



CALIFORNIA STORMWATER
QUALITY ASSOCIATION®



Water Boards

STATE WATER RESOURCES CONTROL BOARD
REGIONAL WATER QUALITY CONTROL BOARDS

CALIFORNIA BACTERIA SUMMIT

SEPTEMBER 14-16, 2022

AGENDA ITEM #1: WELCOME AND OPENING

Jonathan Bishop: State Water Board

Karen Cowan: CASQA

The image features a light gray gradient background with several realistic water droplets of various sizes scattered in the corners. The droplets have highlights and shadows, giving them a three-dimensional appearance. The text 'THANK YOU' is centered in a bold, blue, sans-serif font.

THANK YOU

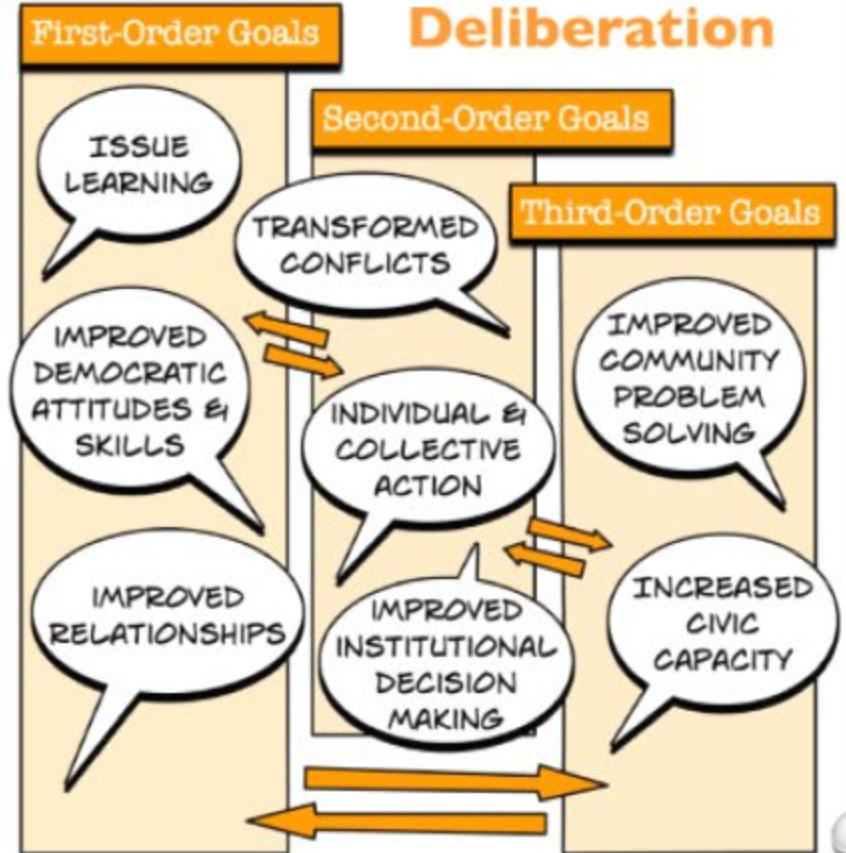
WHY ARE WE HERE IN A SUMMIT?

SHARED GOALS:

Waters that are safe to swim;
Shellfish that are safe to eat

- DIALOGUE AND DELIBERATION (COLLABORATION) TO GET US TO OUR GOALS
- SOLUTIONS / COLLECTIVE ACTION

Goals of Dialogue & Deliberation



Graphic created by Sandy Heierbacher, NCDD (August 2009). Its content is a slightly adapted version of the "Goals of Deliberation" figure in *Beginning with the End in Mind: A Call for Goal-Driven Deliberative Practice* (Summer 2009, Public Agenda's Center for Advances in Public Engagement), by Martin Carcasson of Colorado State University's Center for Public Deliberation, available at www.publicagenda.org/cape.

WHY BACTERIA? ASSESSMENT PRIORITY FOR THE STATE

2018 Adoption of the Statewide Bacteria Provisions (State Water Board)

- Resolution commits State Water Board staff to “continued assessment of pathogen indicators and their implementation, accounting for risk, salinity, and California-specific studies”

2019 Ocean Plan Review and Work Plan (State Water Board)

- High priority project: Shellfish beneficial uses and water quality objective

WHY BACTERIA?

WATER QUALITY PRIORITY AT THE STATEWIDE SCALE

CASQA Water Quality Priority Assessment (2019)

CASQA Membership Survey	303(d) List	TMDLs
WQIP Water Quality Priority (MS4s in Region 9)	(E)WMP Limiting Pollutant (MS4s in Region 4)	Water Quality Priority (MS4s in Region 5)
Regional Board Triennial Reviews	Statewide Policy / Regulation / Program	Primary or Secondary MCL
Professional Judgement / Research Findings		



EPA Decision
Making Tool

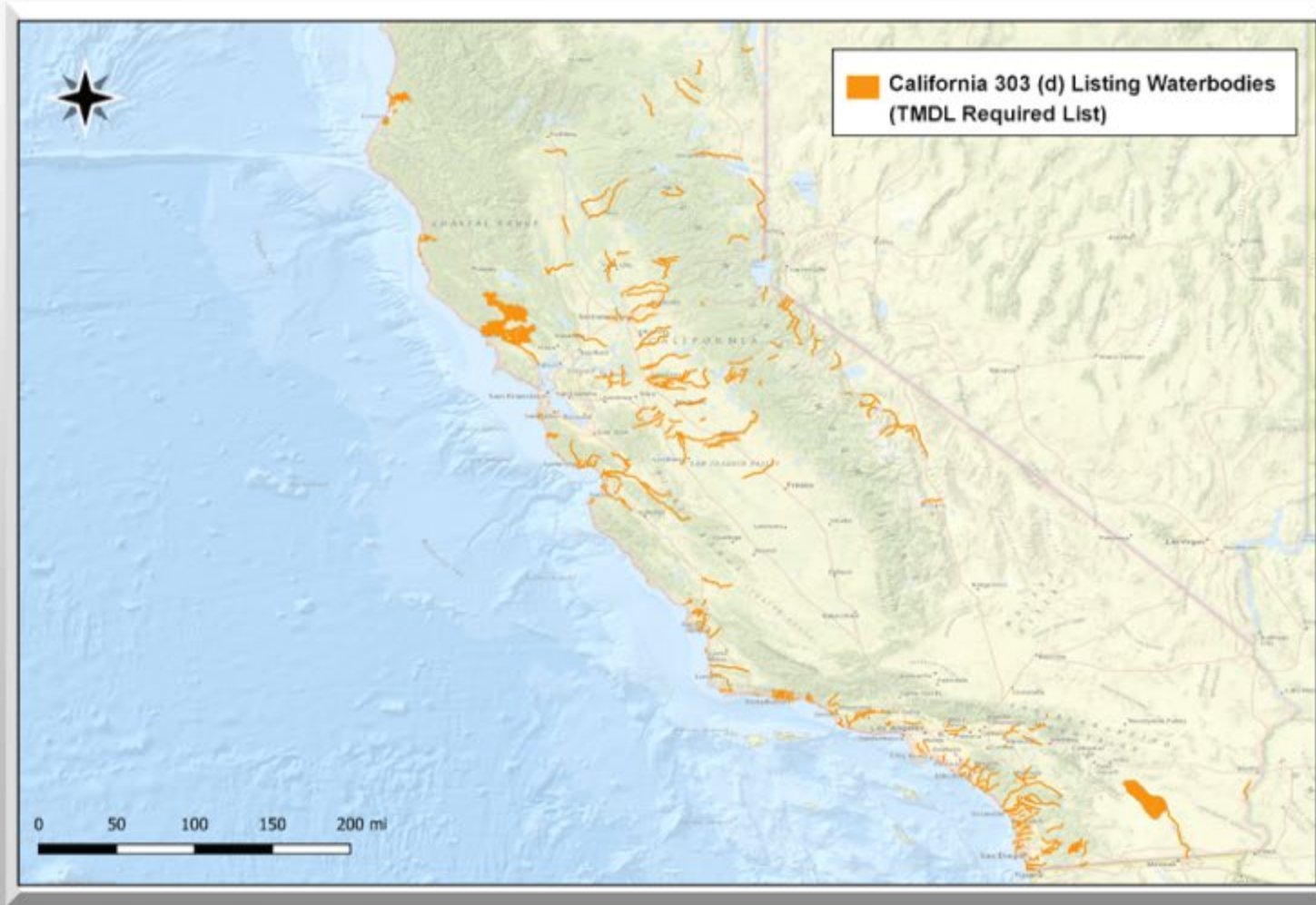
Bacteria

Trash

Current Use Pesticides

Biointeg / Biostim

WHY BACTERIA? WATER QUALITY PRIORITY AT THE STATEWIDE SCALE



303(d) Listed
Waterbodies

WHAT ARE THE POTENTIAL SOURCES (E.G. PATHWAYS)?

IN ALPHA ORDER...

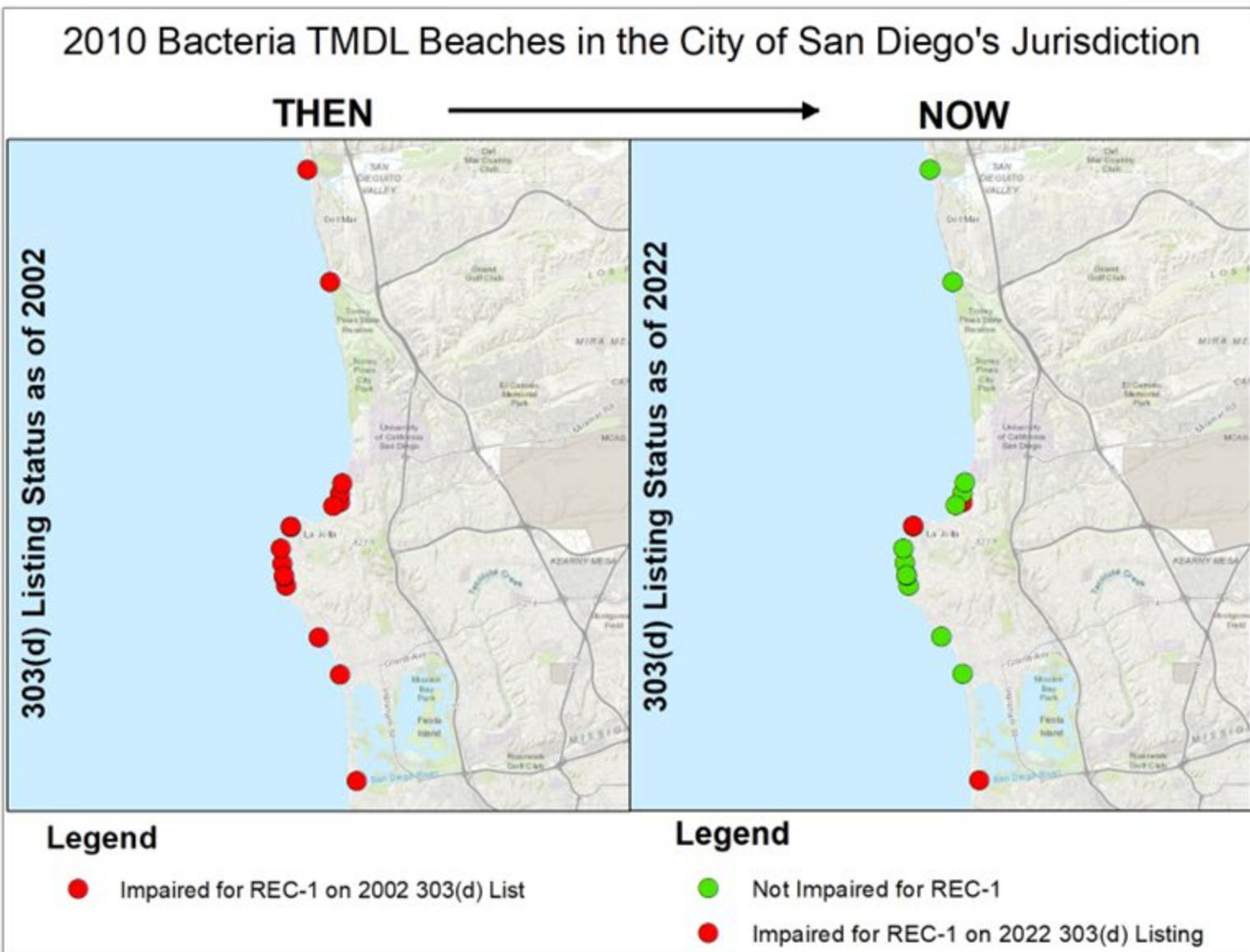
- CONFINED ANIMALS
- DOMESTIC ANIMALS/LIVESTOCK
- GRAZING
- ILLEGAL DUMPING
- NATURAL SOURCES
- ONSITE WASTEWATER SYSTEMS
(SEPTIC TANKS)
- STORMWATER RUNOFF
- TRANSIENT ENCAMPMENTS
- WASTEWATER & LEAKING SEWERS

... AND MORE

WHAT PROGRESS HAS BEEN MADE?

CITY OF
SAN DIEGO:

SIGNIFICANT
REDUCTION IN
303(D) LISTINGS



WHAT PROGRESS HAS BEEN MADE?

LOS ANGELES COUNTY

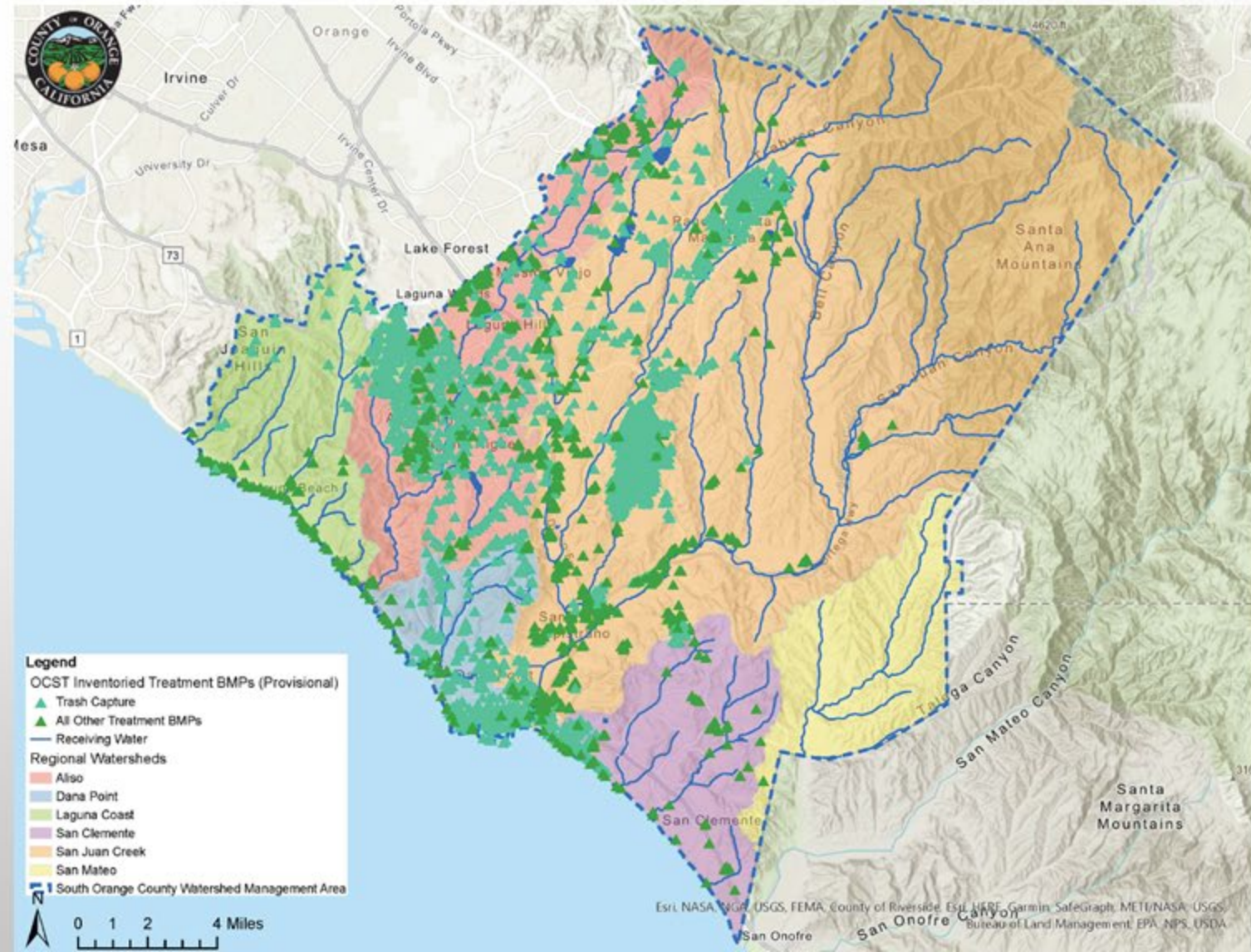
- 41 DRY WEATHER DIVERSIONS
- DRY WEATHER EXCEEDANCES HAVE BEEN **REDUCED BY 70%** OVER THE PAST 18 YEARS
- WET WEATHER DIVERSION PROJECTS IN PLANNING PHASE






WHAT PROGRESS HAS BEEN MADE?

SOUTH ORANGE COUNTY: TMDL LOAD REDUCTIONS

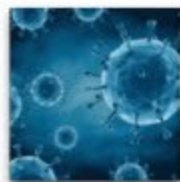
- REDUCTIONS IN BACTERIAL LOADINGS FROM 2003 TO 2020
 - TOTAL COLIFORM:
92.2%
 - FECAL COLIFORM:
95.3%
 - ENTEROCOCCUS:
95.7%



WHAT PROGRESS HAS BEEN MADE? WHAT ARE THE SUCCESS STORIES?

5 YEAR AVERAGE	Summer Dry 		Winter Dry 		Wet Weather 	
	#	%	#	%	#	%
A	401	88%	293	81%	219	49%
B	32	7%	31	8%	48	11%
C	12	3%	17	5%	31	7%
D	6	1%	6	2%	30	7%
F	8	2%	15	4%	119	27%
A+B	432	94%	324	90%	266	60%
C,D,F	26	6%	38	10%	180	40%

WHAT ARE THE CHALLENGES?



Pathogen Indicator



Objectives



Sources /
Pathways



SHELL & REC



Resources

WHY IT MATTERS

SHARED GOALS:

Waters that are safe to swim;
Shellfish that are safe to eat

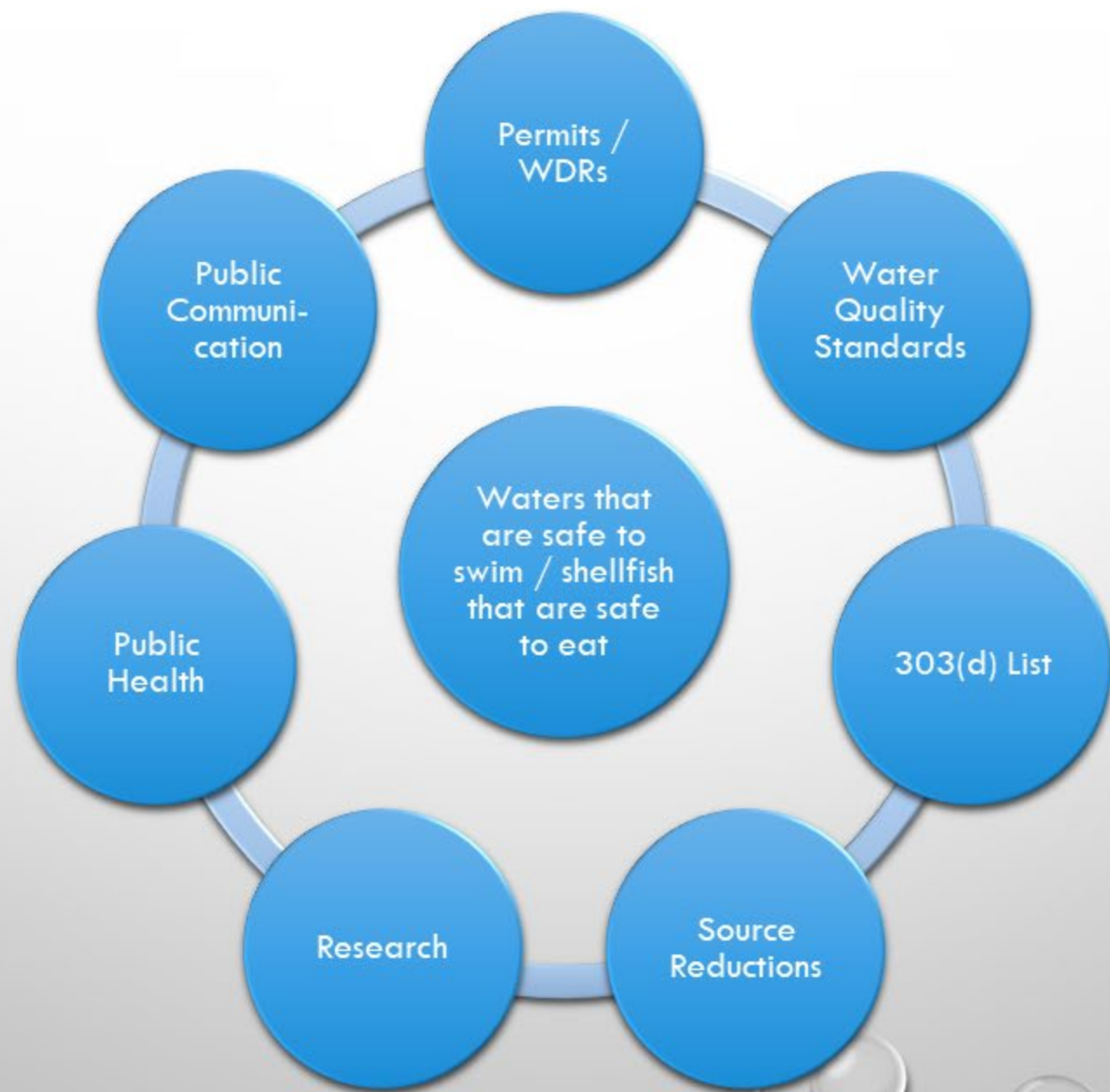
Will our actions result in
achieving our goals?

Requires Significant Investment:

Infrastructure, research,
regulations, permits, public
health notices, etc.

Compliance schedules and
permit requirements





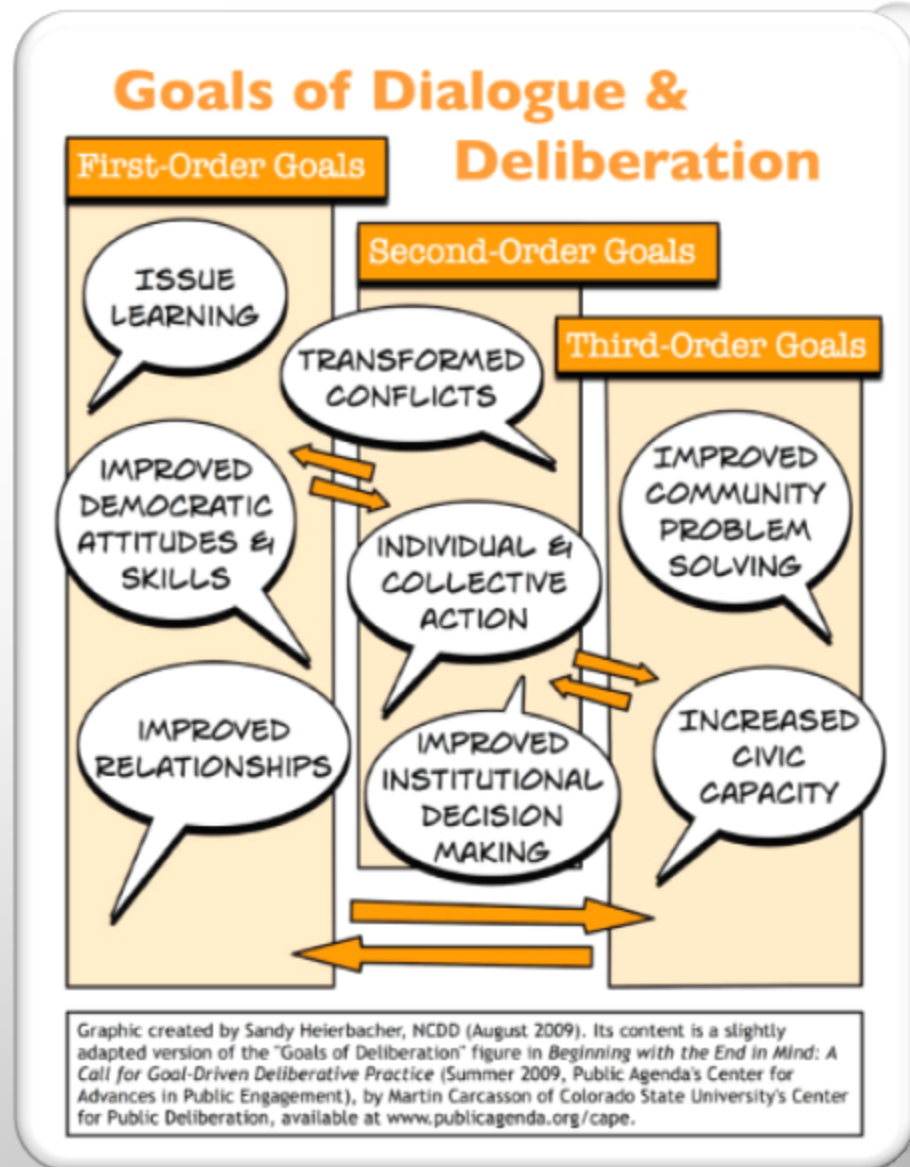


WHAT DO WE HOPE TO ACHIEVE?

- **ISSUE LEARNING AND IMPROVED RELATIONSHIPS**
 - BUILD A TEAM OF ENGAGED AND COLLABORATIVE PROBLEM SOLVERS
- **PRIORITY ACTIONS (INDIVIDUAL AND COLLECTIVE)**
 - LONG-TERM TO ACHIEVE OUR GOALS
 - SHORT-TERM TO ALIGN WITH LONG-TERM GOALS



Waters that are safe to swim
Shellfish that are safe to eat





WHAT ARE THE CHALLENGES?

Objectives

- Fundamentally different than most Water Objectives (WQOs)
- Indicator of risk, rather than direct measurement (presence / absence)
- Evolution and application of scientific understanding related to risk

Sources / Pathways

- Sources of indicators / Sources of risk
- Wet Weather

SHELL & REC

- To address REC, must address SHELL

SHELL
WQOs

REC-1
WQOs

FIGURE 1-1: OVERALL CALIFORNIA GRADES

Summer Dry (April thru October)






Winter Dry (November thru March)



Wet Weather



5 YEAR AVERAGE	Summer Dry 		Winter Dry 		Wet Weather 	
	#	%	#	%	#	%
A	401	88%	293	81%	219	49%
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