

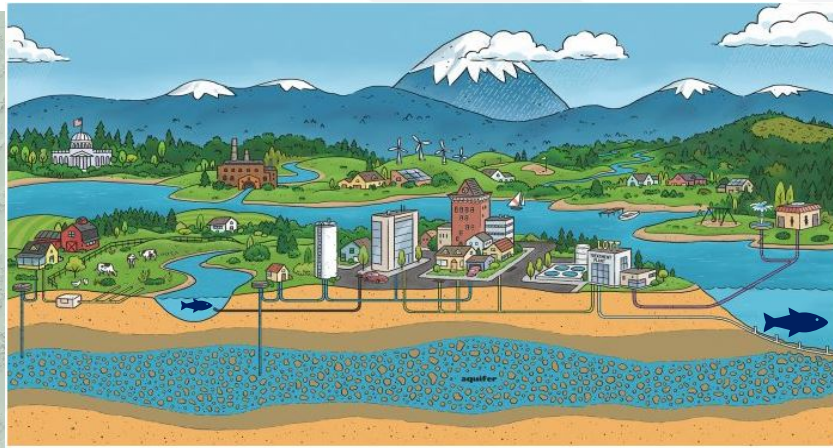
# California Constituents of Emerging Concern (CEC) Program

State Strategy on CEC  
ACWA Conference

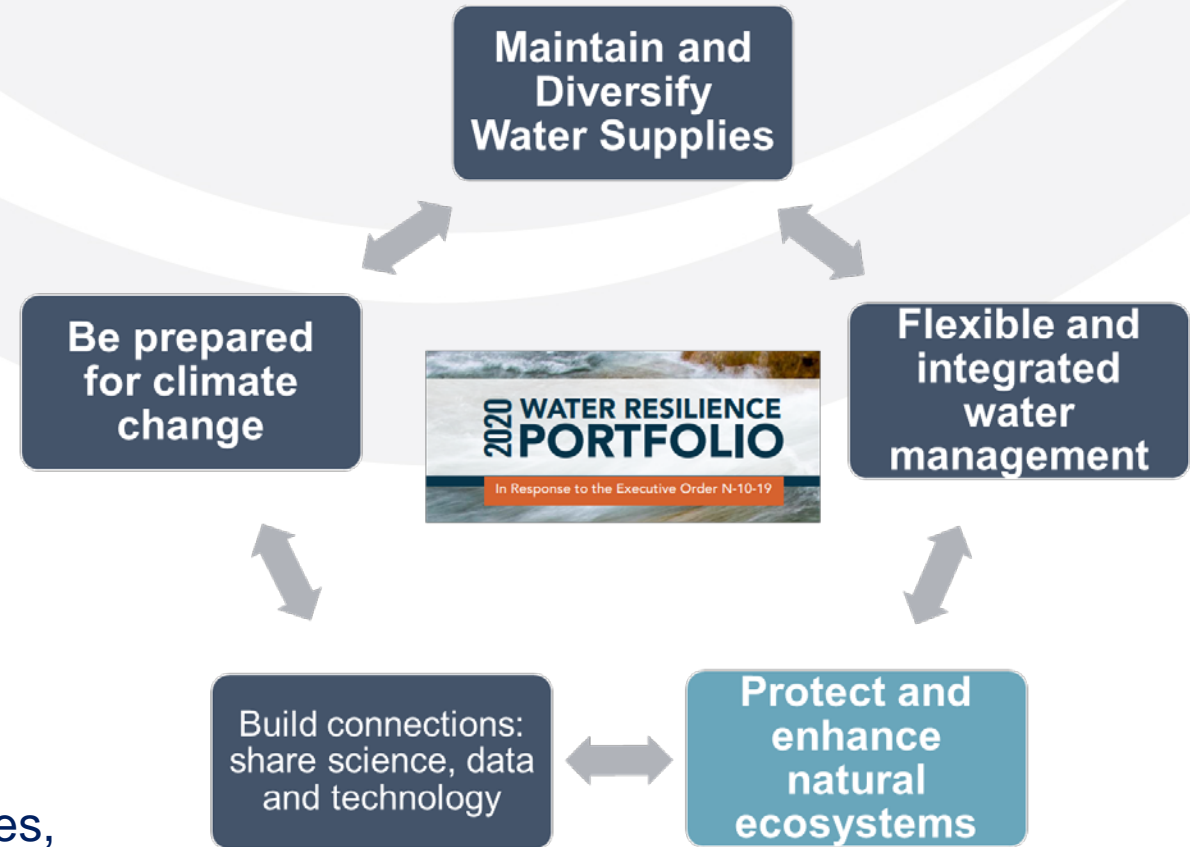
Karen Mogus  
Deputy Director  
CA Division of Water Quality



# Water Quality, Water Resiliency, and Protecting California's Aquatic Ecosystems



- 1,609 miles of shoreline
- 200,000 miles of rivers
- 1.6 M acres of lakes and reservoirs
- 645,000 acres of estuaries, harbors, and bays
- 275,000 acres of wetlands



# CEC Definition

## Any Substance

- Chemical
- Biological
- Radiological

## Any Media

- Soil
- Water
- Air
- Biota

## Without Environmental / Health Standard

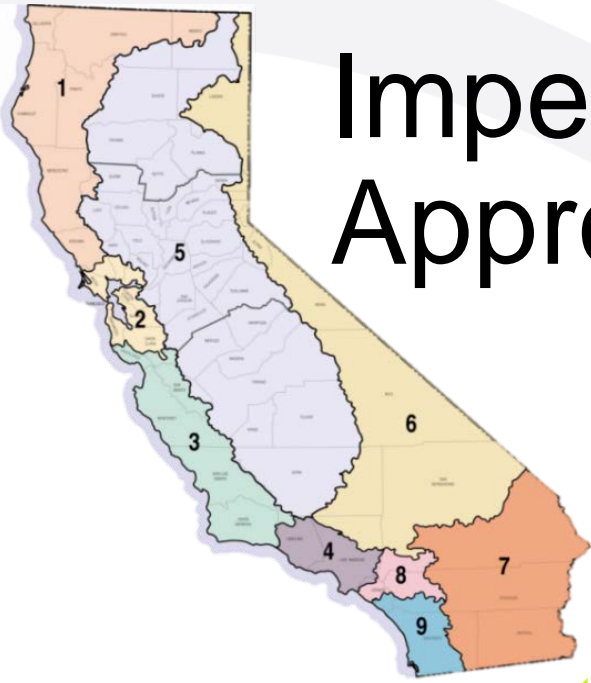
- Notification Level
- MCL
- Water Quality Objective
- TMDL

## Incomplete Physiochemical Characterization

- Occurrence
- Fate
- Transport
- Toxicology
- Analytical Method



# Impetus for CEC Programmatic Approach



(late 90s to early 2000s)

Monitoring and management based on local requirements

(2006)

Stakeholders requested holistic approach

(2009; and 2013, 2018)

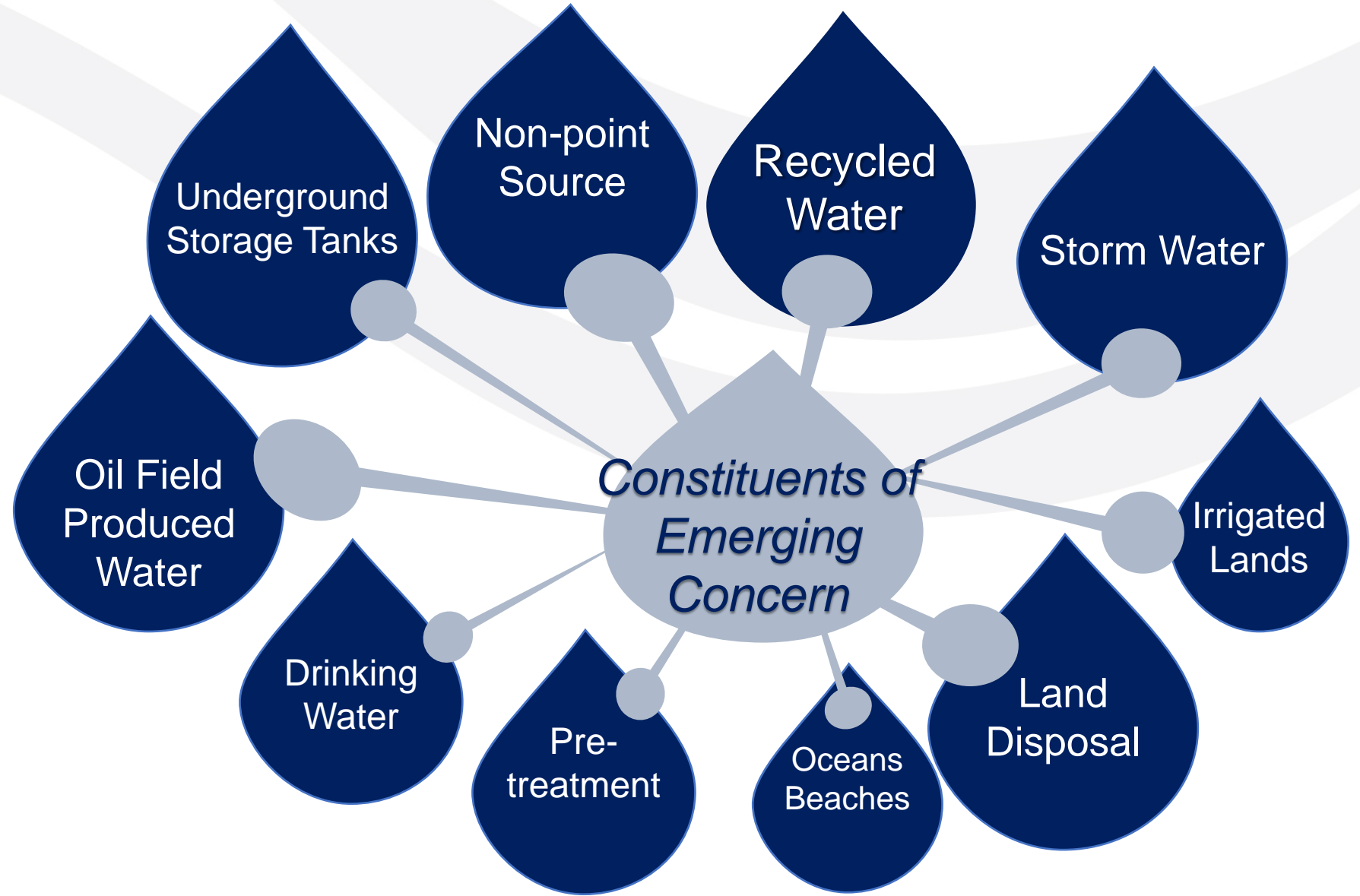
Development of the Recycled Water Policy



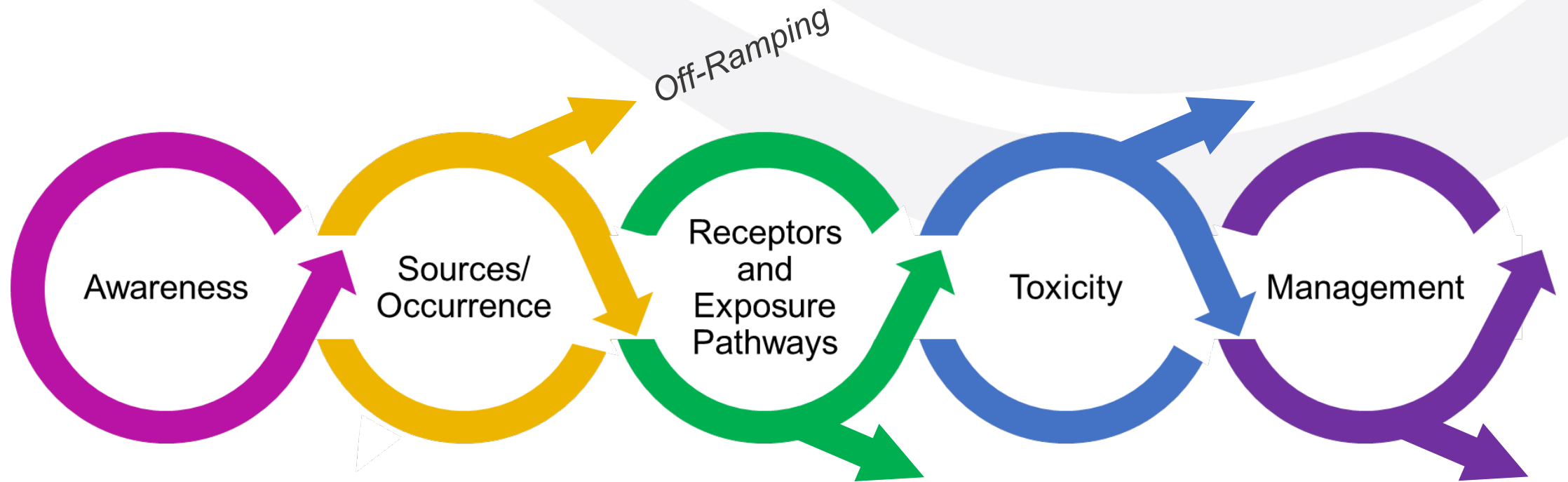
(2015 to current)

Program development for data driven process guided by risk-based framework

# CEC Program – One Water Approach



# CEC Lifecycle

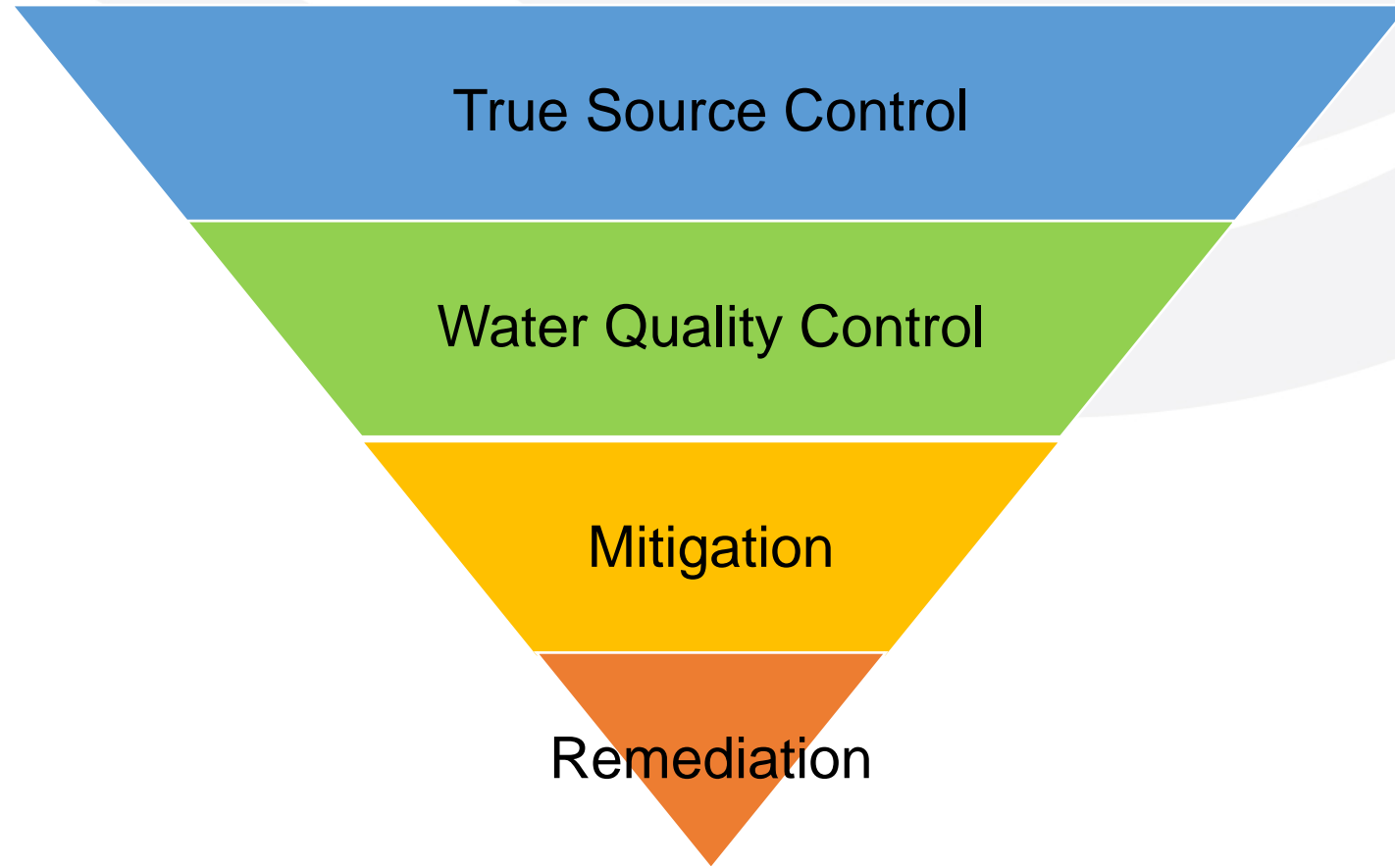


# CEC Management Approach

Most Preferred

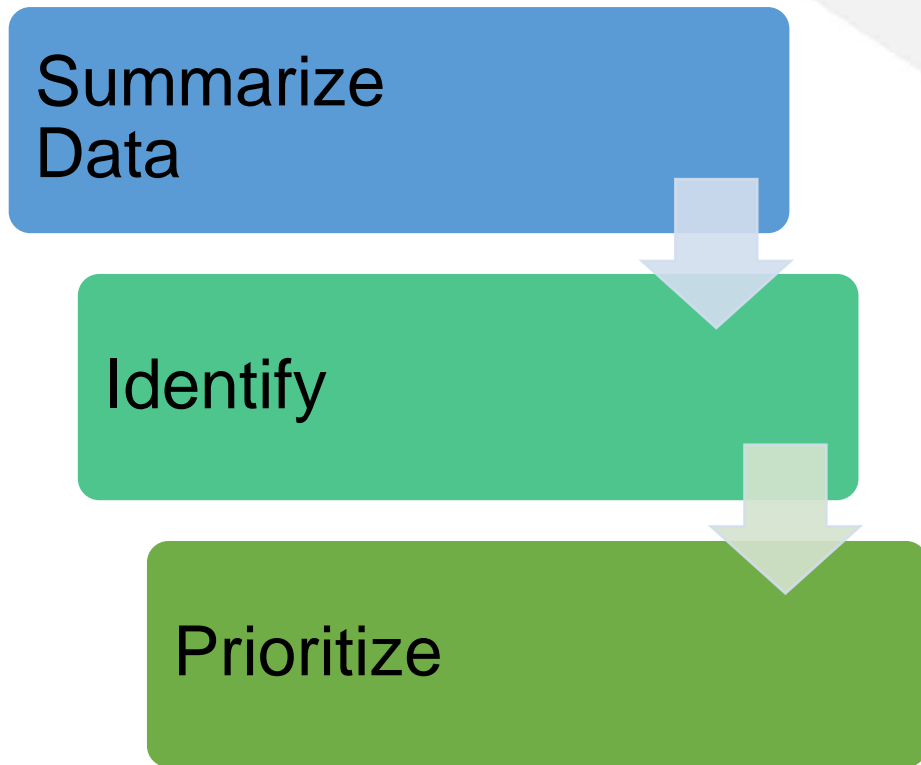


Least Preferred

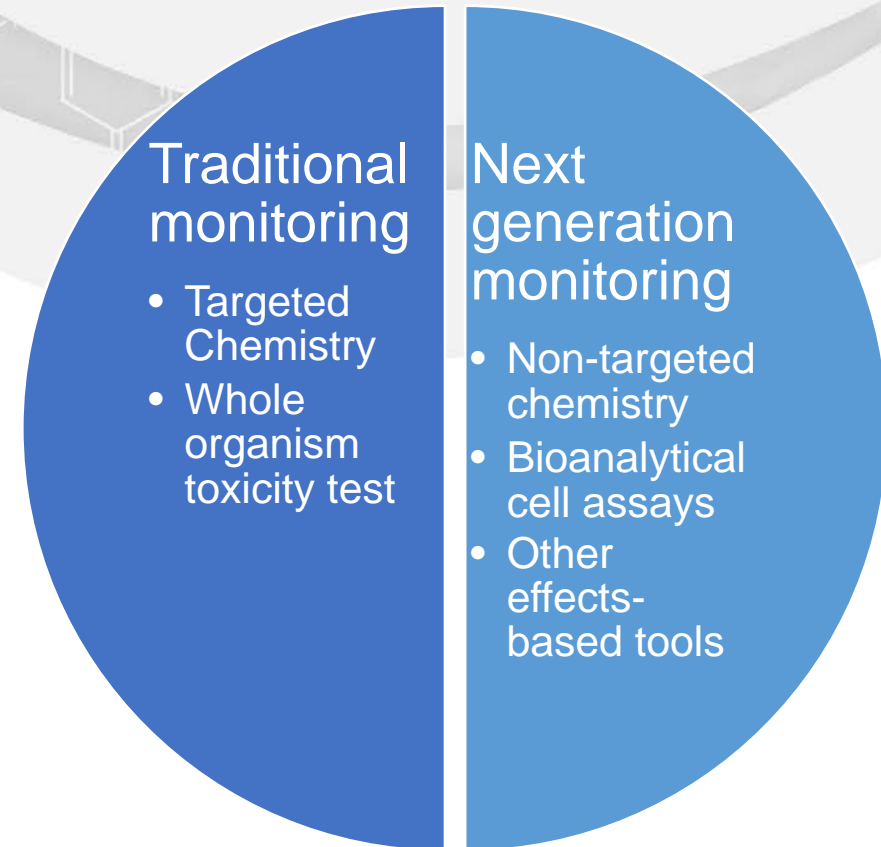


# Risk-Based Prioritization Processes

## Current – Targeted Data and Toxicity Thresholds



## Future – Non-Targeted Analyses





# 2022 – 2023 CEC Program Milestones

[Constituents of Emerging Concern \(CEC\) | California State Water Resources Control Board](#)

## Monitoring Strategies for Constituents of Emerging Concern (CECs) in California's Aquatic Ecosystems

*Recommendations of a Science Advisory Panel*

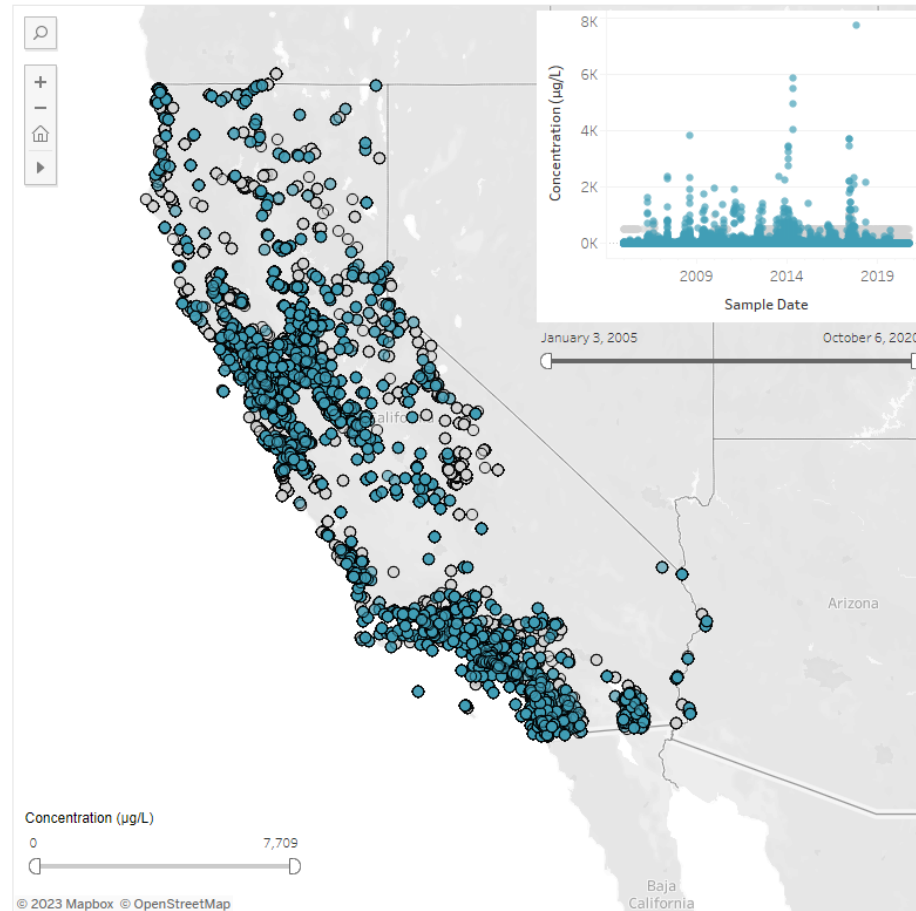


SOUTHERN CALIFORNIA COASTAL WATER RESEARCH PROJECT  
Technical Report 1302



Jörg E. Drewes  
Paul Anderson  
Nancy Denslow  
Derek C. G. Muir  
Adam Olivieri  
Daniel Schlenk  
Shane A. Snyder

## Aquatic Ecosystems Interactive Tableau



BIOASSAY TOOLBOX PROJECT –  
DECEMBER 2023

# Upcoming Program Actions & Documents

## CEC Strategic Plan

- Describes how the Program will guide decision-making processes to address issues with CECs

## Quality Assurance Program Plan

- Roadmap for implementing quality control measures for CEC monitoring in the State

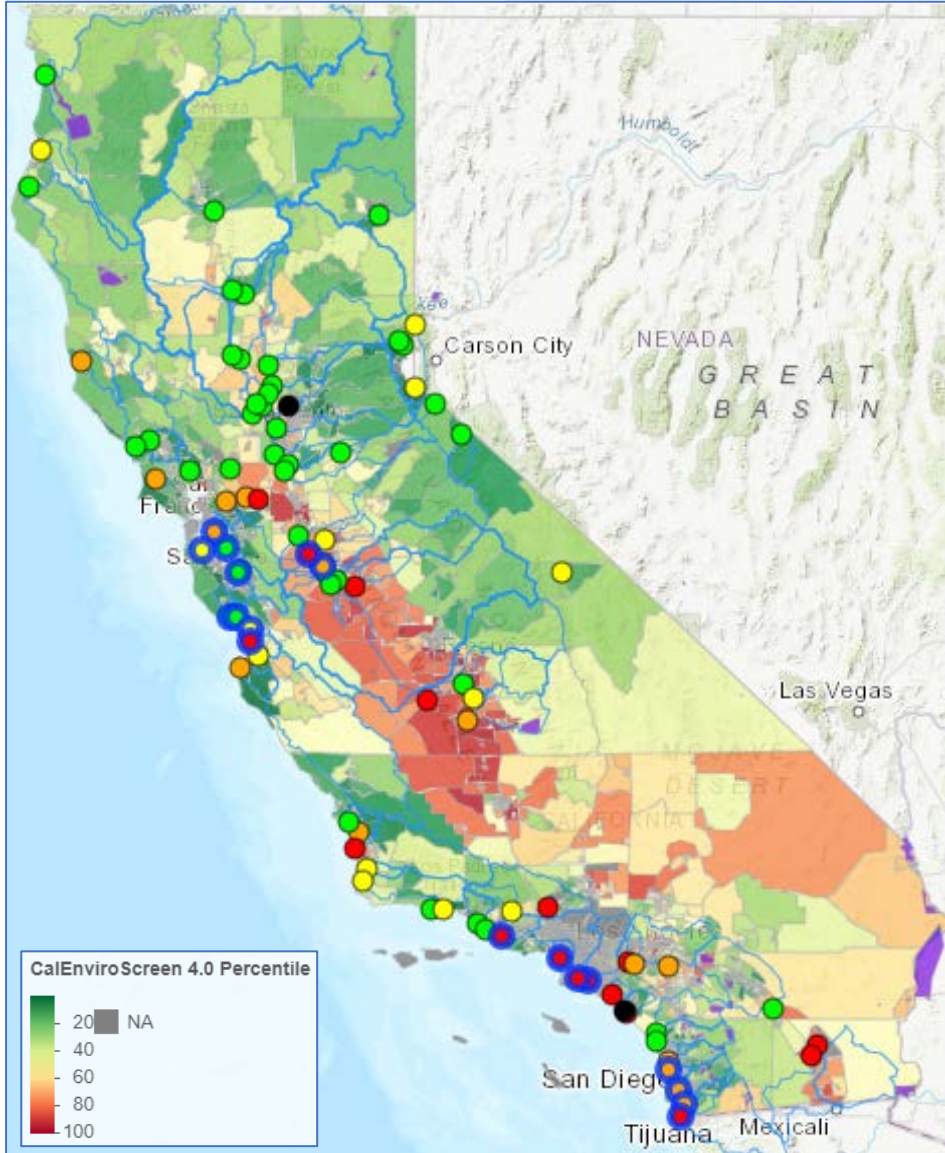
## Data Management Plan

- Describes CEC data management procedures as well as the process to compile CEC data from statewide databases

## Refined CEC Prioritization

- Implement Aquatic Ecosystems Advisory Panel recommendations

# Collaboration with Existing Statewide Monitoring Programs



## *Stream Pollution Trends Monitoring Program (SPoT)*

Goal: Leverage SPoT's annual sediment chemistry and toxicity monitoring by adding surface water analyses and advance monitoring tools

**Cell  
Bioassays**

**Non-Target  
Analysis**



# Achieve Program Goals and Objectives by Working with Many Partners

Government Agency Coordination



And more!

Interested Parties

Academic partners, research partners, association partners, public entities/utilities, community partners, public participation, education and outreach

# Bipartisan Infrastructure Law (BIL) - CEC Funding

California  
State Water Resources Control Board  
Division of Financial Assistance

Drinking Water State Revolving Fund (DWSRF)  
& Clean Water State Revolving Fund (CWSRF)

Bipartisan Infrastructure Law – Emerging Contaminants  
Funding

**SUPPLEMENTAL  
INTENDED USE PLAN**

STATE FISCAL YEAR 2023-24

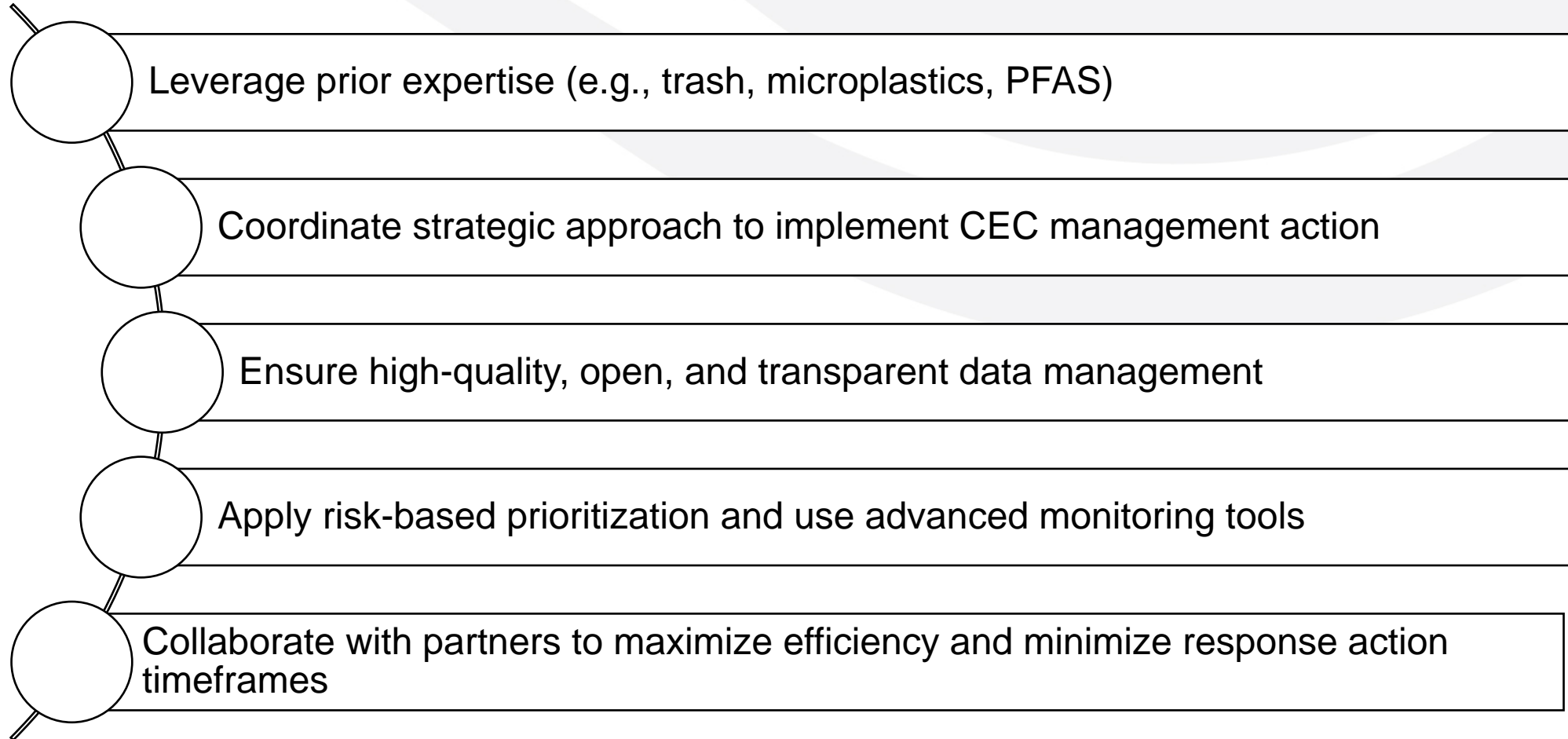
and

California Budget Act of 2021 and Budget Act of 2022,  
General Fund PFAS Appropriations

- Provides \$50 billion to the U.S. EPA to strengthen the nation's drinking water and wastewater systems.
- Provides ~\$5 billion through the Clean Water and Drinking Water State Revolving Fund (SRF) programs to reduce exposure to PFAS and other emerging contaminants.
- States apply each year over five-year period with plans for administering funds in accordance with BIL-specific requirements.
- California requested the full capitalization grants that are allotted for fiscal year 2022 and 2023 through a supplemental intended use plan.
- BIL also provides federal money administered by U.S. EPA separate from the SRF programs - Referred to as the emerging contaminants in small or disadvantaged communities (EC-SDC) grant program.



# Key Take Home Messages

- 
- Leverage prior expertise (e.g., trash, microplastics, PFAS)
  - Coordinate strategic approach to implement CEC management action
  - Ensure high-quality, open, and transparent data management
  - Apply risk-based prioritization and use advanced monitoring tools
  - Collaborate with partners to maximize efficiency and minimize response action timeframes

Thank You!



Follow up with us at  
[EmergingContaminants@waterboards.ca.gov](mailto:EmergingContaminants@waterboards.ca.gov)



Check out the  
Program website at  
[www.waterboards.ca.gov/water\\_issues/cec/index.html](http://www.waterboards.ca.gov/water_issues/cec/index.html)