

**Northern Sacramento Valley
Regional (Four County)
Drinking Water Quality
Strategy**

**CBDA Drinking Water
Subcommittee Meeting**

April 1, 2005

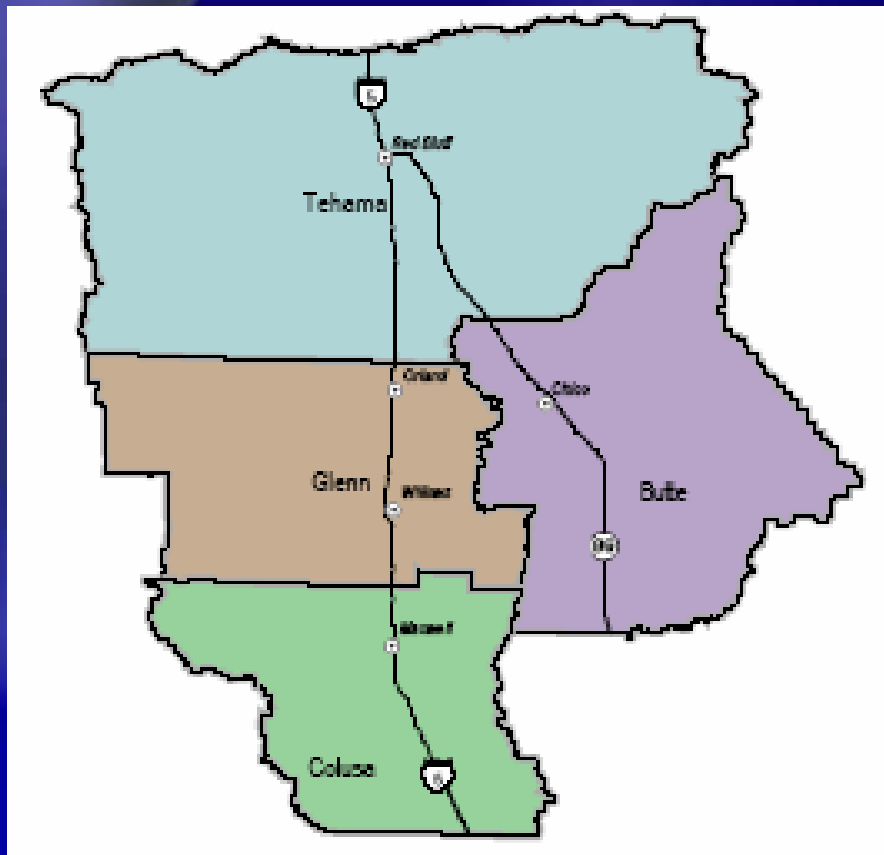
Presentation Outline

- ◆ **Introductions**
- ◆ **General Overview**
- ◆ **Scope of Project**
- ◆ **Project Findings to Date**
- ◆ **Next Steps**

Presentation Outline

- ◆ **General Overview**
 - ◆ *Study Area*
 - ◆ *Participating Agencies*
 - ◆ *Commonalities*

Four County Study Area and Participating Agencies

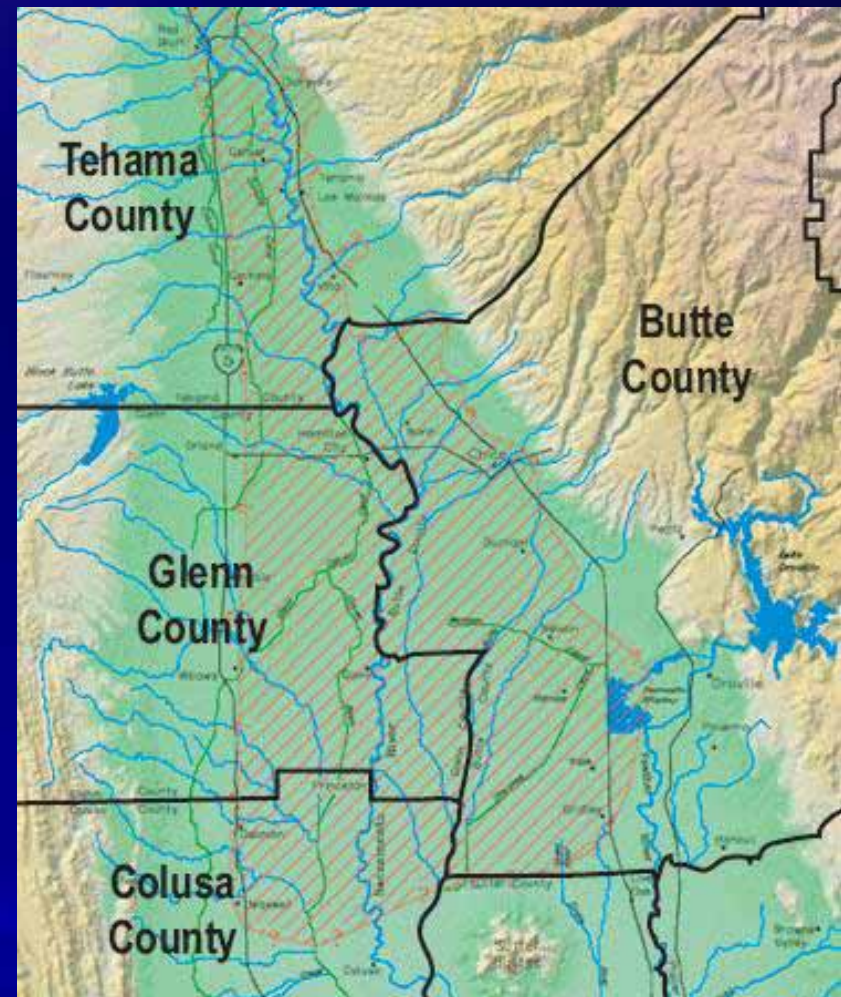


◆ Participating Agencies

- ◆ Butte County
- ◆ Colusa County
- ◆ Glenn County
- ◆ Tehama County

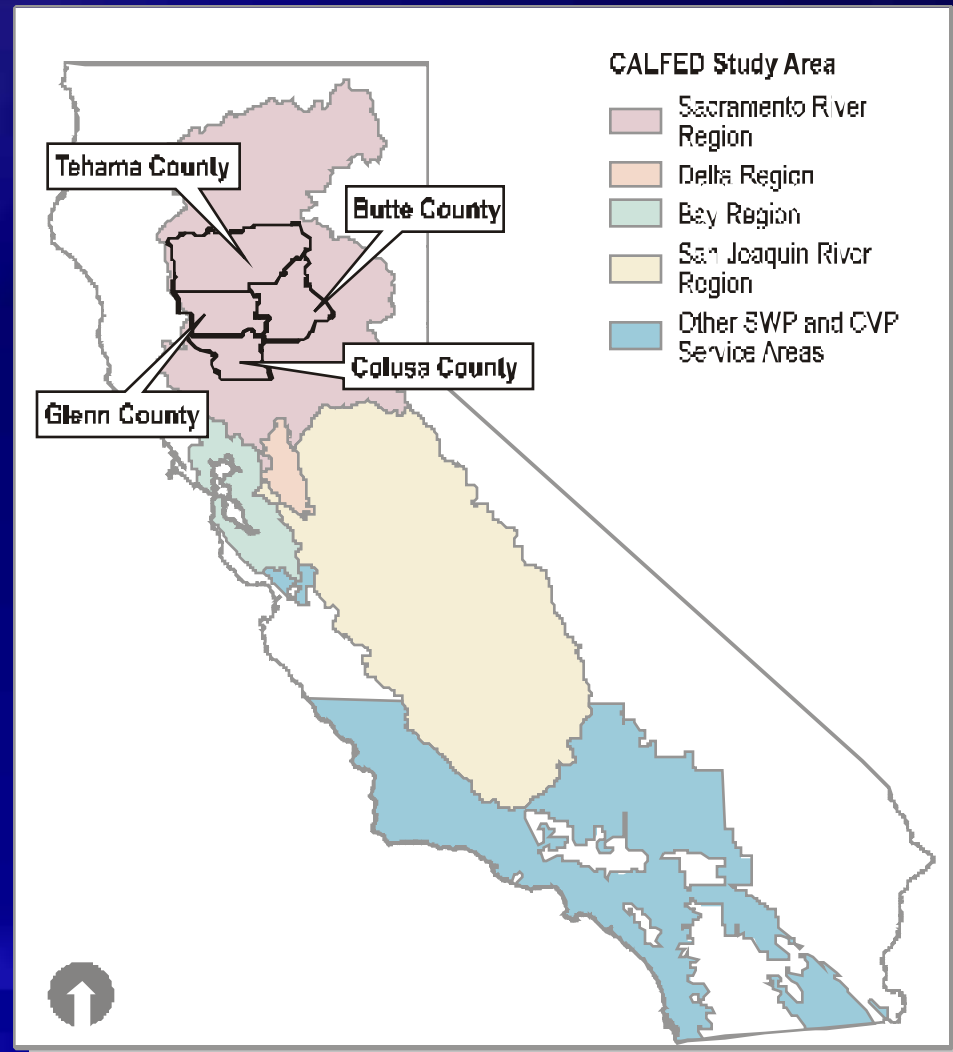
Why is Regional Drinking Water Collaboration Important?

- ◆ Surface and ground waters do not recognize political boundaries
- ◆ Increased demand for both surface and ground water
- ◆ Regional collaboration and coordination improves the understanding of shared resources



Why is Regional Drinking Water Collaboration Important?

- ◆ Assists CALFED Drinking Water Quality Program to reach its goal of equivalent level of public health protection (ELPH)
- ◆ Provides the Central Valley Regional Water Quality Board with information for developing the new drinking water policy for surface waters



Presentation Outline

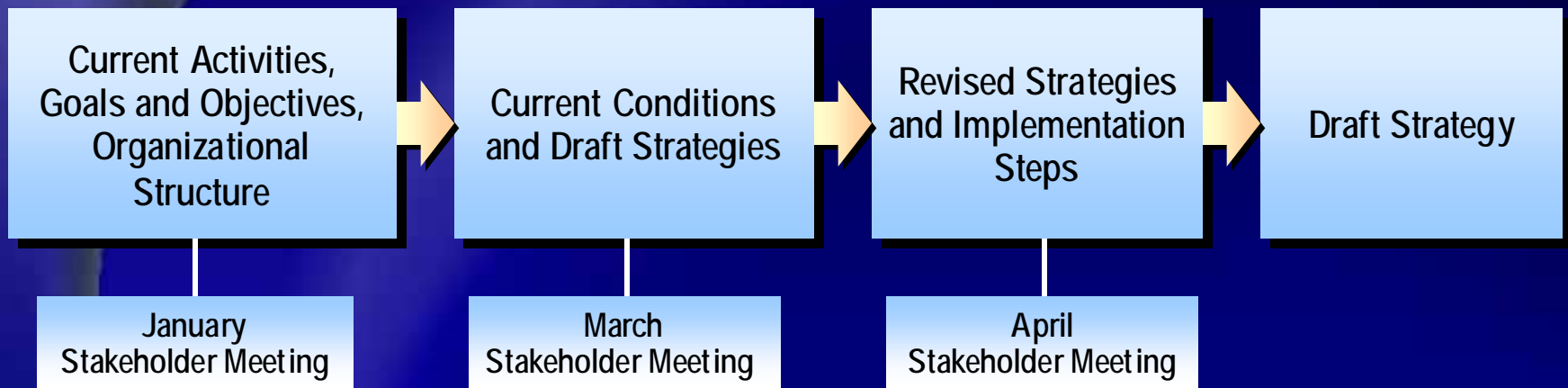
- ◆ **Scope of Project**

- ◆ *Planning Process*
- ◆ *Progress and Remaining Efforts*
- ◆ *Outreach Efforts*

Four County Strategy

- ◆ **The Four County strategy is intended to develop and promote regional collaboration among Butte, Colusa, Glenn, and Tehama counties to effectively coordinate drinking water resources and contribute to local, regional, and statewide water quality goals.**

Planning Process



Draft Outline for Strategy Document

- ◆ Executive Summary
- ◆ Introduction
- ◆ Strategy Development Process
- ◆ Overview of Water Quality Activities in the Four County Area
- ◆ Current Conditions Assessment
 - ◆ Drinking Water Suppliers
 - ◆ Distribution of Contaminants
 - ◆ Monitoring
- ◆ Regional Drinking Water Quality Strategies
 - ◆ Development
 - ◆ Recommendations
 - ◆ Implementation

Project Progress

- ◆ Assess current activities – *completed*
- ◆ Develop goals and objectives – *completed*
- ◆ Select regional organization structure – *completed*
- ◆ Assess current water quality – *ongoing*
- ◆ Develop regional strategies – *ongoing*
- ◆ Finalize regional strategy document – *May 2005*

Outreach Efforts

- ◆ Stakeholder meetings (2)
- ◆ Public meeting – February 9, 2005
- ◆ County Board of Supervisors meetings (3)
- ◆ Meetings with other county agencies (2)
- ◆ Meeting with representatives of CBDA
Drinking Water Program
- ◆ Meeting with representative of CVRWQC
Central Valley Drinking Water Policy

Presentation Outline

◆ Project Findings to Date

- ◆ *Current Activities in Region*
- ◆ *Regional Plan Objectives*
- ◆ *Organizational Structure*
- ◆ *Current Water Quality*
- ◆ *Management Strategies*

Current Activities in Region

- ◆ **County**
- ◆ **Regional**
- ◆ **State**
- ◆ **Federal**

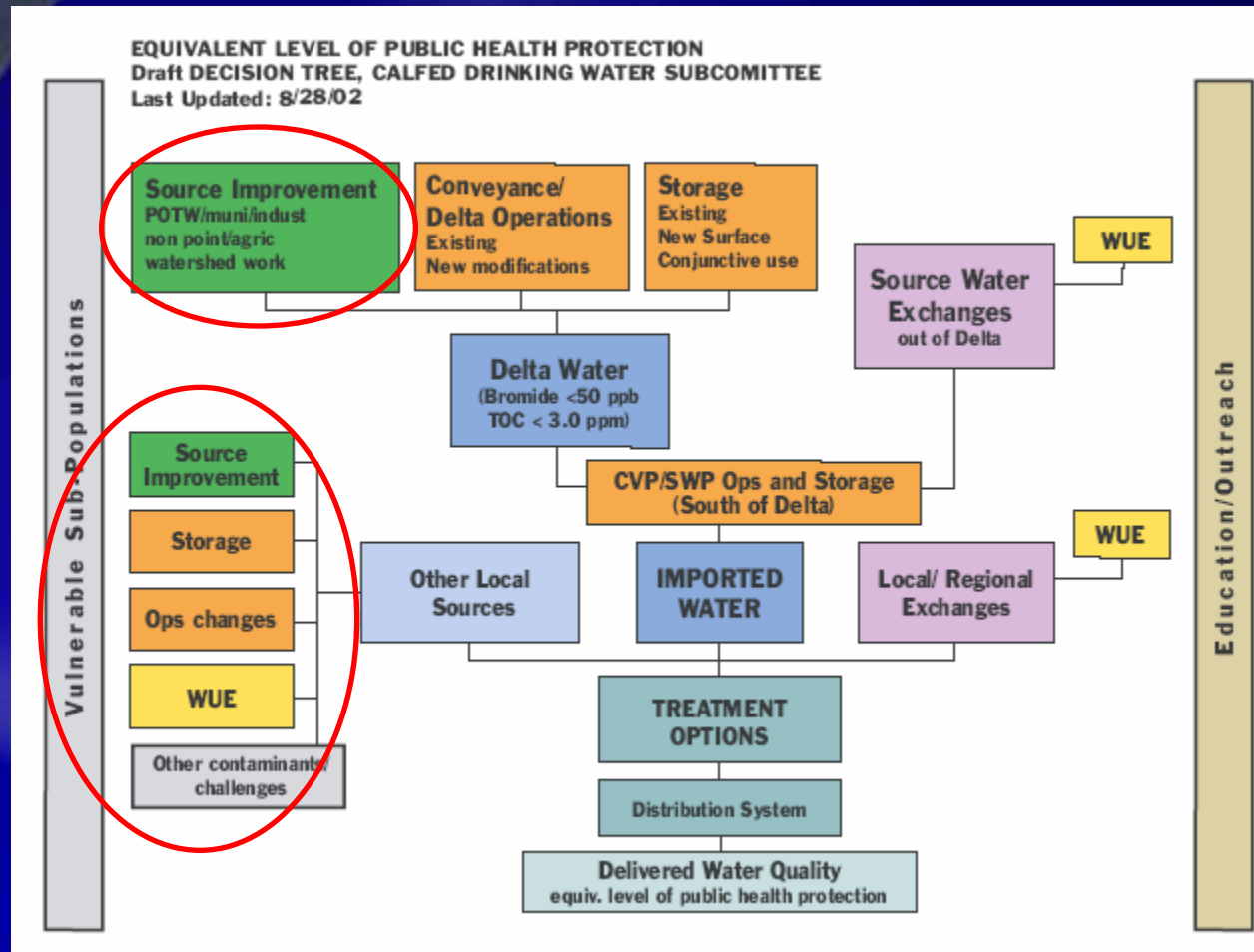
Four County Water Quality Agencies

Activity	Butte	Colusa	Glenn	Tehama
Drinking Water Quality Mgt	Dept Public Health	Dept Env. Health	Dept Env. Health	Dept Env. Health
Small Water Systems	Dept Public Health	DHS (State)	DHS (State)	Dept Env. Health
On-site Sewage Permits	Dept Public Health	Dept Env. Health	Dept Env. Health	Dept Env. Health
UST Permits	Dept Public Health	Dept Env. Health	Dept of Ag	Dept Env. Health
Water Supply	DW&RC	Dept Planning & Building	Dept of Ag	FCWCD

Glenn County Activities (Example)

- ◆ **Water quality activities include public health and BMO groundwater quality monitoring**
- ◆ **Water supply**
 - ◆ **Analysis of needs and supplies under development**
 - ◆ **Extensive groundwater level monitoring grid**
- ◆ **RCD performing assessment of Stony Creek Watershed**

CALFED Drinking Water Quality Program



Central Valley Drinking Water Policy

- ◆ Central Valley RWQCB developing a drinking water policy for the protection of surface water sources
- ◆ Adequate protection is not currently provided because NOT ALL contaminants of concern are included
- ◆ Technical work is being implemented now with the policy and Basin Plan amendments to be completed by 2009
- ◆ Four County strategy will need to incorporate this new policy as the means to protect local sources of drinking water

Regional Plan Objectives

- ◆ **Protect local source water quality**
- ◆ **Increase understanding of local and regional drinking water sources and threats**
- ◆ **Coordinate county and local management efforts and share information about water related activities**
- ◆ **Protect third parties, including the environment**
- ◆ **Understand statewide drinking water concerns**
- ◆ **Provide technical assistance**

Four County Organizational Structure Needs

- ◆ Needs an agreement to support a collaborative management process for drinking water
- ◆ Needs an agreement that is recognized by the State to increase potential funding opportunities
- ◆ Would not need a separate entity to meet Four County goals and objectives

Organizational Structure Comparison

Function	Informal Agreement	MOU	JPA	Non-Profit Corp.
Formal Filing Requirements?	No	No	Yes	Yes
Separate Legal Entity?	No	No	Yes	Yes
Enter Contracts?	No	No	Yes	Yes
Issue Bonds?	No	No	Yes	Yes
Involve non-party agencies in decision making?	Yes	Yes	Yes	Yes

Current Conditions Overview

- ◆ Drinking Water Sources
- ◆ Contamination and Issues
- ◆ Monitoring

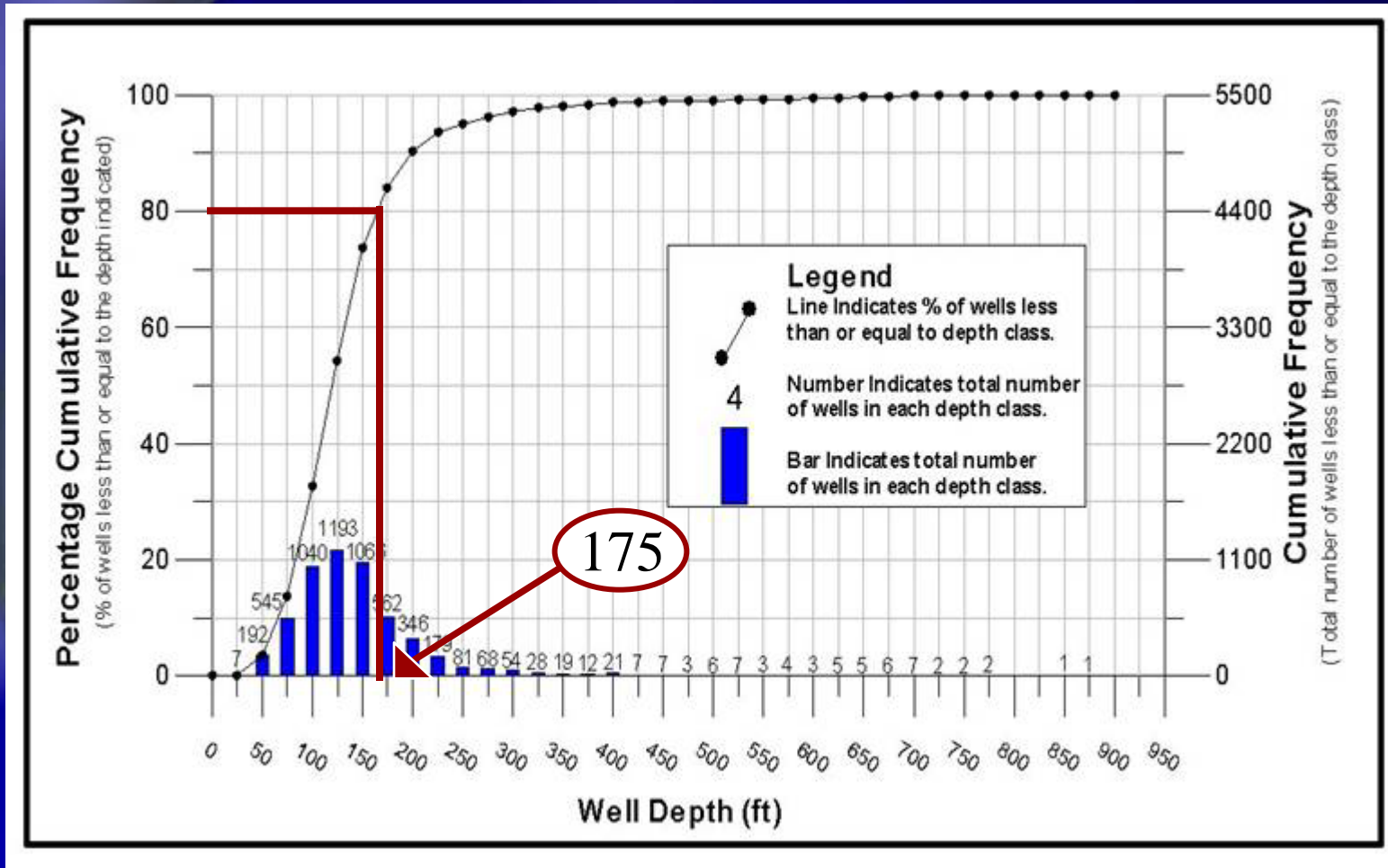
Sources of Drinking Water

- ◆ **Information needs for Four County Strategy**
 - ◆ **Identify current water systems (users)**
 - Incorporated and Small Water Systems
 - Domestic (individuals)
 - ◆ **Identify current drinking water sources**
 - Surface and ground water
 - Well depth
 - ◆ **Identify future drinking water system and sources**

Estimated Population Served by Domestic Wells

County	2003 U.S. Census County Population	Percent Population Served by Water Systems	Percent Population Served by Domestic Wells
Glenn	27300	70%	30%
Colusa	19700	80%	20%
Butte	211000	95%	5%
Tehama	58600	85%	15%

Domestic Well Depths in Butte County



Well Depth Distribution Summary

- ◆ 80% of wells are less than:

	<u>Domestic</u>	<u>M&I</u>
◆ Butte	175 feet	650 feet
◆ Tehama	200 feet	450 feet
◆ Glenn	150 feet	475 feet
◆ Colusa	275 feet	475 feet

Future Drinking Water Sources

- ◆ **New subdivisions in the Arbuckle area will be using groundwater – Steve Hackney**
- ◆ **Del Oro WC will require more water from Lake Oroville – Ed Craddock**
- ◆ **Sun City – Two 1000 foot deep wells, two 500 foot wells – Ernie Ohlin**
- ◆ **Two community service districts northwest of Red Bluff will be using domestic wells – Lee Mercer**

Contamination and Issues

- ◆ **Information needs for Four County Strategy**
 - ◆ **Identify surface water bodies with known problems**
 - 303(d) listed water bodies
 - Parameters of concern
 - ◆ **Identify regional groundwater quality concerns**
 - Location
 - Parameters of concern
 - ◆ **Identify Central Valley Regional Water Quality Control Board (CVRWQCB) regulated sites**
 - Location
 - Data

Known Surface Water Contamination

- ◆ **303(d) List**
- ◆ **Six water bodies**
- ◆ **Parameters of concern (and level)**
 - Mercury (medium-low)
 - Diazinon (high)
 - Pesticides (medium-low)
 - Sedimentation/siltation (medium)
 - Temperature (medium)

Major Groundwater Quality Concerns in the 4-County Area

Colusa	Arsenic, TDS, Iron/Manganese,
Glenn	Nitrates, TCE
Butte	Nitrates, PCE/TCE, Solvents, Petroleum
Tehama	Nitrates, Solvents, Arsenic, Methane

CVRWQCB Regulated Sites in the 4-County Area

- ◆ Leaky Underground Storage Tank (LUST) Sites
- ◆ Spills Leaks Investigation and Cleanups (SLIC) Sites



Location	Address	City	ZIP	Substance Released
PETROGULF	1075 ALMOND AVENUE	ARBUCKLE		PET
Pacific Valley Aviation	P.O. BOX 247	Arbuckle	95912	PHC
Christian & Huish	P.O. BOX 116	Arbuckle	95912	FER
PG&E GAS DEHYDRATOR STATION, ARBUCKLE	GRIMES ARBUCKLE ROAD	ARBUCKLE		12034
CHESTER PETROLEUM DISCOVERY	MAIN ST	CHESTER		PET
Chico Municipal Airport Groundwater Cleanup	FORTRESS AND SIKORSKY STREETS	CHICO		
PETERSON TRACTOR COMPANY	425 SOUTHGATE AVE.	CHICO		51, TPHD
CENTRAL TCE PLUME	ESPLANADE 100 BLOCK	CHICO		142
AGUAS FRIAS MUD PIT	AGUAS FRIAS	CHICO		08, TPHU
WALLACE J SMITH FAMILY TRUST	2575 SOUTH WHITMAN PLACE	CHICO		01042, 01051, 1
LP, CHICO REMANUFACTURING FACILITY	16TH STREET	CHICO		39032, 81849
SOUTHWEST TCE PLUME	CHICO RIVER ROAD	CHICO		142

Overview of Source Water Monitoring

- ◆ **Information needs for Four County Strategy**
 - ◆ **Identify current monitoring programs**
 - Surface and ground waters
 - Locations
 - Parameters
 - Frequency
 - Period of record
 - Current level of coordination
 - Future plans

Current Surface Water Monitoring Programs

- ◆ National Water Quality Assessment - USGS
- ◆ Rice Pesticide – DWR
- ◆ Tributary Monitoring – DWR
- ◆ Sacramento River Watershed - SRWP
- ◆ Surface Water Ambient Monitoring Program – SWRCB
- ◆ Sacramento Valley Water Quality Coalition irrigated lands waiver monitoring
- ◆ NPDES Monitoring for treated wastewater and stormwater

Current Ground Water Monitoring Programs

- ◆ **GAMA – USGS/ SWRCB**
 - UCD program completed 2003
 - Scheduled for Tehama Co. in 2005
 - Further monitoring planned for late 2007- 2008
- ◆ **DWR water level monitoring**
- ◆ **DHS/county environmental health water system monitoring**
- ◆ **County-based BMO groundwater quality monitoring (Butte and Glenn)**

Draft Strategies

- ◆ **Strategies are specific actions that can be implemented to address the project objectives**
 - ◆ **Protect local source water quality**
 - ◆ **Increase understanding of local and regional drinking water sources and threats**
 - ◆ **Coordinate county and local management efforts and share information about water related activities**
 - ◆ **Protect third parties, including the environment**
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Examples of Strategies

- ◆ **Protect groundwater recharge areas that are a source for drinking water through zoning or other means**
- ◆ **Expand existing water quality monitoring locations and constituents monitored**
- ◆ **Develop a consistent annual water resource report format to facilitate an annual regional status report**
- ◆ **Use existing county web sites to provide information on current water resource activities, programs, projects, and events in the Four County area**

Examples of Strategies

- ◆ **Coordinate with funding agencies to receive information on grant/loan projects funded in the Four County area and beyond**
- ◆ **Convene a regional subcommittee to coordinate with the CVRWQCB and CUWA on the Basin Plan amendment progress**
- ◆ **Convene an annual public meeting to provide information and discuss regional water resource activities**
- ◆ **Define the role of counties and participate in regional integrated water resource planning efforts**

Presentation Outline

◆ Next Steps

- ◆ Complete current conditions assessment
- ◆ Include stakeholder input on strategies
- ◆ Develop additional detail for individual strategies
- ◆ Develop recommended implementation steps
- ◆ Convene third of three stakeholder meetings
- ◆ Present draft strategy document
- ◆ Present draft strategy content to county boards and commissions
- ◆ Finalize strategy document

Project Contacts

- ◆ **Glenn County (Contracting agency)**

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- ◆ **Tehama County**

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