

Public Workshop and CEQA Scoping Meeting

Evaluation of the Municipal
and Domestic Supply and
Agricultural Beneficial Uses in
Tulare Lakebed Groundwater



Agenda

- INTRODUCTION
- REGULATORY CONTEXT
- PROJECT
- POTENTIAL ALTERNATIVES
- NEXT STEPS
- QUESTION/COMMENT PERIOD

Introduction

Welcome to the Public
Workshop/CEQA Scoping meeting

Corcoran

Tuesday April 14, 2014, 1:00 p.m.

Tulare Lake Basin Water Storage
District

Why are we here?

- We are considering amending our Basin Plan to better define the application of the municipal and domestic supply (MUN) and agricultural supply (AGR) beneficial uses in groundwater within a designated portion of the Tulare Lakebed

Why is an amendment important to you?

Environmental and Economic Sustainability

Regulatory Context

California Water Boards

- Nine Regional Water Boards under State Water Board
- Mandate to protect beneficial uses of all surface and groundwater
- Regulatory Authority from:
 - State – Porter Cologne



Regulatory Basis

State Porter-Cologne Water Quality Control Act:

- Establishes Regional Water Boards responsibility for protecting surface & groundwater quality
- Requires Regional Water Boards to establish Water Quality Control Plans (Basin Plans)

Central Valley Water Board

The Central Valley Water Board has two Basin Plans

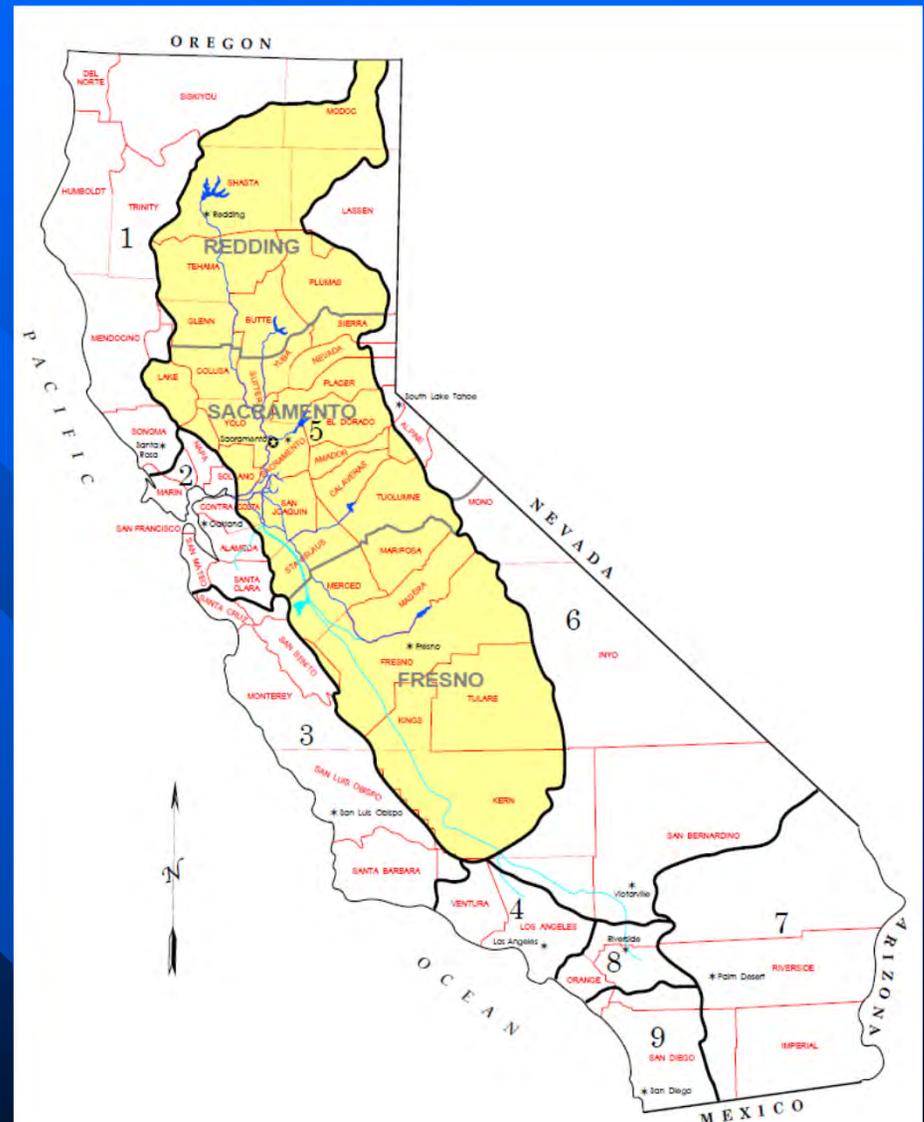
- Sacramento-San Joaquin
- Tulare Lake

Basin Plans:

- Designate beneficial uses
- Establish water quality objectives
- Describe implementation plan
- Describe monitoring & surveillance program
- Incorporate State Policies

Have the legal force and effect of regulation

Changes to the Basin Plan require a Basin Plan Amendment



Basin Plan Amendment Process

- Regional Water Board adoption
- State Water Resources Control Board approval
- Office of Administrative Law approval
- US EPA approval (for surface waters)
- **Public Participation at Key Steps in the Process**

Public Process

- Stakeholder Meetings
- Workshops/**CEQA** scoping meetings
- Board Hearings
- Response to comments received



CEQA Scoping

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

The Project

Background

- Scope
- History
- Recent Events

Description

- Study Area
- Alternatives



Today's CEQA Scoping

Solicit comments and suggestions from the public regarding a proposal to:

- Evaluate appropriate designation of MUN beneficial use and application of the State Water Board Sources of Drinking Water Policy (Resolution 88-63) in groundwater within a designated portion of the historic Tulare Lakebed.

Today's CEQA Scoping

- Evaluate appropriate designation of the AGR beneficial use in a designated portion of the groundwater in the historic Tulare Lakebed.



Additional Note

Results from this effort may provide a reference to evaluate the applicability of the MUN and AGR beneficial use and associated water quality objectives in other groundwater basins within the Central Valley.

Relevant State Policies

Sources of Drinking Water Policy (Resolution
88-63)

Statement of Policy with Respect to
Maintaining High Quality Waters in California
(Resolution 68-16)

“California Antidegradation Policy”

“Sources of Drinking Water Policy” (Resolution 88-63)

- MUN Beneficial use applies to all water bodies unless they are specifically listed (in the Basin Plans) as water bodies that are not designated with MUN
- 88-63 does contain exceptions, but our Basin Plans require “. . . a formal Basin Plan amendment” to apply those exceptions

Sources of Drinking Water Policy Exceptions

- Total Dissolved Solids $>3,000$ mg/L (5,000 $\mu\text{mhos/cm}$) and not expected to supply a public water system
- With contamination, either by natural processes or by human activity, that cannot reasonably be treated for domestic use

Sources of Drinking Water Policy Exceptions

- Not sufficient yield to supply a single well of producing an average sustained yield of 200 gallons per day
- Surface Water in systems designed for wastewater collection or conveying or holding ag drainage
- Groundwater regulated as a geothermal energy producing source

“Statement of Policy with Respect to Maintaining High Quality Waters in California” (Resolution 68-16)

- Also known as the California Antidegradation Policy
- Applies to both surface and groundwater and requires that existing high quality be maintained to the maximum extent possible

History

1975 First Edition Tulare Lake Basin Plan

- Recognized need for managing salt

1994 Second Edition Tulare Lake Basin Plan (rev. January 2004 with approved amendments)

- Included incorporation of Sources of Drinking Water Policy

CV-SALTS

- Central Valley Salinity Alternatives for Long-Term Sustainability is a stakeholder driven effort addressing salinity and nitrate problems in the Central Valley
- CV-SALTS is the vehicle for developing a Salt and Nutrient Management Plan for the Central Valley Region

CV-SALTS

- Identified a need for proof of concept or case studies for evaluating the applicability of the MUN beneficial use



Today

- Tulare Lake stakeholders proposed project
 - Data indicating MUN not an existing use
- Central Valley Water Board is working in conjunction with the CV-SALTS initiative on this beneficial use evaluation.
- Study may serve as a reference for future groundwater beneficial use evaluations

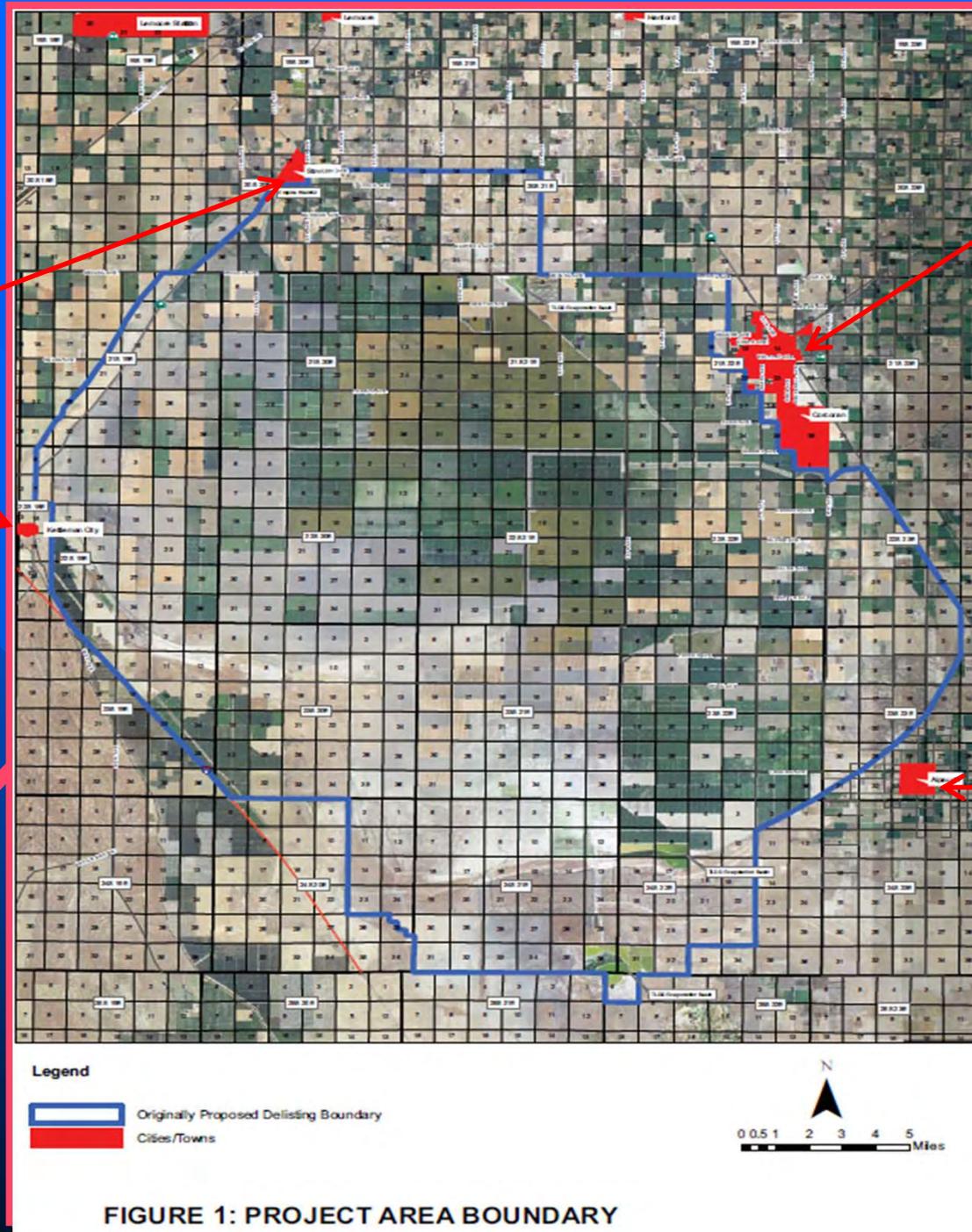
Study Location

Stratford

Kettleman City

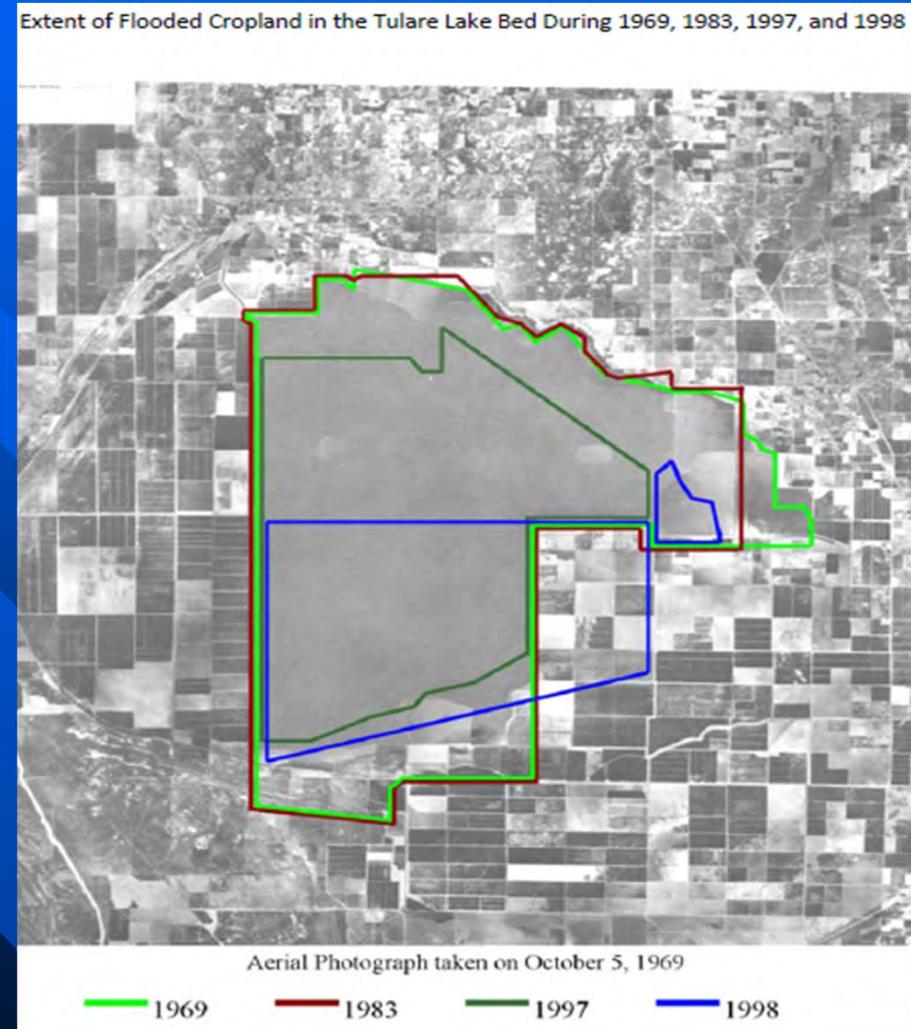
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Historic Tulare Lakebed

- Natural depression on the valley floor
- Prior to construction of Dams in upper watershed, lakebed regularly contained water
- Essentially a closed basin; natural salt sink



Tulare Lakebed Study Area

- Project Area
 - Project Study area approximately 324,000 acres
 - Primary land use: commercial ag
 - No towns or communities



Tulare Lakebed Study Area



- Target Area
 - Sub-area within periphery of Project Study area
 - Focus of beneficial use evaluation
 - Primary land use: commercial ag
 - Water uses and quality evaluated

Potential Alternatives



Considerations with all Alternatives

- Policies/Regulation
- Beneficial Uses
- Water Quality Objectives
- Implementation/Monitoring

Potential Environmental and
Economic Impacts

Beneficial Uses

- MUN – Uses of water for community, military, or individual water supply systems including, but not limited to drinking water supply
- AGR – Uses of water for farming, horticulture, or ranching, including, but not limited to, irrigation, stock watering, or support of vegetation for range grazing

Water Quality Objectives

- MUN – Title 22: Potable Supply
- AGR – Narrative protection of all crops
 - Default 700 $\mu\text{mhos/cm}$ EC for salt sensitive crops



CEQA Scoping

Environmental Impacts to Consider

- 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

MUN Alternative #1 – No Action

- No changes – the groundwater would continue to be designated for the full protection of the MUN beneficial use unless otherwise specified in the Basin Plans



MUN Alternative #2 – Dedesignate MUN within Proposed Boundary

- Evaluation based on Sources of Drinking Water Policy exceptions
- Dedesignate MUN within horizontal and variable vertical boundary (Figure A)

Geologic Cross Section

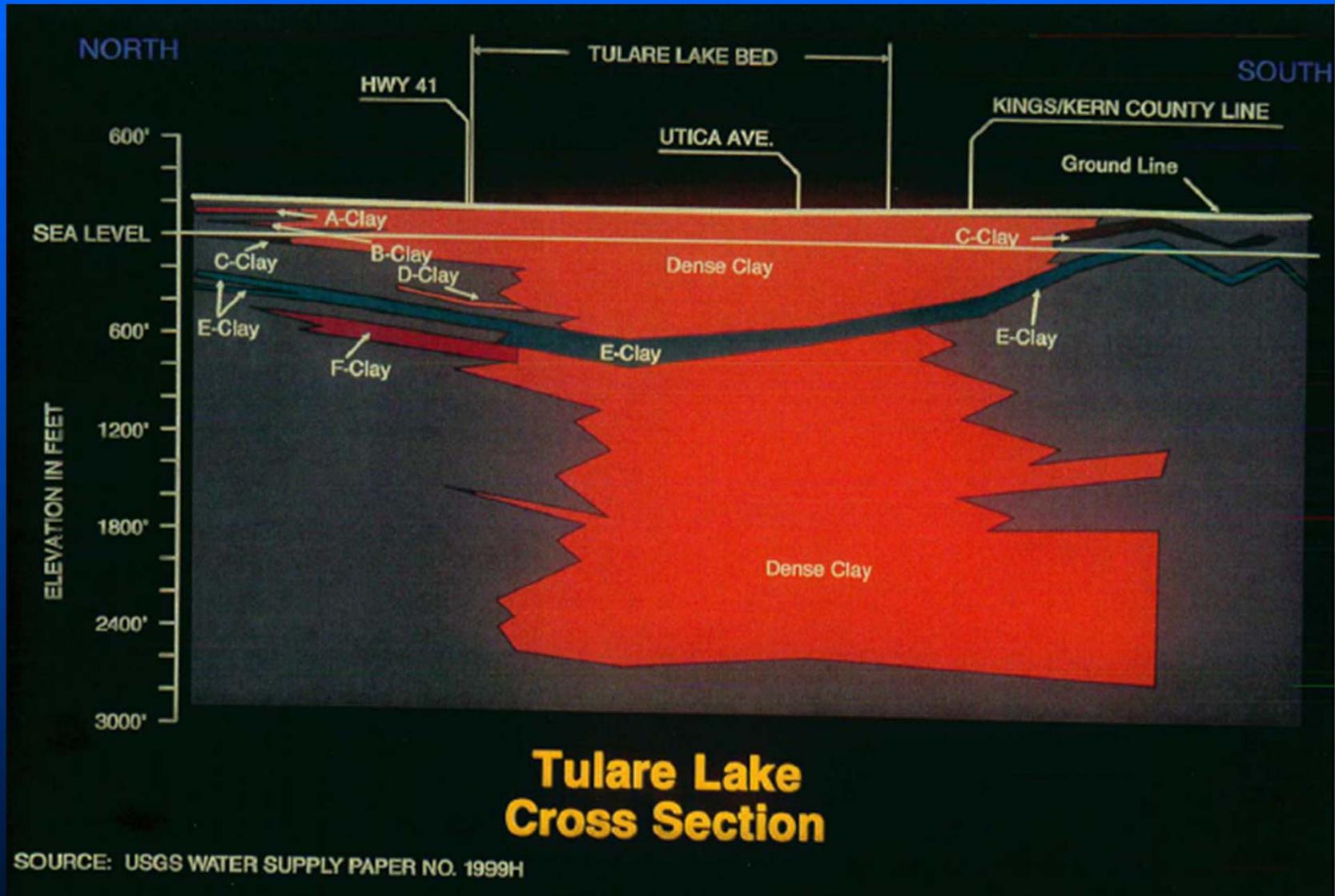


Figure A

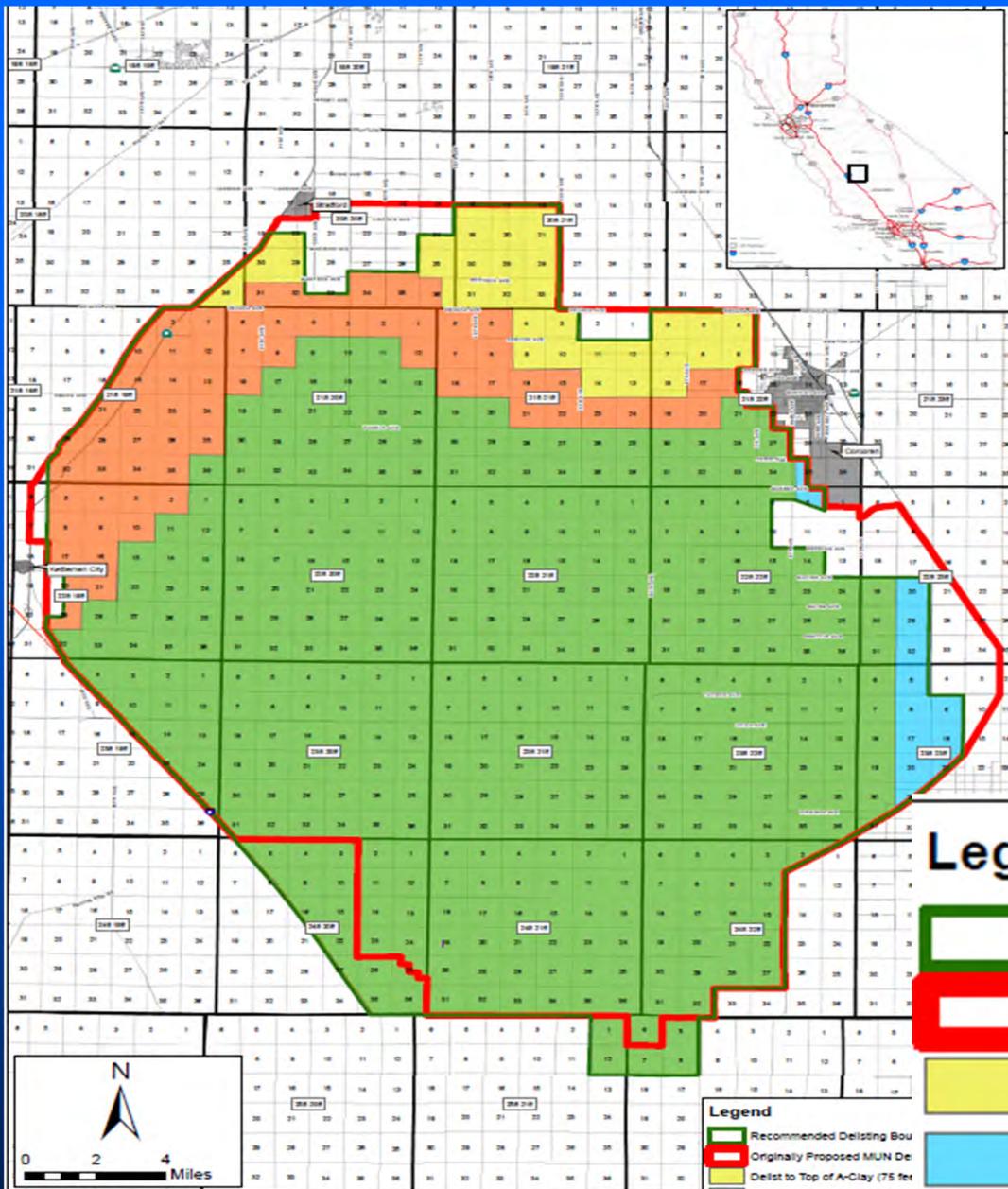


Figure A
Recommended Boundary for De-Designation of MUN
Electrical Conductivity (EC) of groundwater $\geq 5,000$ micromhos/cm

Legend

-  Recommended Delisting Boundary for MUN
-  Originally Proposed MUN Delisting Boundary
-  Delist to Top of A-Clay (75 feet in depth)
-  Delist to Top of A-Clay (110 feet in depth)
-  Delist to 200 feet in Depth
-  Delist to Top of Corcoran Clay

Legend
 Recommended Delisting Bou
 Originally Proposed MUN De
 Delist to Top of A-Clay (75 feet
 Delist to Top of A-Clay (110 ft
 Delist to 200 feet in Depth
 Delist to Top of Corcoran Clay
Path: V:\CIV\delist\CV del map Vertical De

MUN Alternative # 3 – Site Specific Objectives (SSOs)

- The Basin Plans currently state that waters designated for MUN must not exceed Maximum Contaminant Levels (MCLs) of Title 22 of the California Code of Regulations (CCR) for chemical constituents, pesticides, and radionuclides.
- Alternative is to develop SSOs appropriate for groundwater in designated area

MUN Alternative #4 – Refined Horizontal & Vertical Boundaries

- MUN dedesignation of horizontal boundary refined based on CEQA Scoping information
- MUN dedesignation of vertical boundary refined based on CEQA Scoping information

AGR Alternative #1- No Action

- No changes – the groundwater would continue to be protected for Agricultural Use



AGR Alternative #2 – Dedesignate AGR

- Dedesignate AGR within horizontal and variable vertical depths represented in Figure B based on 3,000 $\mu\text{mhos/cm}$ EC for Irrigation Supply
- Dedesignate AGR within horizontal and variable vertical depths represented in Figure C based on 7,500 $\mu\text{mhos/cm}$ for Stock Watering

Figure B

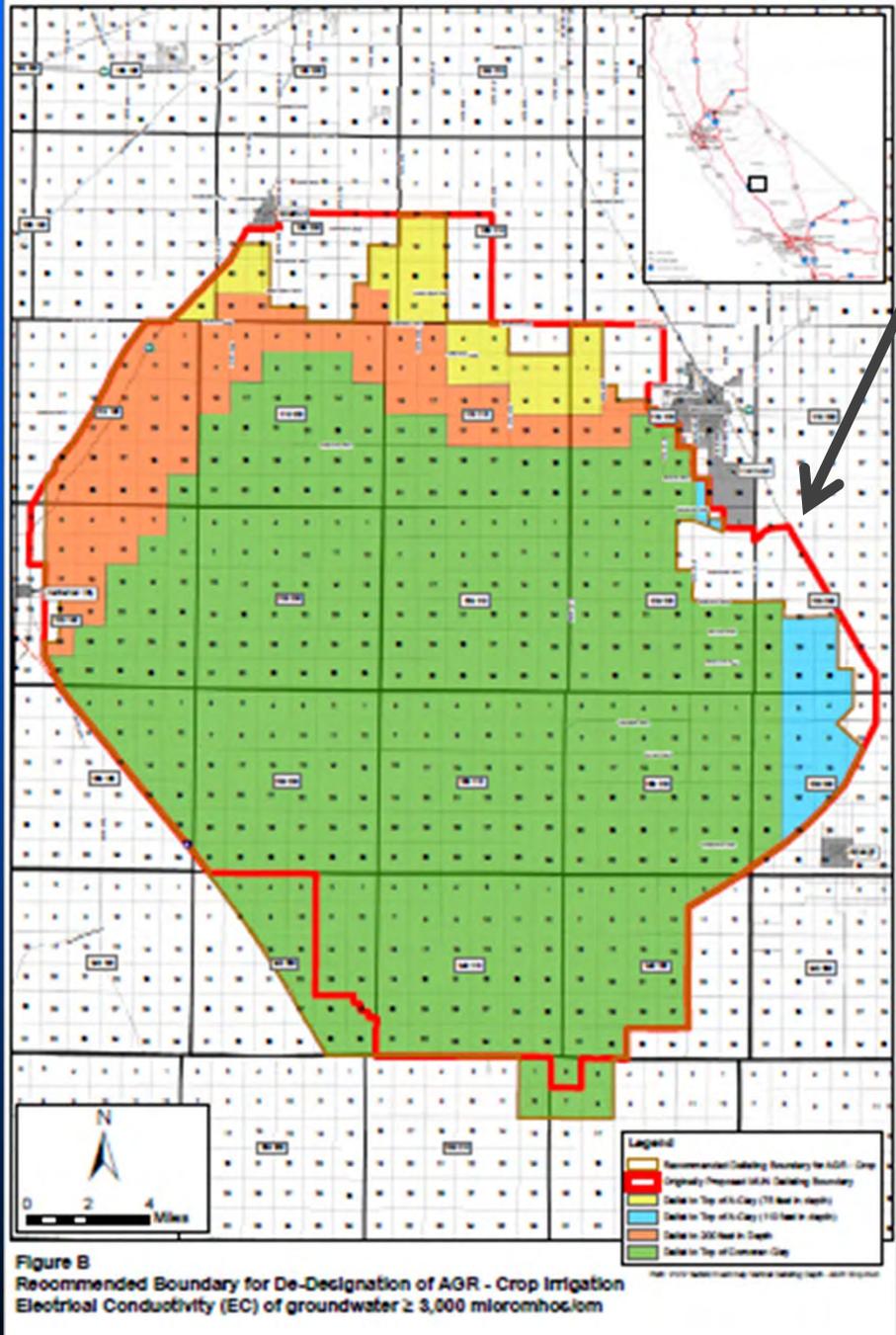
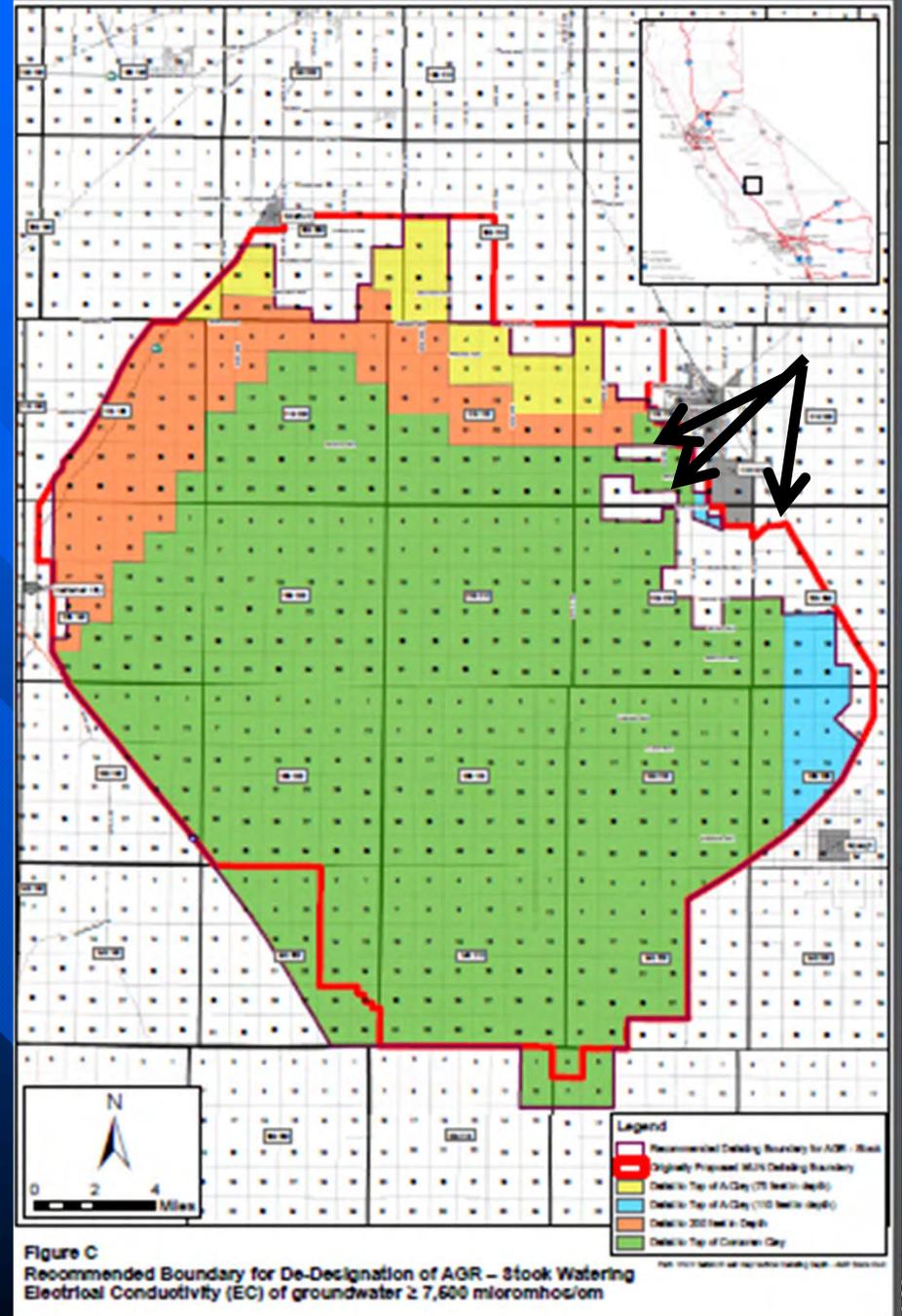


Figure C



AGR Alternative #3 – Develop Classes of AGR

- Develop classes of AGR uses for irrigation and stock watering.
 - ✓ Example: CV-SALTS is currently considering establishing AGR sub-classes with the following ranges for Electrical Conductivity (EC):
 - Class 1 EC $<1,500$ $\mu\text{mhos/cm}$
 - Class 2 EC Between $1,500$ to $3,000$ $\mu\text{mhos/cm}$
 - Class 3 EC $3,000$ to $<7,500$ $\mu\text{mhos/cm}$

AGR Alternative #4 - Site Specific Objectives (SSOs)

- Identify a site specific objective for Agricultural use of water based on current and future beneficial uses



AGR Alternative #5 – Refined Horizontal/Vertical Boundaries

- Dedesignation of AGR using refined horizontal and vertical boundaries different from Alternative #2 (Figures B & C)

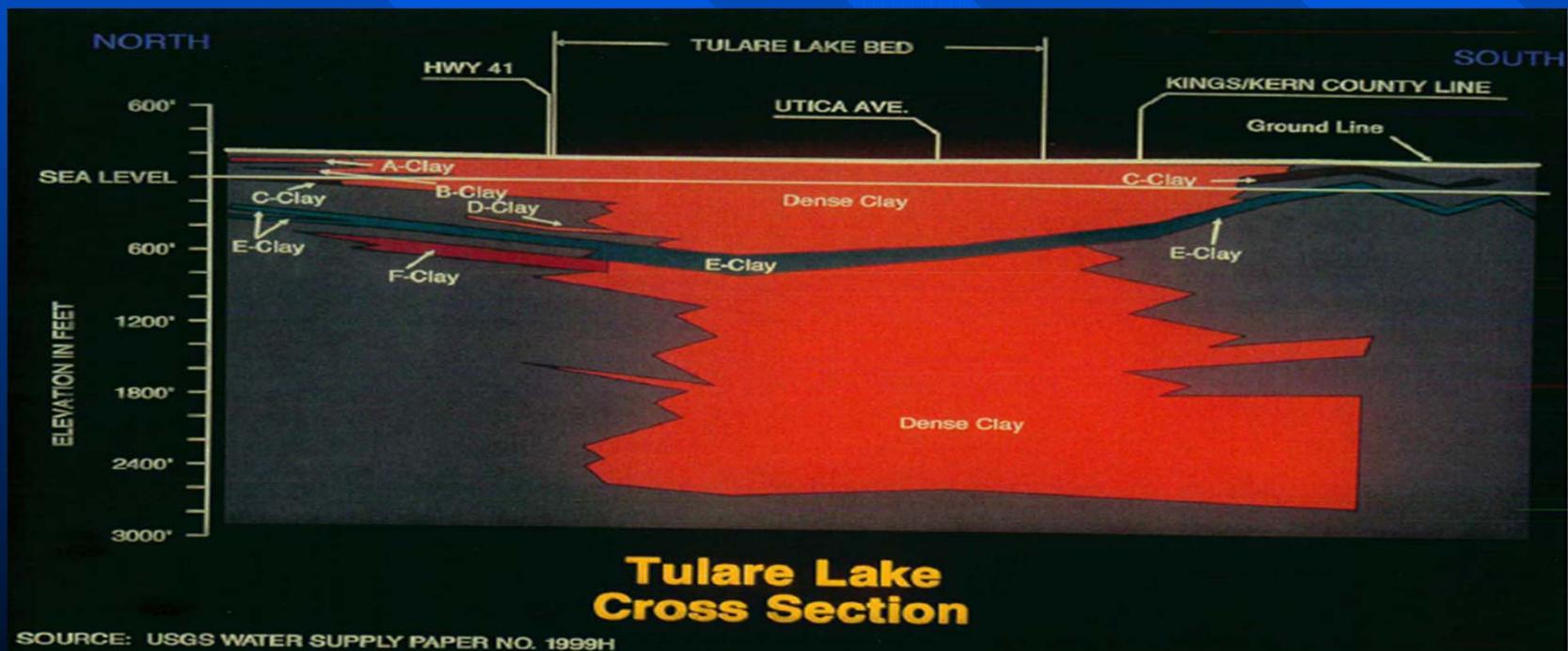


Figure B

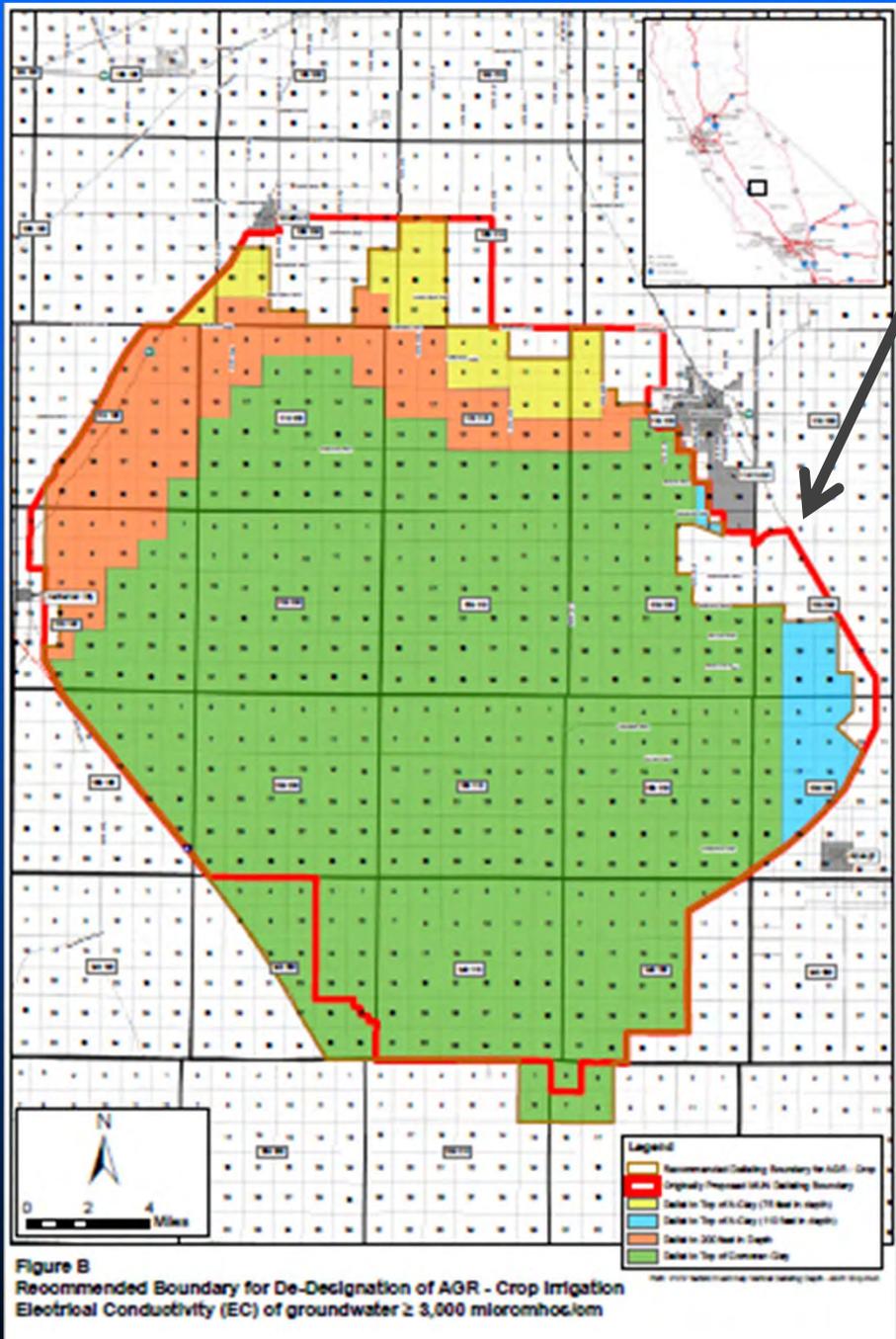
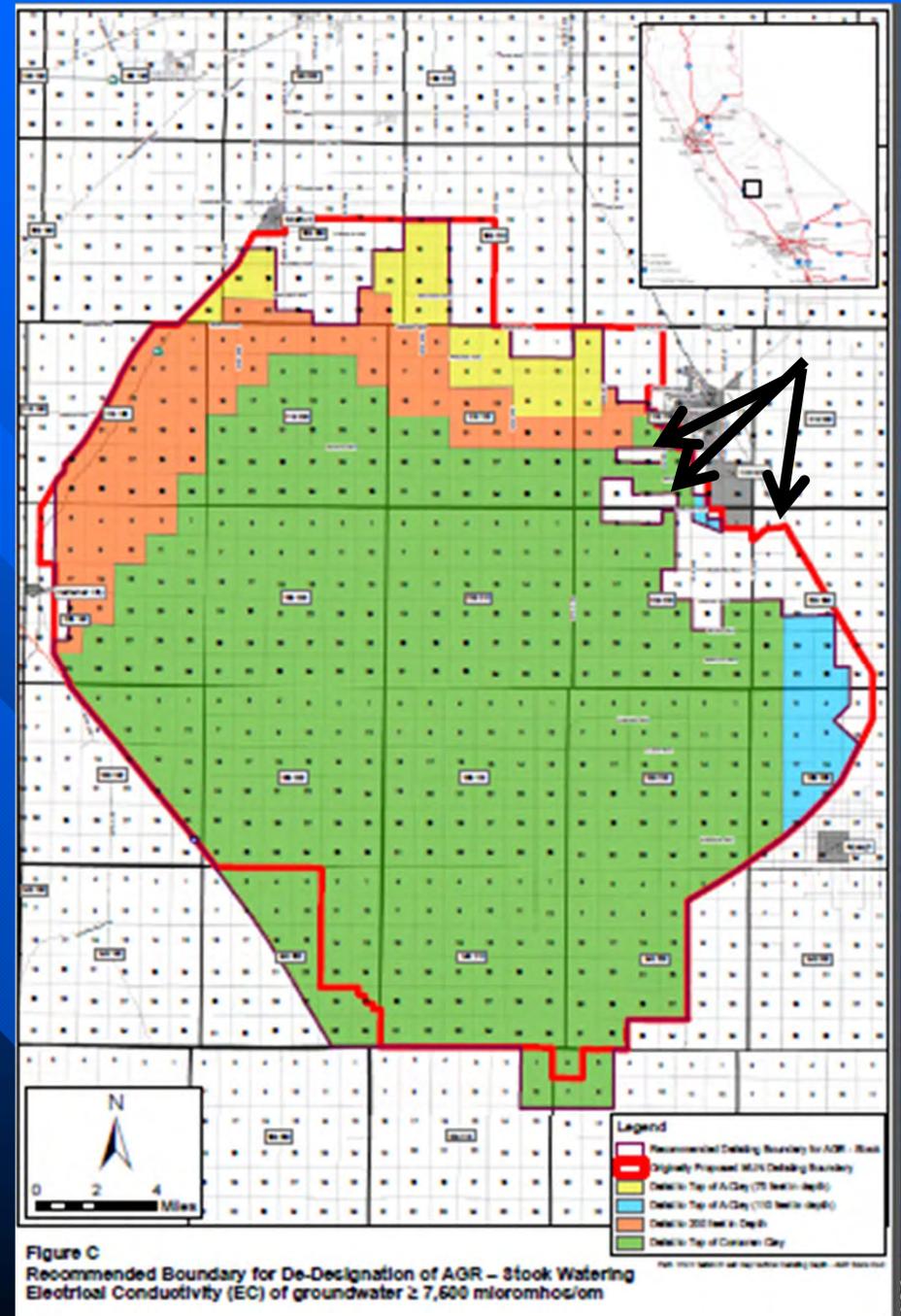


Figure C



What the Basin Plan Amendment MAY Include

- 1) Methodology to evaluate existing and/or potential MUN/AGR uses
- 2) Identification of areas that may meet Sources of Drinking Water exceptions.
- 3) Identification of areas for AGR dedesignation
- 4) Sub-classes/categories of uses
- 5) Site-specific or category specific water quality objectives that are protective of the identified MUN beneficial Use

What the Basin Plan Amendment MAY Include

- 5) Site-specific or category specific water quality objectives that are protective of the identified AGR beneficial use
- 6) A program of implementation for achieving water quality objectives
- 7) A monitoring program to evaluate protection of the applicable beneficial use and effectiveness of the implementation efforts.

Next Steps

Next Steps - Tulare Lakebed Beneficial Use Evaluation

- Compile and review comments and data from Scoping Meeting
- Assess need for additional data
- Based on available data and scoping meeting results determine whether to move forward with Environmental Documentation

Project Schedule

Tulare Lakebed MUN/AGR Beneficial Use Evaluation Schedule								
Activity	2015				2016			
	1	2	3	4	1	2	3	4
Compile Background	■							
Initial Alternatives/CEQA Scoping		■						
Data Evaluation		■	■	■				
Refine Alternatives			■	■*				
Prepare Staff Rpt/SED			■	■				
Public Review				■	■			
Peer Review					■			
Regional Board Adoption						■		
State Board Approval							■	
OAL Approval								■
*Decision on pursuing basin plan amendment								

How to get involved

- Review CEQA Scoping Information and Comment
- Attend Stakeholder meetings
- Updates by email and on project website
http://www.waterboards.ca.gov/centralvalley/water_issues/salinity/tulare_lakebed_mun_evaluation/index.shtml
- Sign up for email updates at:
http://www.waterboards.ca.gov/resources/email_subscriptions/reg5_subscribe.shtml

CEQA Scoping Comments due: April 30, 2015

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Questions?

Comments?