

Public Workshop and CEQA Scoping Meeting



Establishment of a Central Valley Salt and Nitrate Management Plan



Agenda

- **Introduction**
- **Regulatory Context**
- **Project Background/CV-SALTS**
- **Project Proposal**
- **Potential Alternatives**
- **Next Steps**
- **Questions/Comment Period**

Introduction

Welcome to the 1st of four Public Workshops/CEQA Scoping Meetings

MODESTO

**Thursday October 10, 2013, 9:00 a.m.
Stanislaus County Ag Center (Rooms D/E)**

RANCHO CORDOVA

Wednesday October 16, 2013, 1:00 p.m.
Central Valley Regional Water Board (Board Room)

COLUSA

Monday October 21, 2013, 9:00 a.m.
Colusa County Fair Ground (Atwood Hall)

FRESNO

Monday October 28, 2013, 1:00 p.m.
Central Valley Regional Water Board

Why are we here?

Potential amendment to the Central Valley Basin Plans
to incorporate components of a Salt and Nitrate
Management Plan (SNMP)

**Why is this potential Basin Plan
amendment important to you?**

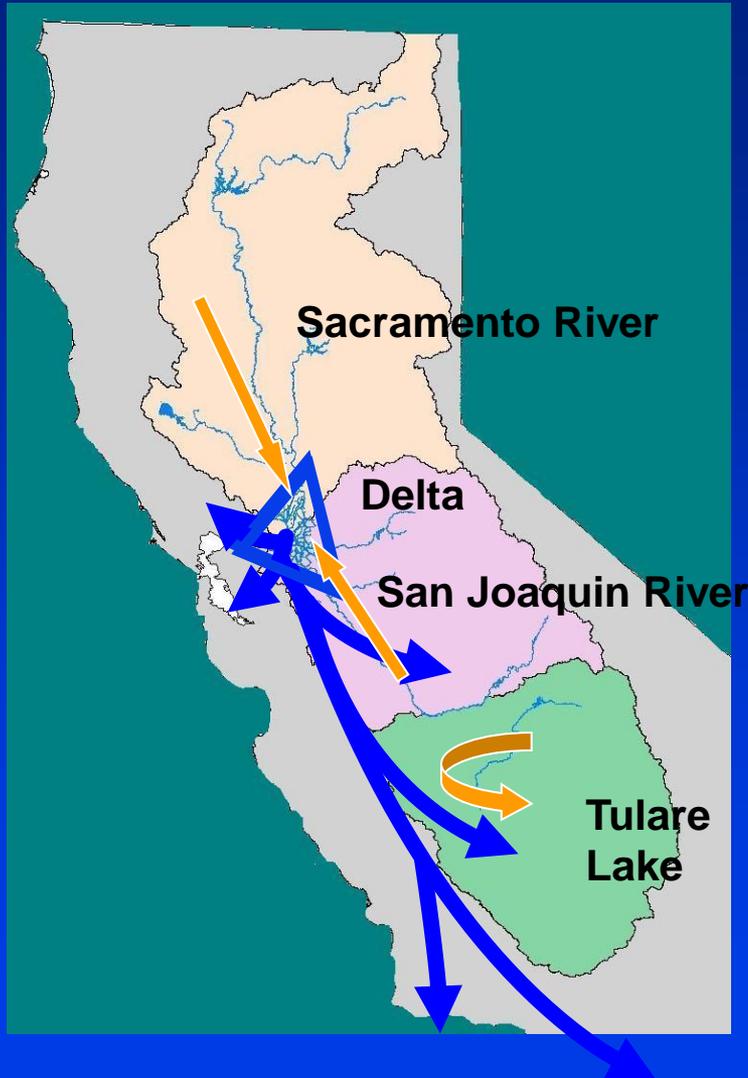
Why are we here?

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Why is this potential Basin Plan amendment important to you?

Long-term Environmental and Economic Sustainability

Central Valley Salt Issues



More salt enters the Central Valley than leaves:

- ✓ Sacramento Basin has relatively few salt impaired areas but salt exported to the Delta can be picked up and redistributed by State Water Project and Central Valley Project
- ✓ San Joaquin River is that river basin's sole outlet; salt imports exceed export capacity
- ✓ Tulare Lake Basin has no reliable outlet for salt

Central Valley Salt and Nitrate Issues

Salt build-up threatens agricultural productivity



Increasing salt and nitrate concentrations in groundwater threaten drinking water



Water used for dilution is (usually) water lost to other uses



Economic Cost

If the Central Valley Region does not change its approach to salt management by 2030...

- ✓ Direct annual costs are anticipated to range from \$1 to \$1.5 BILLION
- ✓ Total annual income impacts statewide anticipated to be from \$1.7 to \$3 BILLION

There is presently no means of distributing these costs equitably or assigning costs to all responsible parties

Today's CEQA Scoping

Solicit comments and suggestions from the public regarding a proposal to amend appropriate sections of the existing Basin Plans to incorporate an SNMP that:

- ✓ Establishes a foundation for comprehensive, sustainable management of salt and nitrates in the Central Valley

Regulatory Context

California Water Boards

- Nine Regional Water Boards under the State Water Board
- Mandate to protect beneficial uses of all surface water and groundwater
- Regulatory Authority
 - ✓ Federal: Clean Water Act
 - ✓ State: Porter-Cologne



Regulatory Statutes

Federal Clean Water Act

- ✓ Designation of beneficial uses of surface waters
- ✓ Establishment of water quality criteria to protect designated surface water beneficial uses

“Standards”

State Porter-Cologne Water Quality Control Act

- ✓ Establishes Regional Water Board responsibilities for protecting surface water and groundwater quality
- ✓ Requires Regional Water Boards to establish Basin Plans

Central Valley Water Board

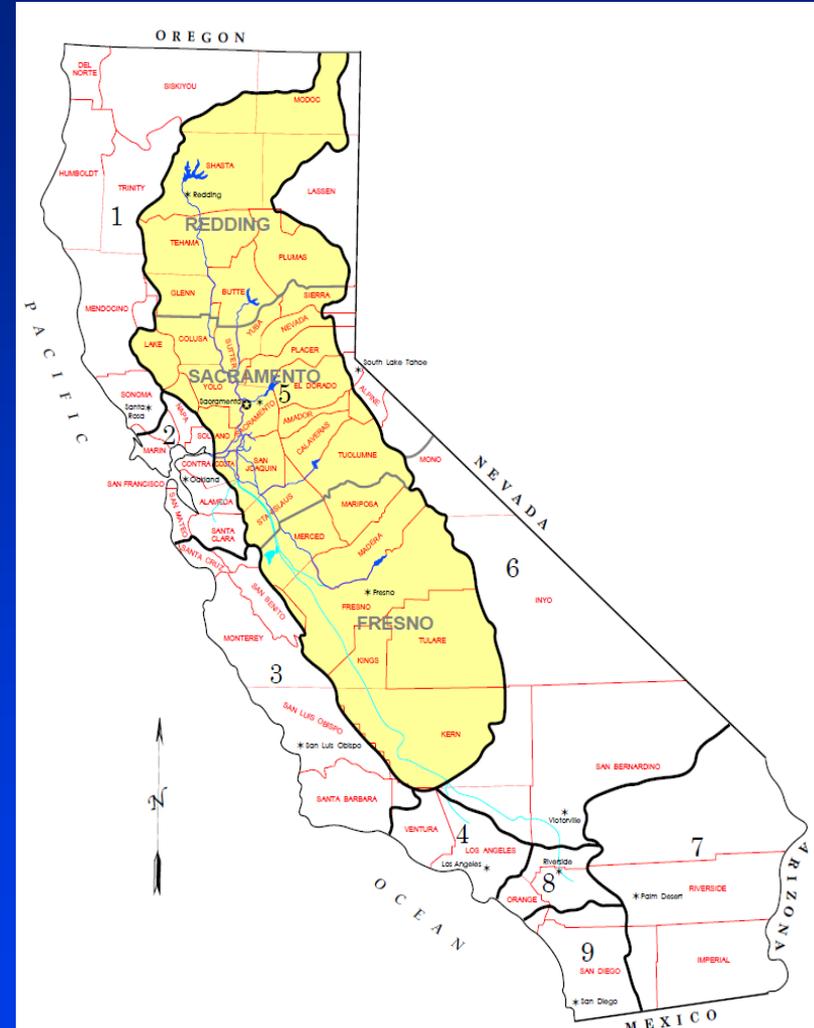
The Central Valley Water Board has two Basin Plans

- ✓ Sacramento-San Joaquin River Basins
- ✓ Tulare Lake Basin

Basin Plans, which have the legal force and effect of regulation:

- ✓ Designate beneficial uses
- ✓ Establish water quality objectives
- ✓ Describe implementation plan
- ✓ Establish monitoring/surveillance program
- ✓ Incorporate State policies

Changes to a Basin Plan require a Basin Plan amendment



Basin Plan Amendment Process

- Regional Water Board adoption
- State Water Board approval
- Office of Administrative Law approval
- US EPA approval (for elements that require review under federal Clean Water Act)
- **Public participation at key steps in the process**



Key Elements of Public Participation Process

- Stakeholder meetings (information regularly posted on website)
- Workshops/**CEQA Scoping Meetings**
- Central Valley Water Board Hearings
- Responses to comments received

CEQA Scoping: Purpose

- The California Environmental Quality Act (CEQA) requires an environmental analysis of any proposed Basin Plan amendments
- CEQA Scoping Meeting provides an opportunity for the public to give input on:
 - ✓ Possible alternatives
 - ✓ Methods of compliance
 - ✓ Potential environmental impacts
 - ✓ Mitigation measures

CEQA Scoping: Environmental Impacts to Consider for Alternatives

- Aesthetics
- Agriculture & forest resource
- Air quality
- Biological resources
- Cultural resources
- Geology & soils
- Greenhouse gas emissions
- Hazards & hazardous materials
- Hydrology & water quality
- Land use & planning
- Mineral resources
- Noise
- Population & housing
- Public services
- Recreation
- Transportation /traffic
- Utilities & service systems

Relevant State Policies

State policies implemented through the Basin Plans that directly or indirectly apply to the development of the SNMP include:

- ✓ *Statement of Policy with Respect to Maintaining High Quality Waters in California* (Resolution 68-16; “State Anti-Degradation Policy”)
- ✓ *Sources of Drinking Water Policy* (Resolution 88-63)
- ✓ *Recycled Water Policy* (Resolution 2009-0011, as amended in Resolution 2013-0003)

Recycled Water Policy

- Purpose is to increase use of recycled water from municipal wastewater sources
- Includes requirement for SNMPs in all groundwater basins
- Plans to include:
 - ✓ Salt/nutrient source identification, **assimilative capacity**/ loading estimates by basin/sub-basin, fate/transport of salts and nutrients
 - ✓ Water recycling & stormwater recharge/use goals & objectives
 - ✓ Implementation measures to manage salt and nutrient loadings on a sustainable basis
 - ✓ Monitoring provisions
 - ✓ **Antidegradation analysis**

Project Background

CV-SALTS

CV

Central Valley



SALTS

Salinity Alternatives for Long-term Sustainability



Collaborative stakeholder process to develop a comprehensive Salt and Nitrate Management Plan (SNMP).

- Components will satisfy *Recycled Water Policy* requirements

CV

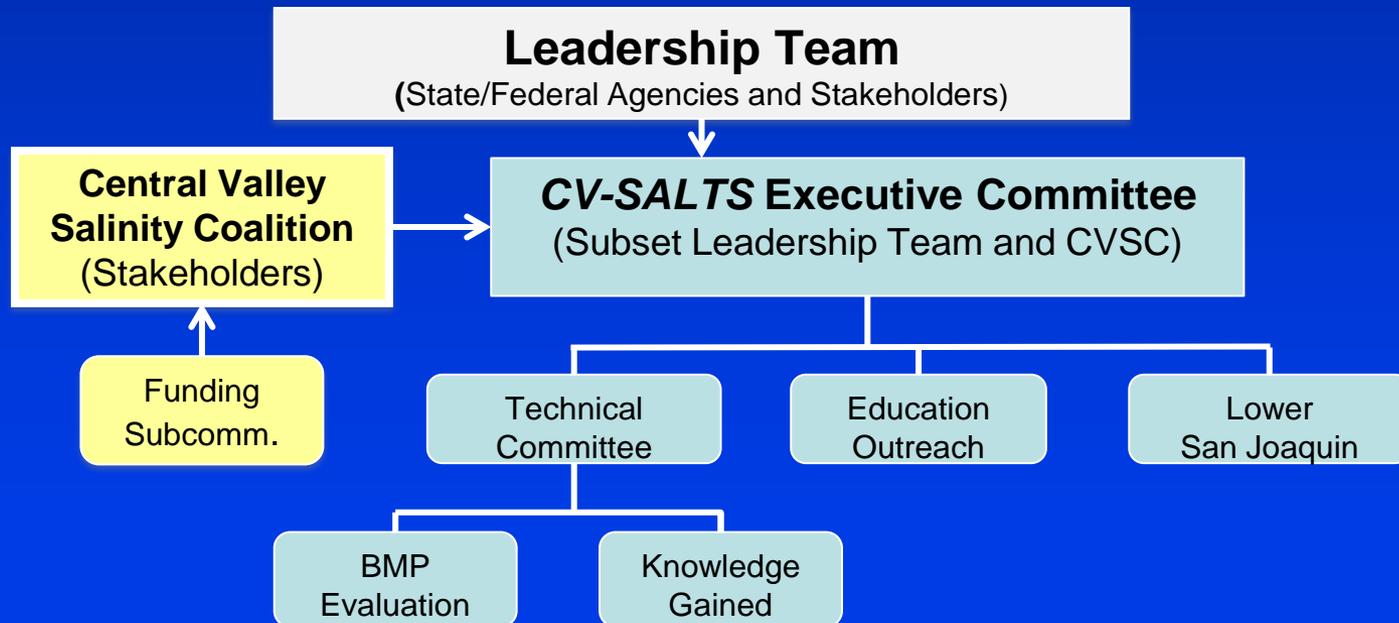
Central Valley



SALTS

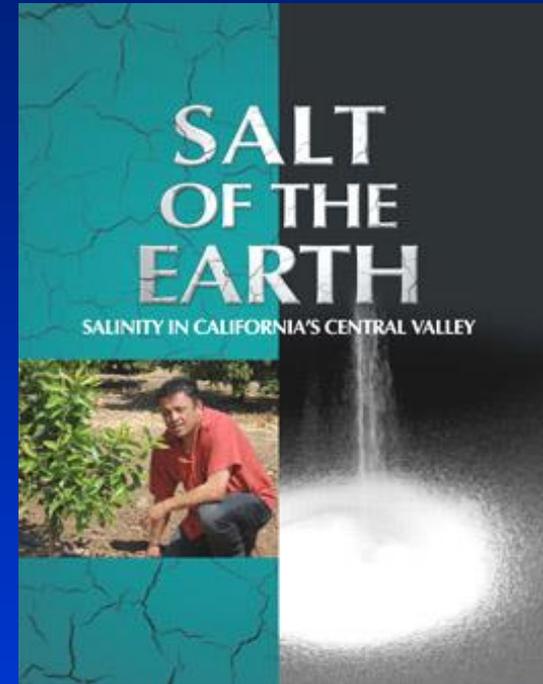
Salinity Alternatives for Long-term Sustainability

- Formed in 2006
- Adjusted in 2009 (*Recycled Water Policy*)



CV-SALTS Mission

- Develop an SNMP to address salinity and nitrate concerns in a comprehensive, consistent, and sustainable manner. Goals include:
 - ✓ Sustain the Valley's lifestyle
 - ✓ Support regional economic growth
 - ✓ Retain a world-class agricultural economy
 - ✓ Maintain a reliable, high-quality water supply
 - ✓ Protect and enhance the environment
- CV-SALTS is committed to evaluating, promoting, and initiating options to provide safe drinking water to communities already impacted by salt and nitrates



**CV-SALTS
Starting Point**

Identify Water Bodies

Surface Water
Ground Water



Designate Beneficial Uses

MUN
AGR



Establish Water Quality
Objectives

Salinity
Nitrate



Implementation
Requirements

Point Sources
Non-Point Sources



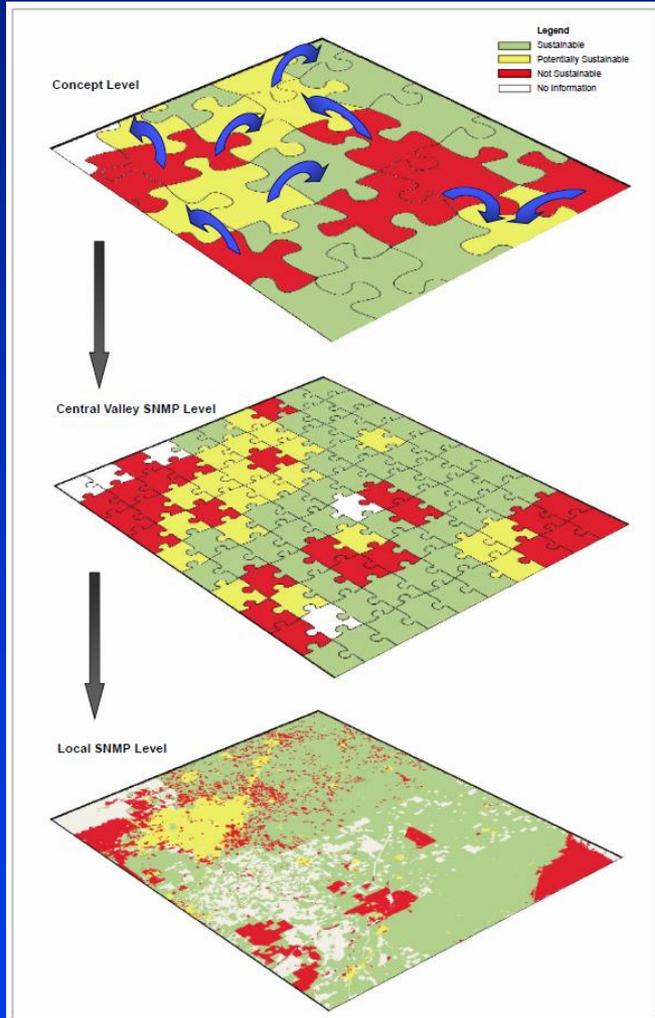
Monitoring and
Assessment

Discharges
Receiving Waters

Conceptual Model (Technical Approach)



Supports



Policy



Central Valley SNMP
(Management Zones)



Area Specific

(SNMPs; archetypes; prototypes)

Project Proposal

Salt and Nitrate Management Plan Incorporated into Basin Plans

Potential Components

1. Changing Beneficial Use Classification System
2. Specifically delineate water bodies or classes of water bodies
3. Creating Management Zones
4. Changing Existing Salinity Water Quality Objectives (WQOs)
5. Adding or Changing Implementation Plans
6. Adopting New Policies

Alternatives being explored for each component

Considerations Applicable to All Alternatives

- Existing Policies/Regulation
- Potential Environmental Impacts
- Potential Economic Impacts
- Basin Plan Linkages
 - (Central Valley-wide Applicability)

Potential Project Alternatives Could Change the Following Basin Plan Sections

1. Beneficial Uses
2. Water Quality Objectives (WQOs)
3. Implementation
 1. Water Quality Compliance Toolbox
 2. Technical and Regulatory Procedures
4. Surveillance and Monitoring
5. Policy

1. Beneficial Uses

- Further Delineation of Water Bodies or Classes of Water Bodies
- New Uses or Sub-Categories of Uses

1.1 - Identification of Surface Waters & Groundwaters in the Basin Plans

Surface Water Bodies and Beneficial Uses (TABLE II-1)

	SURFACE WATER BODIES (1)	HYDRO UNIT NUMBER	MUN	AGRI-CULTURE		INDUSTRY			RECREATION			FRESHWATER HABITAT (2)		MIGRATION		SPAWNING		WILD	NAV
				AGR	STOCK WATERING	PROC	IND	POW	REC-1	REC-2	WARM	COLD	MIGR	SPWN					
															MUNICIPAL AND DOMESTIC SUPPLY	IRRIGATION	PROCESS		
27	BUTTE CREEK	521.30	E	E	E			E	E			E	E		E	E	E	E	
28	SOURCES TO CHICO	520.40		E	E				E	E		E	E		E	E	E	E	
29	BELOW CHICO, INCLUDING BUTTE SLOUGH	520.21		E	E				E	E		E	E		E	E	E	E	
	COLUSA BASIN DRAIN			E	E				E	E		E	P		E	E	E	E	

LEGEND

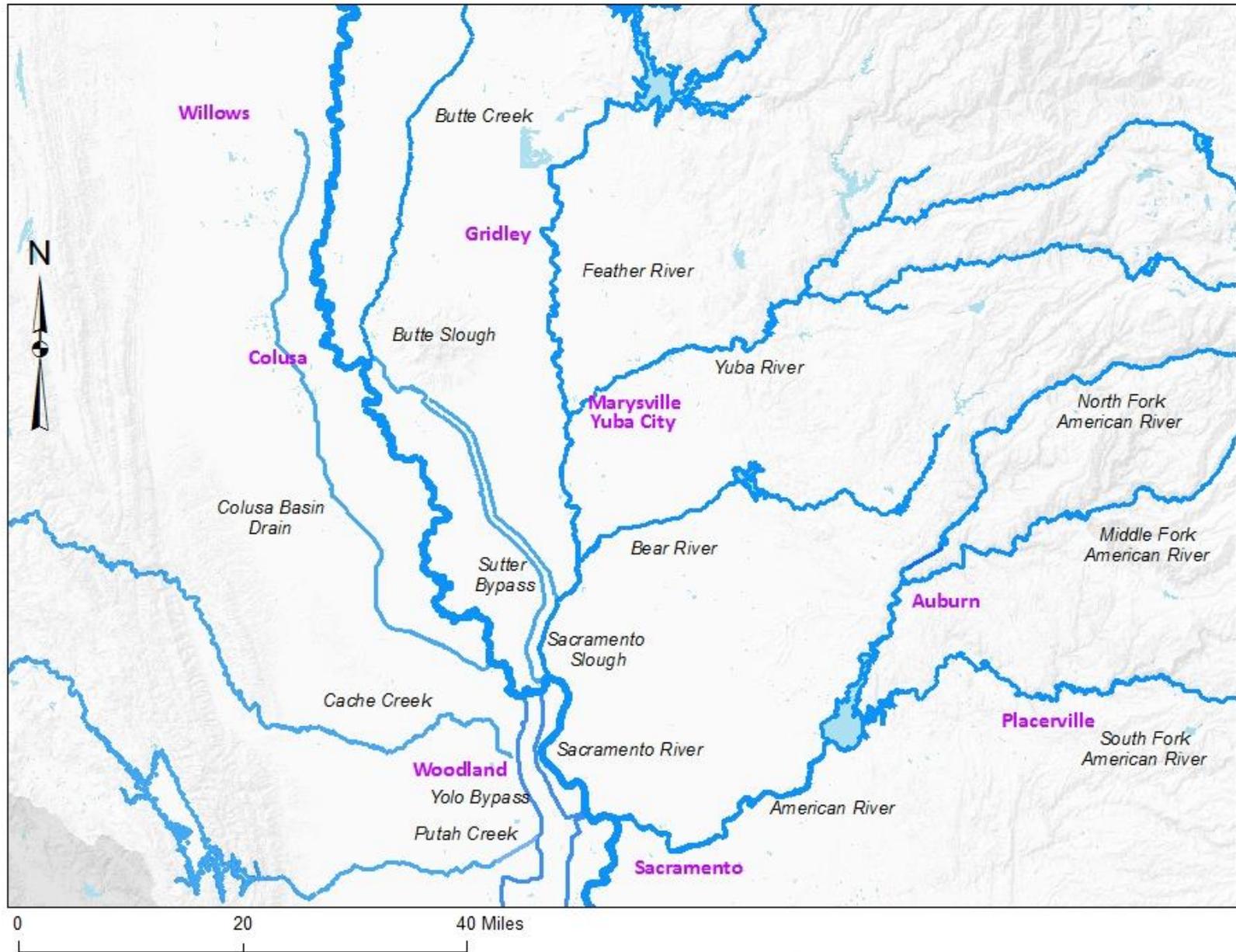
E = EXISTING BENEFICIAL USES

P = POTENTIAL BENEFICIAL USES

L = EXISTING LIMITED BENEFICIAL USE

No Action Alternative – No modifications to the surface or ground waters identified in the existing Basin Plans

Sacramento River Watershed



Legend

— Named Water Bodies with Beneficial Uses

Sacramento River Watershed



0 20 40 Miles

Legend

- Named Water Bodies with Beneficial Uses
- Unnamed Water Bodies

1.1 - Identification of Surface Waters & Groundwaters in the Basin Plans

- Potential Alternatives
 - ✓ Surface Water
 - Add to/modify current listings
 - Add a process to identify additional water bodies
 - ✓ Groundwater – Further delineate groundwater identified in each Basin Plan:
 - Apply Tulare Lake Basin Plan approach to the Sacramento/San Joaquin River Basin Plan;
 - Refine delineations by using vertical and horizontal gradients; or
 - Some combination of the above

1.2 - Refine Beneficial Use Designations: Municipal & Domestic Supply (MUN)

- Background – MUN presumptively assigned to surface and groundwater bodies unless specifically named and identified as not MUN in Basin Plan. Use of exemption criteria in the *Sources of Drinking Water Policy* requires a Basin Plan amendment.
- No Action Alternative – Continue to work within existing regulatory framework for applying MUN beneficial use to water bodies.



1.2 - Refine Beneficial Use Designations: Municipal & Domestic Supply (MUN)

- Potential Alternatives
 - ✓ Clarify difference between “existing” and “potential” use
 - ✓ Establish a “limited” or “restricted” MUN subcategory and process to assign this use to a water body.
 - ✓ Establish process to utilize exceptions of *Sources of Drinking Water Policy* to de-designate MUN without amending a Basin Plan.
 - ✓ Establish process to allow interim designation of appropriate MUN until such time that the Basin Plans can be amended.

1.2 - Refine Beneficial Use Designations: Municipal & Domestic Supply (MUN)

- Issues

- ✓ What set of factors could be used to determine where a limited or restricted MUN subcategory use should apply?
- ✓ Should ground and surface waters be considered in the same manner or differently?
- ✓ Do water bodies need to be evaluated individually, or can groups of similar water bodies be categorized?
- ✓ Should the process for implementing the exceptions of the *Sources of Drinking Water Policy* be evaluated?
- ✓ What impact might refined uses have on existing drinking water supplies?

1.2 - Refine Beneficial Use Designations: Agricultural Supply (AGR)

Background

- ✓ AGR currently covers both irrigation supply and stock watering.
- ✓ Crop sensitivity varies by crop and is dependent on multiple factors (e.g. climate, soil type, management).

No Action Alternative – Retain existing regulatory framework



1.2 - Refine Beneficial Use Designations: Agricultural Supply (AGR)

- Potential Alternative – Establish subcategories of beneficial uses within the AGR beneficial use
- Issues
 - ✓ What should be some of the key considerations in establishing subcategories for the AGR use?
 - ✓ Can subcategorization be used to promote reuse of agricultural supply and recycled water?

2. Water Quality Objectives (WQOs)

- Changing Existing Salinity WQOs

2.1 – Municipal & Domestic Supply:

2.1.1 - MUN and Secondary MCLs

- Background
 - ✓ Basin Plans currently incorporate Secondary MCLs as WQOs, some of which are salinity-related.

SMCLs - Consumer Acceptance Contaminant Level Ranges (Title 22, Table 64449-B)

Constituent	Recommended	Upper	Short Term
Total Dissolved Solids (mg/L) or Specific Conductance ($\mu\text{S}/\text{cm}$)	500	1,000	1,500
Chloride (mg/L)	250	500	600
Sulfate (mg/L)	250	500	600

Not Incorporated into Basin Plans but in Title 22:

- Concentrations lower than the recommended level are desirable
- Concentrations ranging to the upper level are acceptable if is neither reasonable nor feasible to provide more suitable waters
- Concentrations ranging to the short term level are acceptable only for existing community water systems on a temporary basis pending construction of treatment facilities or development of an acceptable new water source



2.1 – Municipal & Domestic Supply:

2.1.1 - MUN and Secondary MCLs

- No Action Alternative – No changes will be made to the Basin Plans with regards to Secondary MCLs
- Potential Alternatives
 - ✓ Remove Secondary MCLs from the Basin Plans; use narrative objectives to prevent nuisance conditions in drinking water supplies
 - ✓ Include implementation language for Secondary MCLs in the Basin Plans that explains how they should be implemented

2.1 – Municipal & Domestic Supply:

2.1.1 - MUN and Secondary MCLs

- Potential Alternatives
 - ✓ Specify that the full range of Secondary MCLS in California regulations (Title 22) for continuous use are considered “reasonable” protection of MUN
 - ✓ Specifically recognize that Secondary MCLs are applicable to treated drinking water supplies; develop translators to ensure adequate protection of raw water supplies

2.1 – Municipal & Domestic Supply:

2.1.1 - MUN and Secondary MCLs

Issues

- Removal of Table(s)
 - ✓ Potential degradation

- Utilizing upper continuous use range as “reasonable protection”
 - ✓ Consumer impact/non-acceptance

2.1 – Municipal & Domestic Supply:

2.1.2 - MUN and Nitrate-related WQOs

- Background - No planned changes to existing nitrate WQO for protection of MUN

10 mg/L $\text{NO}_3\text{-N}$

45 mg/L NO_3

2.1 – Municipal & Domestic Supply:

2.1.4 – WQOs to Protect a Limited or Restricted MUN Beneficial use

Background – If Board clarifies “existing” and “potential” and/or establishes “limited”/“restricted” MUN use subcategory, alternative WQOs may be established

No Action Alternative – No WQOs are established for a “limited”/“restricted” MUN use

Potential Alternative

- ✓ Establish narrative WQO with regulatory guidance
- ✓ Establish specific numeric WQOs to protect the use

2.2 – Agricultural Supply (AGR)

- Background

- ✓ Board currently relies on narrative WQOs to protect AGR
- ✓ As applied to irrigation water, narrative WQOs do not clarify how to:
 - Account for different crop sensitivity
 - Account for management practices
 - Adjust for outdated information
 - Utilize new models/data to help develop appropriate WQOs
- ✓ Basin Plans do not currently have any stock-watering WQOs

2.2 – Agricultural Supply (AGR)

- No Action Alternative - Continue to rely on existing regulatory framework to protect AGR-related uses of water
- Potential Alternatives
 - ✓ Clarify use of narrative or numeric WQOs for protection of agricultural irrigation
 - ✓ Account for regional differences in factors that influence crop production, e.g., climate, including drought, available source water quality, soils, or cropping patterns
 - ✓ Establish narrative or numeric WQOs for the protection of stock watering

2.2 – Agricultural Supply (AGR)

- Issues

- ✓ What should be considered when translating the narrative WQO into numeric limitations in the context of permitting actions?
- ✓ What level of crop protection is reasonable, especially during drought?
- ✓ What should be used as the basis for determining whether discharges will “unreasonably” affect present and probable future beneficial uses of the water for irrigated agriculture?
- ✓ What are some of the factors that should be considered when establishing stock watering WQOs?

2.3 – Aquatic Life (WARM or COLD)

- Background - Basin Plans do not currently include salinity-related numeric WQOs to protect WARM or COLD beneficial uses
- No Action Alternative – No changes will be made to the Basin Plans with regards to salinity-related WQOs to protect WARM or COLD beneficial uses
- Potential Alternative – Board may consider establishing salinity-related WQOs to protect WARM or COLD



****RECAP****

**CV-SALTS
Starting Point**

Identify Water Bodies

**Surface Water
Ground Water**



Designate Beneficial Uses

**MUN
AGR**



**Establish Water Quality
Objectives**

**Salinity
Nitrate**



**Implementation
Requirements**

**Point Sources
Non-Point Sources**



**Monitoring and
Assessment**

**Discharges
Receiving Waters**

**Recycled
Water Policy**

3. Implementation

- Overview
- Salt Management (or Where will the salt go?)
- Management Zones

Implementation: Overview



Challenge: Long-term salt & nitrate management while encouraging use/reuse of water

Considering alternatives to:

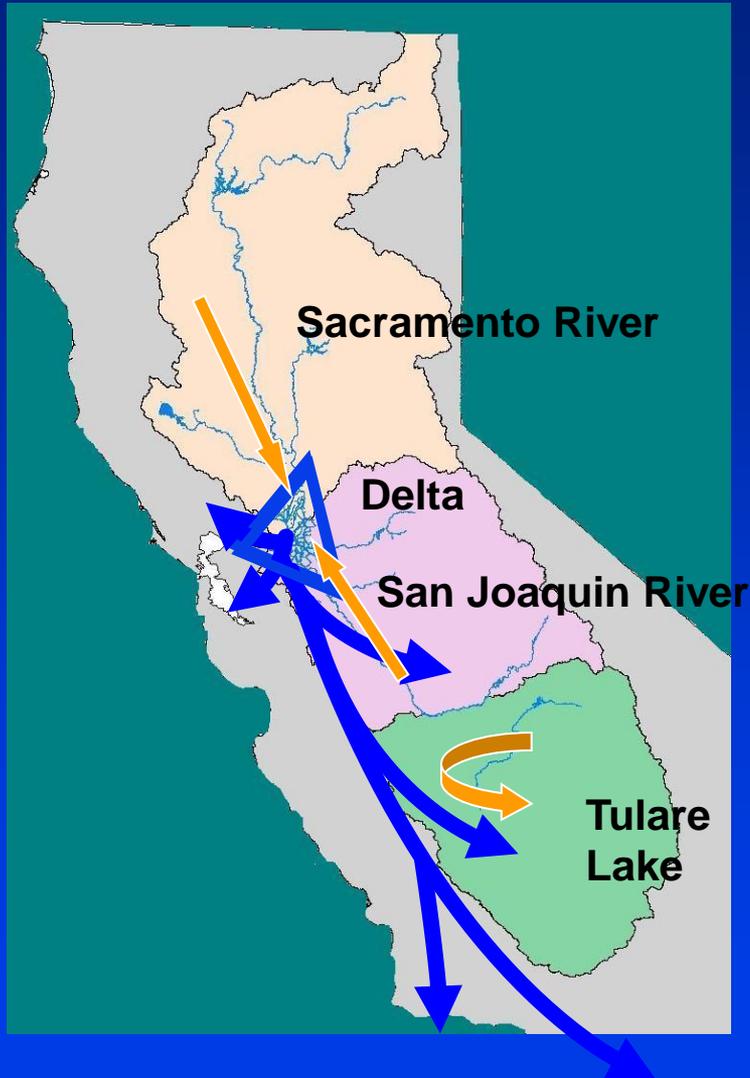
- ✓ Increase flexibility in how salt and nitrates are managed through the SNMP at local, watershed, and regional scales
- ✓ Provide safe drinking water to communities already impacted by salt and nitrates

3.3 – Salt Management Implementation Provisions

- Background
 - ✓ Basin Plans recognize challenges of salt management
 - ✓ Each Basin Plan includes
 - ✓ Implementation measures to guide management of salinity impacts
 - ✓ A number of needs or options for future salt management
 - ✓ *Recycled Water Policy* requires management of salt on a sustainable basis

**Need to decide where the salt should go, or be disposed of,
in the region over the long term**

3.3 – Salt Management Implementation Provisions



- No Action
- Controlled Degradation
 - Sac/SJR Basins
- In Valley Containment
- Out of Valley Transport
- Combination

Salt Management Alternatives

In-Valley

- *Agriculture* – irrigation/fertilizer use BMPs, evaporation ponds, land retirement, etc.
- *Municipal* – source controls, landscape irrigation BMPs, local pretreatment limits, etc.
- *Industrial* – desalters, deep well injection, mechanical evaporation, landfill disposal, etc.

Out-of-Valley

- Real-Time Management Program
- Pipeline to treatment facility outside of Central Valley
- Direct ocean disposal

Hybrid

- Combinations of in-valley and out-of-valley disposal strategies, e.g., truck salt to brine line for ocean disposal

3.3 – Salt Management Implementation Provisions

- Issues

- ✓ Where would controlled degradation be allowed
 - ✓ Appropriate increment of increase?
 - ✓ Upper limit be determined?
- ✓ In- or out-of-valley salt disposal alternatives/protection of ground and surface water beneficial uses
 - ✓ Geographic, jurisdictional, regulatory or institutional considerations
 - ✓ Technical and economic feasibility issues

3.1 – Management Zone (MZ) Implementation Provisions

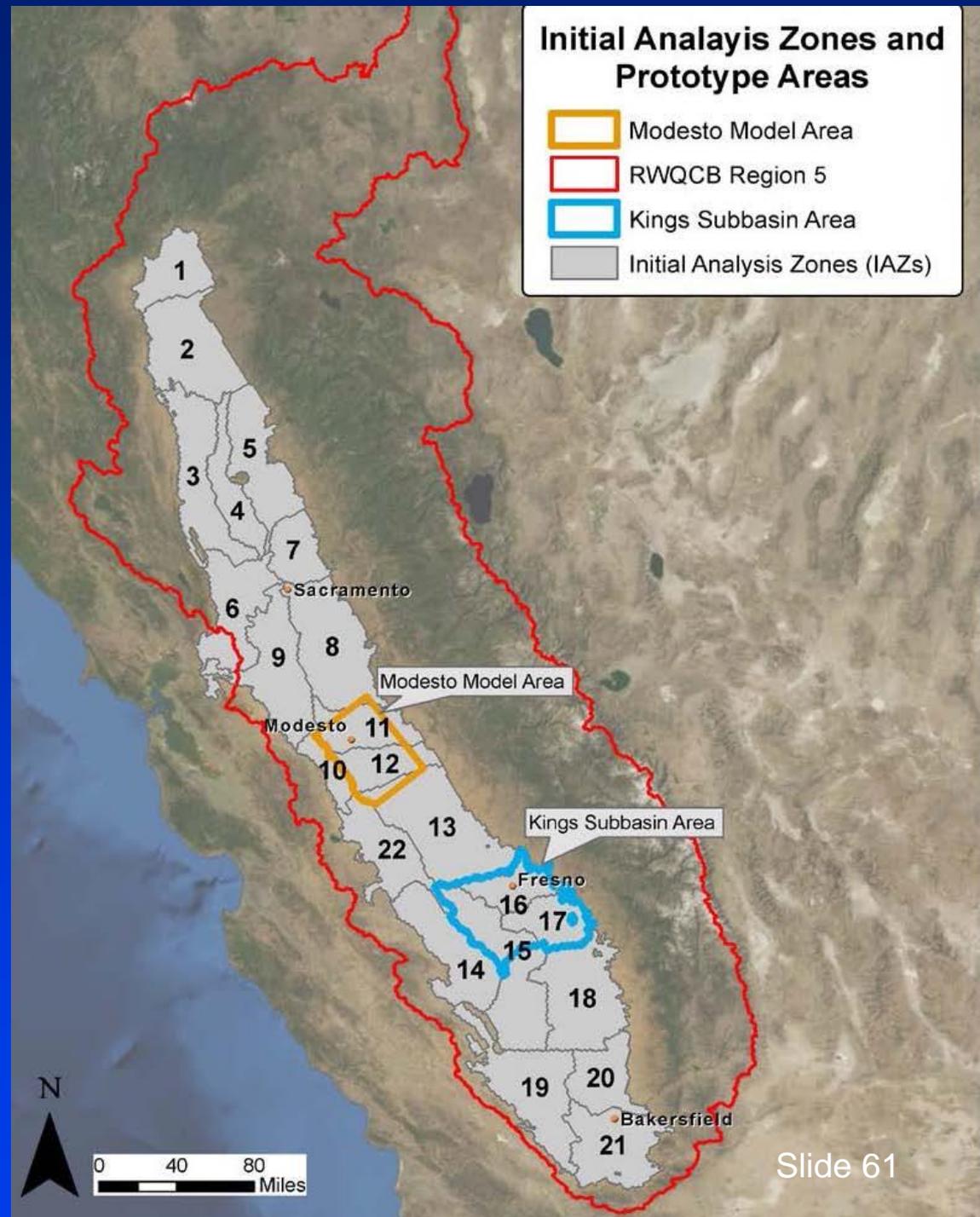
Background

- ✓ Tulare Lake Basin utilizes named groundwater basins for establishing uses and managing water quality;
- ✓ Sac/SJR Basins broadly identify uses to all groundwaters unless site specific study conducted
- ✓ Groundwater Basins are typically very large
- ✓ *Recycled Water Policy* requires determination of assimilative capacity in all groundwater basins

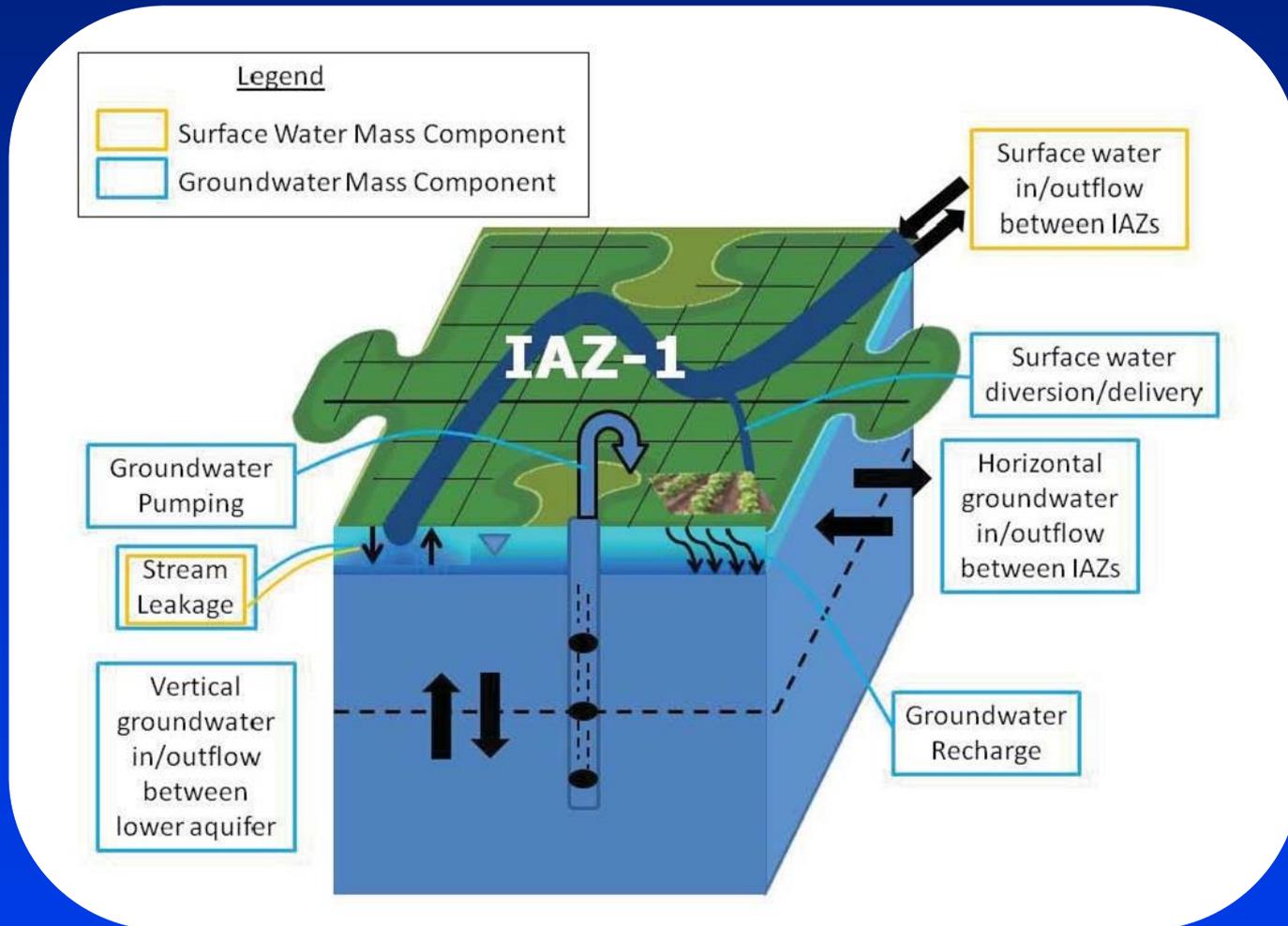
No Action Alternative - Continue to manage surface and ground water using the existing framework in each of the Central Valley Basin Plans

Potential Alternative

Initial Analysis Zones (IAZs) & Prototype Areas



Three Dimensional View of an IAZ



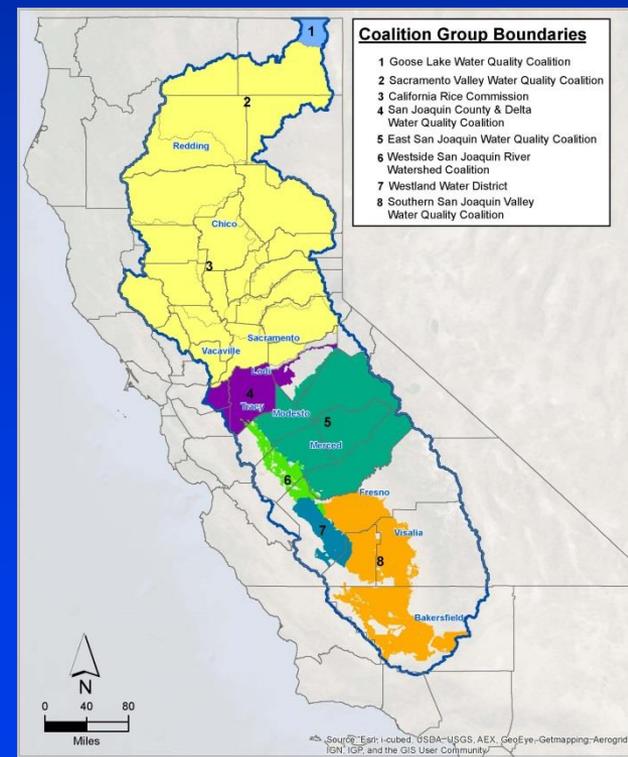


Alternative: Use factors other than hydrogeology

- IRWMP
- Water Agencies
- ILRP

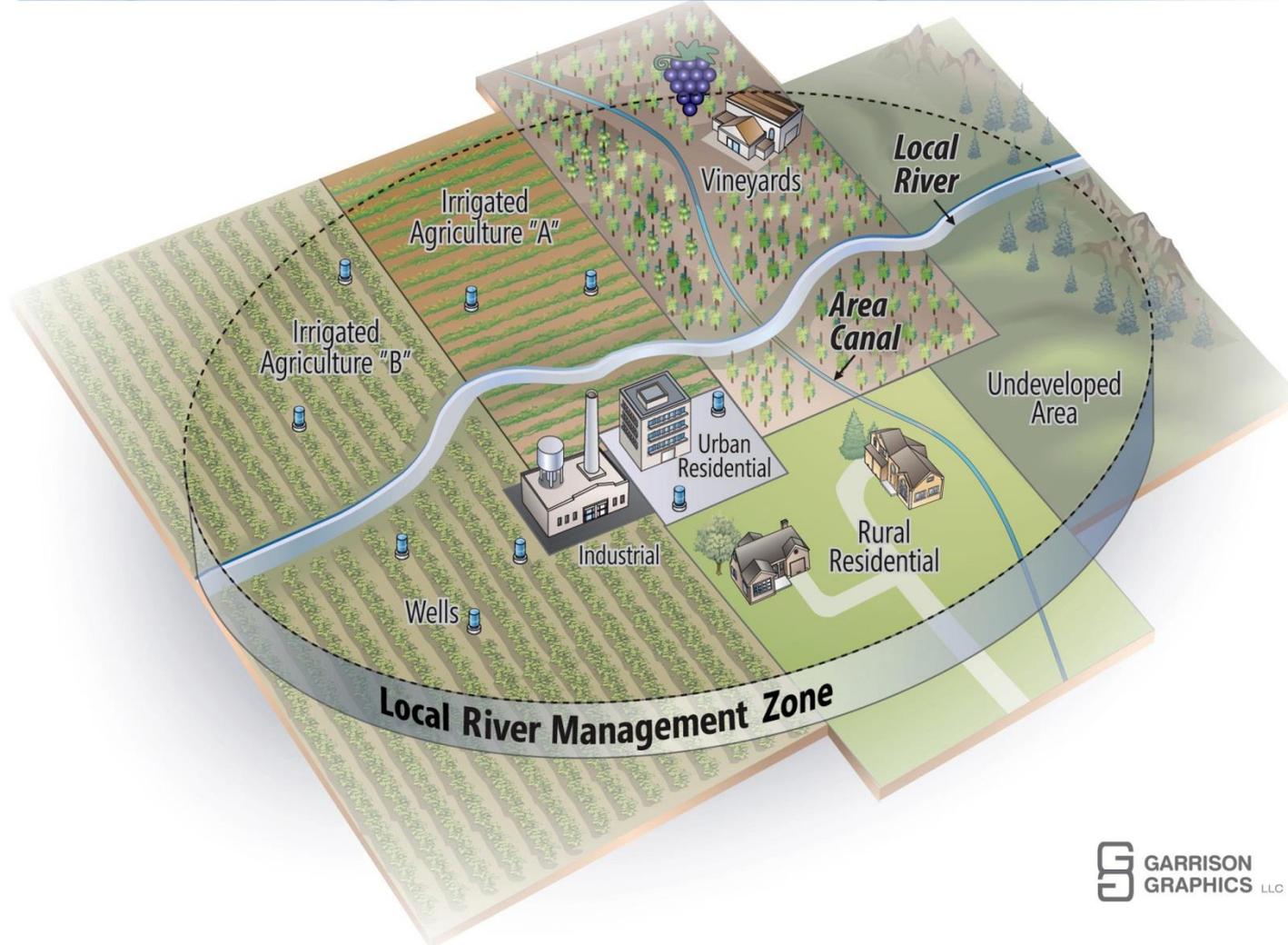


Some other user-defined management area

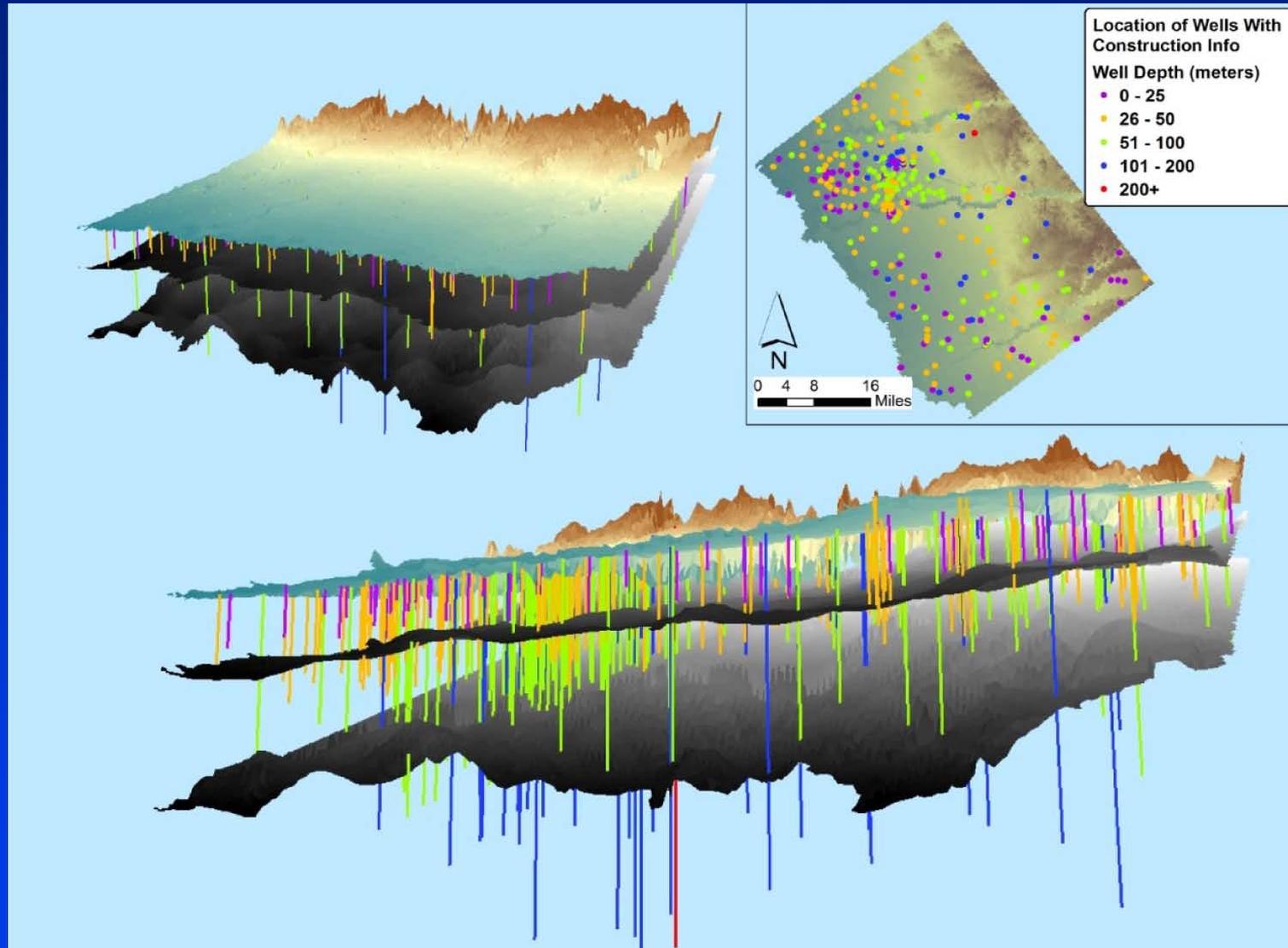


Management Zone Concept

Conceptual Relationship of Water Use Areas to a Management Zone



Alternative: Distinguish between shallow and deep groundwater



3.1 – Management Zone (MZ) Implementation Provisions

- Issues

- ✓ Key geographic, jurisdictional, regulatory or institutional considerations for establishing a MZ?
- ✓ Key considerations for a groundwater management approach that takes into account varying depths of groundwater?
- ✓ What types of management strategies may be considered within an MZ if water quality is managed from a zonal or depth perspective rather than as individual discharges, as is the current practice?

4. Water Quality Compliance Toolbox

- Overview/Existing Implementation
- Adding to/Changing Existing Implementation
 - ✓ Compliance Evaluation
 - ✓ Variances; Schedules; Alternative Strategies
 - ✓ Ensuring Safe Drinking Water

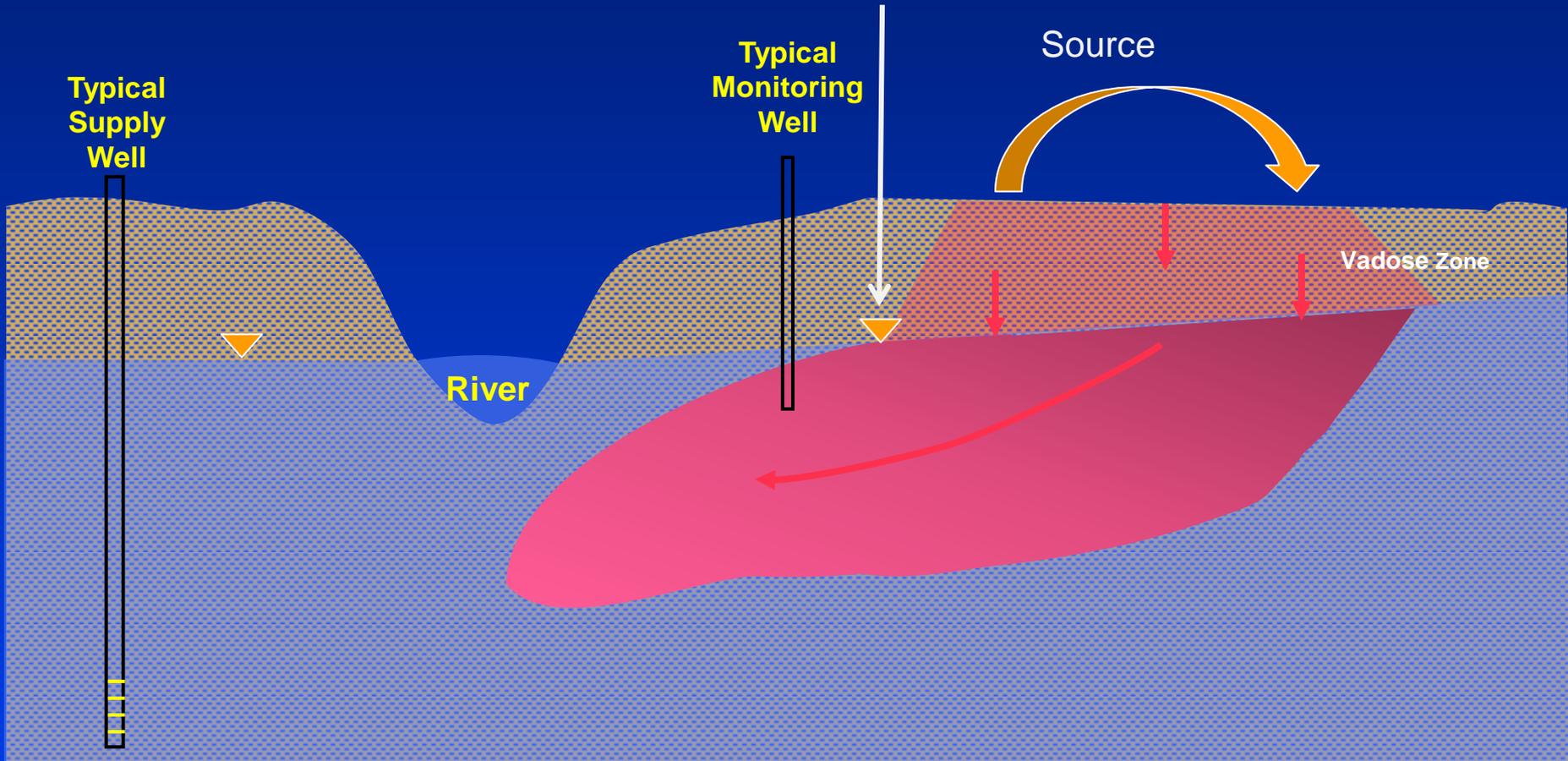
Water Quality Compliance Toolbox: Overview

- Not proposing any changes to the following existing water quality compliance tools:
 - ✓ *Permitting Tools* – Waste Discharge Requirements, Waivers, Time Schedule Orders
 - ✓ *Enforcement Remedies* – Cleanup & Abatement Orders, Cease & Desist Orders, Administrative Civil Liability
 - ✓ *Discharge Prohibitions*
- Considering establishment of additional compliance tools to support implementation of innovative approaches to effective salt and nitrate management

3.2 – Implementation Provisions Related to Protection of Groundwater Uses

- Background
 - ✓ Groundwater is defined as “...subsurface water that occurs beneath the ground surface in fully saturated zones within soils and other geologic formations”
 - ✓ Current regulation evaluates potential near/long-term impacts from a discharge based on the first encountered groundwater, regardless of whether the designated uses actually occur in the shallow groundwater

First Encountered Ground Water



3.2 – Implementation Provisions Related to Protection of Groundwater Uses

- No Action Alternative - Continue current practice of protecting the first encountered groundwater when developing WDRs
- Potential Alternatives – Consider modifications to the existing practice that would allow the Board to use its discretionary authority to facilitate SNMP implementation alternatives

4.1 – Compliance Evaluations

- Background
 - ✓ Evaluating compliance with a receiving water WQO or WDR effluent limitation is based on:
 - Basin Plan requirements
 - Board staff discretion if requirements not specified
 - ✓ Compliance determinations may benefit from additional specificity in the Basin Plan, e.g.:
 - Sometimes a limited relationship exists between a point of compliance (POC), where water quality is monitored, and where the use actually occurs in the receiving water
 - How data are evaluated temporally or spatially may affect a compliance determination

4.1 – Compliance Evaluations

- No Action Alternative - Continue to rely on existing Basin Plan authority to determine POCs and how data are analyzed for compliance evaluations
- Potential Alternatives
 - ✓ Clarify POCs and data analysis requirements for WQOs
 - ✓ Establish additional discretionary authority to allow consideration of alternative POCs that better relate effluent limitations and where beneficial uses actually occur
 - ✓ E.g. At point of diversion for MUN use
 - ✓ Some combination of the above

4.1 – Compliance Evaluations

Issues – If additional discretion is allowed for establishing POCs in WDRs, what considerations should be given to WDR monitoring requirements to evaluate compliance?

4.2 – Variance/Exception Policy

- Background

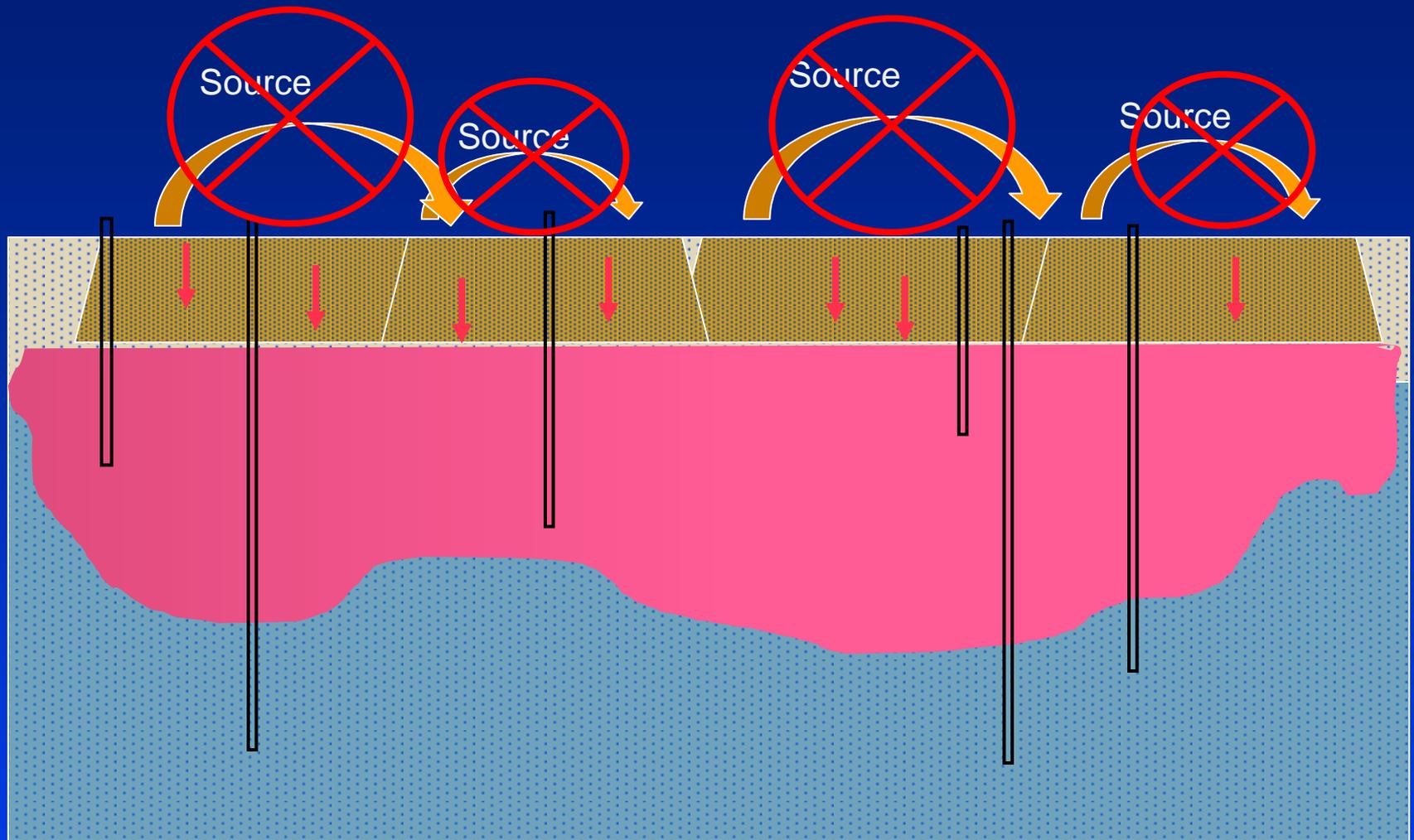
- ✓ A variance or exception is a regulatory tool that allows issuance of a discharge permit even though compliance with a WQO is infeasible, e.g., because of an inappropriate use designation or technical impracticability
- ✓ The Board has developed a proposed variance/exception policy to address salt management concerns; policy is expected to be in effect when the SNMP is adopted
- ✓ Proposed variance/exception policy is intended to sunset when the SNMP is adopted

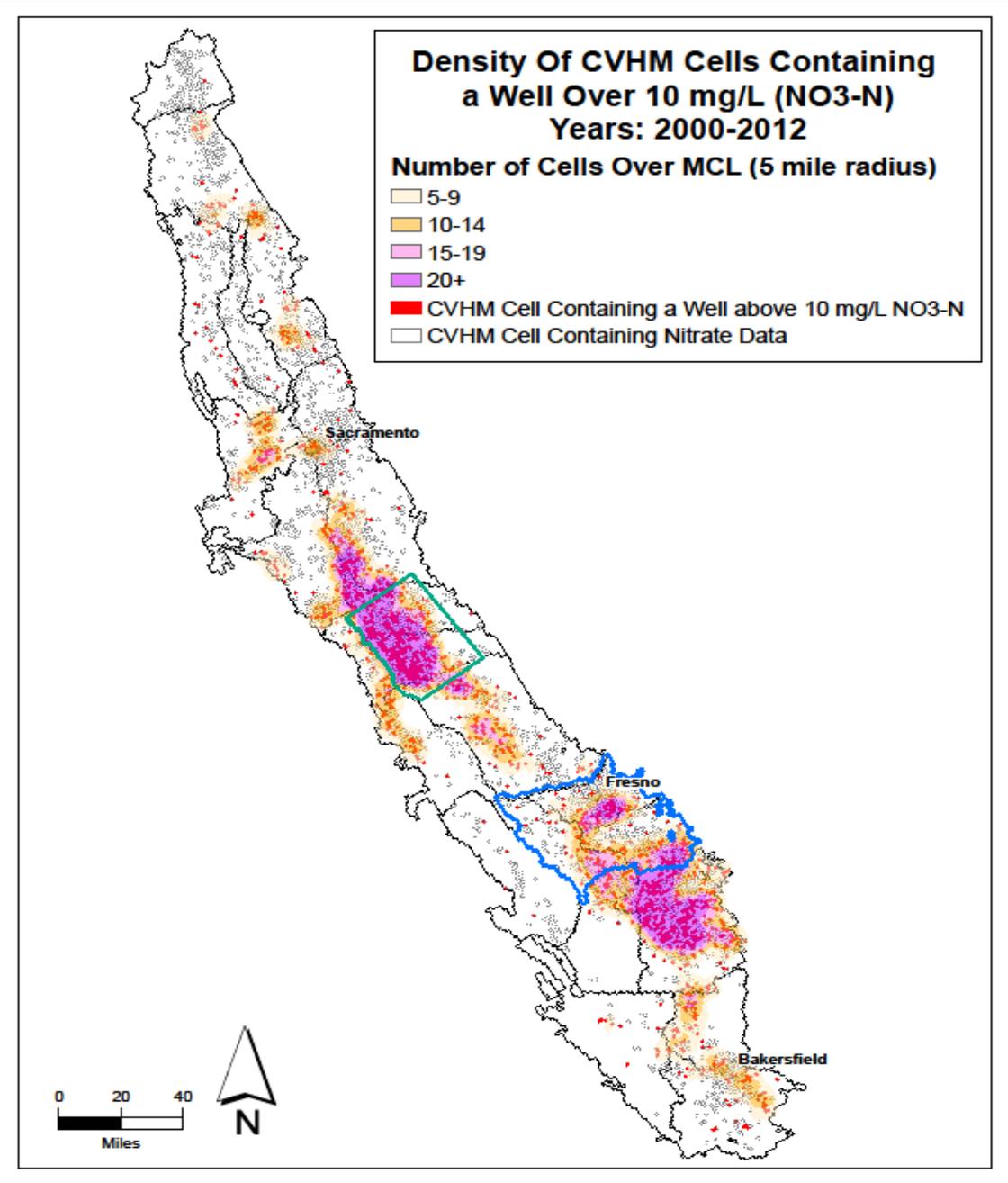
4.2 – Variance/Exception Policy (cont.)

- No Action Alternative - Allow currently proposed variance to sunset within current specified time limits
- Potential Alternatives
 - ✓ Update the proposed variance policy for salt and nitrate in surface water
 - ✓ Update the proposed exceptions process (similar to a variance) for groundwater
 - ✓ Some combination of the above proposed updates

4.3 – Alternative Compliance Strategies

- Background
 - ✓ Board currently has authority to consider the use of various compliance strategies to address site-specific water quality concerns, e.g.:
 - Development of site-specific WQOs
 - Use of translators, or
 - Compliance schedules
 - ✓ Board considering Basin Plan modifications to provide additional discretionary authority to allow use of alternative compliance strategies specific to management of salt and nitrates on a zonal, regional or watershed scale instead of a local or permit-specific scale



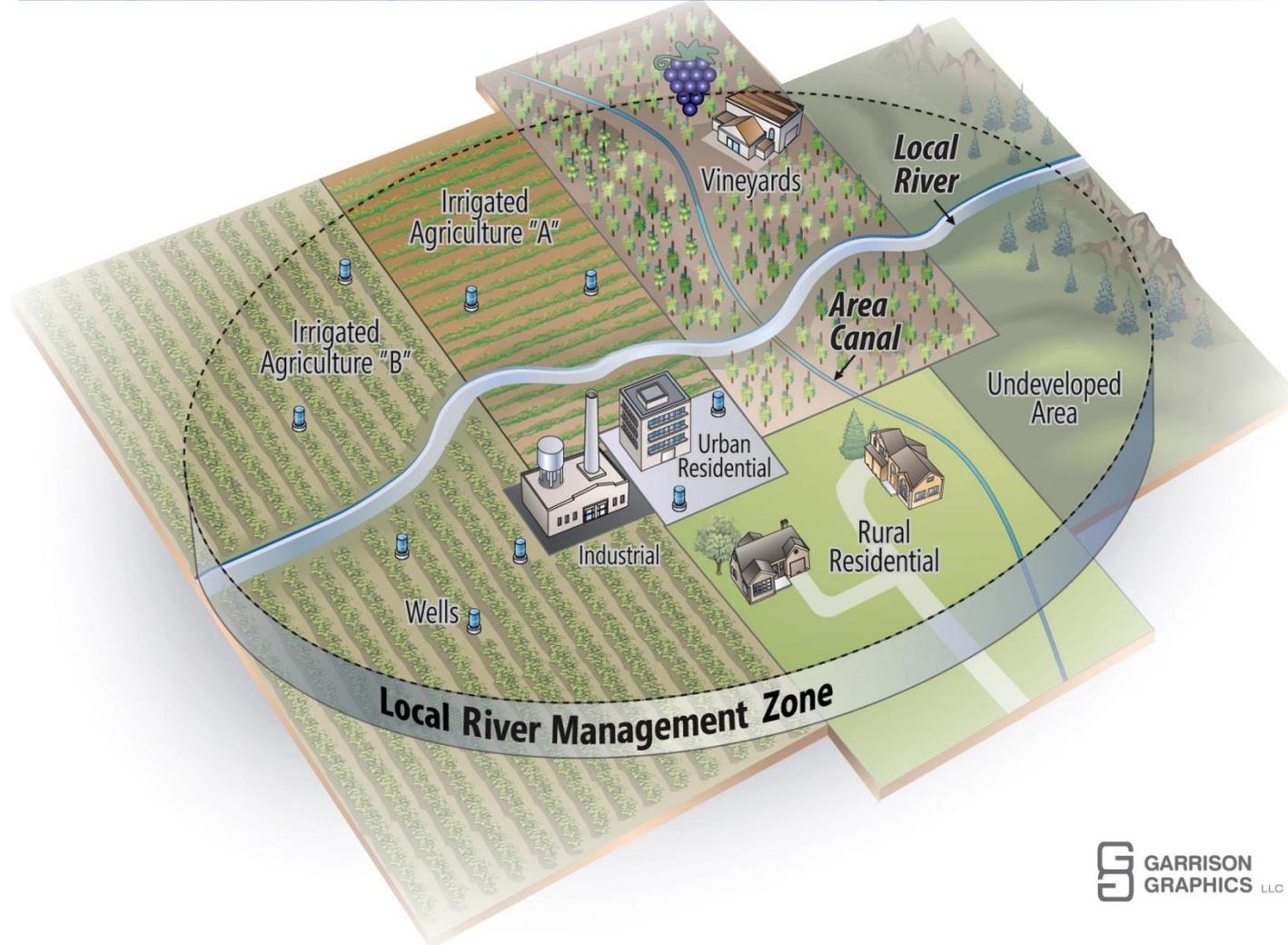


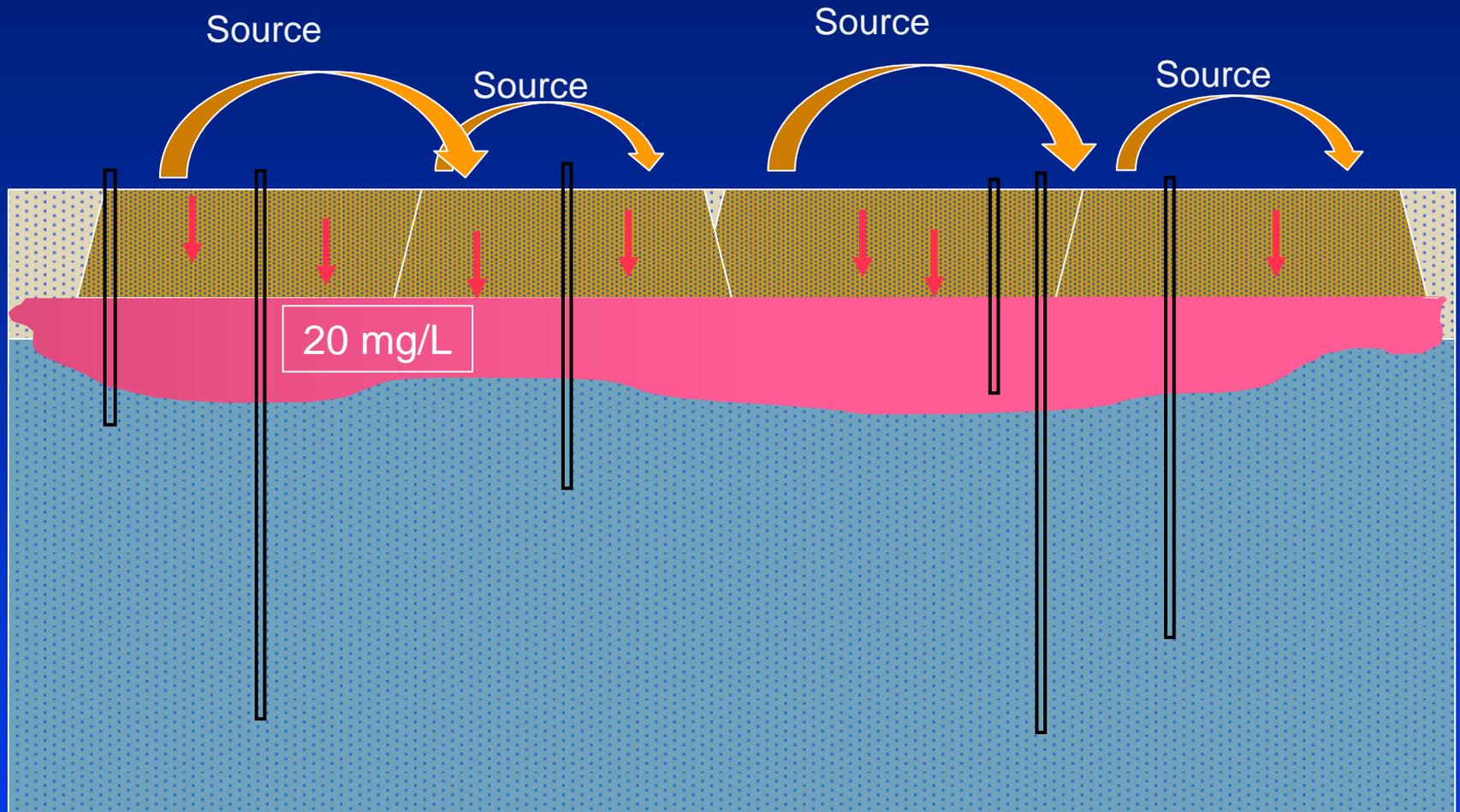
4.3 – Alternative Compliance Strategies

- No Action Alternative - Continue to rely on existing Basin Plan authorities to achieve compliance
- Potential Alternatives – Amend Basin Plans to establish additional discretionary authority to allow consideration of alternative compliance strategies to manage salt and nitrate on a sustainable basis, e.g.:
 - ✓ Direct use protection
 - ✓ Utilizing groundwater assimilative capacity
 - ✓ Alternative points of compliance
 - ✓ Conditional exceptions
 - ✓ Specific considerations for projects maximizing water use
 - ✓ Specific considerations during low flow/drought conditions

Management Zone Concept

Conceptual Relationship of Water Use Areas to a Management Zone





Is
**Is GW Quality
Better than Objective?**

No

Yes

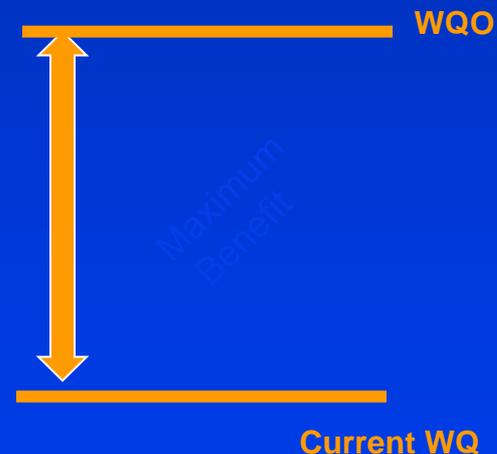
**Cannot allow
ground water quality to get
worse**

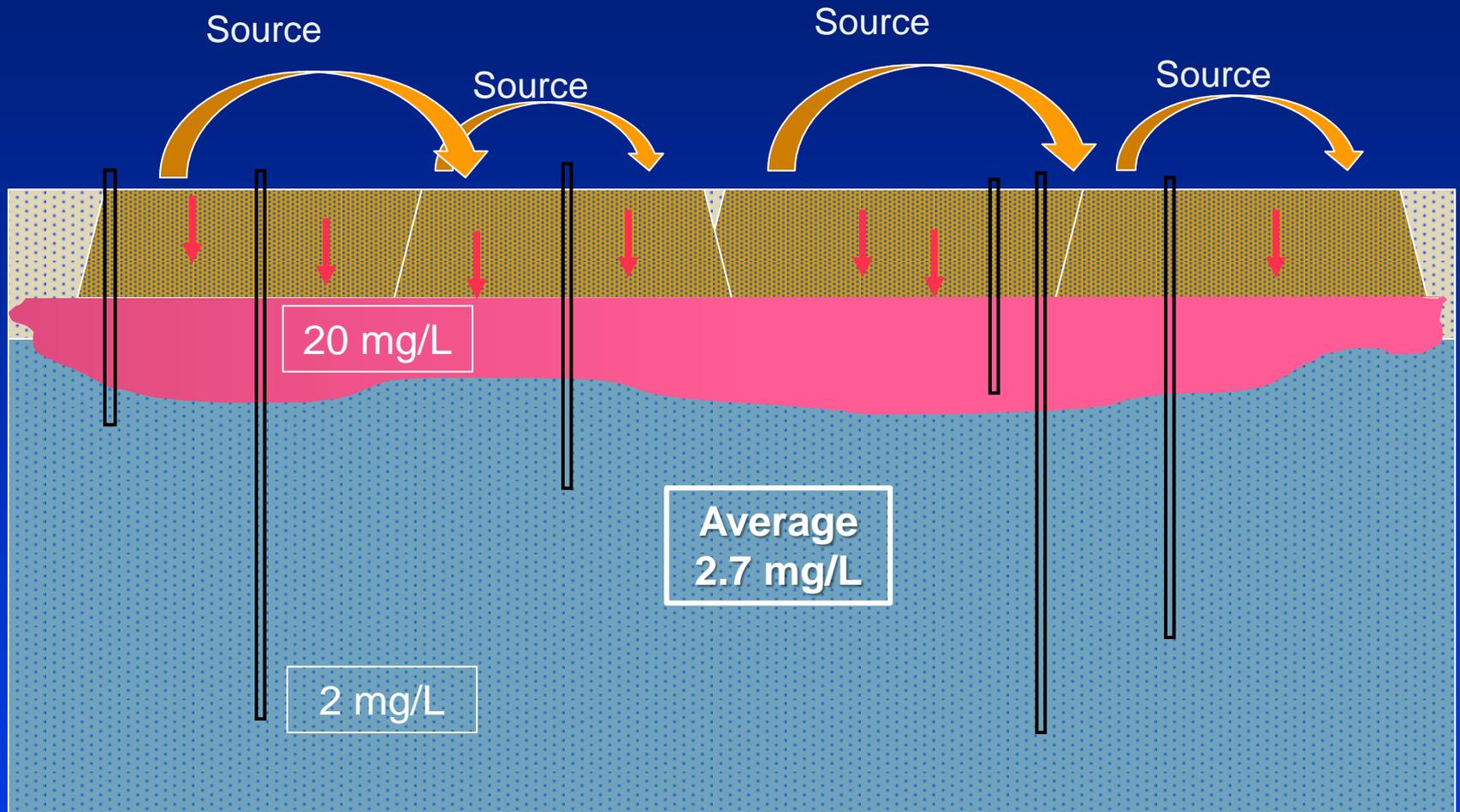
(Compliance at shallow GW)

- Prohibit Discharge
- Permit Conditions
 - ◆ Require “best practices”
 - ◆ Meet objective
- Basin Planning
 - ◆ Site Specific Objectives
 - ◆ Modify Beneficial Uses

**Apply Antidegradation Policy
(68-16)**

- ◆ Require BPTC
- ◆ Show “Maximum Benefit”





Discretionary Authority

Traditional Regulation

- Prohibition
- Permits
- Basin Planning

OR

Anti-deg/Max Benefit

- BPTC
- Maximum Benefit
 - *Criteria dependent on situation*
 - Actual Use Protection
 - Maximize water use
 - Longterm improvement

4.3 – Alternative Compliance Strategies

- Issues

- ✓ If additional discretion is allowed, what are some of the key issues the Board should consider when managing salt or nitrate at a zonal, regional or watershed scale?
 - ✓ Actual use protection?
 - ✓ Future use?
 - ✓ Longterm quality improvement?
 - ✓ Water master/adjudication?
- ✓ What are some other alternative compliance strategies that the Board should consider for salt and nitrate that are consistent with the goals of the *Recycled Water Policy*?

5. Technical and Regulatory Procedures

Technical and Regulatory Procedures

- Background

- ✓ Board is considering adopting procedures to facilitate SNMP implementation, e.g.:
 - Calculation and management of assimilative capacity
 - Criteria for making a “maximum benefit” determination
 - Methods to evaluate applicability of beneficial uses

- Issues

- ✓ Should the Basin Plans be amended to incorporate procedures that provide clarity to SNMP implementation?
- ✓ In lieu of adopting procedures in the Basin Plan, what are alternatives for establishing procedures that not only create certainty regarding appropriate procedures, but also allow flexibility for the Board to modify a procedure without implementing a costly Basin Plan amendment process?

6. Surveillance and Monitoring

6.1 – Monitoring Requirements

- Background
 - ✓ Board relies on a number of existing monitoring programs to support Basin Plan implementation.
 - ✓ Examples of existing monitoring programs include:
 - Surface Water Ambient Monitoring Program (SWAMP)
 - Groundwater Ambient Monitoring & Assessment Program (GAMA)
 - Irrigated Lands Regulatory Program
 - Regulatory Compliance Programs (NPDES, WDR, etc.)
- No Action Alternative – Continue to rely on existing monitoring programs to serve the purposes of SNMP implementation

6.1 – Monitoring Requirements (cont.)

- Potential Alternatives
 - ✓ Modify one or more existing monitoring programs to accommodate implementation activities unique to SNMP
 - ✓ Develop separate surveillance and monitoring program specific to SNMP implementation
 - ✓ Develop a more collaborative approach to monitoring, e.g., regional monitoring
 - ✓ Some combination of the above
- Issue – How should monitoring and surveillance programs be tailored to help support management approaches or implementation measures being considered for adoption within SNMP?

6.2 – Assessment Procedures

- Proposed project may influence existing procedures for assessing surface water quality
- Proposed project may develop groundwater quality assessment procedures to support implementation decisions, e.g., procedures to facilitate:
 - ✓ Spatial data averaging (horizontal and vertical)
 - ✓ Temporal data averaging
 - ✓ Identification of action triggers to inform need for compliance action

Adopting New Policies

Adopting New Policies

- The Board may adopt new policies to address
 - Water Recycling
 - Climate change
 - Extreme weather conditions (including drought)
 - Recharge of stormwater runoff
- Issues: What should be considered during the development of these policies?
- Should other policies be developed?

Next Steps

Complete Technical Projects

Data Compilation and Modeling

- Conceptual Model
- GIS Beneficial Use/ AGR Zone Efforts

Beneficial Use

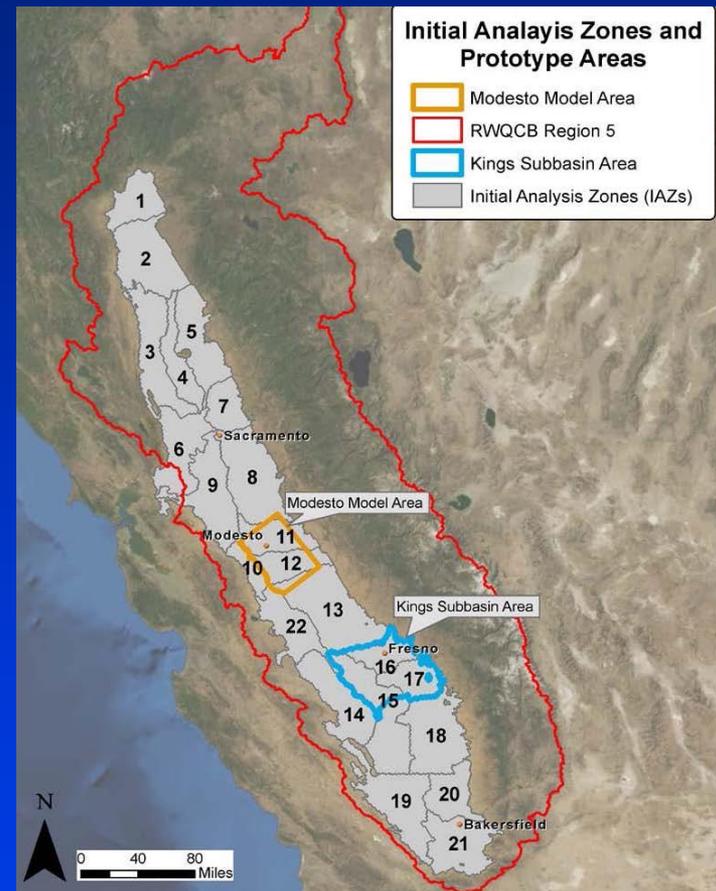
- Tulare Lake Groundwater
- MUN in Ag Dominated Water bodies

Water Quality Objectives

- Aquatic Life
- Stock Watering
- Salt Effects on Irrigated Ag
- Salt Effects on MUN
- Lower San Joaquin River

Implementation

- Economic Review
- SSALTS (Accumulation and Transport)



Project Schedule

- Central Valley Water Board Workshop—Dec. 2013
- State Water Board Annual Update—Jan. 2014
- Draft SNMP – 2014
- Final SNMP – 2016
- Final Staff Report & Basin Plan Amendments – 2018

For More Information

- For more information, please see:
 - ✓ http://www.swrcb.ca.gov/rwqcb5/water_issues/salinity/
 - ✓ <http://www.cvsalinity.org>
- Sign up for email updates at:
[http://www.waterboards.ca.gov/resources/
email_subscriptions/reg5_subscribe.shtml](http://www.waterboards.ca.gov/resources/email_subscriptions/reg5_subscribe.shtml)
(Check the box titled “Salinity (CV-SALTS)”)

CEQA Scoping Comments due: December 31, 2013

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Questions?

Comments?

Extra Slides