

# THE ROLE OF PUBLIC HEALTH AND STAKEHOLDER ENGAGEMENT IN IMPLEMENTING THE SUSTAINABLE GROUNDWATER MANAGEMENT ACT

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Clean Water Action/Clean Water Fund

November 17, 2015

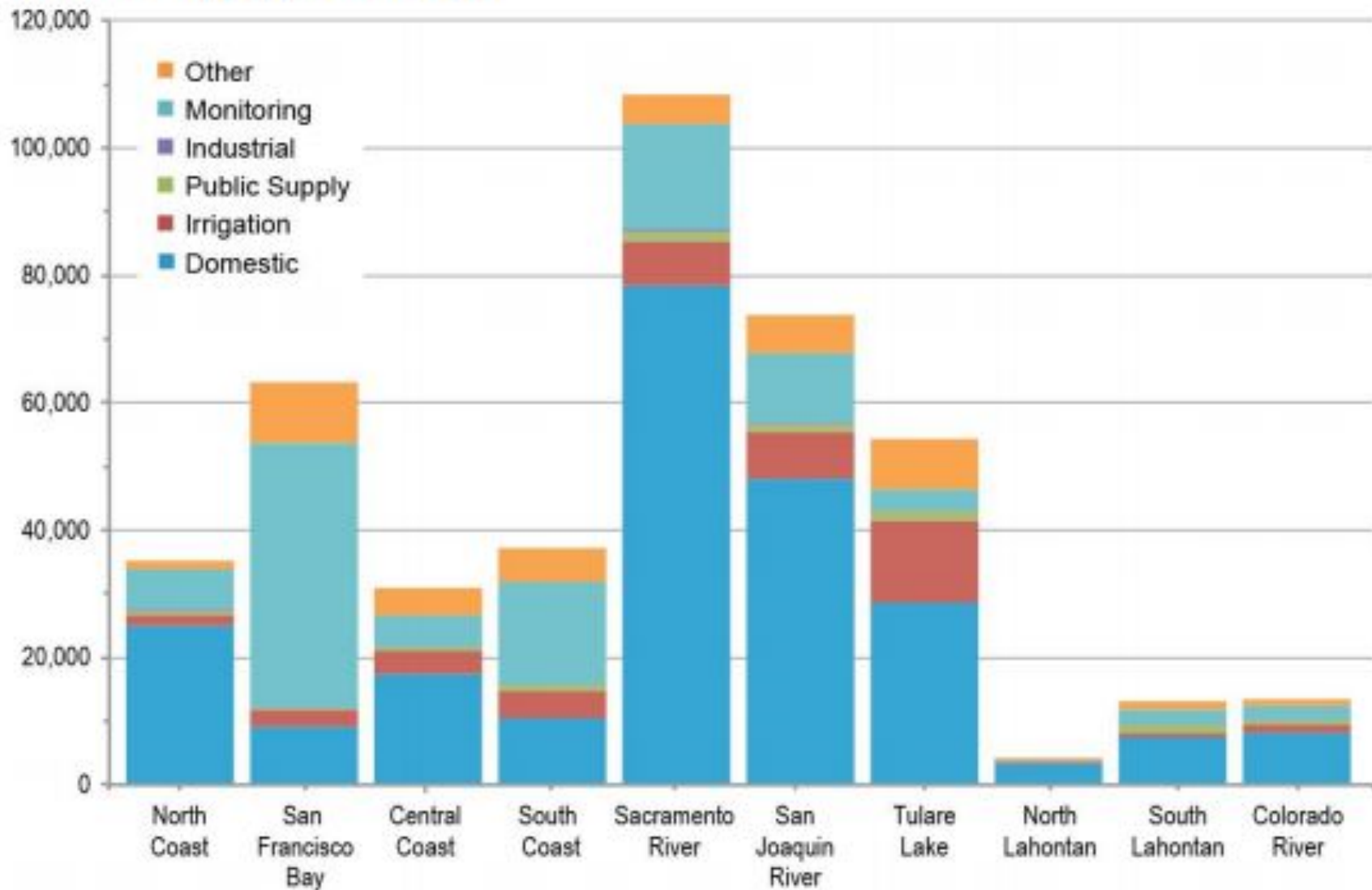
# GROUNDWATER SUSTAINABILITY AGENCY

- ▶ “Groundwater sustainability agency” means one or more **local agencies** that implement the provisions of this part...
- ▶ “Local agency” means a **local public agency** that has water supply, water management, or land use responsibilities within a groundwater basin.

# CALIFORNIANS NOT SERVED BY A PUBLIC WATER SYSTEM

- ▶ Less 5-14 connections – state small systems
- ▶ 1-4 connections – private wells
- ▶ USGS Estimate - 2.5 million people not connected to a public water sytem

**Figure 2-4 Statewide Number of Well Logs by Hydrologic Region and Well Type (1977-2010)**






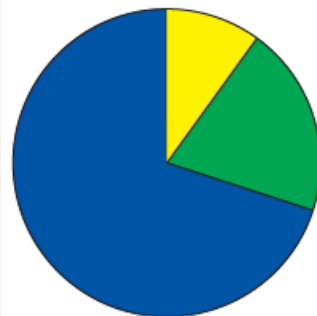
*Prepared by California Department of Water Resources for California's Groundwater Update 2013*

# MANAGING NITRATES

- ▶ Drinking Water Standard - 45mg/l (10mg/l as N)
- ▶ Action level @ 50% of standard – triggers additional reporting, monitoring
- ▶ Public water systems will treat, blend or replace source at 80-85% of standard (36-38mg/l)
- ▶ Agriculture – nitrogen is a basic crop need

### Concentration category

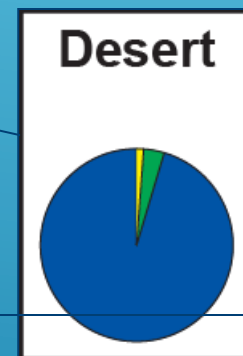
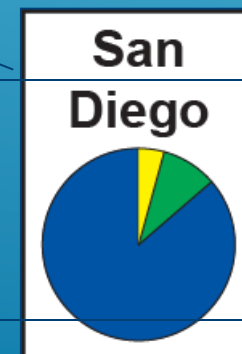
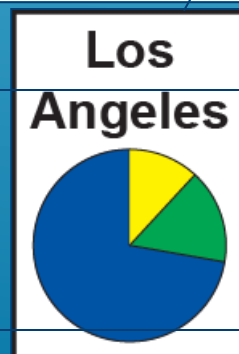
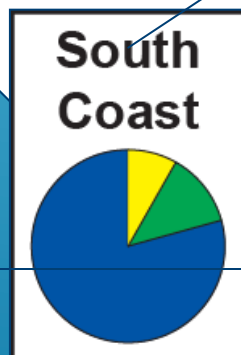
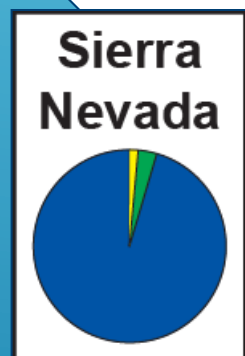
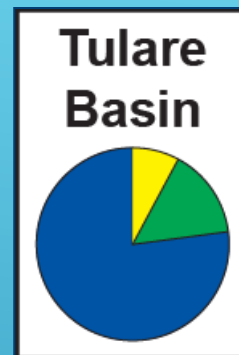
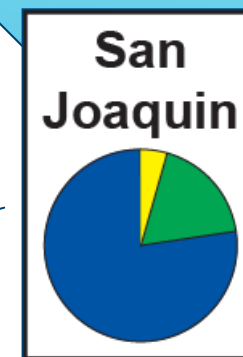
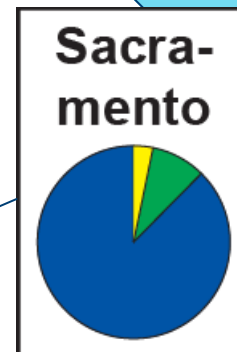
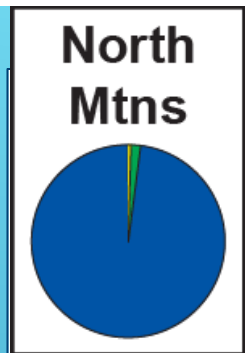
-  high: greater than MCL
-  moderate: between  
1/2 MCL and MCL
-  low: less than 1/2 MCL



Areal proportions  
of aquifer system  
with concentrations  
of a constituent in  
categories

**MCL = USEPA or CDPH maximum contaminant  
level regulatory threshold for drinking water**

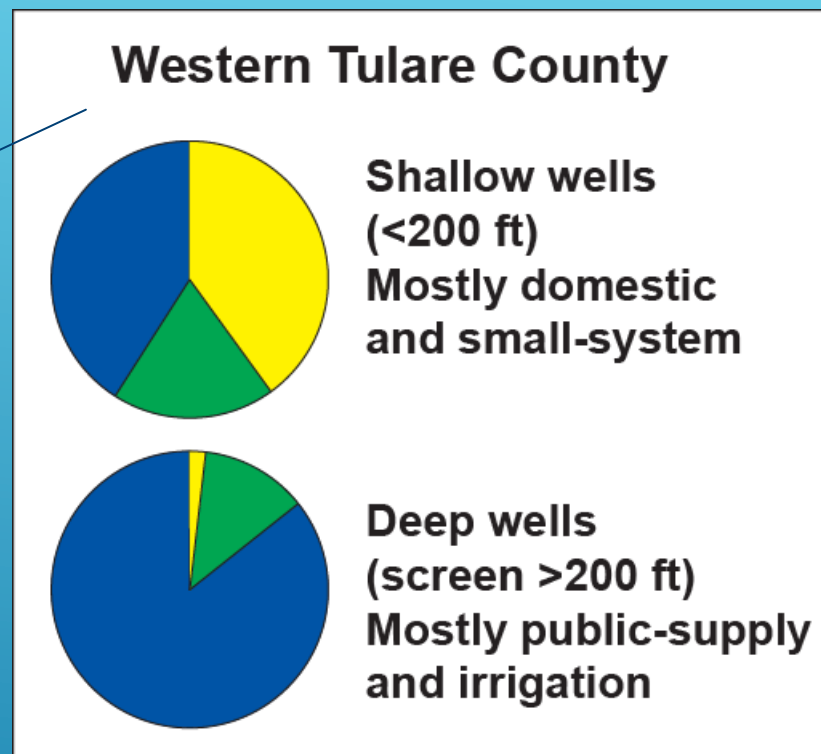
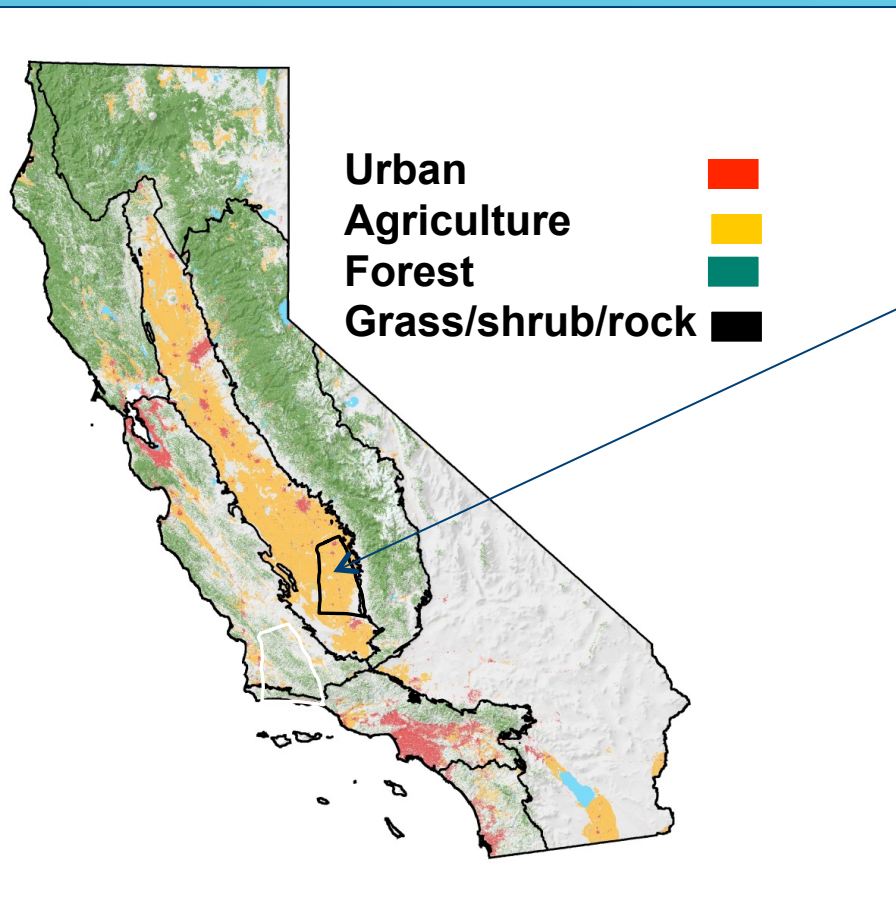
## RATE IN BLIC-SUPPLY QUIFERS



Derived from  
GAMA PBI  
CDPH data



# ITRATE, WELL DEPTH, AND LAND USE



Derived from GAMA PBP,  
GAMA DWP & USGS NWIS data



# WHAT'S "UNDESIRABLE" AND WHO DECIDES?

significant and unreasonable....

- ▶ Lowering of groundwater levels
- ▶ Reduction of groundwater storage
- ▶ Seawater intrusion
- ▶ **Degraded water quality**
- ▶ Land subsidence
- ▶ Surface water depletions

# GMA REQUIREMENTS: PUBLIC PARTICIPATION

The groundwater sustainability agency shall encourage the ***active involvement*** of diverse social, cultural, and economic elements of the population within the groundwater basin”

Public hearing requirements at multiple junctures – GSA formation, plan adoption or amendment, establishment of fees

# SGMA REQUIREMENTS: STAKEHOLDER ENGAGEMENT

- ▶ The groundwater sustainability agency shall consider the interests of all **beneficial uses and users** of groundwater
- ▶ “A list of **interested parties** [shall be] developed [along with] an explanation of how their interests will be considered”
- ▶ “The groundwater sustainability agency shall make available to the public and the department a written statement describing the **manner in which interested parties may participate in the development and implementation of the groundwater sustainability plan**”
- ▶ “Any federally recognized Indian tribe... may voluntarily agree to participate in the preparation or administration of a groundwater sustainability plan or groundwater management plan ... **A participating tribe shall be eligible to participate fully** in planning, financing, and management under this part ”

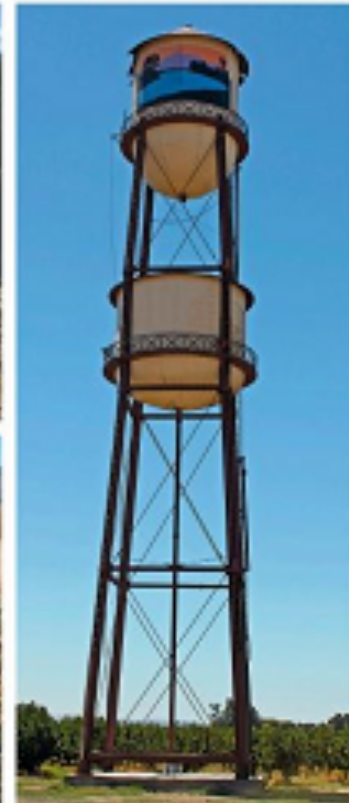
# White paper on Stakeholder Engagement – best practices, case studies

Community Water Center  
Clean Water Fund  
Union of Concerned Scientists



## **Collaborating for Success:**

*Stakeholder Engagement for Sustainable  
Groundwater Management Act Implementation*



# ENEFITS OF STAKEHOLDER ENGAGEMENT

- ▶ 1) Improve outcomes
  - ▶ 2) Optimize resources
  - ▶ 3) Build broad support and reduce conflict
- 
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# IMPROVE OUTCOMES

Case Study:  
Are Lake Basin  
disadvantaged  
community  
ready





# OPTIMIZE RESOURCES

verage  
ditional funding  
ources.

establish new  
partnerships.

crease resource  
iciencies.

omote better  
ence, innovation



## Cosumnes, American, Bear & Y

### Integrated Regional Water Management Plan (IRWM)




# LD SUPPORT ND REDUCE CONFLICT

ajaro Valley  
Water  
management  
Agency



# ROADMAP FOR STAKEHOLDER ENGAGEMENT

- Stakeholder identification and Analysis
  - Outreach and Communication
  - Data Collection/Management and information sharing
  - Decision-making and recommendations
  - Adaptive management
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# STAKEHOLDER IDENTIFICATION AND ANALYSIS

Case Study:  
Sonoma Valley  
Groundwater  
Management Plan



Sonoma Valley  
Groundwater  
Management Program



# OUTREACH AND COMMUNICATION



**NORTH COAST RESOURCE PARTNER**



## Water System Search

Search the water system Name or ID (max 10 characters):	<input type="text"/>	Go	AND	Limit To County - All ▼
000001 (ALDER SPRINGS)	ID: 1000611 (KEN'S CLOTHING AND GIFTS)	ID: 1502482 (BONANZA FARMS WATER SYSTEM)		
000002 (ANOOSH VAN WATER SYSTEM)	ID: 1000612 (CLOVIS CASTLE)	ID: 1502483 (DON MATHEWS WATER SYSTEM-FORCED TO PICME)		
000003 (BEAR CREEK WATER IMPROVEMENT)	ID: 1000613 (USDA-FS LANDSLIDE/LOGGER/ASPEN CAMPS)	ID: 1502487 (SUN MET FARM LANDS, LLC)		
000004 (BELMONT WATER CORPORATION)	ID: 1009001 (FORDEL INC)	ID: 1502524 (CAMP AREV)		
000005 (BIG CREEK COMMUNITY / DIST)	ID: 1009004 (DEL REY FARMS)	ID: 1502534 (FLORES WATER SYSTEM)		
000007 (IDYLVILDE TRACT ASSOCIATION)	ID: 1009006 (PAPPAS & CO (COALINGA))	ID: 1502536 (HOUCHIN BROTHERS NO. 26-FORCED TO PICME)		
000010 (CAMP SIERRA)	ID: 1009010 (FRED RAU DAIRY)	ID: 1502539 (WESTERN STOCKMAN S ASSOCIATION - FORCED)		
000012 (COURTWRIGHT LAKE AGE)	ID: 1009013 (MURRIETA/WASHOE)	ID: 1502542 (GREENHORN MT. RESTAURANT)		
000013 (LOWER DEER CREEK CT)	ID: 1009016 (HARLAN RANCH COMPANY)	ID: 1502543 (ALINA FARMS CORPORATION-FORCED TO PICME)		
000014 (UPPER DEER CREEK CT)	ID: 1009017 (LARRY SHEHADEY FARMS)	ID: 1502545 (SCHWEIKART WATER SYSTEM)		
000015 (DINKEY CREEK WATER IMPROVEMENT)	ID: 1009018 (AIR WAY FARMS INC/DUSTER RANCH - INACTIV)	ID: 1502547 (MOBIL CHEMICAL)		
000016 (DORABELLE MUTUAL ER COMPANY)	ID: 1009019 (AIR WAY FARMS INC/FIVE POINTS - INACTIVE)	ID: 1502549 (POPLAR AVENUE COMMUNITY)		
000017 (DOWVILLE IMPROVEMENT N)	ID: 1009020 (FIVE POINTS RANCH)	ID: 1502550 (KERN COUNTY GUN CLUB)		
000018 (EASTON ESTATES WATER PANY)	ID: 1009021 (BRITZ/ADAMS SYSTEM)	ID: 1502554 (GLENNVILLE SHOPPING CENTER)		
000019 (FCSA #30/EL PORVENIR)	ID: 1009023 (BRITZ/COLUSA)	ID: 1502555 (JARL WATER SYSTEM - FORCED TO PICME)		
	ID: 1009024 (BARLOW BROTHERS)	ID: 1502556 (I & I FARMS INC.)		
	ID: 1009026 (WESTSIDE HOUSING & ECO. NETWORK)			
	ID: 1009027 (HARRIS FARMS HEADQUARTERS)			
	ID: 1009028 (HARRIS FARMS SOUTH			

# DATA COLLECTION AND MANAGEMENT

## Case Study:

## Tulare Lake Basin Disadvantaged Community Water Study





# DECISION-MAKING

Case Study:

Inyo-Mono Integrated  
Regional Water  
Management Program


# ADAPTIVE MANAGEMENT



Cosumnes, American, Bear & Yuba River  
Integrated Regional Water Management



# BEST PRACTICES AND RECOMMENDATIONS:

- ✓ Develop a communications plan to guide and measure outreach efforts.
  - ✓ Give stakeholders a role in decision-making
  - ✓ Engage the public and stakeholders on their terms
  - ✓ Renew your efforts on a regular basis
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# HANK YOU!

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