



*Our Fresh
Water*
SOLUTION
*on the
Nipomo
Mesa*

Community Forum

November 9, 2011 / 6:30-8:30pm

Nipomo High School, Olympic Hall

Nipomo Community Services District Board President Jim Harrison

- Welcome and Introductions
- NCSD Public Meeting - Call to Order
- Board Roll Call
- Pledge of Allegiance
- Meeting Overview

Meeting Overview & Process

- **Presentation** - A Series of Speakers
- Break – Collection of Q&A Cards
- Questions & Answers
- Public Comment Period
- Adjourn by 8:30pm

IF YOU HAVE A QUESTION...

- Turn it in on a 4x6 card...
- We will address your questions during the Q&A Period.

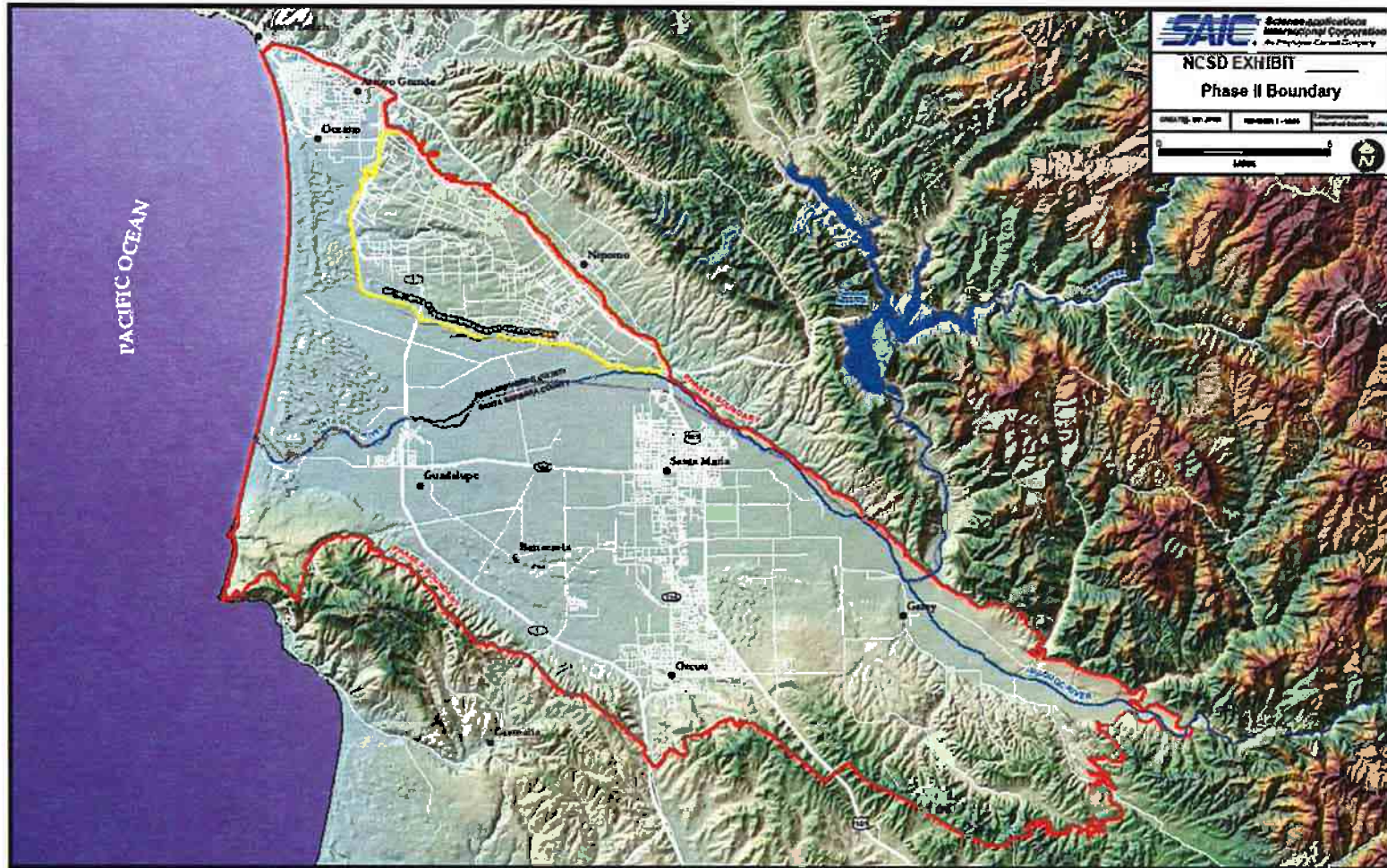
Agenda

- **PART 1: Nipomo Mesa Water PROBLEM**
A Brief Review
- **PART 2: Supplemental Water OPTIONS**
The Search for Solutions
- **PART 3: The Right SOLUTION for our Community**
Evidence Supporting THIS Solution
- **BREAK** (10 minutes)
- **Questions & Answers** - On your question cards, please note (categorize) at top: PROBLEM, OPTIONS, SOLUTION, or FUNDING
- Public Comment
- Closing Remarks

Part 1: Our Nipomo Mesa WATER PROBLEM

Ed Eby
NCSD Board Member

Santa Maria Groundwater Basin



Our Water Problem

**The Nipomo Mesa has
only ONE source of water . . .**

. . . the groundwater pumped from beneath us.

Our Water Problem

**The Nipomo Mesa has NO
alternate water supplies:**

No lakes

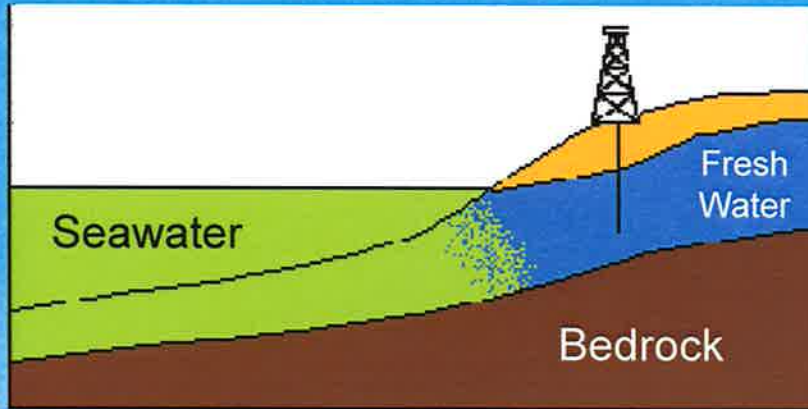
No rivers

No reservoirs

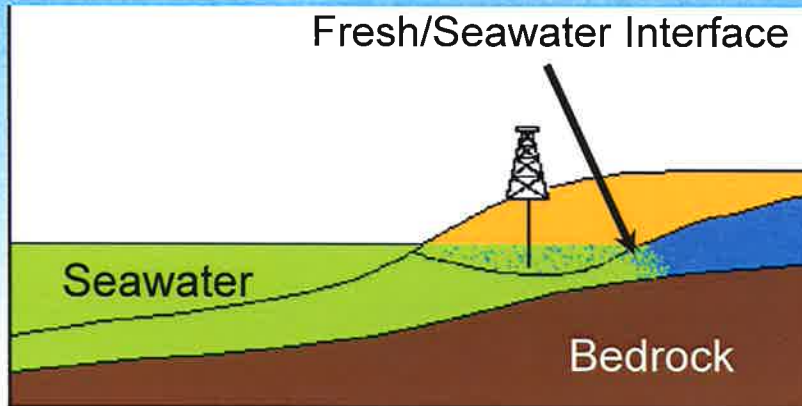
No accessible pipelines

No desalination plants

We share our aquifer with the Pacific Ocean



When fresh water table stays above sea level...
Seawater stays offshore.



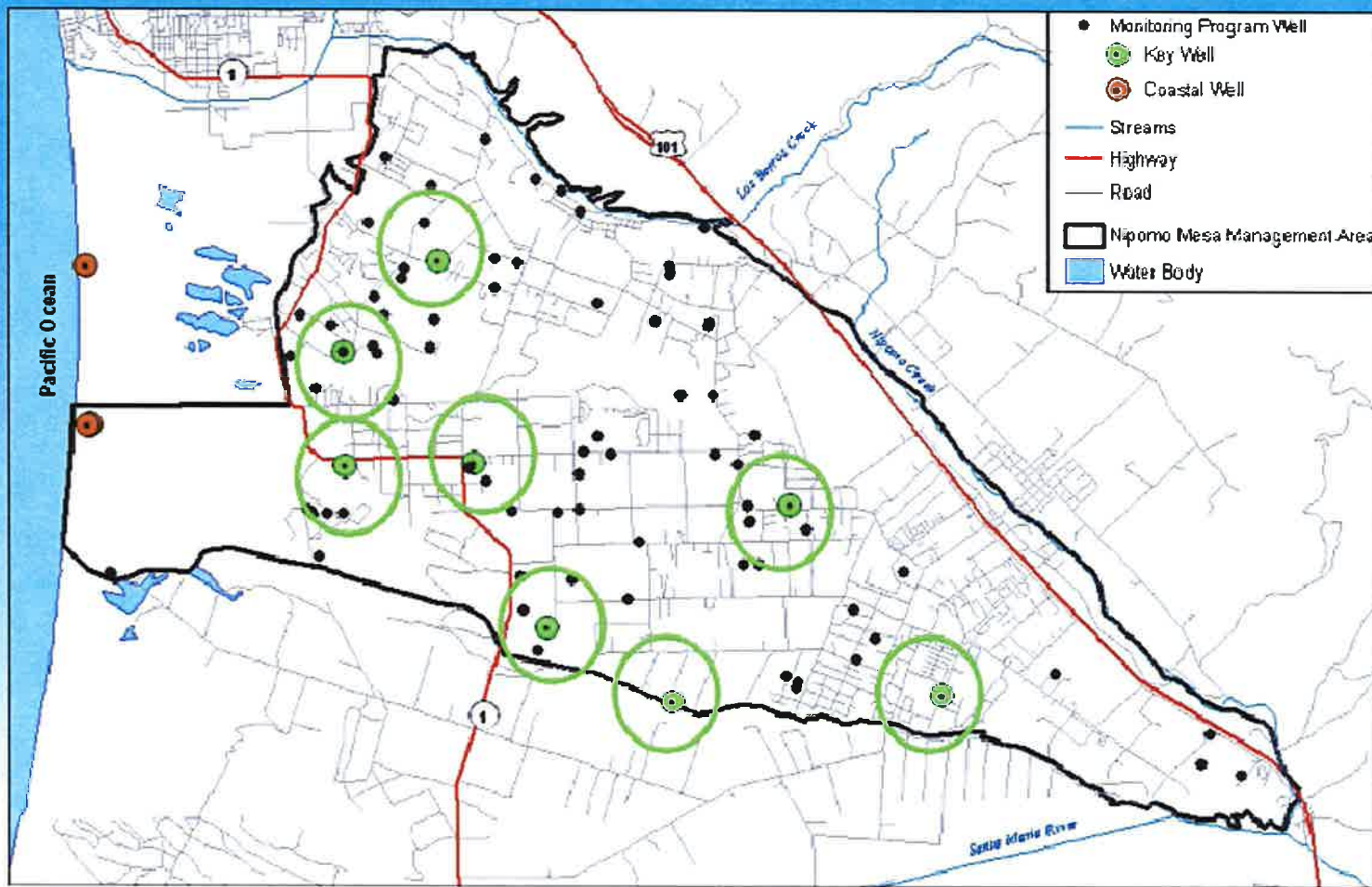
Too much pumping...
Can cause the fresh water table to fall below sea level...
Creating an invitation for seawater intrusion.

Our Water Problem

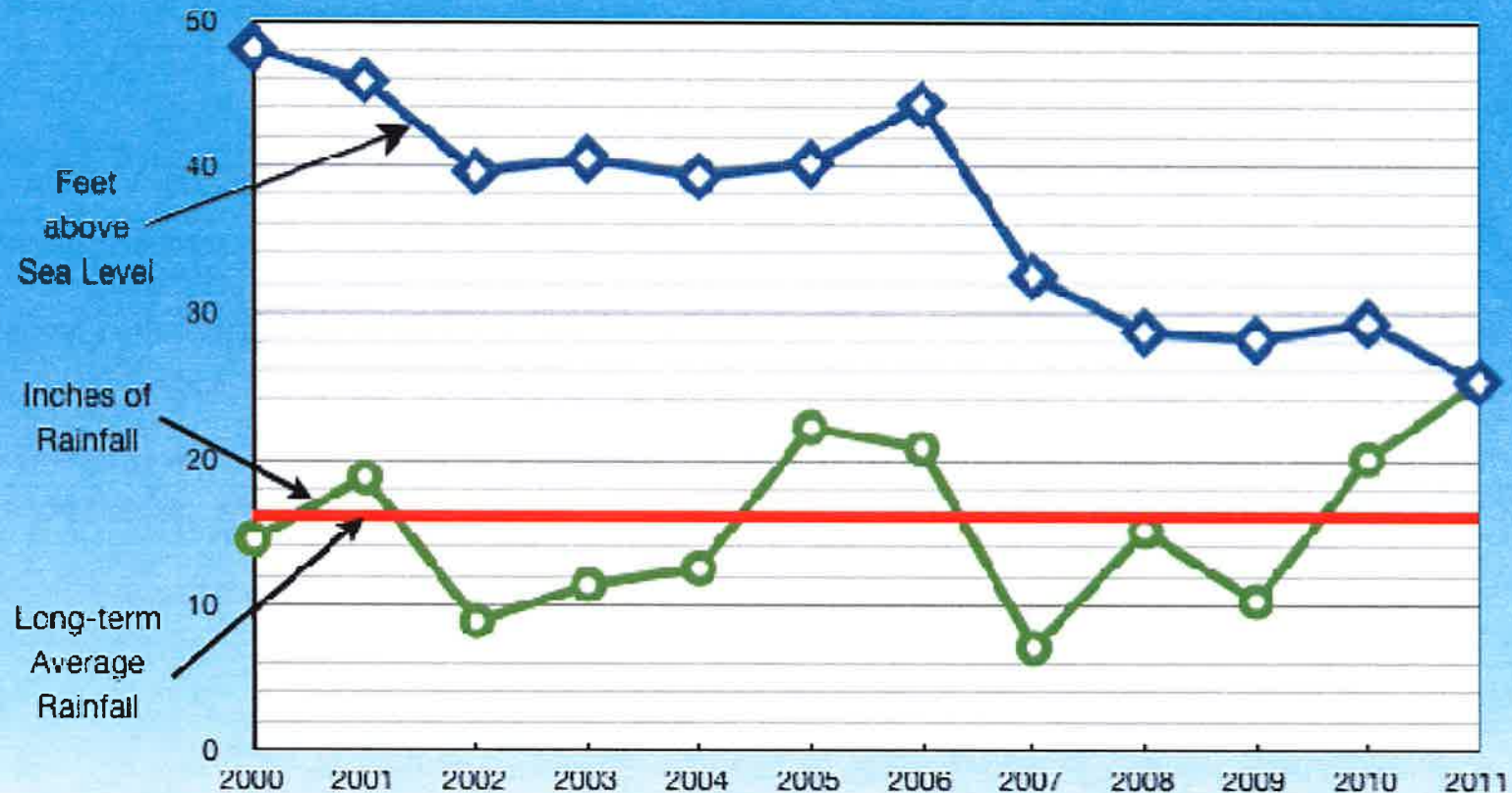
The experts tell us . . .

- We are using twice as much groundwater as is being replaced by rainfall
- Our water table has been dropping since 2000 – despite some years of above-average rainfall
- Water demand for urban uses has more than doubled in the past 20 years
- Many wells have fallen below sea level
- Neighboring communities have experienced seawater intrusion

Key Index Wells



Average Water Levels in Key Wells



**The Key Well Index dropped 40% between 2000 and 2008. . .
...and it is still dropping after two years of above average rain.**

Our Water Problem

Nipomo Mesa Water Shortage Consequences:

- Seawater Intrusion - Contaminated Groundwater
- Permanent Loss of Fresh Water Wells
- Extreme Water Rationing
- Prolonged Water Shortages
- Significant Negative Property Value Impacts

Others have multiple sources of water

- San Luis Obispo** ① groundwater; ② Nacimiento Lake; ③ Santa Margarita Lake; ④ Whale Rock Reservoir; and ⑤ recycled water
- Avila Beach** ① Lopez Lake and ② State Water Pipeline.
- Pismo Beach** ① groundwater; ② Lopez Lake; and ③ State Water Pipeline.
- Grover Beach** ① groundwater and ② Lopez Lake.
- Arroyo Grande** ① groundwater and ② Lopez Lake.
- Oceano** ① groundwater; ② Lopez Lake; and ③ State Water Pipeline.
- Guadalupe** ① groundwater and ② State Water Pipeline.
- Santa Maria** ① groundwater; ② Twitchell Reservoir; and ③ State Water Pipeline.
- Vandenberg AFB** ① groundwater and ② State Water Pipeline.
- Lompoc** ① groundwater; ② recycled water; and ③ surface water from Frick Springs.
- Buellton** ① groundwater and ② State Water Pipeline.
- Goleta** ① groundwater and ② State Water Pipeline.
- Santa Barbara** ① groundwater; ② Lake Cachuma; and ③ State Water Pipeline.

Seawater Intrusion

	Los Osos	Oceano	Nipomo Mesa
Aquifer shared with the Pacific Ocean	X	X	X
Decreasing well levels	X	X	X
Pumping freshwater wells below sea level	X	X	X
Seawater intrusion documented	X	X	Not yet...
Freshwater Wells Permanently Lost to Seawater Intrusion	X	Not yet...	Not yet...

Local Residents are concerned...

- **89%** have heard about our water problem
- Most say our water problem is our community's most important issue ...
- ...*more important* than public safety, the economy, unemployment, and traffic **combined!**
- **73%** say that it is extremely or very important to increase our fresh water supply

Part 2:
The Search for Solutions -
OPTIONS Explored

Michael Winn
NCSD Board Member

The threat of seawater intrusion is real



For over 20 Years We've Been Studying and Working to Solve This Problem

- Numerous technical studies by County and State
- Environmental Impact Reports and Mitigations
- Public Hearings
- Designs and cost estimates have been developed
- **More** technical studies...
- Land acquisition, easements, rights-of-way completed
- Funding options have been evaluated
- \$3.1M has been invested since 2004
- \$2.3M Grant has been awarded by State

Supplemental Water Options Considered

Option	Public Input	Technical Studies
Conservation	X	X
State Water Pipeline	X	X
Building Moratorium	X	
Desalination	X	X
Recycled Water	X	X
Santa Maria Pipeline	X	X
Other Pipelines	X	X
Rainwater Collection	X	

Criteria for the Optimal Solution

Origin	Outside the Nipomo Mesa Management Area – NEW WATER
Quantity	2,500 acre-feet per year minimum, per Court ruling
Schedule	ASAP
Cost	Lowest
Reliability	Uninterrupted year around
Quality	Little or no purification required

Other Feasible Pipelines

Option	Quantity	Cost	Reliability
Oso Flaco Lake	Only 1,100 AFY INADEQUATE	3X Santa Maria TOO COSTLY	Insufficient supply
Twitchell Reservoir	UNAVAILABLE	3X Santa Maria TOO COSTLY	None
Oceano CSD	Only 100 AFY INADEQUATE	4X Santa Maria TOO COSTLY	Insufficient Supply
Lopez Lake	UNAVAILABLE	9X Santa Maria TOO COSTLY	None
Nacimiento Water Project	Only 2,100 AFY INADEQUATE	18X Santa Maria TOO COSTLY	Insufficient Supply

Distance multiplies cost

Water supply less than 2,500 AFY insufficient to meet demand

Top Six Solutions

Acceptable
Marginal
Fatal Flaw

Option	Origin	Quantity	Schedule	Cost	Reliability	Quality
State Water Pipeline		Unavailable				
Santa Maria Pipeline		2,500-6,300	2 years	\$25M for 3,000 AFY capacity		Better
Desalination			15-20 years	\$100-400M	Best	Best
Building Moratorium		2X overuse remains				
Reclaimed Water	No new water	600-1,400	4 years	\$15M		
Conservation		100% for urban users				

What do the Experts recommend?

“The TG recommends that the Nipomo Supplemental Water Project be implemented **as soon as possible.**”
(2nd Annual Report, Calendar Year 2009)

“The TG recommends that the Nipomo Supplemental Water Project be implemented **as soon as possible.**”
(3rd Annual Report, Calendar Year 2010)

*Nipomo Mesa Management Area Technical Group (TG)

What do our Neighbors recommend?

“Please join our city in providing your full support for this critically important regional project.”

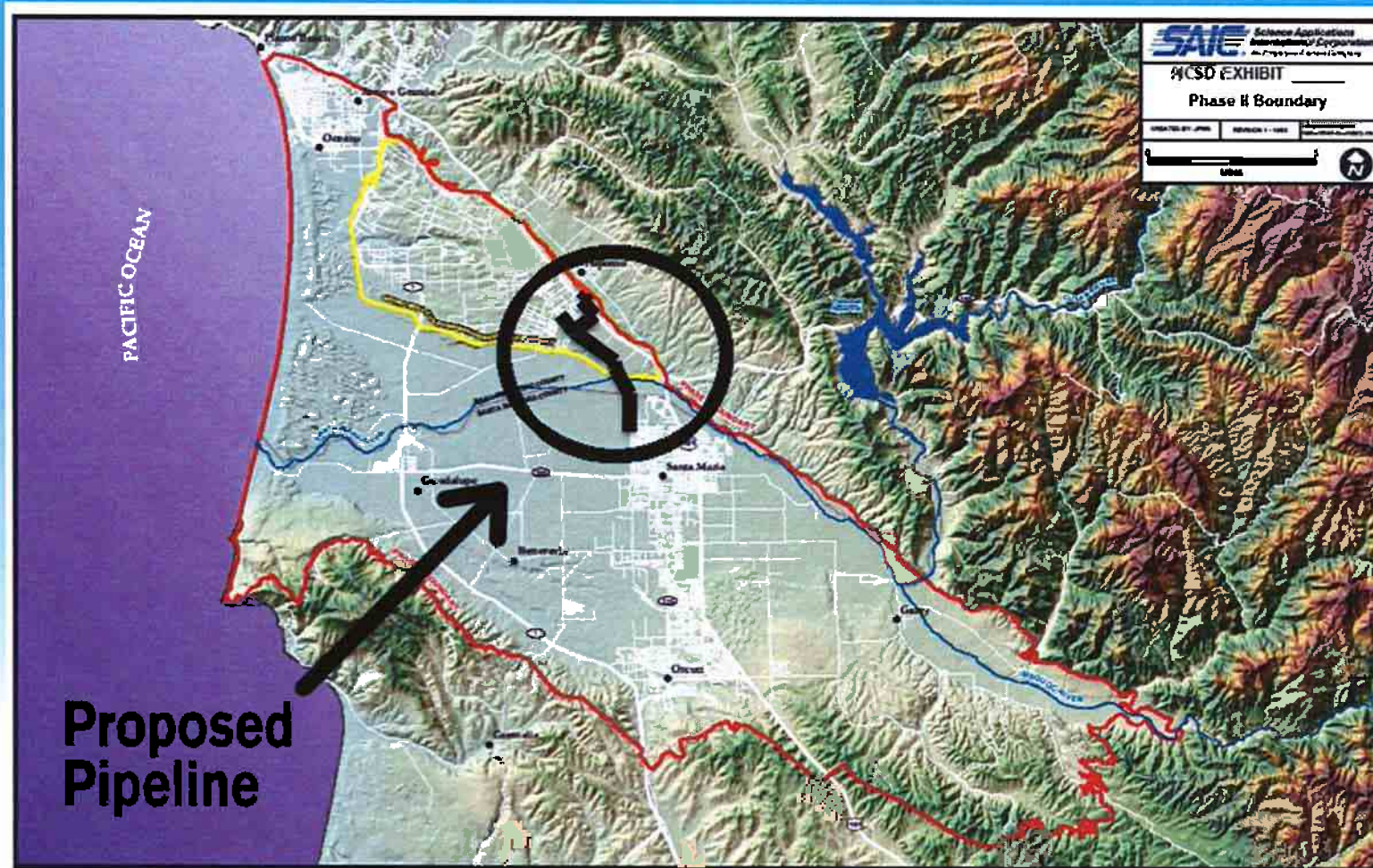
Arroyo Grande City Council, 8/26/11

“The Nipomo Supplemental Water Supply Project is a necessary and urgent first step to begin to manage the regional water resources sustainably, and protect the economy of the South County area.”

Pismo Beach City Council, 9/8/11

Santa Maria Pipeline

Most Cost-Effective Near-Term Solution

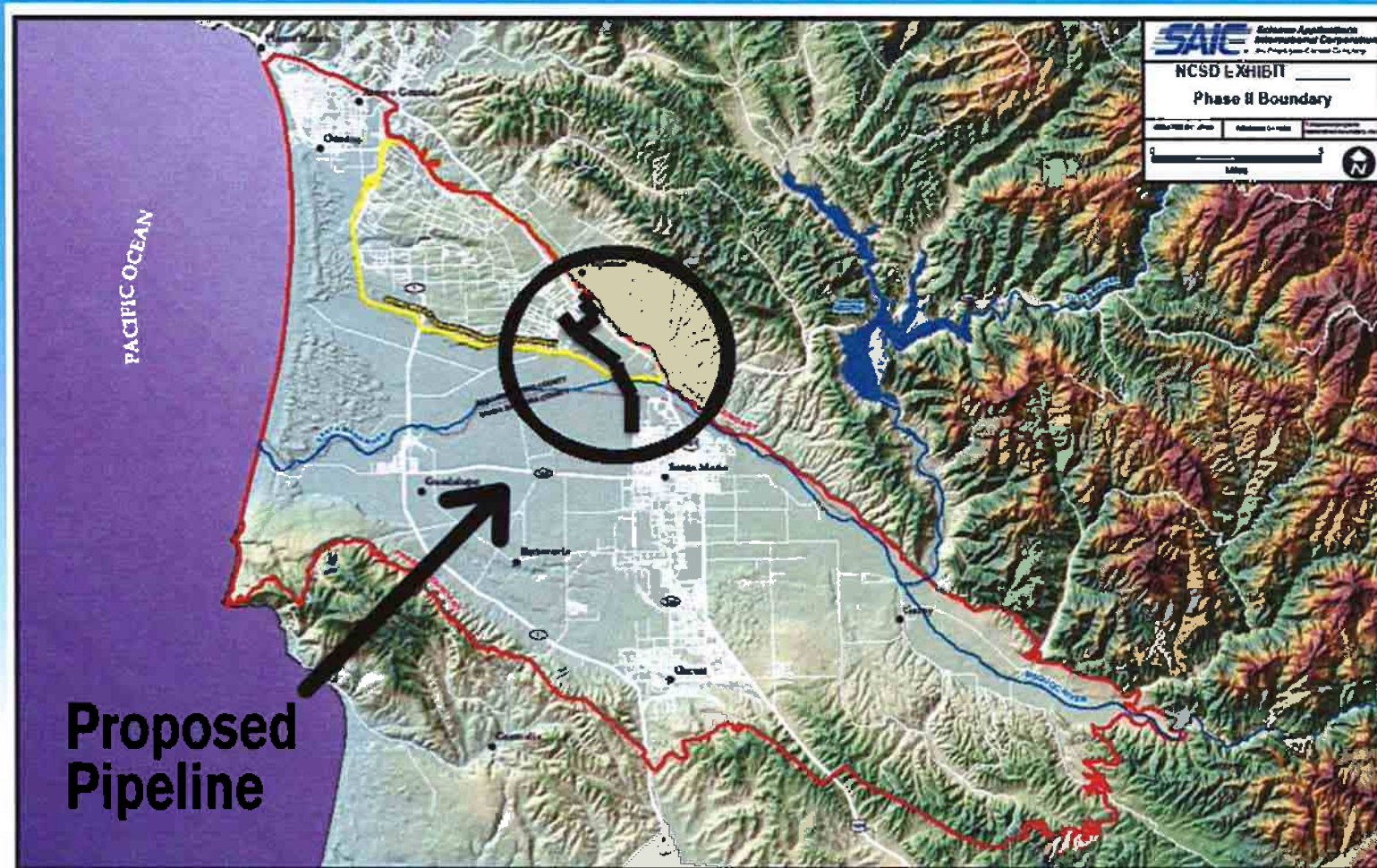


Part 3:
The Best SOLUTION
For Our Community

Michael S. LeBrun
NCSD General Manager

Santa Maria Pipeline

Most Cost-Effective Near-Term Solution



Santa Maria Pipeline

Most Cost-Effective Near-Term Solution



90% design completion

Connects to Santa Maria City water supply on Blosser Road

New pipeline on Blosser – 1.2 Miles

New pipeline under River – ½ Mile

New pipeline in Nipomo – 3 Miles

500,000 gallon storage tank and pump station

Santa Maria Pipeline

Most Cost-Effective Near-Term Solution



IMMEDIATELY CONNECTS TO:

- NCS D
- Golden State water system
- Woodlands water system

COST: \$25.2M

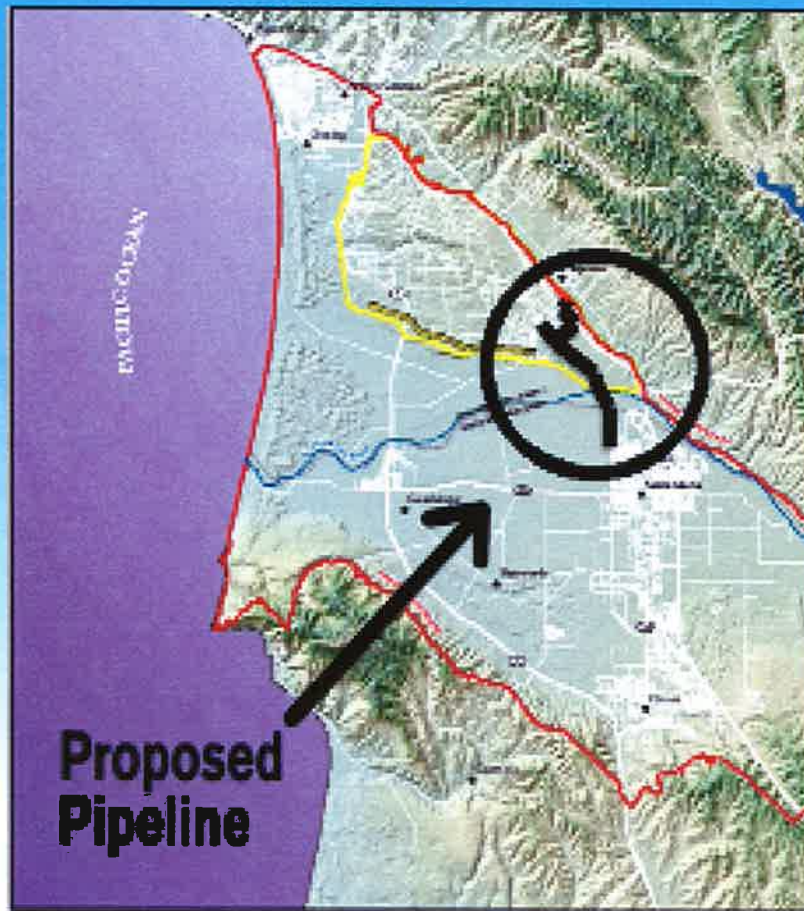
Design and construction

TIMELINE:

After voter approval, 18 months to complete

Santa Maria Pipeline

Most Cost-Effective Near-Term Solution



This is NEW water to NIPOMO

Currently, Santa Maria's water includes 90%+ State water

This water source is **never** less than 50% State water

Any groundwater in the mix will come from wells south of Santa Maria, and wouldn't flow to Nipomo without the pipeline – it would flow directly out to the ocean

Santa Maria Pipeline Construction Budget

As of January 2011

Item	Cost
Engineering Design	\$6.3M
Engineering Contingency (10%)	\$0.6M
Construction	\$15.9M
Construction Contingency (15%)	\$2.4M
State Grant	Less \$2.3M
Total Construction Cost	\$22.9M

\$25.2M
Design &
Construction

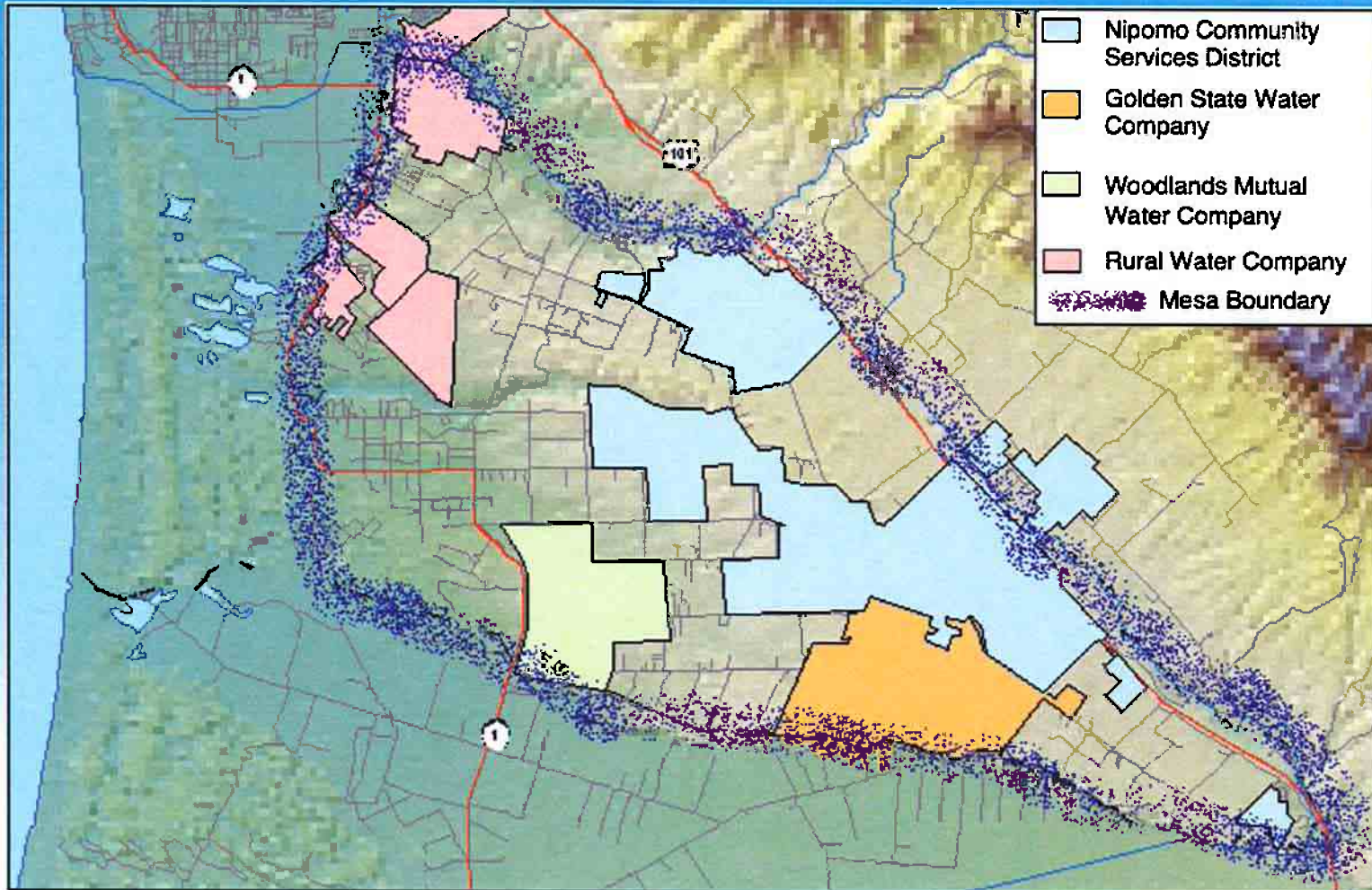
Santa Maria Pipeline - SCHEDULE

Task	2011	2012			2013	2014
Assessment Engineer's Report	→					
Benefit Unit Verification	↔					
Assessment Ballot - VOTE		↔				
Finalize Design	↔					
Solicit Construction Bids			↔			
Award Contracts			↔			
Construction				↔		

FUNDING the Supplemental Water Project

- Bonds – the established and most economical way to fund public capital projects
- Funds will be collected by selling a bond to be paid off in 30 years
- Payoff for the capital costs will be made by forming an assessment district

Nipomo Mesa Water Company Boundaries and Proposed Assessment District



FUNDING the Water Project

Property owners would pay off the bond with an assessment on property tax bills

Property owners can choose to pay once, OR pay over time

Each parcel will be assigned a number of **“Benefit Units”** (BUs) based on potential for future water use

FUNDING the Water Project

Major factors in assignment of Benefit Units (BUs):

- Zoning
- Property Type – Residential/Commercial
- Parcel Size
- Potential Water Consumption

Example:

- One single family home on less than 0.35 acres would be assigned one Benefit Unit (BU)

Estimated cost of ONE Benefit Unit

Payment Type	NCS D*	GSWC	WMWC	RWC
One-Time Payment	\$3,100/\$4,100	\$1,600	\$5,650	\$2,500
Monthly Equivalent Cost	\$22/\$30	\$13	\$44	\$20

*Developed Property/Undeveloped Property

NEXT STEPS

- Assessment Engineer Initial Report
- More information and Property Owner Feedback (Benefit Unit Verification)
- Assessment Engineer Final Report
- More information
- **Property Owner VOTE** (Assessment Ballot)
- Construction

Collection - Question Cards

**PLEASE MARK (categorize) at top of your card:
PROBLEM, OPTIONS, SOLUTION, or FUNDING**

**10 minute
BREAK**

Questions & Answers

Public Comment on Solutions

Conclusion

Thank You for Attending