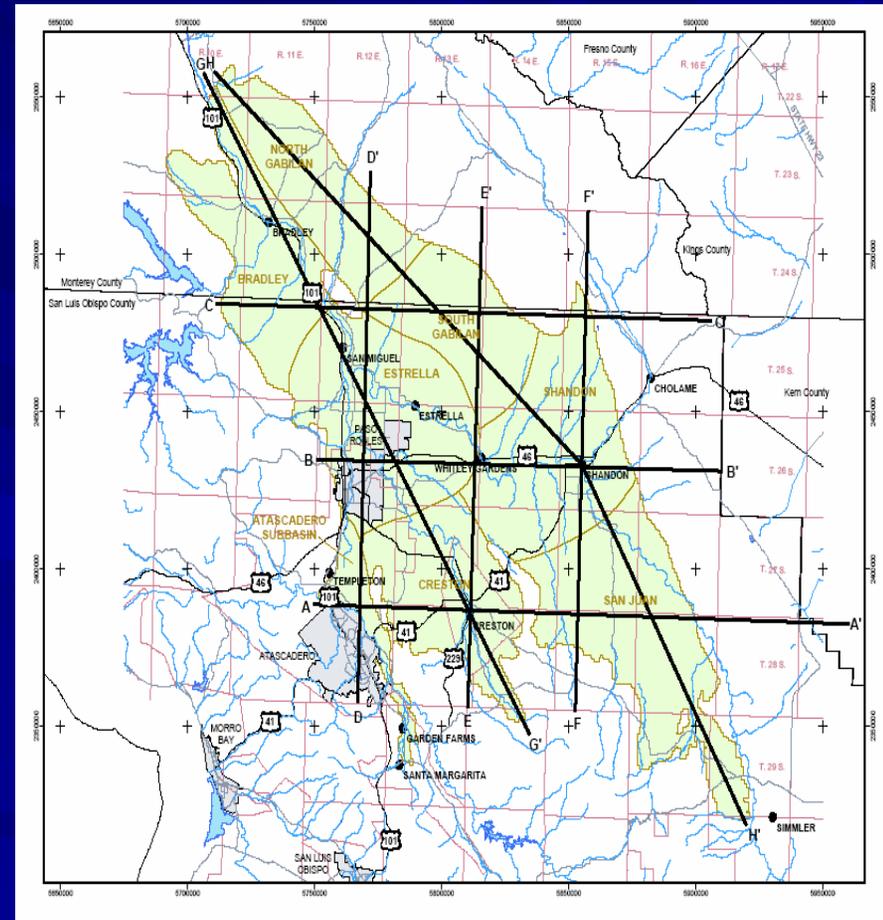


# Paso Robles Basin Groundwater Banking Feasibility Study

Courtney Howard, P.E., Water Resources Engineer  
Public Works Department of the San Luis Obispo  
County Flood Control and Water Conservation District

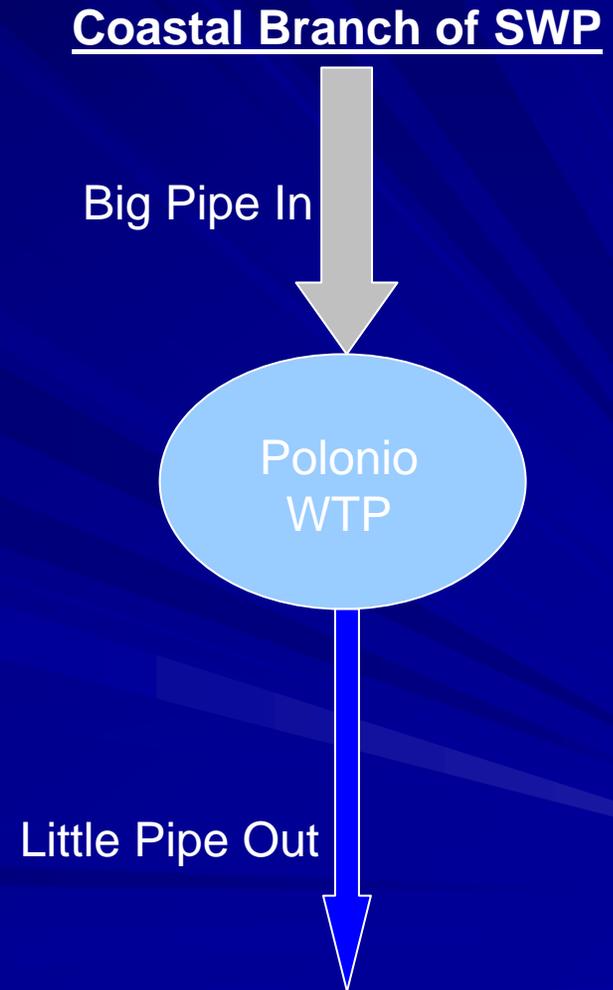
# Groundwater Banking Feasibility Study

- Purpose of Study
- Scope of Study
- Potential results
- Groundwater banking methods and examples



# Excess State Water Allocation

- Using 4,830 AFY of 25,000 AFY Allocation
- Contracts with State expire in year 2035
- District needs to show “beneficial use” of the supply in order to maintain ownership
- Groundwater Banking may be an option
- Financial opportunity through IRWM Grant



# Groundwater Banking Feasibility Study

- Can San Luis Obispo County utilize excess State Water allocation through a Groundwater Banking Plan?
- Is there a Groundwater Banking Plan that will be a win-win?
- Who might participate?
- Who might benefit?

# Groundwater Banking Feasibility Study

## ■ IRWM Grant Agreement

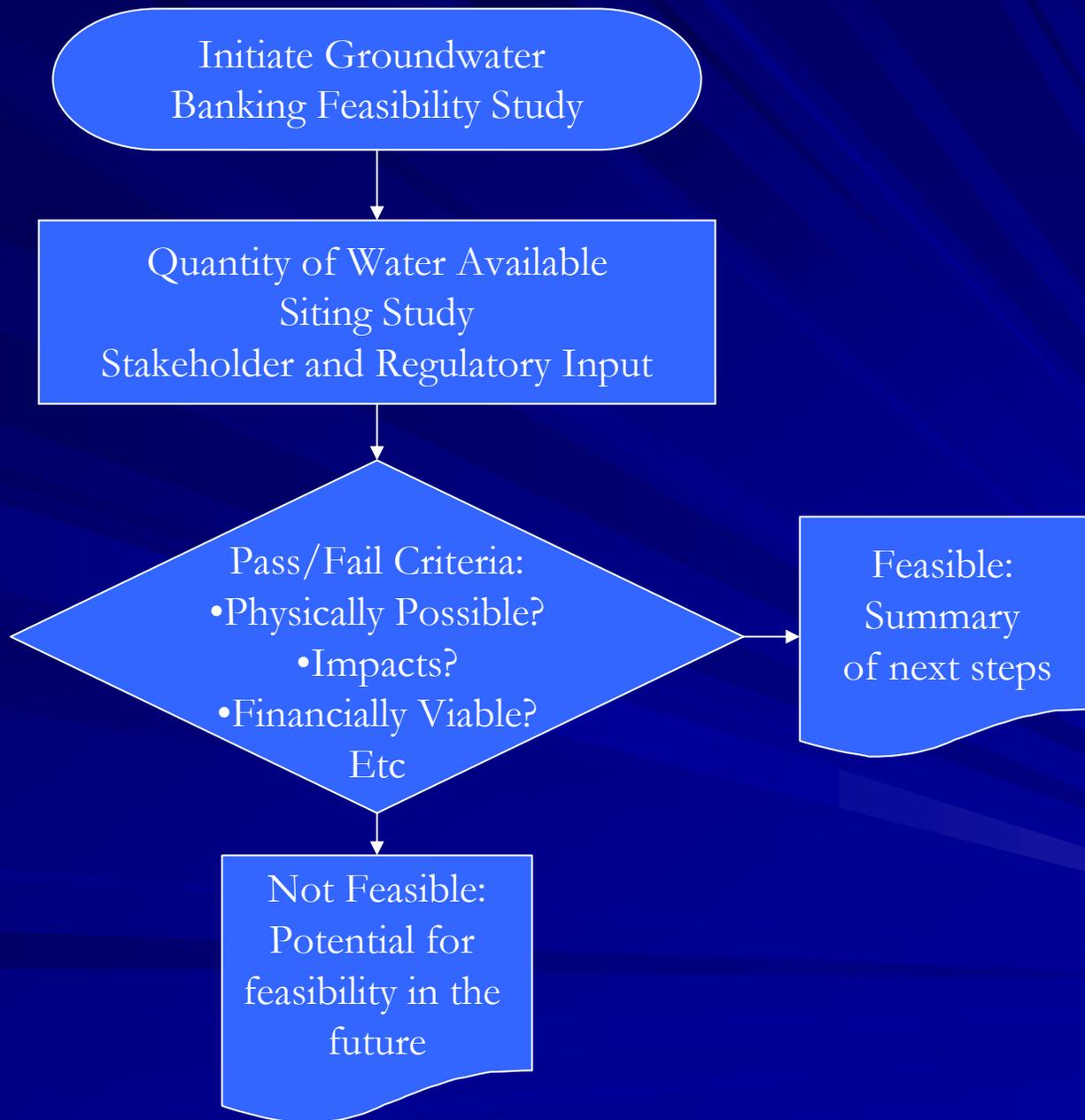
- Water available for banking
- Study of site and options
- Stakeholder and Regulatory review
- Results, Conclusions, Next Steps

Community Input

# Three Steps of Groundwater Banking Studies

- Step 1 – Data Collection and Hydrogeology Study  
(Paso Groundwater Basin Study and Model)
- Step 2 – Methods Analysis and Layout
- Step 3 – Institutional, Legal and Financial Analysis

*Other steps follow if implementation is desired*



# Potential Results

## Not Feasible:

- Thoroughly assessed as an option
- Focus on other options

## Feasible:

- Water Supply Improvement
- Regional Cooperation

# Methods to Bank Water in the Ground

- **In-Lieu Recharge**

Water is stored by substituting surface water for an equal amount of groundwater which would otherwise be pumped



- **Direct Recharge**

Water is stored by percolating or injecting directly to basin



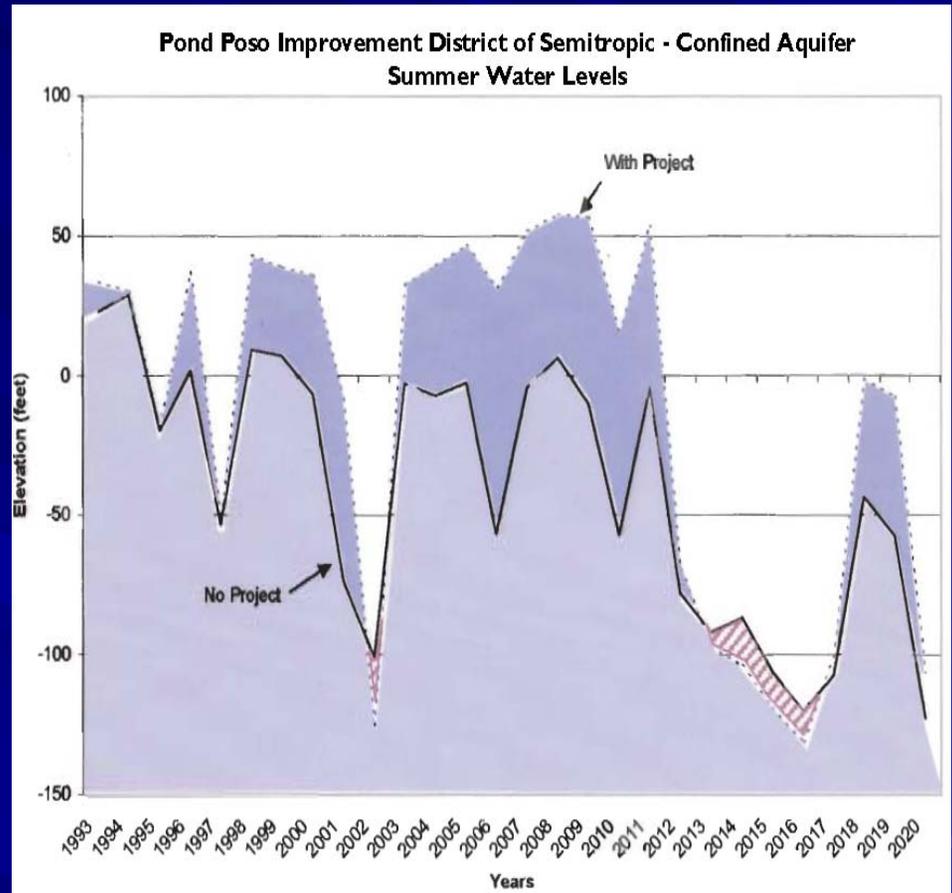
# Alternatives Analysis

- Increase in reliability
- Potential benefits for overlying users
  - Losses (typically defined in contract), reduced pumping depth
- Infrastructure and costs
- Potential harm to overlying users

CEQA – significant impact guideline - “pre-existing nearby wells would drop to a level which would not support existing land uses or planned uses for which permits have been granted” (Sec 15092, App. G)

# Examples of Contractual Provisions

- Monitoring committee to determine what the “no project” condition would have been
- Define a limit when pumping will be curtailed
- Semitropic Bank and Kern Water Bank



# Examples of Contractual Provisions

- Based on modeling
- Establish a “rule” to scale back pumping based on objective facts at the time of pumping, such as number of years and quality of water recently pumped and other water supplies of banker
- Arvin—MWD Program

Period of Years	(1) Cumulative Net Pumpage Over Period not to Exceed (1,000 Ac-Ft)
1	160
2	300
3	430
4	550
5	640
6	720

# Next Steps

- Develop scope of work - request for proposals
- Continue holding meetings
- Gather questions to include in study or to address if found feasible
- Complete study by January 2008

[www.SLOCountyWater.org](http://www.SLOCountyWater.org)

Integrated Regional Water Management

# Thank You!

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