

# Paso Robles Groundwater Basin Management Efforts

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

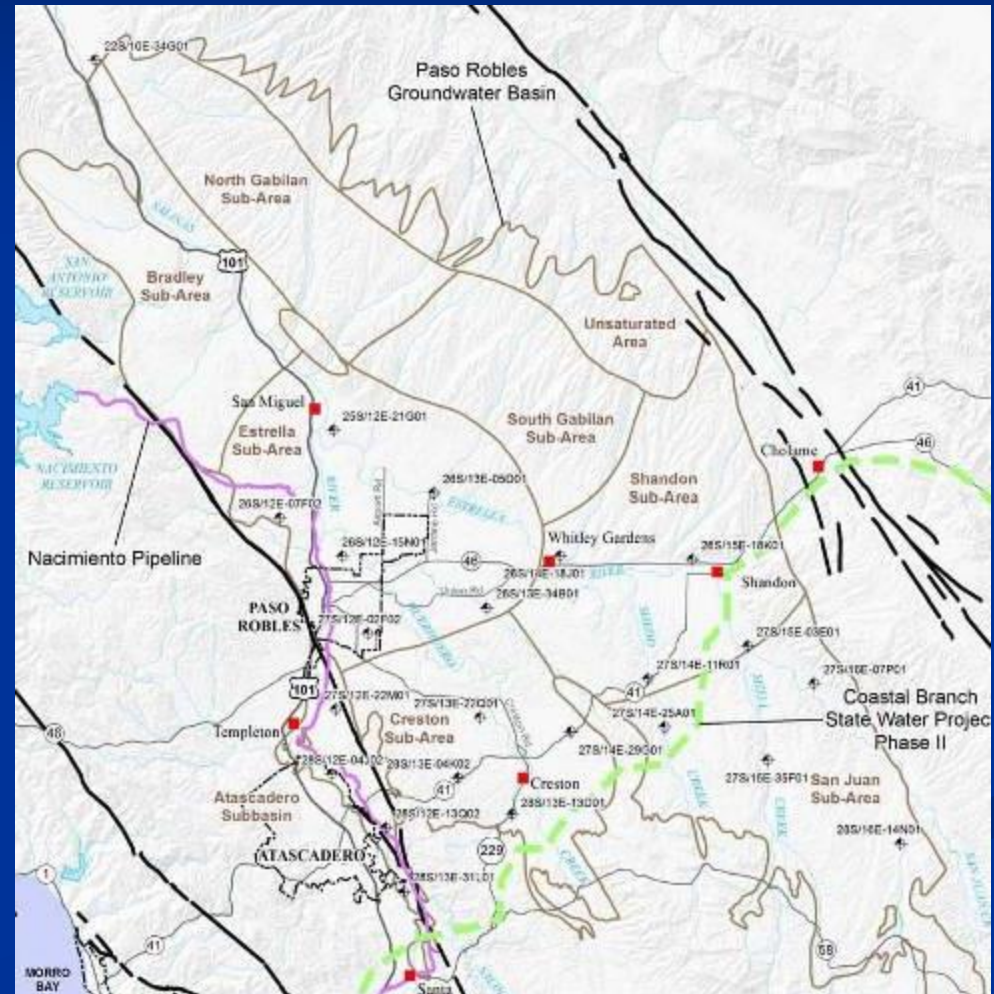
CCVT Grower's Meeting  
April 30, 2013

# Pieces of the Solutions Puzzle

- Continuing to understand the extent of the problem
  - Monitoring
  - Computer Model Update of the Basin
- Demand Management - What additional strategies may be necessary
  - Conservation Management
- Supply Management – Evaluating the options and combinations of physical solutions to help stabilize levels in the future
  - Feasibility Studies/IRWM Efforts

# The Extent of the Problem

- Composite Hydrographs per Basin Sub-area
- Computer Model Update



# Hydrographs

- Basin Management Objective
  - Maintain or stabilize levels so that they remain within historical range
- Estrella, Shandon, Creston Subareas
  - Of greater concern
- Atascadero Subbasin, San Juan Subarea
  - Of less concern
- North Gabilan, South Gabilan, Bradley Subareas
  - Lack of historical data

# Sub-Area WSE Trend Analysis

Mon. Entry The County of San Luis Obispo, CA

Date 11/15/2012

Sub-Area Information	
Sub-Area	Estrella
Basin Name	Paso Robles

Sub-Area Well Records	
Period of Record	1977-2012
Num. BMO Wells	6

Report Information	
Report Start Year	1981
Period of Record	1981-2012

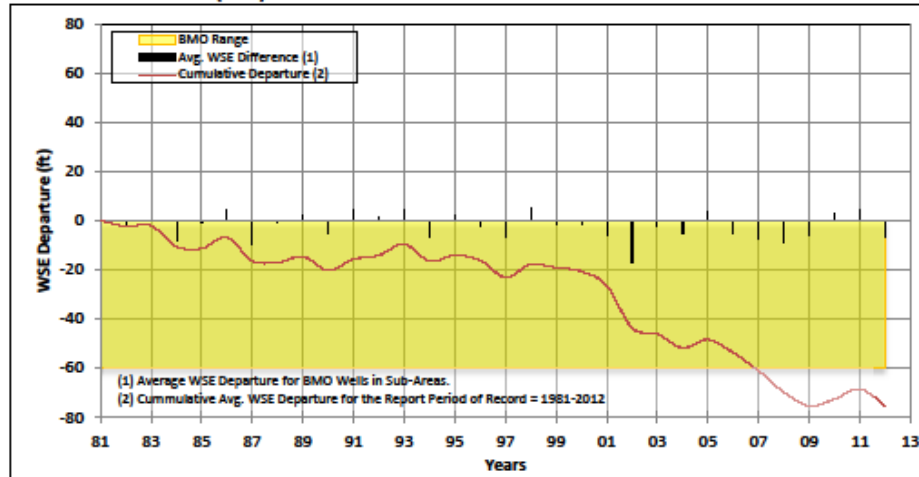
Raingage Information	
Raingage Name	Atas. Mutual Water # 34
Raingage Elev.	835.00 ft

Raingage Records	
Period of Record	1928-2012
Average Precip.	17.77 in

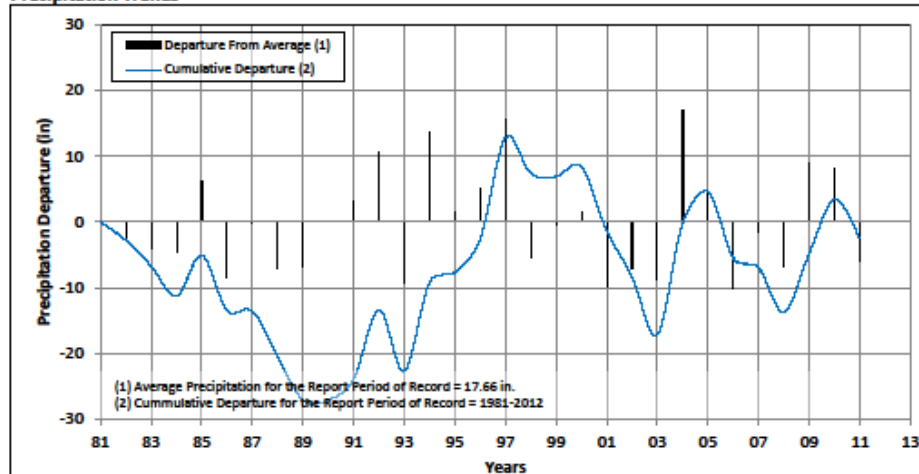
Trend Analysis Results	
BMO Target <sup>(1)</sup>	(60.00 ft)
2012 CD	(75.35 ft)

NOTES: 1) The Basin Management Objective (BMO) is to maintain the Cumulative Departure (CD) above the BMO Target

## Water Surface Elevation (WSE) Trends



## Precipitation Trends



# Estrella Subarea

# Creston Subarea

## Sub-Area WSE Trend Analysis

Mon. Entry The County of San Luis Obispo, CA

Date 11/15/2012

Sub-Area Information	
Sub-Area	Creston
Basin Name	Paso Robles

Sub-Area Well Records	
Period of Record	1975-2012
Num. BMO Wells	4

Report Information	
Report Start Year	1981
Period of Record	1981-2012

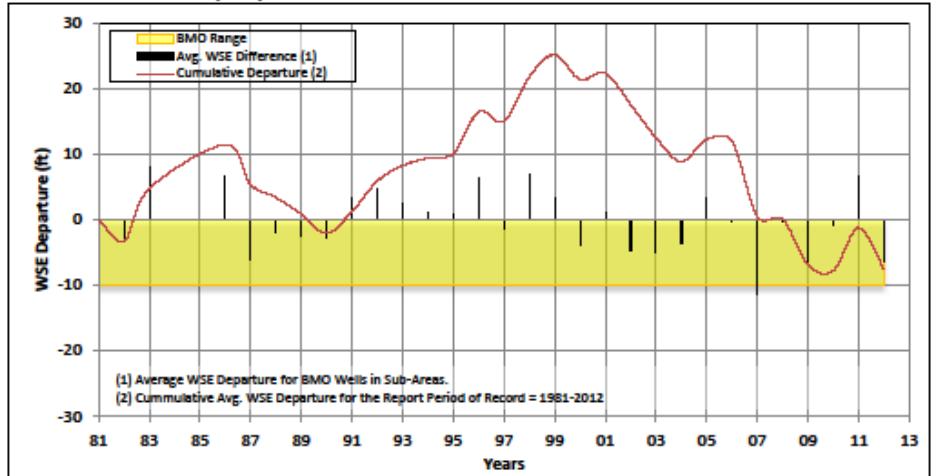
Raingage Information	
Raingage Name	Atas. Mutual Water # 34
Raingage Elev.	835.00 ft

Raingage Records	
Period of Record	1928-2012
Average Precip.	17.77 in

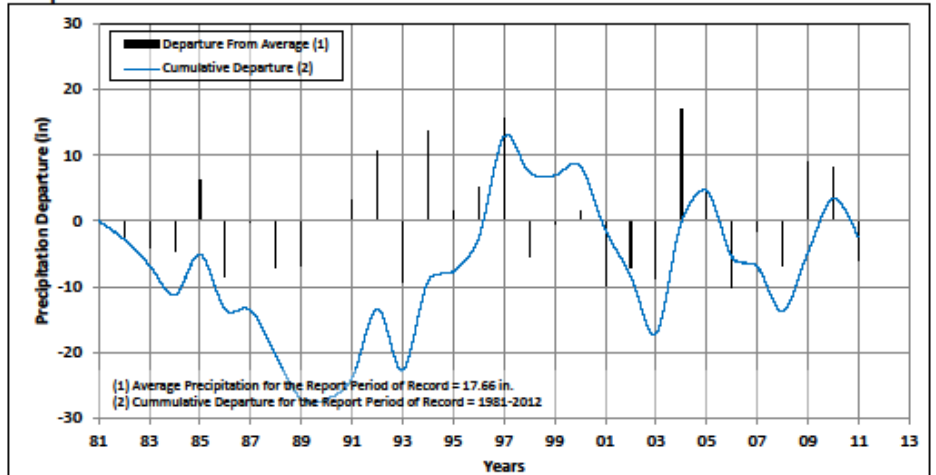
Trend Analysis Results	
BMO Target <sup>(1)</sup>	(10.00 ft)
2012 CD	(7.62 ft)

NOTES: 1) The Basin Management Objective (BMO) is to maintain the Cumulative Departure (CD) above the BMO Target.

### Water Surface Elevation (WSE) Trends



### Precipitation Trends



# Sub-Area WSE Trend Analysis

Mon. Entry The County of San Luis Obispo, CA

Date 11/15/2012

Sub-Area Information	
Sub-Area	Shandon
Basin Name	Paso Robles

Sub-Area Well Records	
Period of Record	1976-2012
Num. BMO Wells	4

Report Information	
Report Start Year	1981
Period of Record	1981-2012

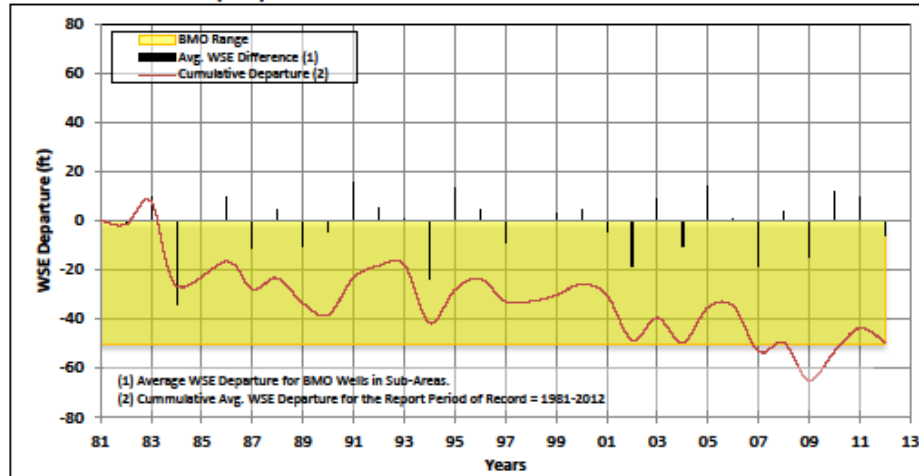
Raingage Information	
Raingage Name	Atas. Mutual Water # 34
Raingage Elev.	835.00 ft

Raingage Records	
Period of Record	1928-2012
Average Precip.	17.77 in

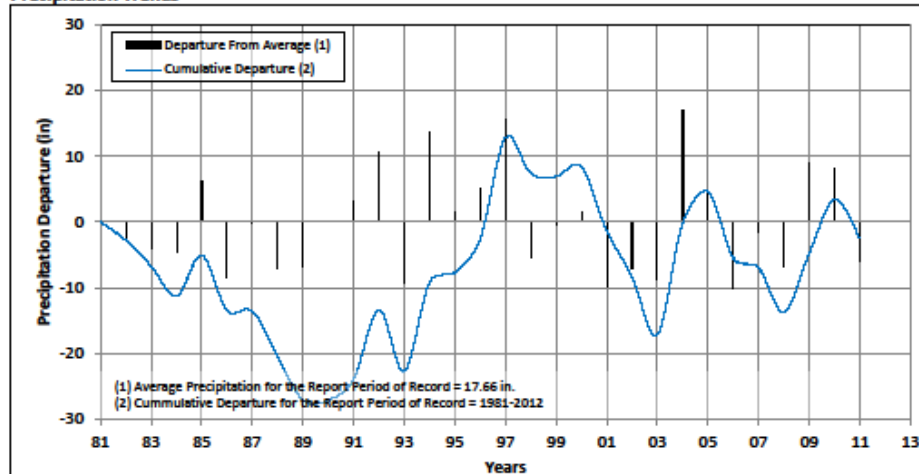
Trend Analysis Results	
BMO Target <sup>(1)</sup>	(50.00 ft)
2012 CD	(49.50 ft)

NOTES: 1) The Basin Management Objective (BMO) is to maintain the Cumulative Departure (CD) above the BMO Target

## Water Surface Elevation (WSE) Trends



## Precipitation Trends



# Shandon Subarea

# San Juan Subarea

## Sub-Area WSE Trend Analysis

Mon. Entity The County of San Luis Obispo, CA

Date 11/15/2012

Sub-Area Information	
Sub-Area	San Juan
Basin Name	Paso Robles

Sub-Area Well Records	
Period of Record	1971-2012
Num. BMO Wells	4

Report Information	
Report Start Year	1981
Period of Record	1981-2012

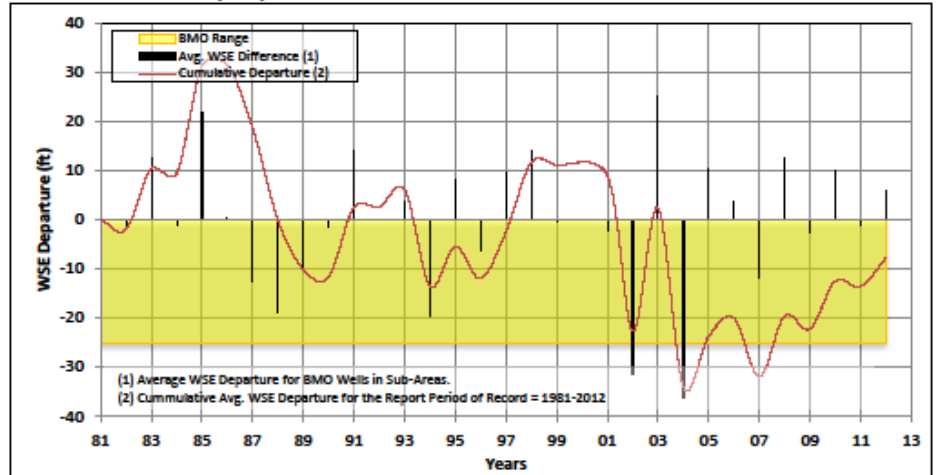
Raingage Information	
Raingage Name	Atas. Mutual Water # 34
Raingage Elev.	835.00 ft

Raingage Records	
Period of Record	1928-2012
Average Precip.	17.77 in

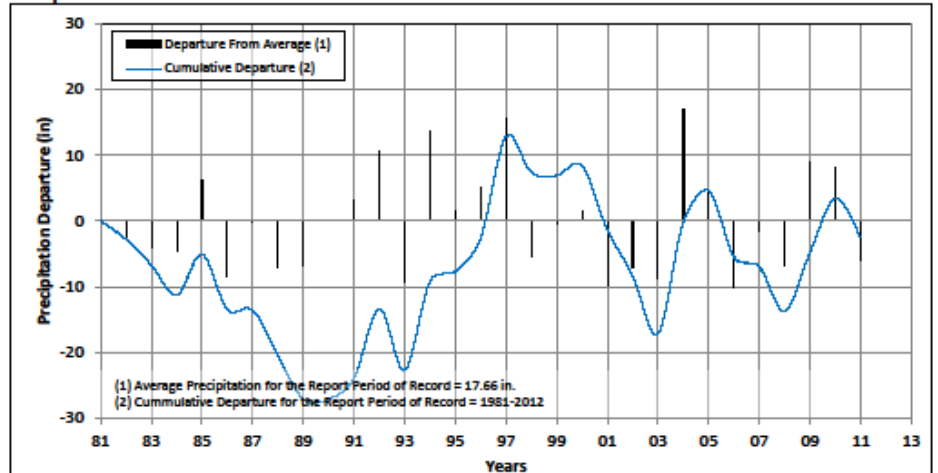
Trend Analysis Results	
BMO Target <sup>(1)</sup>	(25.00 ft)
2012 CD	(7.70 ft)

NOTES: 1) The Basin Management Objective (BMO) is to maintain the Cumulative Departure (CD) above the BMO Target.

### Water Surface Elevation (WSE) Trends



### Precipitation Trends





# Sub-Area WSE Trend Analysis

Mon. Entry The County of San Luis Obispo, CA

Date 11/15/2012

Sub-Area Information	
Sub-Area	Atascadero
Basin Name	Atascadero

Sub-Area Well Records	
Period of Record	1969-2012
Num. BMO Wells	4

Report Information	
Report Start Year	1981
Period of Record	1981-2012

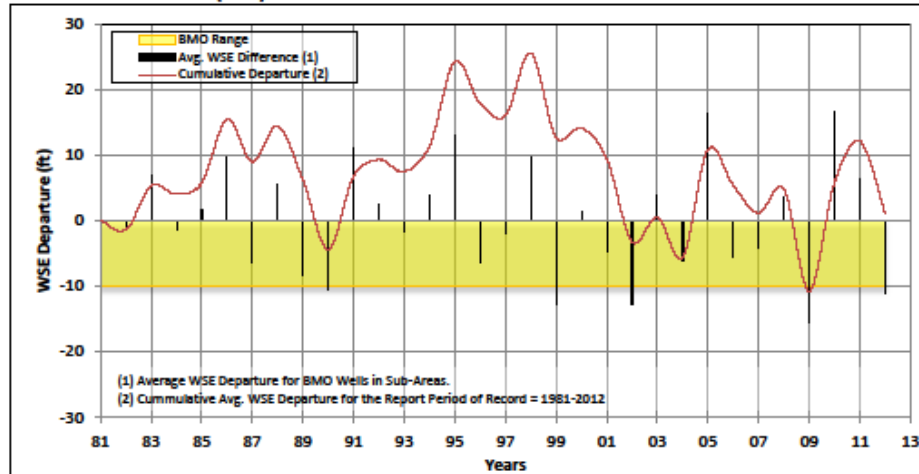
Raingage Information	
Raingage Name	Atas. Mutual Water # 34
Raingage Elev.	835.00 ft

Raingage Records	
Period of Record	1928-2012
Average Precip.	17.77 in

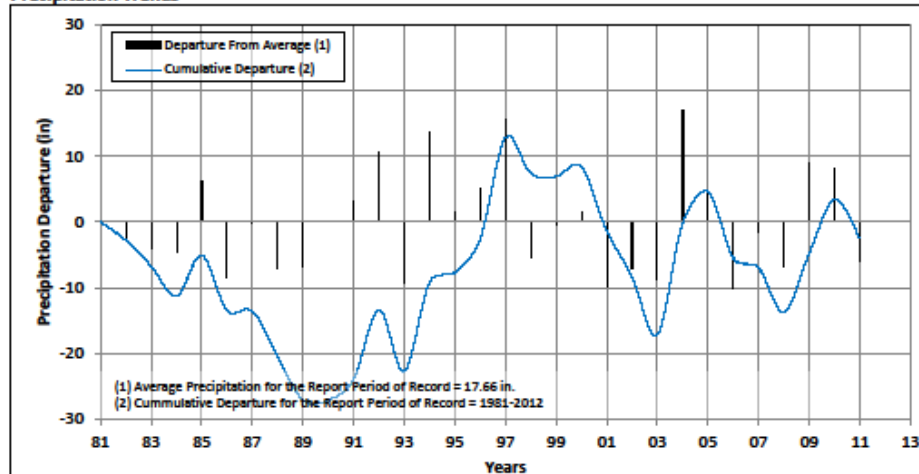
Trend Analysis Results	
BMO Target <sup>(1)</sup>	(10.00 ft)
2012 CD	1.14 ft

NOTES: 1) The Basin Management Objective (BMO) is to maintain the Cumulative Departure (CD) above the BMO Target

## Water Surface Elevation (WSE) Trends



## Precipitation Trends



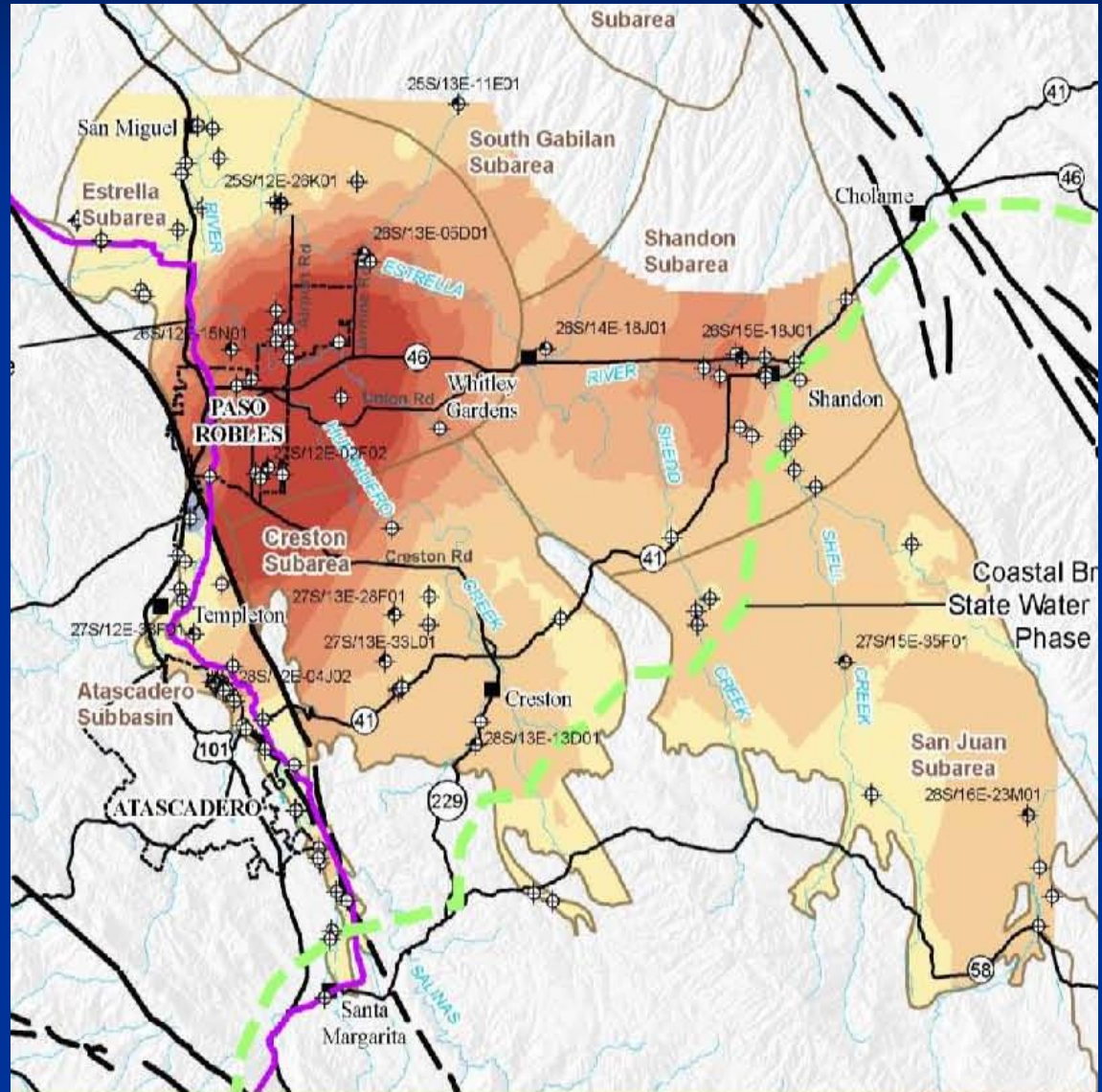
# Atascadero Subbasin

# Computer Model Update

- Contract Awarded Late 2012
  - Update data
  - Revisit hydrogeology
  - Integrate watershed behavior
  - Simulation of current situation and future scenarios
- \$50,000 in Grant Funding
- Water Balance Approach – Late May 2013
- Model Updated - Fall 2013

# Demand Management

- Yield estimated at 97,700 afy
- Pumping at or exceeding safe yield
- Well levels in specific areas are declining up to and in excess of 100'



# Resource Capacity Study

- Level of Severity III certified February 2011
    - Atascadero Sub-basin – Level of Severity I
  
  - Water Conservation Ordinance (9/25/12)
    - Requires large land uses to offset new water use
    - Prohibits the creation of new parcels in the basin
    - Requires changes to the County General Plan to be water neutral
    - **Does not** affect communities, new well drilling, single family homes
- “ . . . agricultural processing uses shall be subject to project specific land use and/or water conservation mitigation measures required by the review authority based on environmental review.”

# Groundwater Management Plan

- Adopted March 27, 2012
  - Board of Supervisors Direction
- “Blue Ribbon” Steering Committee Formation

*“The Steering Committee will coordinate with stakeholders to implement the Groundwater Management Plan to ensure the health of the basin”*

# Steering Committee Accomplishments

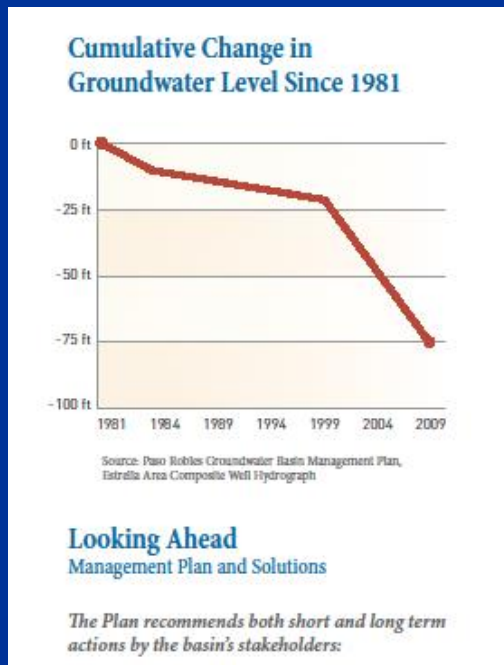
*"Collective action by all users to reduce water use can have a meaningful impact in stabilizing water level declines and protecting the long term sustainability of the basin."*

Checklist for Landscape Water Users      Checklist for Agricultural Water Users      Checklist for Private Well Owners

■ Brochure

■ Website

[ourwaterbasin.org](http://ourwaterbasin.org)



## THE PASO ROBLES GROUNDWATER BASIN MANAGEMENT PLAN

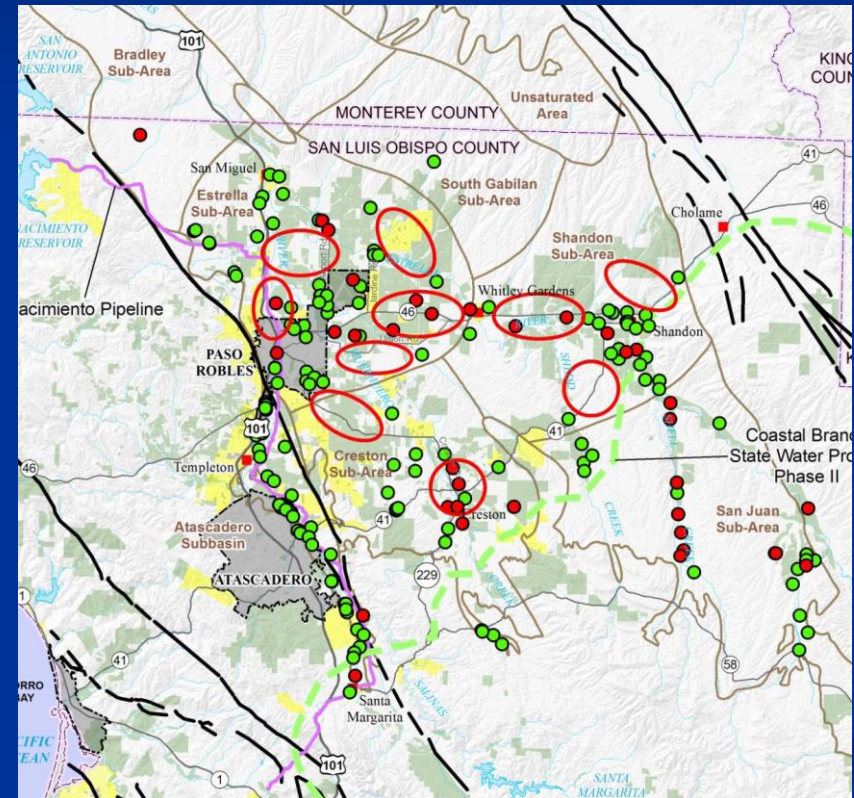
*Water Users Voluntarily Working Together  
to Protect the Long Term Sustainability of  
North County's Water Resources*

A publication developed by the Paso Robles  
Groundwater Basin Management Plan Steering Committee

Photo: Carleton

# Steering Committee Accomplishments

- List of property owners
- Member outreach
- County evaluation
- The Result:  
*24 new volunteers!*



# Steering Committee Accomplishments

- List of solutions
- Ranking methodology

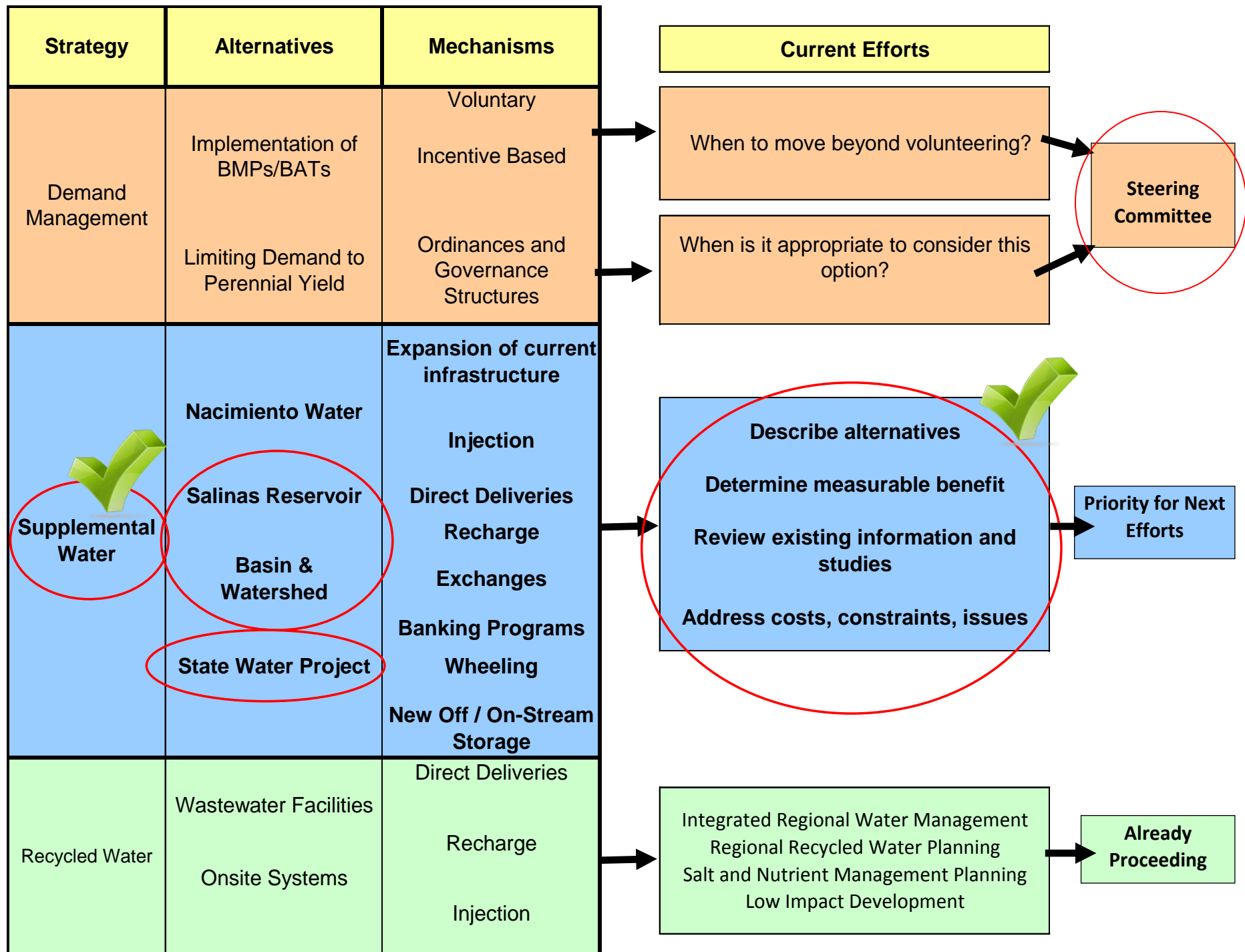
Measurable Basin Benefit (AFY)	Water Quality	Reliability	Public and Institutional Acceptance	Permitting, CEQA, Environmental Issues	Cost	Funding	Ranking 100	Benefits 1 to 5	Time Frame
30	10	10	20	10	10	10	100		Short Term=1 Mid Term=2 Long Term=3
0 AFY	Very Poor	Not	Very Difficult	Significant	Above Average	None Available	Not feasible		
To be determined based on range	Excellent	Very	Not Needed	None	Below Average	Fully Funded	Very feasible		



# 12/18/12 Board Direction

“... directs staff to come back within 4 months with a prioritized list of recommendations to stabilize the Paso Robles Groundwater Basin.”

May 7, 2013



# Feasibility Studies RFP Approach

- Evaluating State Water
  - Constraints/Reliability/Environmental
  - Financial/Infrastructure options
  - Contractual Requirements to Implement
- Salinas River Corridor Water Availability Analysis
  - Hydrological, Water Rights, Infrastructure Options
  - Relationship to the Basin Model
  - Environmental

# Next Steps

- May 7<sup>th</sup> Board of Supervisors Meeting
  - Staff Recommendation
    - State Water/Salinas River Watershed & Reservoir
  - Steering Committee Recommendation
    - Management Structure

# Questions?

Next Blue Ribbon Steering Committee Meeting:

May 16, 2013, 2:00 p.m.

Paso Robles City Public Safety Bldg  
900 Park Street

[pasobasincommittee@gmail.com](mailto:pasobasincommittee@gmail.com)

Paso Robles Groundwater Basin