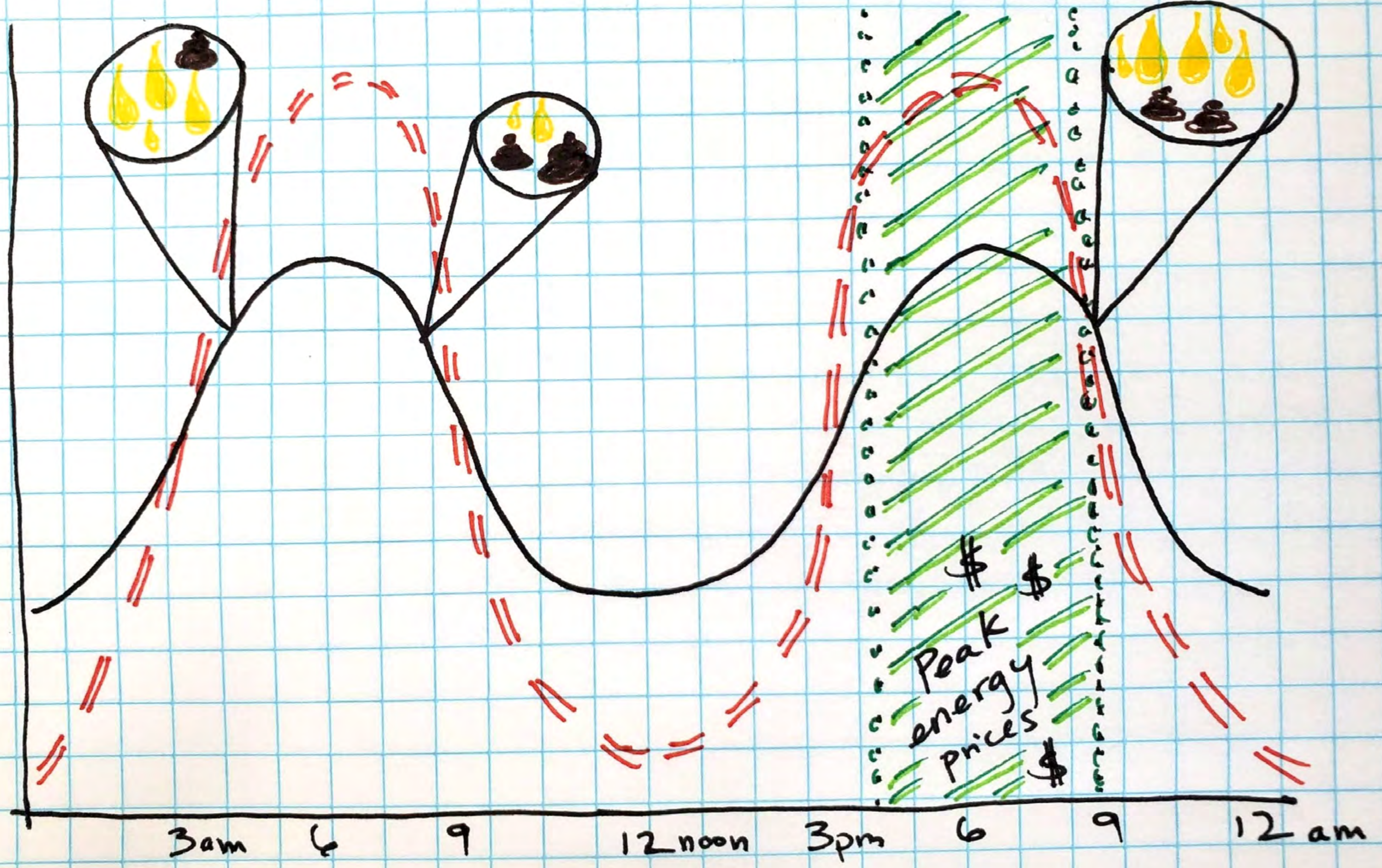
- Wyatt Troxel, Process Specialist

  "Connecting the Dots and Pixelating the View"

- Matt Anderson, Lab Manager, City of San Luis Obispo

- Vince Ines, Wastewater Utility Manager, Ventura Water

Connecting the Dots



Peak energy prices
$ $ $
3am
6
9
12 noon
3pm
6
9
12 am

Connecting the Dots

City of San Luis Obispo

Matt Anderson, Laboratory Manager

- What are the major challenges you are facing?
- What problems are you anticipating in the future?
- What is likely not going to change?
- What strategies are you using to deal with challenges?

Project Timeline

2015
Development of the Program Charter as part of project planning. The Charter is the guiding document for project decisions.

2018
Final design

2019
Groundbreaking Ceremony

2023
Project close-out

PHASE 1
Project Planning

PHASE 2
Preliminary Design

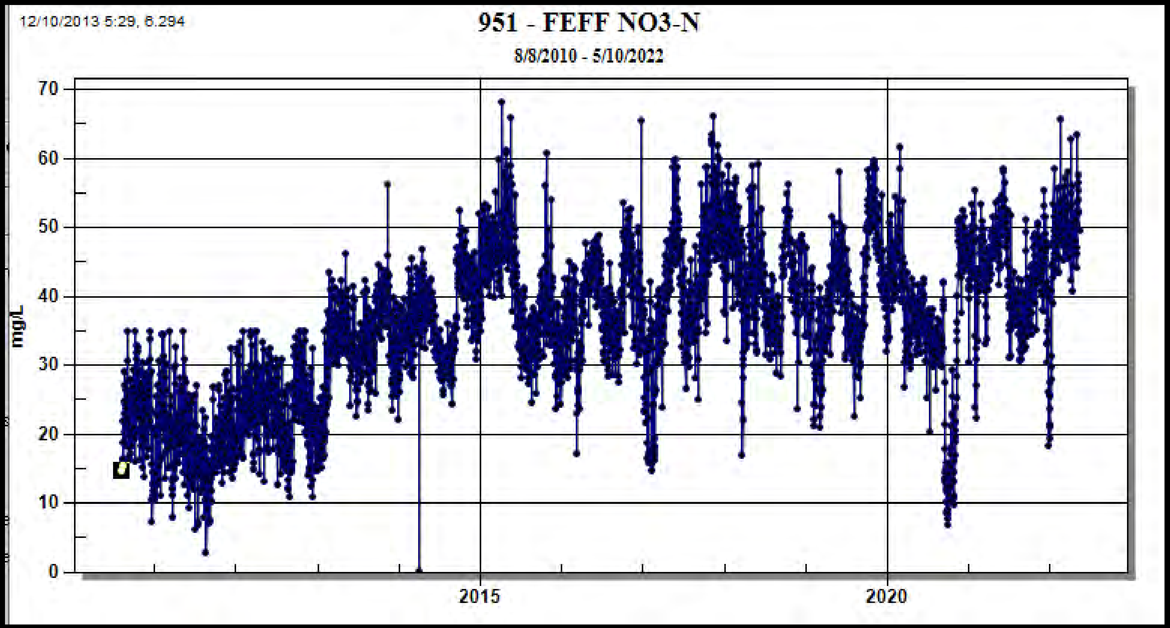
PHASE 3
Final Design

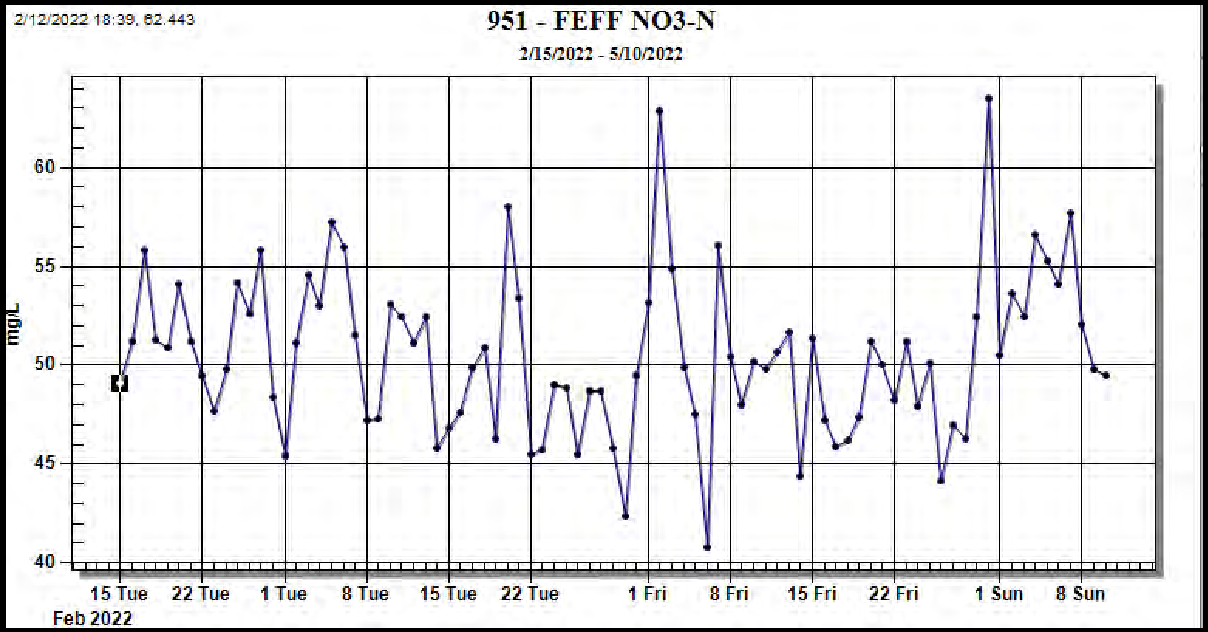
PHASE 4
Construction

PHASE 5
Close Out

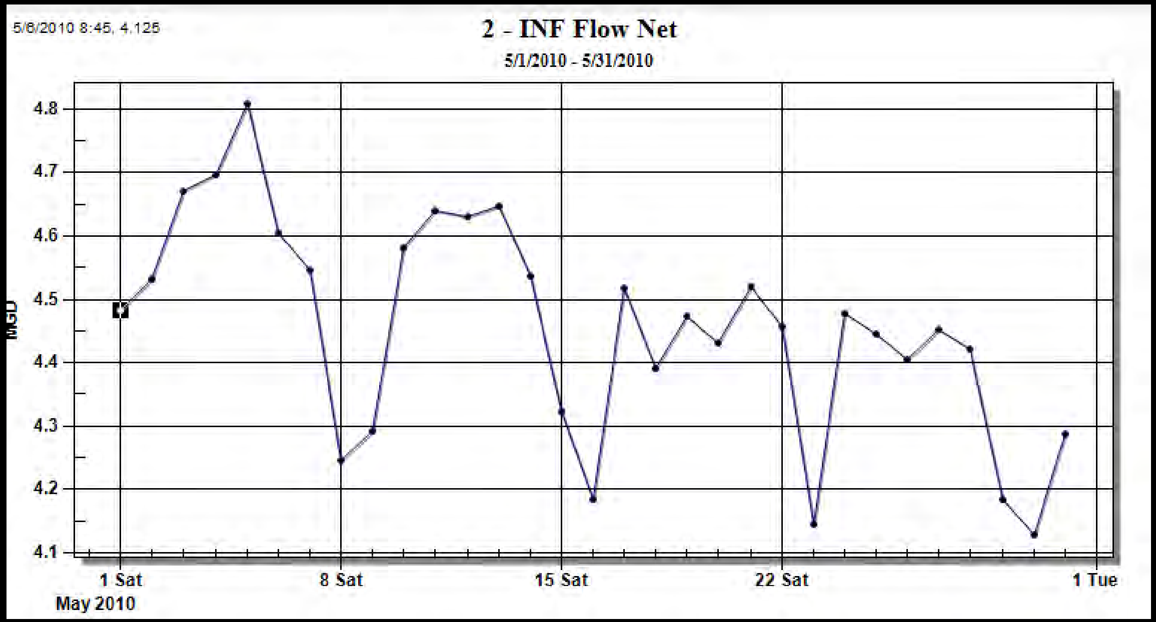
New Sustainable Water Solutions

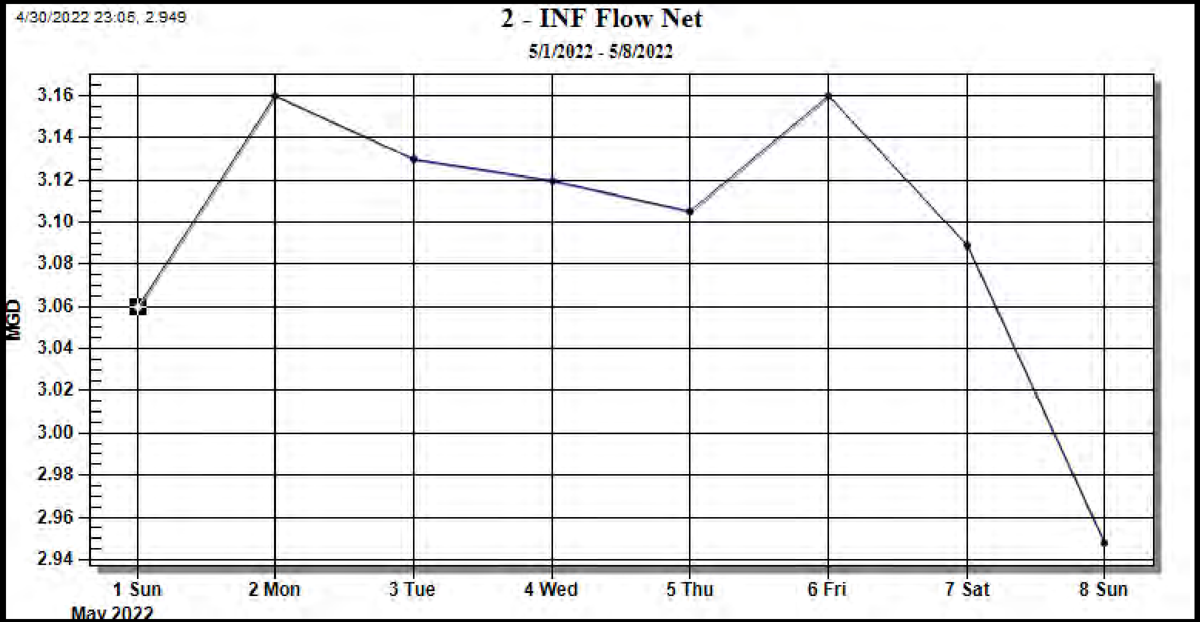
Nitrate concentration from 2010-now





Hydraulic flow from 2010-now





Plant Health Dashboard

5/7/2022

91.4%

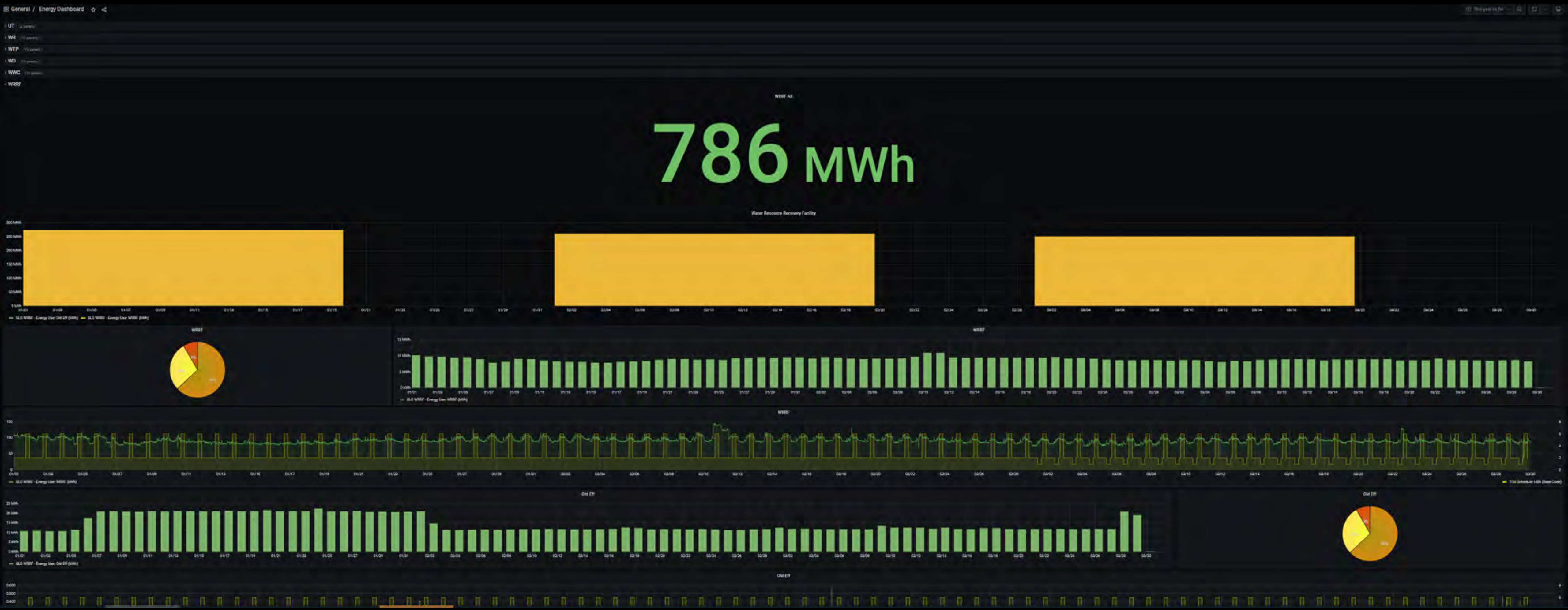
Opening checks

- High NEFF avg. turbidity. RW is offline
- Low EQ level
- AIT 402 @ 10 NTU flatline spike.

- Unit 3
- High NEFF Turbidity, 4.7 NTU
- Low NEFF pH 6.87su
- Unit 4
- High plant drain run time due to channel cleaning.
- No security report

See less

Energy Dashboard



Ventura Water

Vince Ines, Wastewater Utility Manager

- What are the major challenges you are facing?
- What problems are you anticipating in the future?
- What is likely not going to change?
- What strategies are you using to deal with challenges?

Photo Credit: Pacific Coast Business Times

Questions?

Jamie Ferro
jferro@westyost.com

Wyatt Troxel
wtroxel@westyost.com

WEST YOST
Water. Engineered.

VENTURA WATER

CITY OF SAN LUIS OBISPO

STATE WATER RESOURCES CONTROL BOARD

DIVISION OF FINANCIAL ASSISTANCE

Providing Financial Assistance to
Preserve, Enhance, and Restore California's Water Resources

Division of Financial Assistance

- Clean Water State Revolving Fund (CWSRF)
  - Wastewater infrastructure and water quality projects
    - Typically $600M per year
    - Additional funds from 2021 State Budget and "Bipartisan Infrastructure Law"
- Drinking Water State Revolving Fund (DWSRF)
  - Drinking water projects with priority on public health
    - Typically $300M per year
    - Additional funds from 2021 State Budget and "Bipartisan Infrastructure Law"
- Water Recycling Funding Program (WRFP)
  - Recycled water treatment and distribution projects
    - Periodic state bond funds and CWSRF loans
    - Additional funds from 2021 State Budget ($350M shared with Groundwater Cleanup)

Division of Financial Assistance

- Safe and Affordable Drinking Water Fund
  - Interim water supplies, administrators, and infrastructure projects
    - $130M per year
- Drinking Water For Schools
  - $100,000 per school
  - $1,000,000 per Local Education Agency
- Backup Generator Funding Program
  - Backup generators to drinking water systems serving small disadvantaged communities susceptible to service interruptions from public safety power shutoffs
    - $6M authorized

Division of Financial Assistance

- Water and Wastewater Arrearage Program
  - Relief for bills that were not paid during pandemic
    - $985M allocated
- Stormwater
  - Green infrastructure, rainwater and stormwater capture, and storm water treatment facilities
- Groundwater Treatment and Remediation
  - Projects to prevent and cleanup groundwater contamination
    - Proposition 68 ($28M)
    - 2021 State Budget ($350M shared with WRFP)
    - Site Cleanup Subaccount Program ($19.5M per year)

2021 State Budget
Water Board Allocations

Allocation (Millions)	Project Type
$650	Wastewater projects (CWSRF Application) **priority to septic-to-sewer conversions*
$650	Drinking water projects (DWSRF Application) **priority to disadvantaged communities (DACs)*
$100	Per-and polyfluoroalkyl substances (PFAS) support for water systems
$350	Groundwater cleanup and water recycling projects
$20	Mexico border rivers

- Wastewater & Drinking Water Funds Rollout
  - IUPs amended at March 15 Board Meeting
- PFAS & GW/RW Funds Rollouts in development

Bipartisan Infrastructure Law (BIL) – CA SRF Estimates FY 22-26 (Millions)

	DWSRF	CWSRF	Totals
Any Project (Subject to Future Appropriation)	$ 1,318	$ 1,025	**$ 2,344**
Any Project (Appropriated)	$ 1,054	$ 819	**$ 1,874**
Emerging Contaminants (Appropriated)	$ 360	$ 70	**$ 430**
Lead Service Line Replacement (Appropriated)	$ 1,350		**$ 1,350**
Totals	**$ 4,082**	**$ 1,915**	**$ 5,998**

- 2022/23 Intended Use Plans
  - Draft in May
  - Board Meeting July

How to Apply

- Financial Assistance Application Submittal Tool (FAAST) https://faast.waterboards.ca.gov/
- Technical Assistance Program https://www.waterboards.ca.gov/water_issues/programs/grants_loans/tech_asst_funding.html

STAY INFORMED

DFA Web Page

https://www.waterboards.ca.gov/water_issues/programs/grants_loans/

Email Subscription Lists

https://www.waterboards.ca.gov/resources/email_subscriptions/

Christopher Stevens
Assistant Deputy Director, DFA
Christopher.stevens@waterboards.ca.gov
(916) 716-9603

Questions?

Where to find more information

- **State Water Resources Control Board**
  - Water Conservation Portal
    - www.waterboards.ca.gov/water_issues/programs/conservation_portal/
  - About SB 606 & AB 1668:
    - www.waterboards.ca.gov/water_issues/programs/conservation_portal/california_statutes.html
  - About the rulemaking process:
    - www.waterboards.ca.gov/water_issues/programs/conservation_portal/regs/water_efficiency_legislation.html

- **Department of Water Resources**
  - Primer of 2018 Legislation on Water Conservation and Drought Planning
  - About urban water use efficiency, including SB 606 & AB 1668:
    - https://water.ca.gov/Programs/Water-Use-And-Efficiency/Urban-Water-Use-Efficiency
  - Sharepoint site with materials for DWR workgroup members only:
    - https://cawater.sharepoint.com/sites/dwr-wusw/SitePages/Home.aspx

Previous Workshops

Public Stakeholder Webinar: Wastewater, Urban Trees and Parklands

- Thursday, December 2nd, 2021 (Wastewater)
- Friday, December 3rd, 2021 (Urban Trees and Parklands)

State Water Resources Control Board

- www.waterboards.ca.gov/water_issues/programs/conservation_portal/regs/water_efficiency_legislation.html

Thank you!

Contact: ORPP-WaterConservation@waterboards.ca.gov with questions