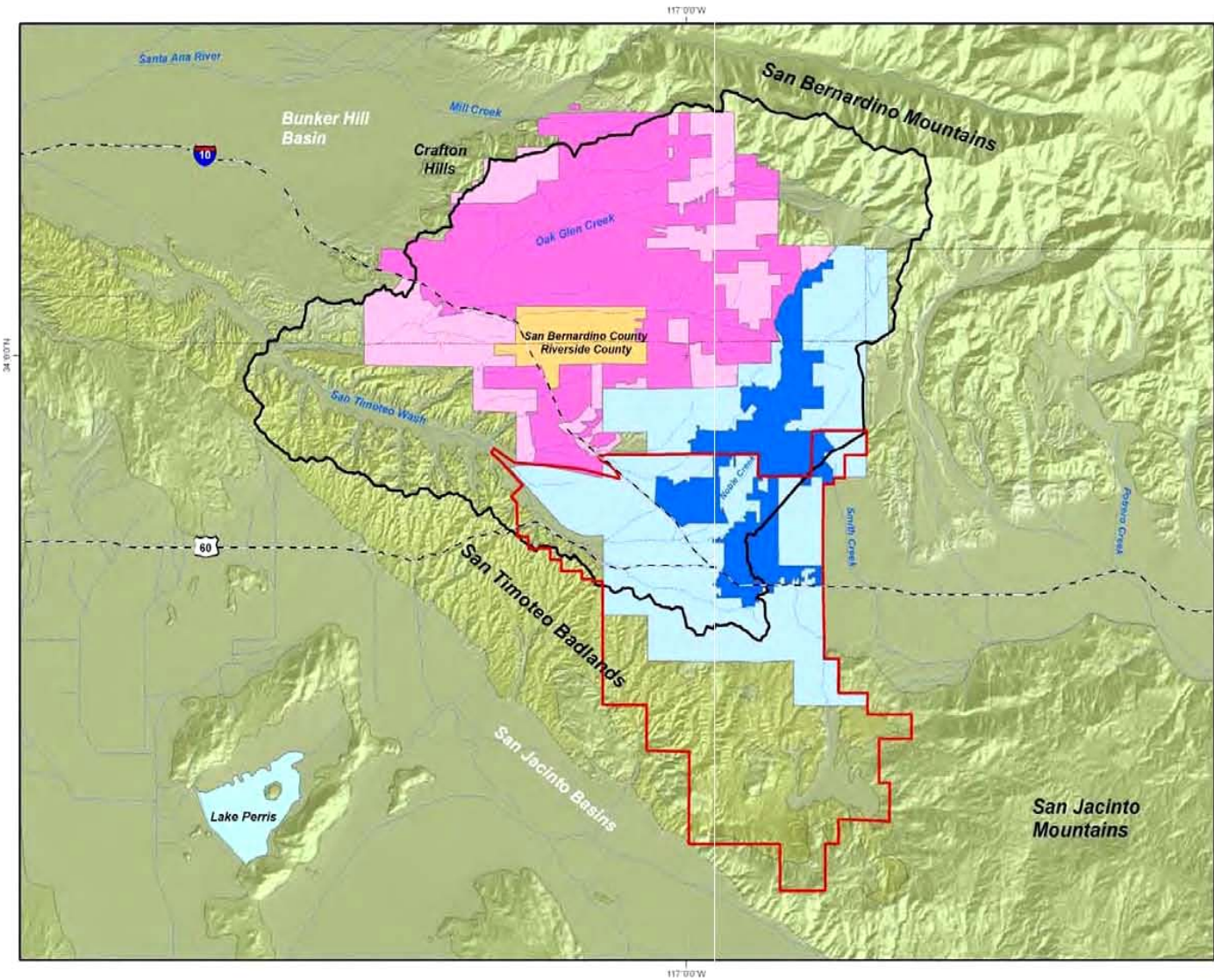


*San Timoteo Watershed
Management Authority
STWMA
and the
Beaumont Basin Watermaster*

J. Andrew Schlange
Executive Officer

December 18, 2008



Integrated Regional Water Management Plan
 San Timoteo Watershed Management Authority

- Yucaipa Valley Water District
 - Service Area
 - Sphere of Influence
- Beaumont-Cherry Valley Water District
 - Service Area
 - Sphere of Influence
- South Mesa Water Company
- City of Beaumont Sphere of Influence
- San Timoteo Watershed
- Streams
- Lake



Location of the San Timoteo Watershed Management Area

Produced by:
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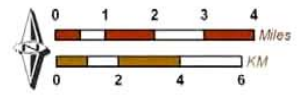


Figure 1-1

San Timoteo Watershed Management Area

STWMA

- ◆ **FORMED** – January 2001 as a Joint Exercise of Power
- ◆ **MEMBERSHIP** – Yucaipa Valley Water District, Beaumont Cherry Valley Water District, City of Beaumont, South Mesa Mutual Water Company
- ◆ **PURPOSE** – Prepare and Implement a Water Resources Management Program for the STWMA Area to:
 - ◆ Conserve local water supplies
 - ◆ **Improve surface and groundwater quality and quantity**
 - ◆ Protect and enhance groundwater storage and recreational resources
 - ◆ Protect open space
 - ◆ Protect wildlife habitat and wetlands
 - ◆ Develop and enhance the regions water resources for the benefit of the public

STWMA

- ◆ Develop and Implement a Water Resource Management Plan
- ◆ The Water Resources Management Plan Includes:
 - ◆ Watershed and basin monitoring
 - ◆ Groundwater storage
 - ◆ Banking and conjunctive use
 - ◆ Storm water capture and management
 - ◆ Recycled water projects and programs
 - ◆ Wetlands, wildlife, and open space enhancement and open space protection
 - ◆ **Water quality protection and enhancement**
 - ◆ Water conservation and efficiency
 - ◆ Current local water supplies 32,000 AFY – Ultimate water demand approximately 99,000 AFY
 - ◆ Need to develop 67,000 AFY of new water

INTEGRATED REGIONAL WATER MANAGEMENT PROGRAM

- ◆ Identified – Eight Program Elements
- ◆ 1. Develop and Implement a Comprehensive Monitoring Program for Groundwater Level, **Groundwater Quality**, Production Diversion, Subsidence, Surface Water Discharge and **Surface Water Quality**
- ◆ Accomplished to date:
 - Installed transducer to monitor groundwater levels
 - Adopted maximum benefit: Regional Board Basin Plan 2004 including commitments to monitor and manage or resolve future salt build up in the area
 - Implemented subsidence monitoring program
 - Monitor surface water discharge and quantity a part of Regional Board requirements

INTEGRATED REGIONAL WATER MANAGEMENT PROGRAM

- ◆ 2. Develop and Implement a Comprehensive Surface Water Management Program
- ◆ Accomplished to date:
 - Utilize a \$195,000 grant from the State Water Resource Control Board and local STWMA funding of \$145,000 to develop an urban storm water/dry weather runoff management strategy – Report completed Sept. 2005
 - The surface water monitoring program identified and inventoried existing and planned surface water management facilities
 - Surface water modeling and Master Planned Development are under way

INTEGRATED REGIONAL WATER MANAGEMENT PROGRAM

- ◆ 3. Develop and Implement a Regional Supplemental Water Supply for the STWMA Area and Program Element 6. Develop Conjunctive Use Programs
- ◆ Accomplished to date:
 - Completed studies on cost of future desalter in the Beaumont Management Zone
 - Support YVWD proposed connection to the SARI line
 - Adopted an Integrated Regional Water Management Plan for the San Timoteo Watershed

INTEGRATED REGIONAL WATER MANAGEMENT PROGRAM

- ◆ 4. Develop and Implement a Salt Management Program
- ◆ Accomplished to date:
 - Staff has developed a salt management plan for the STWMA area (the plan is currently being reviewed by member agencies)
- ◆ 5. Develop a groundwater management entity
- ◆ Accomplished to date:
 - Beaumont Basin adjudicated and court appointed Watermaster on Feb. 4, 2004
 - Watermaster members: City of Banning, City of Beaumont, BCVWD, YVWD and the SMMWC

INTEGRATED REGIONAL WATER MANAGEMENT PROGRAM

◆ 5. Continued

- Note, the Beaumont Basin Storage Unit contains very high quality water in excess of 2-million AF, as much as 400,000 AF of storage, 200,000 AF of which is reserved for conjunctive use programs. Monitoring the water quality of the Beaumont Basin is extremely critical in order to manage this very, very important resource.

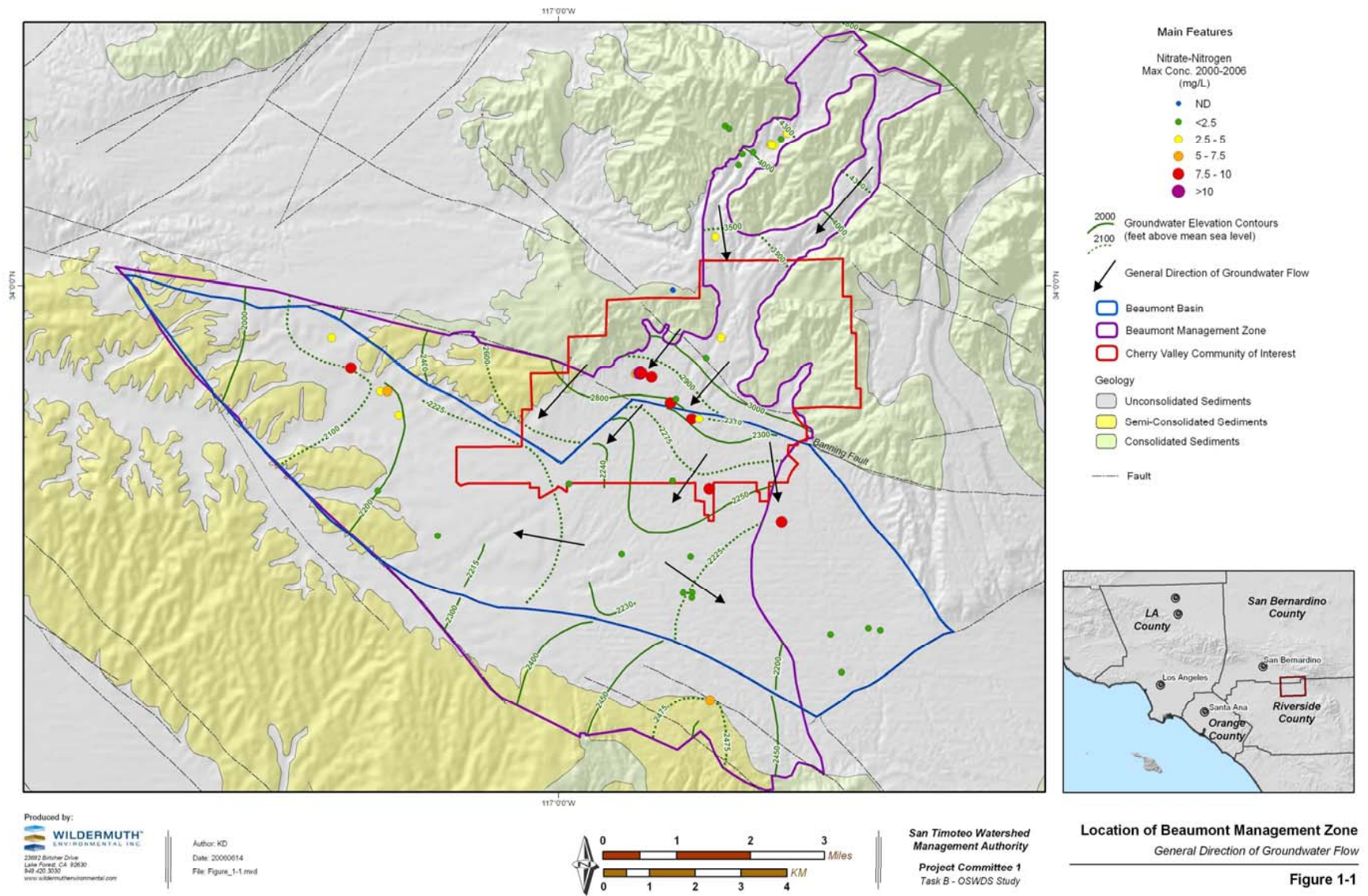
INTEGRATED REGIONAL WATER MANAGEMENT PROGRAM

- ◆ 7. Develop and Implement a Habitat and Recreation Program for the San Timoteo Creek Watershed
 - City of Beaumont
- ◆ 8. Develop and Implement a Financial Plan
 - STWMA assists members seeking State and Federal loans and grants
 - Evaluate Financing options to purchase and or acquire additional water supply

STWMA Project Committee No. 1

STWMA PC-1

- ◆ **Formed:** September 2005, Sub-Joint Powers of STWMA
- ◆ **Members:** City of Beaumont, BCVWD
- ◆ **Area:** Beaumont Management Zone (BMZ)
- ◆ **Purpose:** To Manage and Improve Water Quality in the BMZ
- ◆ STWMA and the Beaumont Watermaster Monitoring of Water Quality in the BMZ noted rising N03 concentrations



Location of the Beaumont Management Zone

STWMA Project Committee No. 1

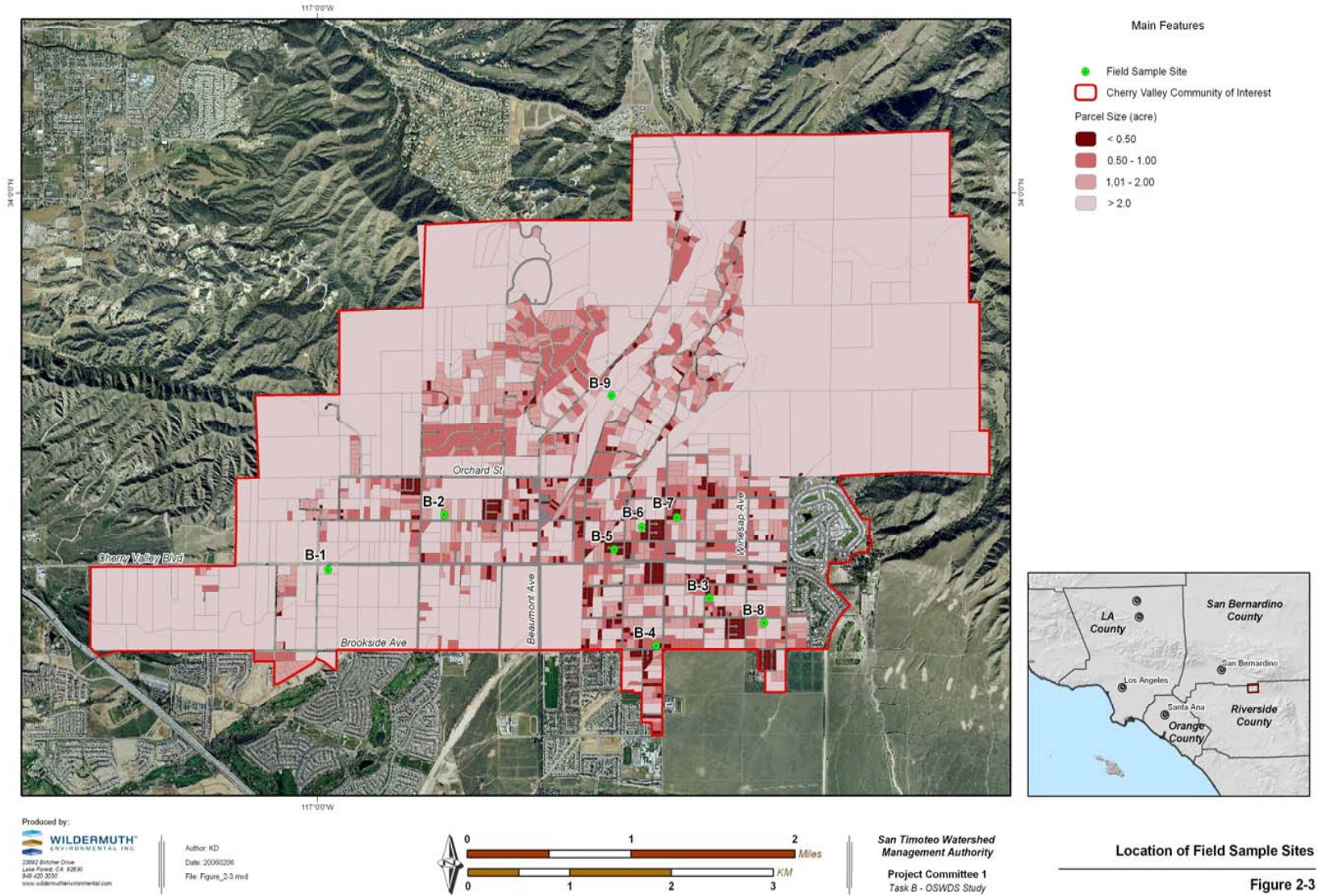
- ◆ The EPA-CA Maximum Contaminant Level (MCL) Expressed as Nitrate-Nitrogen is 10 mg/L
- ◆ Bonita Vista Mutual Water Company
 - Well 1 – From 2000 to 2006 the average nitrate concentration was 8.2 mg/L and remained above 7 mg/L through March of 2006
 - Well 2 – From 1997-2006 the average nitrate concentration was 5.5 mg/L

STWMA Project Committee No. 1

- ◆ Cherry Valley Mutual Water Company
 - Well 1 had nitrate concentrations above 7 mg/L in 2006
 - Well 2 had nitrate concentrations above 8 mg/L in 2005
- ◆ BCVWD
 - Well 16 had an average nitrate concentration of 4.5 mg/L between 2005-06. Concentrations began to spike above 9 mg/l in 2005. The concentration remained above 9 mg/L through June 2007 and has spiked above 9 mg/L multiple times since.
 - Well 21 had an average nitrate concentration of 3 mg/L from 2000-06. Concentrations began to spike in 2005 and peaked at 8 mg/L in March 2006.

STWMA Project Committee No. 1

- ◆ 1. Preliminary Determination of Possible Sources of N03
 - Agriculture practices
 - Naturally occurring
 - Land use activities
- ◆ 2. Evaluation Determined that the Possible Cause Might Be From the Heavy Concentration of On-Site Waste Disposal Systems (OSWDS)
 - 1,900 lots with OSWDS
 - Approximately 800 lots on less than one-half acre parcels
 - Build-out could be up to 8,000 OSWDS



Location of field sample sites

STWMA Project Committee No. 1

- ◆ 3. STWMA PC-1 Commissions a Study to Determine **Water Quality Impacts** From OSWDS in the Cherry Valley Community of Interest (CVCOI)
 - Final report adopted by STWMA PC-1 March 2007
 - General Findings – That existing OSWDS are the source of nitrate contamination in the Beaumont Basin
 - If the contamination is not mitigated the magnitude of the OSWDS is sufficient to cause nitrate concentrations to exceed basin plan objectives

STWMA Project Committee No. 1

- ◆ 4. Potential Basin-Wide Impacts
 - Loss of conjunctive use opportunities
 - Ultimate costly wellhead treatment
 - Increased water costs to existing and future customers
 - Loss of the pristine water supply

STWMA Project Committee No. 1 Summary

- ◆ Determination of the Problem: A Literature Review of EPA, State and Health Material Supports the Wildermuth Environmental, Inc. Findings
- ◆ Protection of Excellent Quality Groundwater is Critical
- ◆ Is This Area Unique? No!
- ◆ Similar Problems Have Occurred Elsewhere
 - Lower Chino Basin – Dairies
 - Stringfellow
 - Arlington Basin
 - Menifee Area
 - Los Oso – San Luis Obispo

STWMA Project Committee No. 1

Summary Continued

- As the messenger, and I hope you don't shoot the messenger, over the last 50 years similar messages have fallen on deaf ears
- This committee has worked to review STWMA and Watermaster findings
- This committee should also recommend solutions toward solving the problem
- In my opinion, the nitrate problem does exist – solving the nitrate problem is the real issue of concern today
- Pay today or pay more later, this is a fact of life

American Inventor Alexander Graham Bell

“When one door closes,
another opens; but we often
look so long and so
regretfully upon the closed
door that we do not see the
one which has opened.”

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QUESTIONS

December 18, 2008

