



# **Sutter County**

## **Groundwater Management Plan** *Plan Advisory Group*

**February 10, 2009**

# Presentation Outline

- ➔ **Discuss Public Outreach Effort.**
- ➔ **Describe basic premises behind a Groundwater Management Plan (GMP).**
- ➔ **Describe physical setting**
- ➔ **Describe GMP Framework / Organization.**
- ➔ **Discuss water management concepts.**

# Public Outreach



# Public Outreach Objectives

- ➔ **Establish an open process to facilitate stakeholder input.**
- ➔ **Provide information to facilitate stakeholder education on material forming the basis of the GMP.**
- ➔ **Provide a framework by which stakeholders are kept informed of the process, issues, and potential solutions.**
- ➔ **Incorporate public comments throughout the process.**

# Forums for Public Input

## ⇒ Board of Supervisors

- ✓ Informational Presentations (2)

- ✓ Public Hearings (2)

## ⇒ Sutter County Website

## ⇒ Plan Advisory Group

- ✓ Provide Input on Direction and Content of Plan

## ⇒ Public Meetings

- ✓ Workshops (2)

# Basic Premises Behind GMP



# Basic Premises Behind GMP

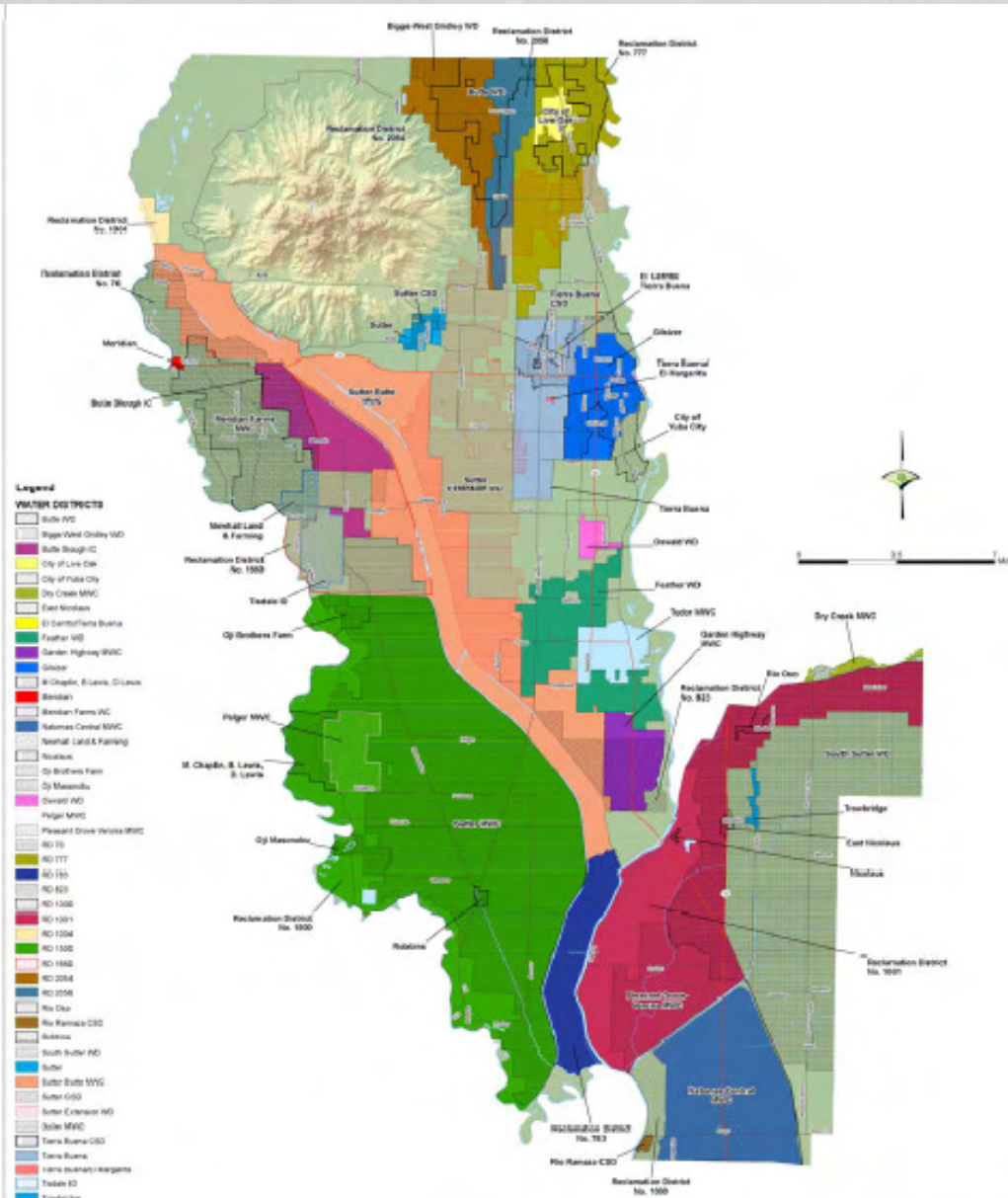
- ➔ **The GW underlying Sutter County has historically provided the people and lands of Sutter County with water for agricultural, domestic, municipal and other purposes.**
- ➔ **The GW of Sutter County will be a vital part of future water use in the County.**

# Basic Premises Behind GMP

- ➔ **Surface water is used conjunctively with GW. Therefore, GW supplies must be preserved so it will be available for future conjunctive use.**
- ➔ **It is essential for the protection of the health, welfare, and safety of the residents of the County that the GW resource of Sutter County be protected from harm.**



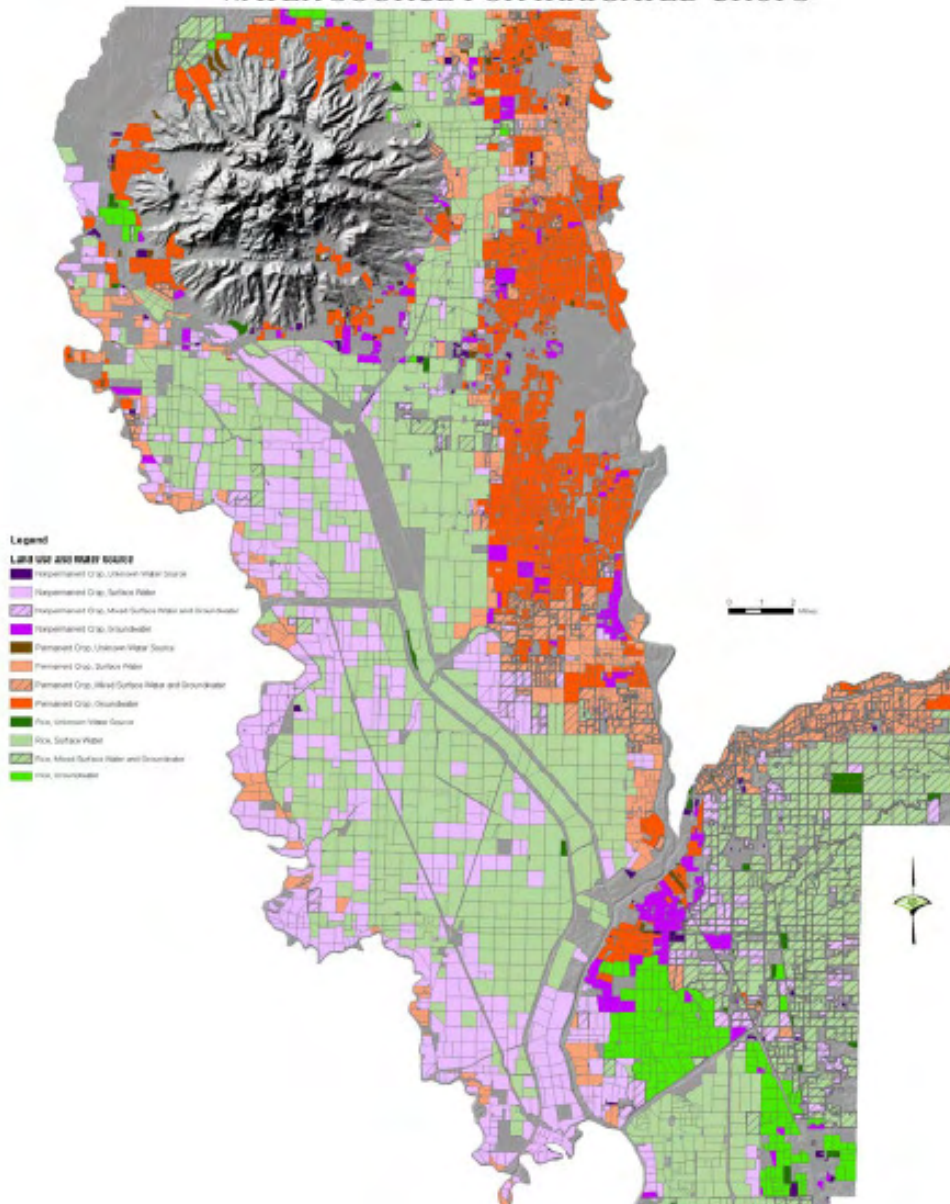
# Physical Setting



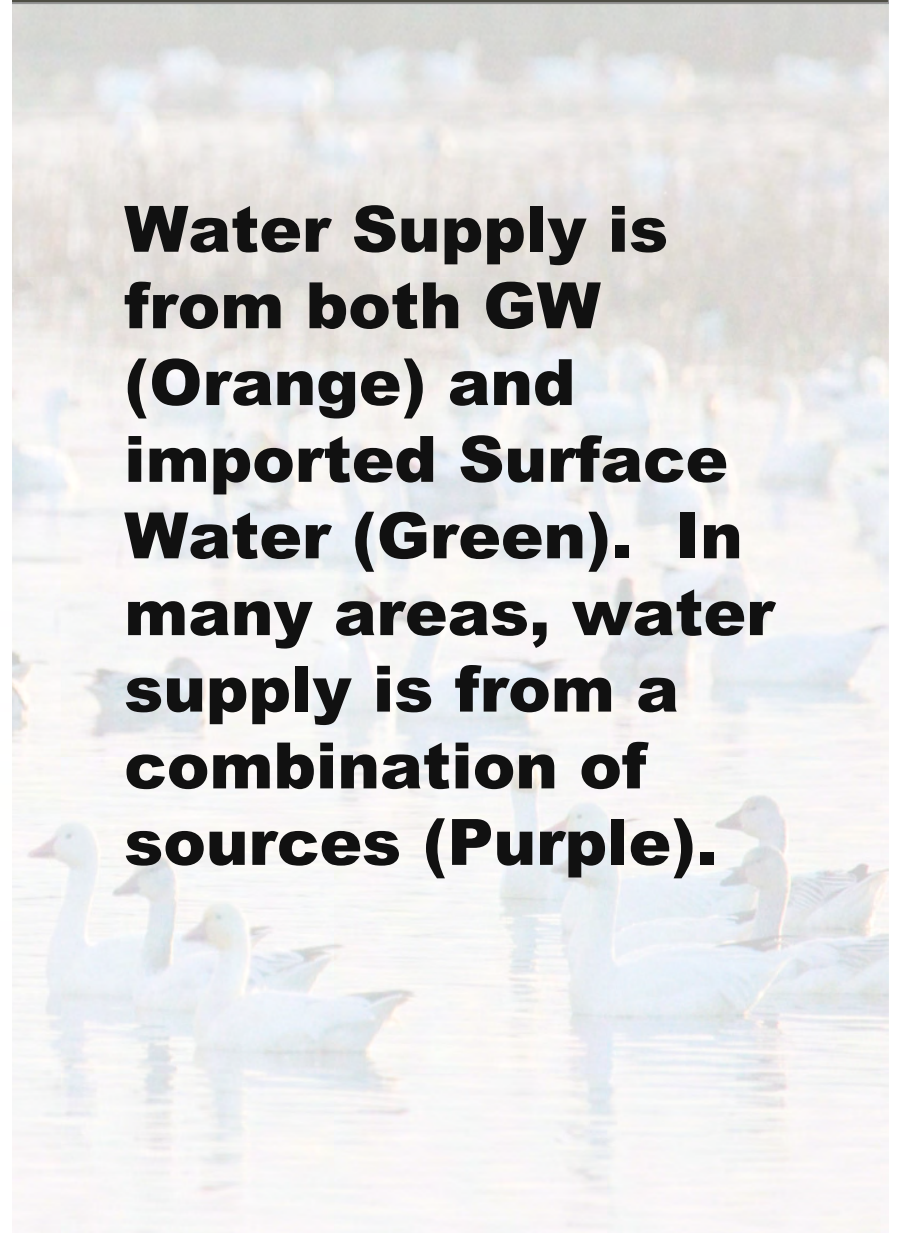
**There are 48 different water districts, Reclamation Districts or municipal water systems involved in water management in Sutter County.**

# Physical Setting

WATER SOURCE FOR IRRIGATED CROPS

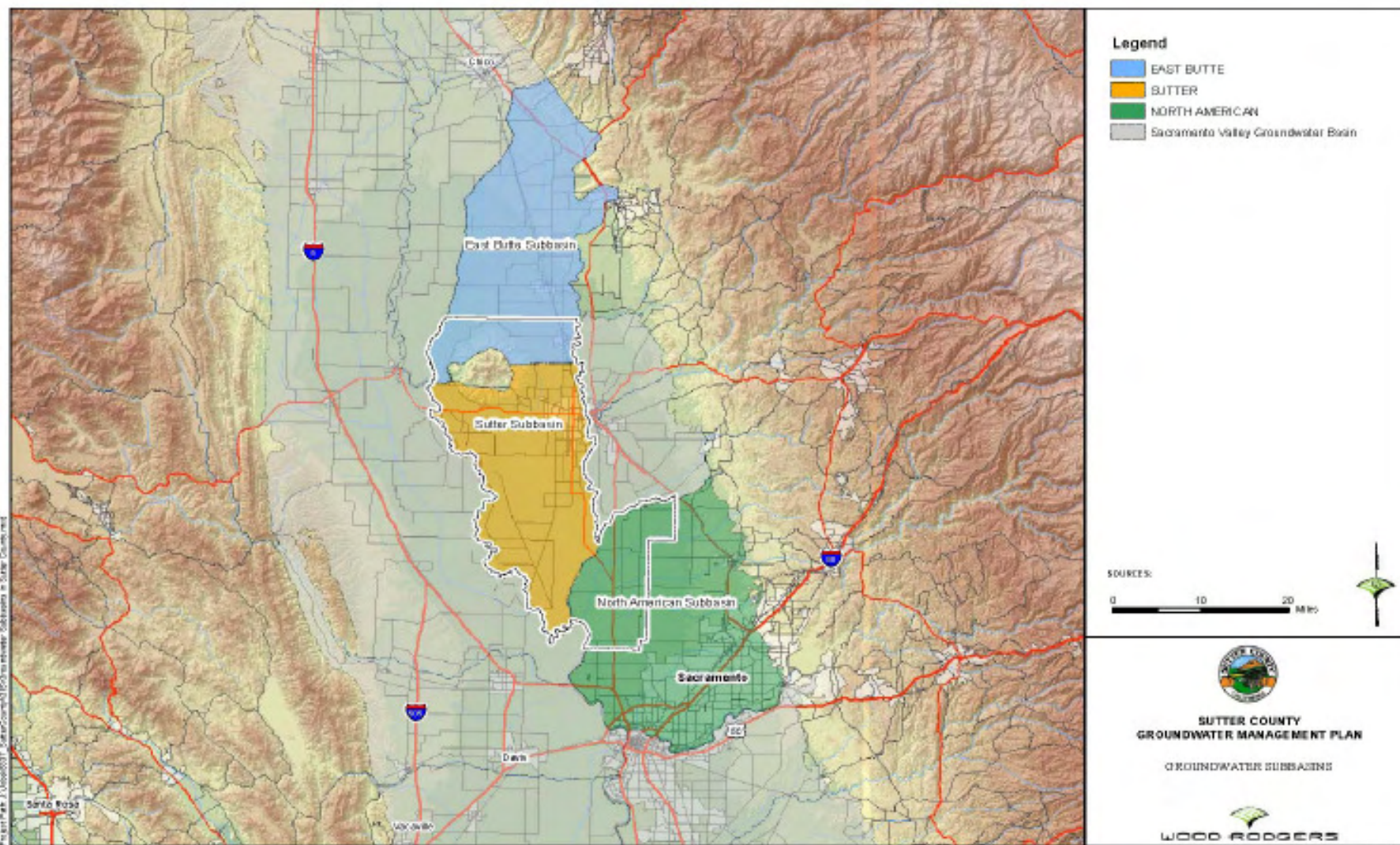


**Water Supply is from both GW (Orange) and imported Surface Water (Green). In many areas, water supply is from a combination of sources (Purple).**



# Physical Setting

## DWR Bulletin 118 Groundwater Subbasins



FIGURE



# Physical Setting

## Potential Subbasins by Water Quality

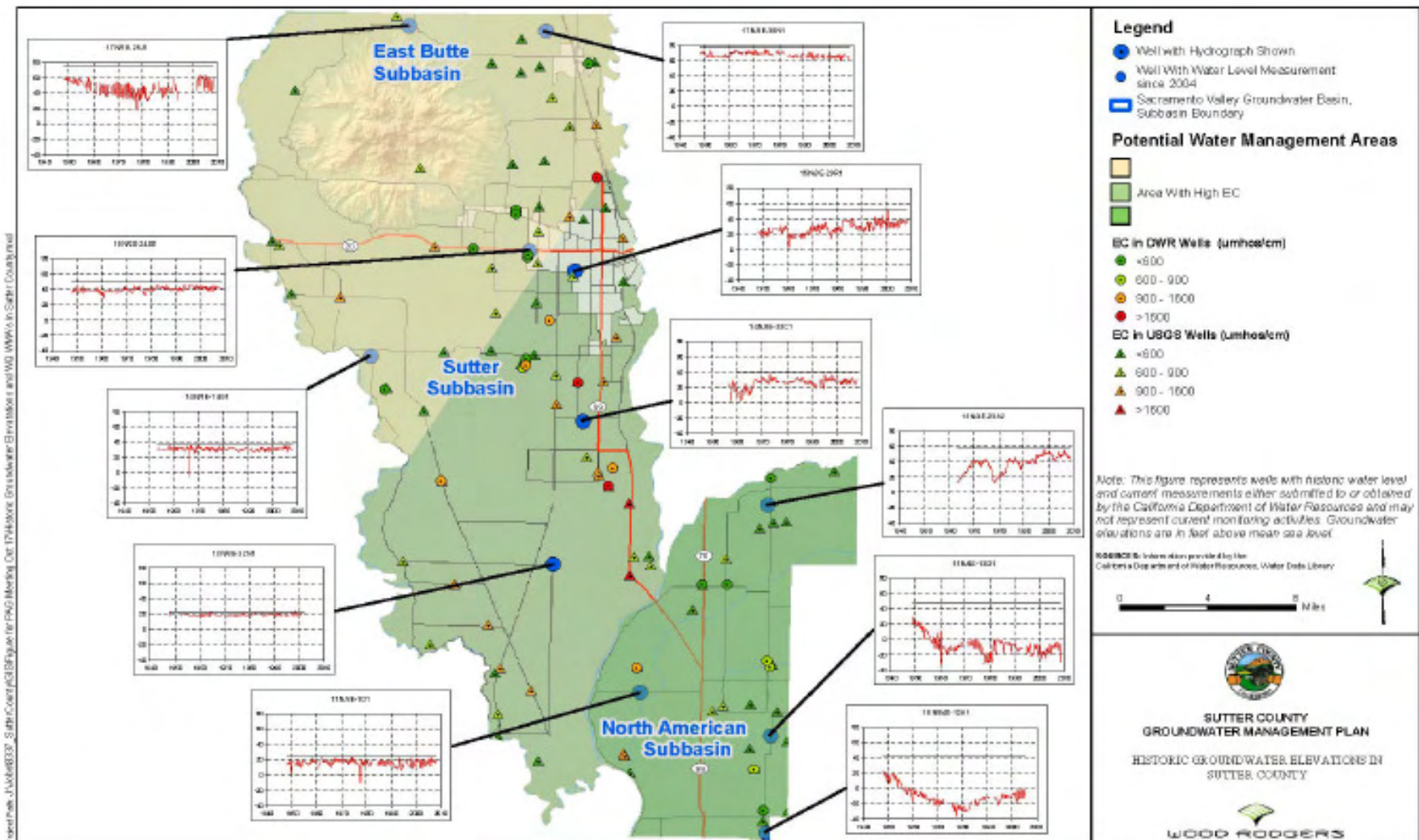
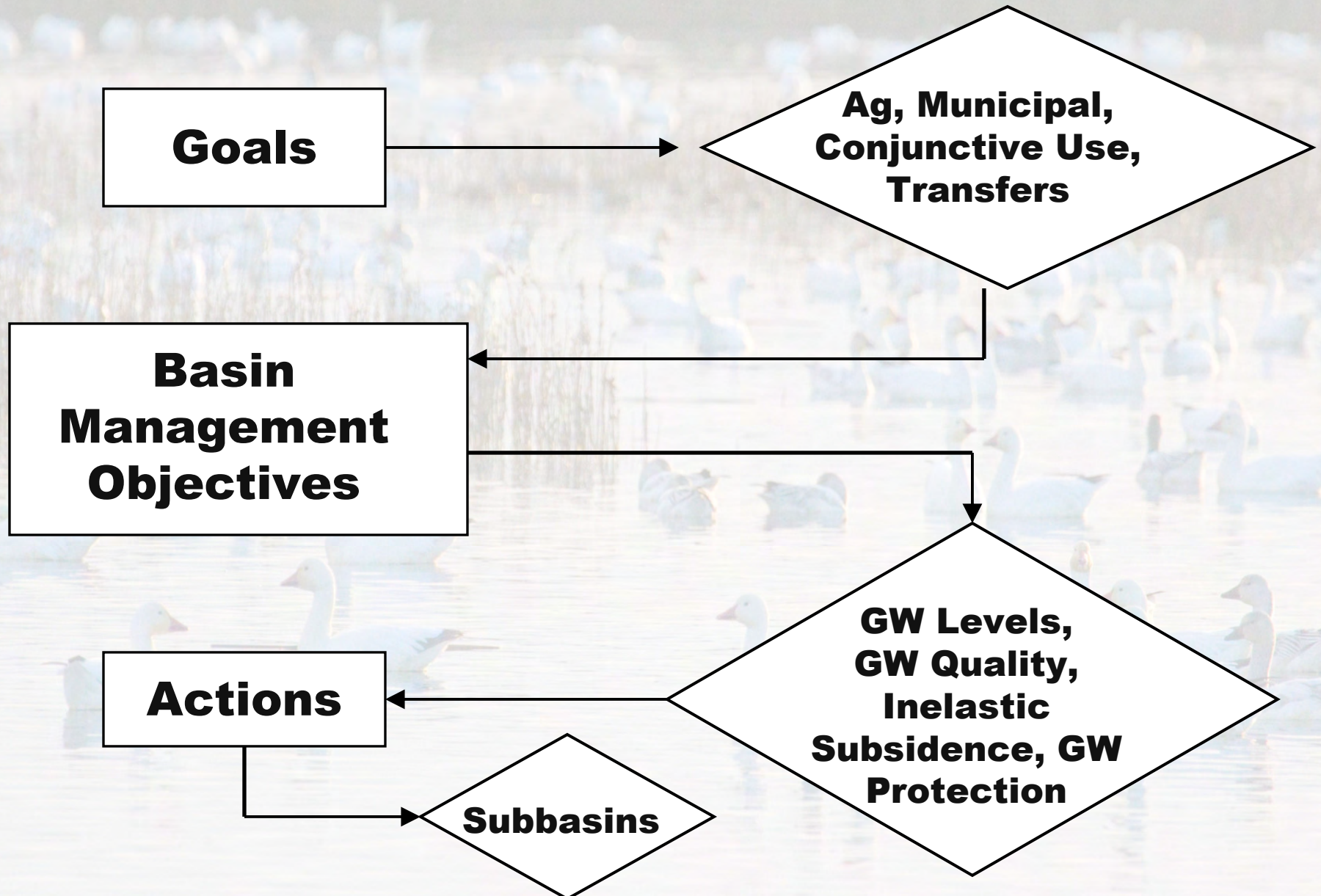


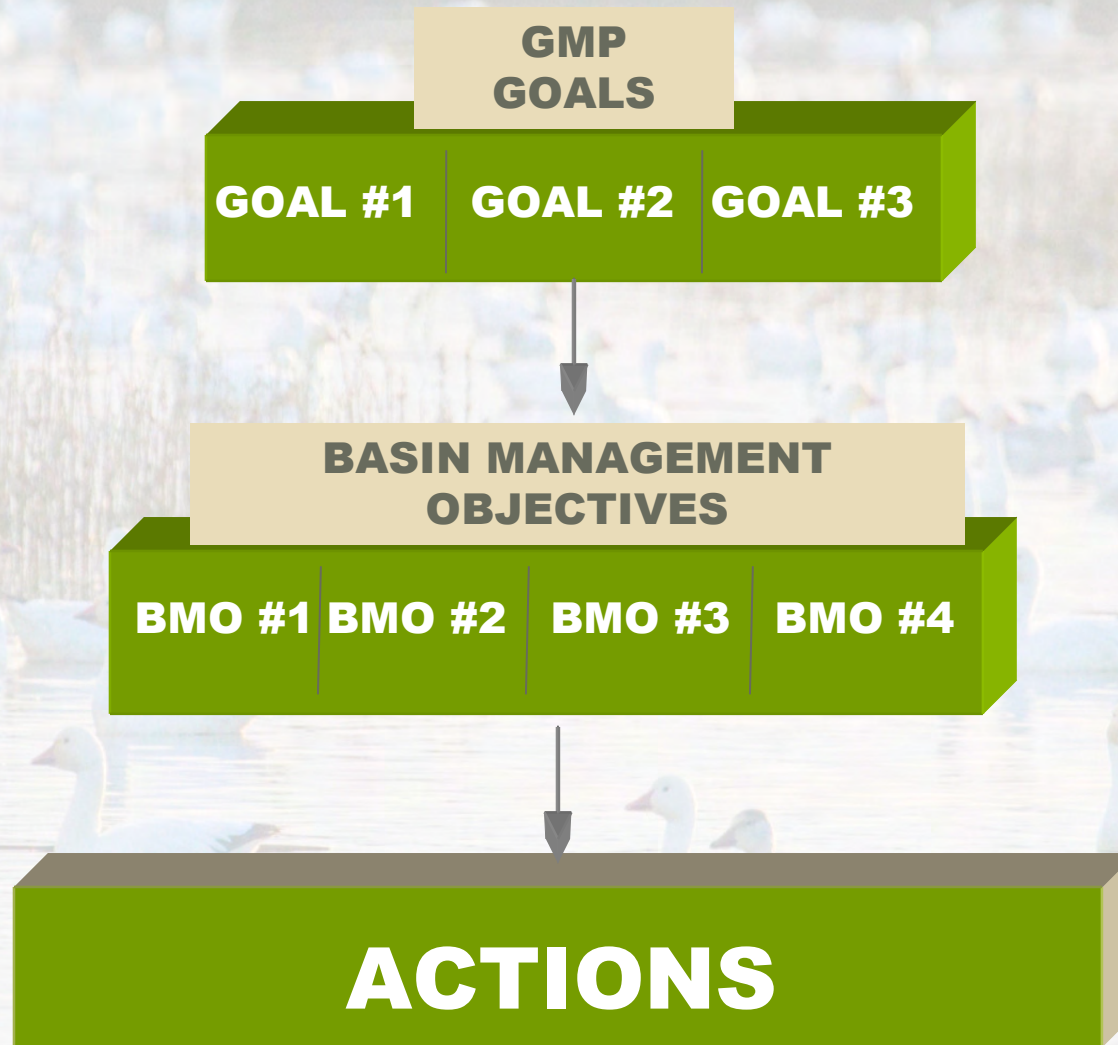
FIGURE 3

Project No. J1008833 - Sutter County (S) Study for RAG-Mercury. Oct. 2014. Data: DWR, USBG, Sutter County, and WQ. WQ: WQ: Sutter County, and WQ.

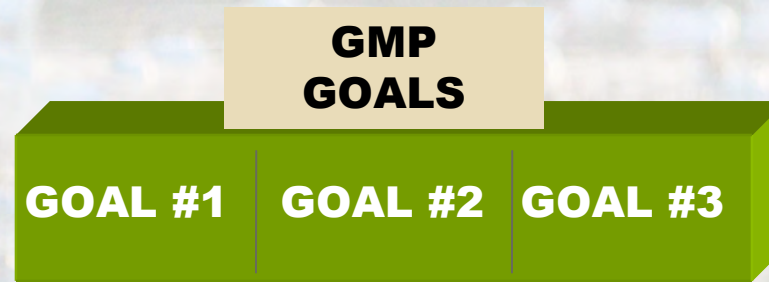
# GMP Framework / Organization



# GMP Organization



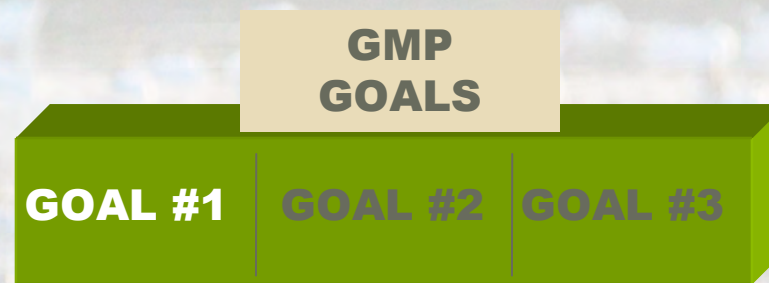
# Sutter County GMP Goals



**Groundwater Goals represent the County's broad goals for managing groundwater. In other words, "What are we trying to achieve?"**



# Sutter County GMP Goals



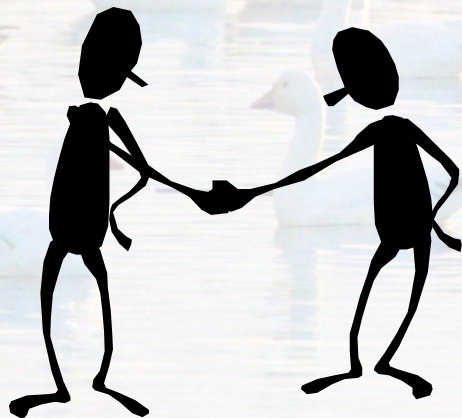
**Goal #1: To provide groundwater users with information and guidance to help them be responsible stewards of the groundwater resources in Sutter County.**



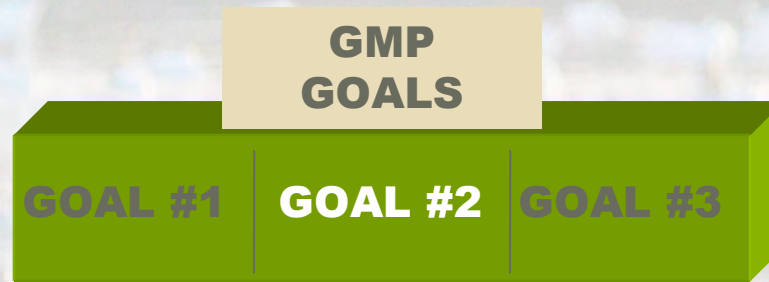
# GMP Framework



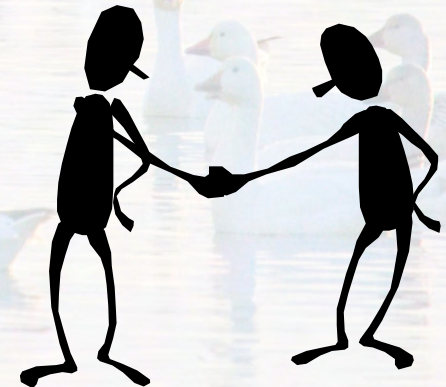
<http://www.suttercounty.org/doc/government/depts/pw/wr/gmp/gmphone>



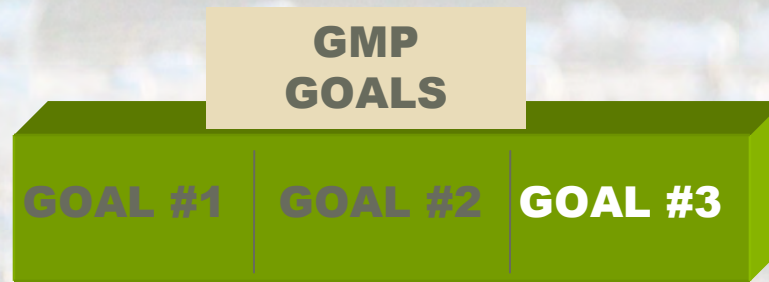
# Sutter County GMP Goals



**Goal #2: To promote responsible groundwater use in Sutter County so groundwater is available to meet present and future demands.**



# Sutter County GMP Goals



**Goal #3: To discourage activities that could reduce the long-term availability of high-quality groundwater in Sutter County.**

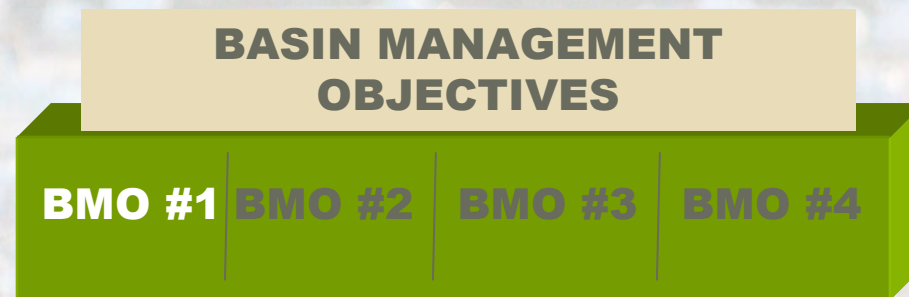


# Sutter County GMP BMOs



**Basin Management Objectives (BMOs) will help achieve the County's GW management goals.**

# BMO #1: Water Level BMO



- **Avoid ongoing declines in GW levels during water year types identified by DWR to be “above normal” or “wet” for the Sac Valley.**
- **Avoid problematically high GW levels.**
- **Help assess problems and resolve disputes related to GW levels.**

# BMO #2: Water Quality BMO

## BASIN MANAGEMENT OBJECTIVES

BMO #1 BMO #2 BMO #3 BMO #4

- **Improve the understanding of groundwater quality in Sutter County.**
- **Maintain or improve groundwater quality.**



# BMO #3: Land Subsidence BMO

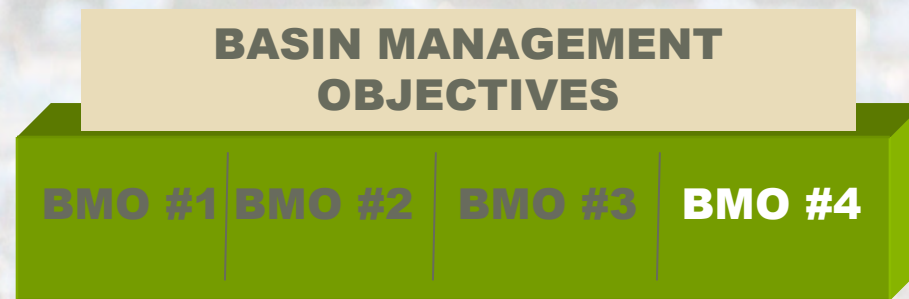
## BASIN MANAGEMENT OBJECTIVES

BMO #1 BMO #2 **BMO #3** BMO #4

**Avoid inelastic land subsidence that is linked to declines in groundwater.**



# BMO #4: Surface Water BMO



- **Improve the understanding of the relationship between surface water and GW in Sutter County.**
- **Avoid changes in surface flow and surface water quality that directly affect GW quality or levels, or are caused by GW pumping.**

# BMO #5: Coordination BMO

## BASIN MANAGEMENT OBJECTIVES

BMO #1 BMO #2 BMO #3 BMO #5

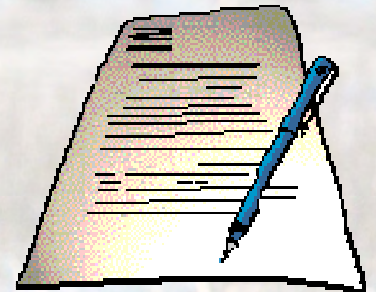


**Coordinate County GW management efforts with other GW management efforts within and surrounding Sutter County. This would include both local and state agencies, plus local water purveyors (both agricultural & municipal).**

# BMO #6: Protect GW Resources

## BASIN MANAGEMENT OBJECTIVES

BMO #1 BMO #2 BMO #3 BMO #6



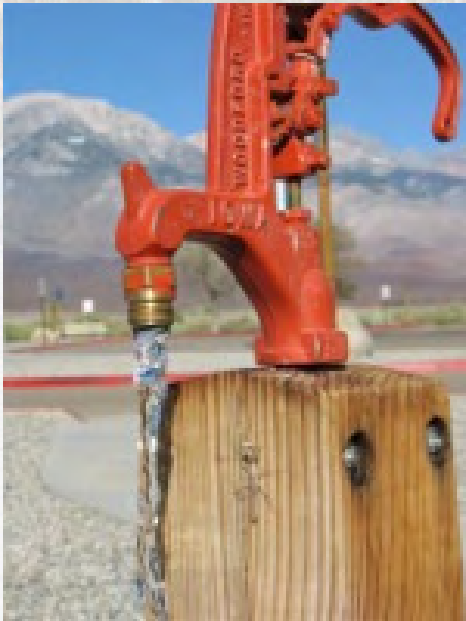
**Protect GW resources from harm resulting from the extraction of GW for use on lands outside the County.**



# Sutter County GMP Actions

## ACTIONS

**All the things the County plans to DO to manage groundwater.**

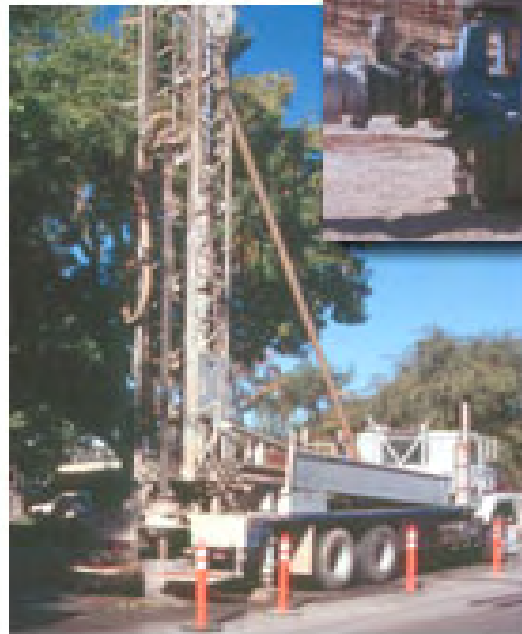
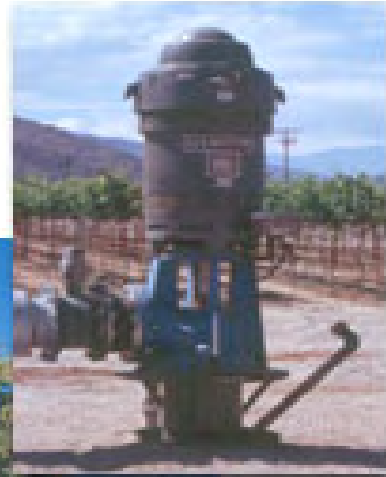


# Monitoring Plan

## ACTIONS

- **Establish a monitoring plan;**
- **Compile groundwater level data, assess data and distribute information;**
- **Improve well standards;**
- **Characterize groundwater/surface water interaction;**
- **Cooperate with local, regional, and State GW management efforts, including local purveyors;**
- **Establish a GW Ordinance that requires a permit for out-of-County GW transfers**

# Water Management Concepts



# GW Management Concepts

- **Conjunctive Water Management** – means to rely more on groundwater in dry years when less surface water is available, and relying on surface water in wet years when supplies are plentiful as aquifers recharge;
- **Perennial Yield** – refers to the rate at which groundwater can be withdrawn from a basin by pumping without producing adverse impacts;
- **Overdraft** – means pumping groundwater from a basin at a rate that exceeds recharge and perennial yield, thereby, causing significant impacts.

# GW Management Concepts

<b>Local governments</b>	<b>27 counties have adopted groundwater management ordinances</b>
<b>Local water agencies</b>	<b>Over 200 local water agencies adopted GMPs under AB 3030</b>
<b>Court adjudication</b>	<b>22 basins have been adjudicated in California, most in southern California</b>

# Water Management Concepts

**Water rights in California can be held by any legal entity. There are no restrictions on who can hold water rights, thus the owner can be an individual, trusts, corporations, government agencies, etc.. Water rights are considered real property (they can be owned separately from the land on which the water is used or diverted) and can be transferred from one owner to another, both temporarily or permanently. Any transfer (sale, lease or exchange) is subject to approval by the State Water Board through the application process. Approval is granted upon finding that the transfer would not result in injury to any other water right and would not unreasonably affect fish, wildlife, or other instream beneficial use.**

# Water Management Concepts

**In California, adjudication can be initiated through the court or through statutory procedures. Court initiated adjudication occurs when a water right lawsuit is filed in court (all surface and ground water rights may be included in this procedure). Statutory adjudications result when one or more entities claim a right from a specific source and file a petition with the State Water Board. The statutory procedure can be used to determine all rights to any body of water including percolating groundwater. The result of a statutory adjudication is a decree that integrates all rights on the water source and sets quantity, season, priority, etc.. **As of 2000, sixteen basins in California had been adjudicated.****

# Questions

