



North County Watch

Looking Out Today For Tomorrow

March 18, 2013

Board of Supervisors  
County of San Luis Obispo  
San Luis Obispo, CA 93406  
Via Email [boardofsups@co.slo.ca.us](mailto:boardofsups@co.slo.ca.us)

Re: County duty to manage the Paso Robles Groundwater Basin

Dear Chairman Teixeira and Supervisors,

North County Watch is a 501 3c non-profit Public Benefit corporation. We are an all-volunteer organization committed to sustainable development in and around north San Luis Obispo County.

### **CONDITION OF PASO ROBLES GROUNDWATER BASIN**

In December 2012 the County released the latest results of its well monitoring of the Paso Robles Groundwater Basin. The hydrographs cover a thirty year period and are an average of several representative wells in a "subarea" of the basin. The attached hydrographs<sup>1</sup> for the Estrella, Shandon, and Creston subareas show the significant declines that have occurred.

Precipitation values are provided, which show that the groundwater declines continue in spite of the amount of rain that is received in the basin. The majority of the groundwater basin is in permanent decline.

---

<sup>1</sup> Although the Gabilan area is in decline, the data is based on only one well and the hydrograph is not included.

The fact is the basin is in overdraft. Department of Water Resources Bulletin 118-Update 2003 defines "overdraft" as the condition of a ground water basin where the amount of water extracted exceeds the amount of ground water recharging the basin "over a period of years."

Groundwater overdraft is defined as the condition of a groundwater basin or subbasin in which the amount of water withdrawn by pumping exceeds the amount of water that recharges the basin over a period of years, during which the water supply conditions approximate average conditions (DWR 1998). Overdraft can be characterized by groundwater levels that decline over a period of years and never fully recover, even in wet years. If overdraft continues for a number of years, significant adverse impacts may occur, including increased extraction costs, costs of well deepening or replacement, land subsidence, water quality degradation, and environmental impacts.<sup>2</sup>

Such a period of time must be long enough to produce a record that, when averaged, approximates the long-term average hydrologic conditions for the basin. The data from the hydrographs covers 30 years of well levels and irrefutably supports and authenticates the fact of overdraft.

Paso Robles Groundwater Basin Water Balance Review and Update (Fugro 2010) estimated the groundwater pumping total in 2009 to range from 94% (91,915 AFY) to 99% (96,781 AFY) of the perennial yield<sup>3</sup> for the entire basin. Perennial yield is estimated at 97,700 AFY for the entire basin<sup>4</sup>. [Note the attached graph that separates out the numbers for the Atascadero subbasin from the main basin.] We have no estimate of the increase in irrigated Ag in the Paso Basin through 2011. We understand that during 2012-2013, an additional 8,000 acres of vines are being planted. At a very conservative one acre foot per acre per year, these 8,000 acres will guarantee, even to the most skeptical, that the basin exceeds the safe perennial yield, therefore – OVERDRAFT.

---

<sup>2</sup> DWR Bulletin 118-Update 2003 p. 96

<sup>3</sup> *Paso Robles Groundwater Basin Water Balance Review and Update (Fugro 2010)* The perennial yields of the Basin... were estimated during Phase II of the Paso Robles Groundwater Basin Study as 97,700... (Fugro 2005). The water balance calculation from 1998 to 2009 for water duty factor set No. 1 (which assumes a rural domestic water duty factor of 1.0 AFY/DU) shows an estimated total groundwater outflow in 2009 of 91,915 AF (equal to approximately 94% of the perennial yield). The water balance calculation for set No. 2 (rural domestic water factor of 1.7 AFY/DU) suggests an estimated total groundwater outflow in 2009 of 96,781 AF (or approximately 99% of the perennial yield). P. 11

<sup>4</sup> Although most of the discussion of basin numbers does not differentiate between the main Paso basin, which is designated in a Level of Severity III and the Atascadero sub-basin which is not in overdraft, it is important to remember that based on 2006 numbers the safe perennial yield of the main basin is 80,600 AFY and the total demand is 73,928 AFY.

The Master Water Report<sup>5</sup> pages 4-177 through 4-178 and 4-187 through 4-188 shows future demand exceeding the safe yield.

The Paso Robles Groundwater Basin Resource Capacity Study, adopted February 2011, is an additional source for data. Restoring balance will not be easily accomplished and as the overdraft increases and continues, the safe yield in acre feet per year declines.

However, when considering the balance of inflows and outflows over a long period of time, 97,700 AFY of water can be removed on average, with no long-term decrease in storage. If outflows over a longer term basis are greater than 97,700 acre feet per year, it is assumed that water cannot be replaced and the process of “mining” groundwater has occurred. Mining of groundwater means that the water removed can never be replaced. Outflows would have to be lower than the perennial yield in a future year(s) to the same degree that outflows exceeded the perennial yield in order for mining of groundwater to not occur.<sup>6</sup>

### **DUTY TO MANAGE THE BASIN AND ITS RESOURCES**

The problem of overdraft of groundwater basins is not unique to the Paso basin. DWR Bulletin 118-Update 2003 estimates that statewide groundwaters are overdrafted by 1-2 Million AFY.<sup>7</sup> The Santa Maria basin offers an example of overdraft resulting in adjudication of the basin and the resulting turmoil. Adjudication will most likely permanently cede management of the basin to a water master rather than the County.

The evidence from decades of study of the basin portrays a basin in serious decline. In fact, we maintain that the county failed in its duty as manager of the basin to recognize that the basin was in a state of critical overdraft as long ago as 2005, if not earlier. DWR Bulletin 188-Update 2003 defines critical overdraft as:

A basin is subject to critical conditions of overdraft when continuation of present water management practices would probably result in significant adverse overdraft-related environmental, social, or economic impacts.<sup>8</sup>

In its management role, the county has the duty to alleviate overdraft and the depletion of water resources, prevent waste and unreasonable water use and to maximize the beneficial use of the state’s limited resource. The county’s lack of affirmative water management policies has

---

<sup>5</sup>

<sup>6</sup> *Paso Robles Groundwater Basin Resource Capacity Study – Adopted February 2011* P. 4

<sup>7</sup> DWR Bulletin 118-Update 2003 p.2

<sup>8</sup> *Ibid.* P. 98

resulted in evidence of harm to residents and the environment that is serious, irreversible and cumulative.

The final finding<sup>9</sup> in the Todd Engineering report "Evaluation of Paso Robles Groundwater Basin Pumping: Water Year 2006" clearly states what is required for long-term sustainability in the basin. The report states in part:

Given that agriculture accounts for two-thirds of pumping, regular updating of agricultural pumping (land use, cropping, and irrigation rate data) is essential to management of the groundwater resources for long-term sustainability.

Additional evidence of the County's failure to manage the basin can be found in land use policies that increase rural density and the failure to mandate timely updates to the basin's safe yield calculations. Further, the County does not require meters on wells nor prohibit the export of water from the basin. The alternative review option in the grading ordinance ignores impacts to the basin from agricultural ponds or reservoirs.

The Todd Engineering Report<sup>10</sup> includes the SLO County Planning Department assessment of "ultimate" residential build-out over the basin as 75% of all possible parcels and sets build-out pumping at "just over 37,000 AF." Pumping in the basin has already precluded a set aside of the required additional approximately 26,000 AF to accommodate build-out of 75% of existing parcels.

As a result of the County's deleterious and negligent failure to act, the County Board of Supervisors have created a public nuisance<sup>11</sup>. The nuisance is a threat to the health and safety of residential overlies of the basin, the destruction of environmental and public trust resources of the basin, and the economic impacts to private property and ag production from the loss of water resources.

The County is the sole manager of the basin and has recourse to abate the problem. "The public nuisance doctrine is aimed at the protection and redress of *community* interests and, at least in theory, embodies a kind of collective ideal of civil life which the courts have vindicated by equitable remedies since the beginning of the 16th century." (*People ex rel. Gallo v. Acuna*

---

<sup>9</sup> Todd Engineering report "Evaluation of Paso Robles Groundwater Basin Pumping: Water Year 2006" (Published May 2009) p. 10

<sup>10</sup> *Ibid* p. 9

<sup>11</sup> "The elements 'of a cause of action for public nuisance include the existence of a duty and causation.' Public nuisance liability 'does not hinge on whether the defendant owns, possesses or controls the property, nor on whether he is in a position to abate the nuisance; the critical question is whether the defendant created or assisted in the creation of the nuisance.' " (*Melton v. Boustred* (2010) 183 Cal.App.4th 521, 542 [107 Cal.Rptr.3d 481], internal citations omitted.)

(1997) 14 Cal.4th 1090, 1103 (*Acuna*.) The expectation of clean, high quality groundwater is the standard of civil life for the overlies of the Paso basin and vital to “community interests”.

Civil Code section 3480 provides: "A public nuisance is one which affects at the same time an entire community or neighborhood, or any considerable number of persons, although the extent of the annoyance or damage inflicted upon individuals may be unequal."

The nuisance is substantial and unreasonable.<sup>12</sup> The interference to the public from overdraft is evidenced, at the very least, by the need to increasingly lower pumps, or drill new wells, or the loss of one's home. These damages<sup>13</sup> have been well stated in the public record.

In addition, the US Geological Survey has reported on the intrusion of geothermal waters into the fresh water aquifer as the basin is depleted (just as salt water intrusion is a problem in overdrafted coastal aquifers.) (Presentation to WRAC January 2013)

The County has failed to abate the nuisance even in the face of years of evidence that the basin is threatened by the continuation of its water management and agricultural practices and so, the County assumes the risk of financial burden of the losses by the residential overlies and commercial and industrial and agricultural overlies who experience health and safety and financial harm from loss of use or the interference with the expectation of quiet enjoyment of their property. The County is at risk of creating a permanent or long lasting condition<sup>14</sup> of overdraft by its failure to manage the basin equitably for all users.

---

<sup>12</sup> "Of course, not every interference with collective social interests constitutes a public nuisance. To qualify . . . the interference must be both substantial and unreasonable." (*People ex rel. Gallo, supra*, 14 Cal.4th at p. 1105.)

<sup>13</sup> "An essential element of a cause of action for nuisance is damage or injury." (*Helix Land Co., Inc. v. City of San Diego* (1978) 82 Cal.App.3d 932, 950 [147 Cal.Rptr. 683].)

<sup>14</sup> Restatement (Second) of Torts, beginning with Section 821B

1. A public nuisance is an unreasonable interference with a right common to the general public.
2. Circumstances that may sustain a holding that an interference with a public right is unreasonable include the following:
  - a. whether the conduct involves a significant interference with the public health, the public safety, the public peace, the public comfort or the public convenience, or
  - b. whether the conduct is proscribed by a statute, ordinance or administrative regulation, or
  - c. whether the conduct is of a continuing nature or has produced a permanent or long lasting effect, and, as the actor knows or has reason to know, has a significant effect upon the public right.

## **PROTECTION OF PUBLIC TRUST RESOURCES**

Further, the studies commissioned by the County have consistently failed to account for water resources required for the health and safeguarding of environmental resources. The cited water studies make it clear that the requirements of environmental resources have not been considered in the assessment of safe yield. The categories of users are consistently: Agricultural, Municipal, Small Community, Small Commercial, and Rural Domestic. In short, Public Trust Resources are ignored. Streams, springs and riparian areas are being de-watered by the drawdown of the basin. The ongoing Scott River litigation against Siskiyou County is all about the harmful impacts to riparian and public trust resources from groundwater pumping. The Scott River, like the Salinas River, is a navigable water body protected by the Public Trust Doctrine. Appendix E of DWR Bulletin 118-Update 2003<sup>15</sup> lists the State Water Resources Control Board beneficial use designations. These include the following:

- Preservation of Biological Habitats of Special Significance (BIOL) – Uses of water that support designated areas or habitats, such as established refuges, parks, sanctuaries, ecological reserves, or Areas of Special Biological Significance (ASBS), where the preservation or enhancement of natural resources requires special protection.
- Rare, Threatened, or Endangered Species (RARE) – Uses of water that support habitats necessary, at least in part, for the survival and successful maintenance or plant or animal species established under State or federal law as rare, threatened or endangered.
- Warm Freshwater Habitat (WARM) – Uses of water that support warmwater ecosystems including, but not limited to, preservation or enhancement of aquatic habitats, vegetation, fish, or wildlife, including invertebrates.
- Water Contact Recreation (REC-1) – Uses of water for recreational activities involving body contact with water, where ingestion of water is reasonably possible. These uses include, but are not limited to, swimming, wading, water-skiing, skin and scuba diving, surfing, white water activities, fishing, or use of natural hot springs.
- Wildlife Habitat (WILD) – Uses of water that support terrestrial ecosystems including, but not limited to, preservation and enhancement of terrestrial habitats, vegetation, wildlife (e.g., mammals, birds, reptiles, amphibians, invertebrates), or wildlife water and food sources.

Protection of public trust assets have consistently been ignored in consideration of basin requirements.

---

<sup>15</sup> P. 240

## **REVISION OF PROJECTIONS**

Protecting public trust assets is an affirmative obligation. The Resource Capacity Study and other water assessments need to be revised and updated immediately to include water requirements for the protection of public trust assets and the beneficial uses listed.

Further, basin management recovery plans will necessarily be seriously flawed if they rely on projections for basin yield through 2025. The 2010 Basin Update qualifies the projections through 2025:

The 15-year climate (i.e., annual precipitation) from 1994 to 2009 is also assumed to repeat itself from 2010 to 2025.<sup>16</sup>

There is abundant evidence that we are headed for much drier years.<sup>17</sup> County studies of the basin and projections of future use need to be immediately revised to include models for predicted droughts.

## **EXAMPLES OF ACTIONS**

The County needs to act immediately to abate the nuisance created by its water management policies and its agricultural policies. Examples of actions the County can undertake include:

1. Immediately enact an urgency moratorium on Alternate Review Program for reservoirs and ponds as described in LUO 22.52.080 based on significant environmental impacts to water resources.
2. Enact an urgency interim ordinance regulating new plantings and expansion of irrigated ag and other water intensive uses in the affected basin which limits per parcel use of water to a sustainable level.

---

<sup>16</sup> *Paso Robles Groundwater Basin Water Balance Review and Update (Fugro 2010)* P. 12

<sup>17</sup> Permanent climate conditions across the North American Southwest that are comparable to the worst mega drought in 1,000 years ... Seager et al., Projections of declining surface water availability for the southwestern United States, *Nature Climate Change*, December 2012, page 5, last paragraph.

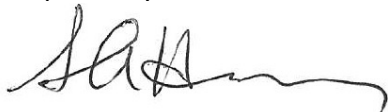
Abstract: <http://www.nature.com/nclimate/journal/vaop/ncurrent/full/nclimate1787.html>

NOAA: <http://www.ldeo.columbia.edu/res/div/ocp/glodech/research11%20SW%20water%20surface.html>

Earth Institute press release: <http://blogs.ei.columbia.edu/2012/12/23/smaller-colorado-river-projected-for-coming-decades-study-says/>

3. Require a hold harmless notification, similar to the Right to Farm notification, in the form of a recorded notice as part of the title process when land is sold in the basin noticing the buyer that the basin is in decline and the buyer should not rely on groundwater for intensive water uses.
4. Enact an urgency interim ordinance requiring new and expanded water user provide liability insurance or bonding that guarantees that residential users' water supply and wells are maintained at current levels, current water quality and quantity.
5. Enact an urgency moratorium restricting the installation of new wells to no greater than 6" casing.
6. Adopt an urgency interim plan for the equitable allocation of groundwater which protects the superior rights, per state law, of residential users, based on the health and safety of the residents, and their superior right to a clean, potable water supply.
7. Enact an urgency moratorium on all agricultural overhead irrigation, including for frost protection measures.
8. Enact an urgency moratorium banning construction of all reservoirs for the storage of water for irrigation purposes.
9. Safeguard public trust assets by updating its water assessment use to include environmental and natural resource requirements.
10. Prohibit the export of water from the basin.

Respectfully,



Susan Harvey, President

Attachments: Hydrographs for Shandon, Creston, and Estrella

CC: Paavo Ogren, Director, County Public Works  
Paso Robles Groundwater Basin Blue Ribbon Committee

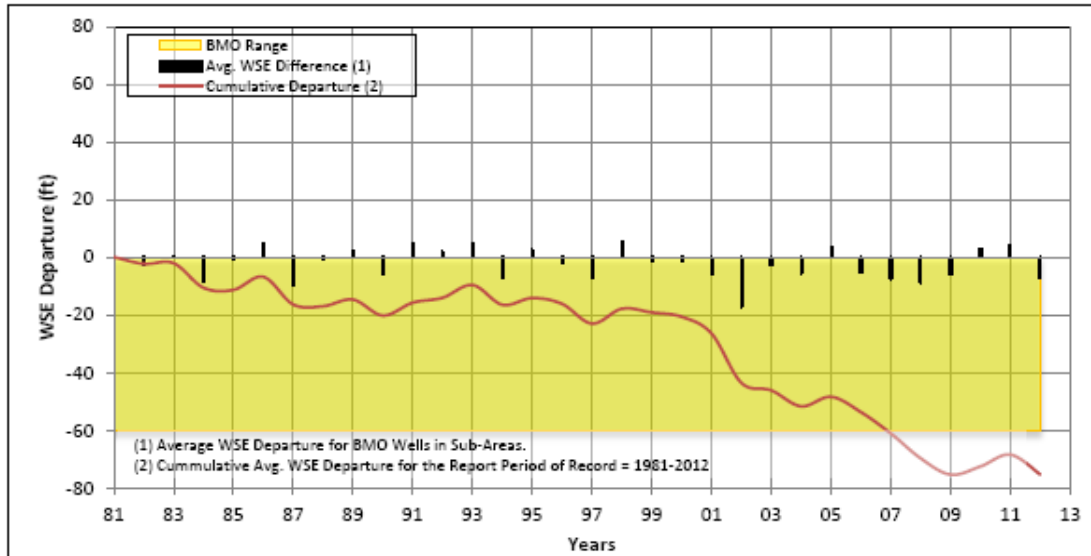


# Sub-Area WSE Trend Analysis

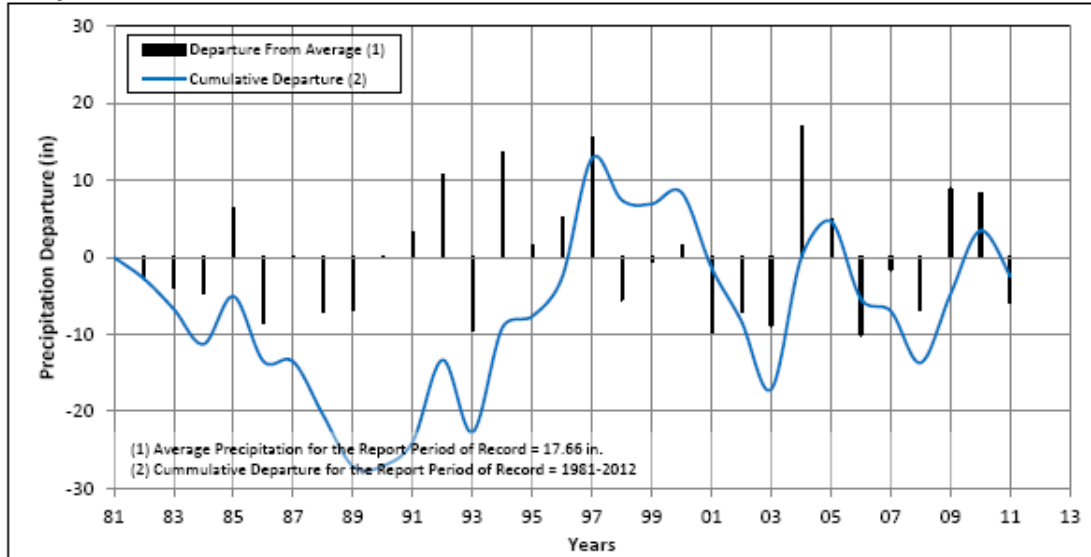
Mon. Entity		The County of San Luis Obispo, CA		Date		11/15/2012		
<b>Sub-Area Information</b>				<b>Sub-Area Well Records</b>		<b>Report Information</b>		
Sub-Area	Estrella			Period of Record	1977-2012		Report Start Year	1981
Basin Name	Paso Robles			Num. BMO Wells	6		Period of Record	1981-2012
<b>Raingage Information</b>				<b>Raingage Records</b>		<b>Trend Analysis Results</b>		
Raingage Name	Atas. Mutual Water # 34			Period of Record	1928-2012		BMO Target <sup>(1)</sup>	(60.00 ft)
Raingage Elev.	835.00 ft			Average Precip.	17.77 in		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



# Sub-Area WSE Trend Analysis

Mon. Entity 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

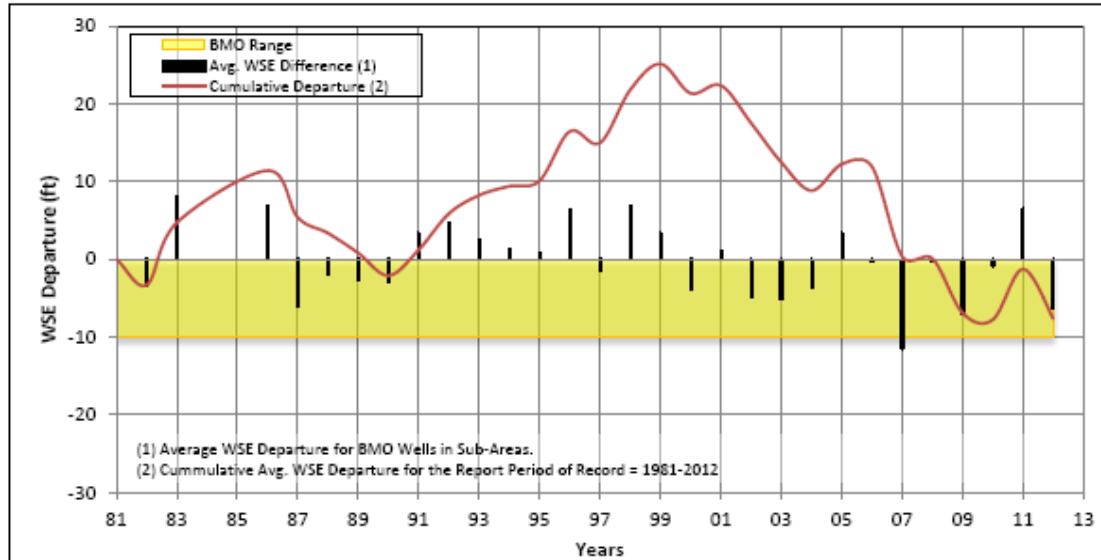
Raingage Information	
Raingage Name	Atas. Mutual Water # 34
Raingage Elev.	835.00 ft

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

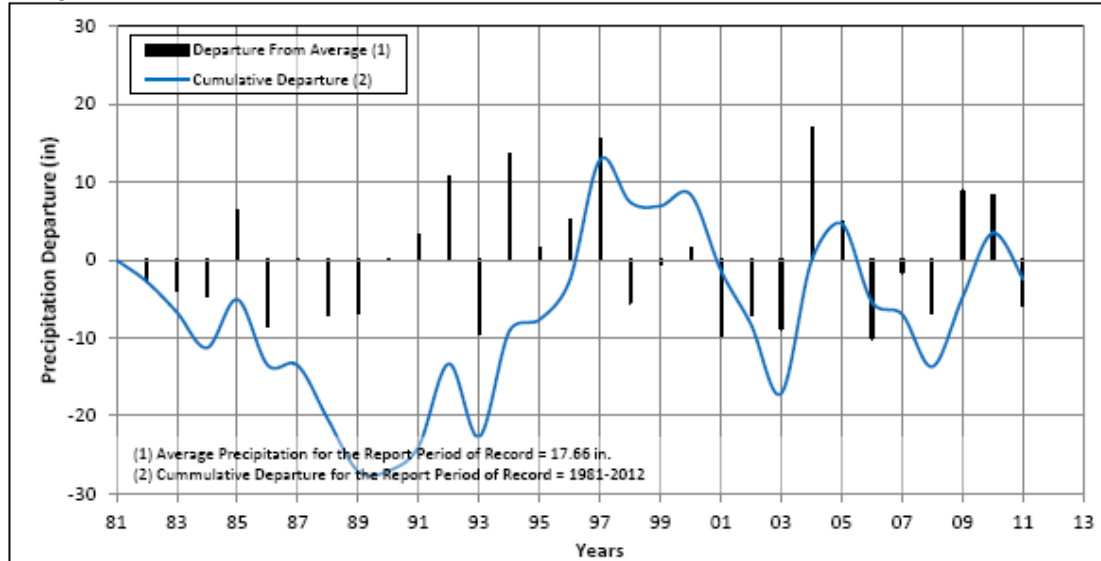
Trend Analysis Results	
BMO Target <sup>(1)</sup>	(10.00 ft)
2012 CD	(7.62 ft)

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. Entity 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

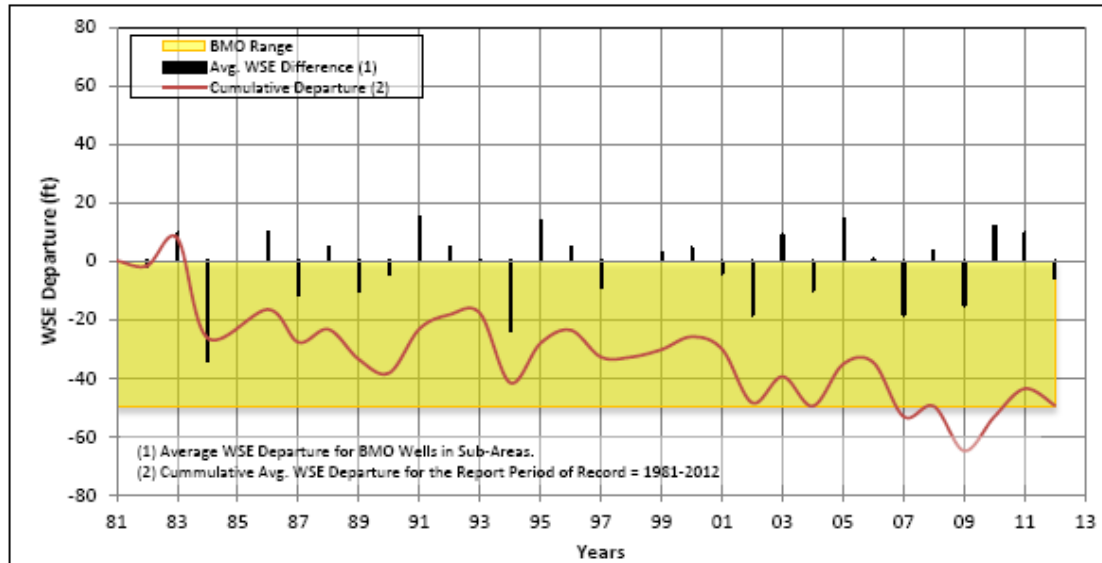
Raingage Information	
Raingage Name	Atas. Mutual Water # 34
Raingage Elev.	835.00 ft

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

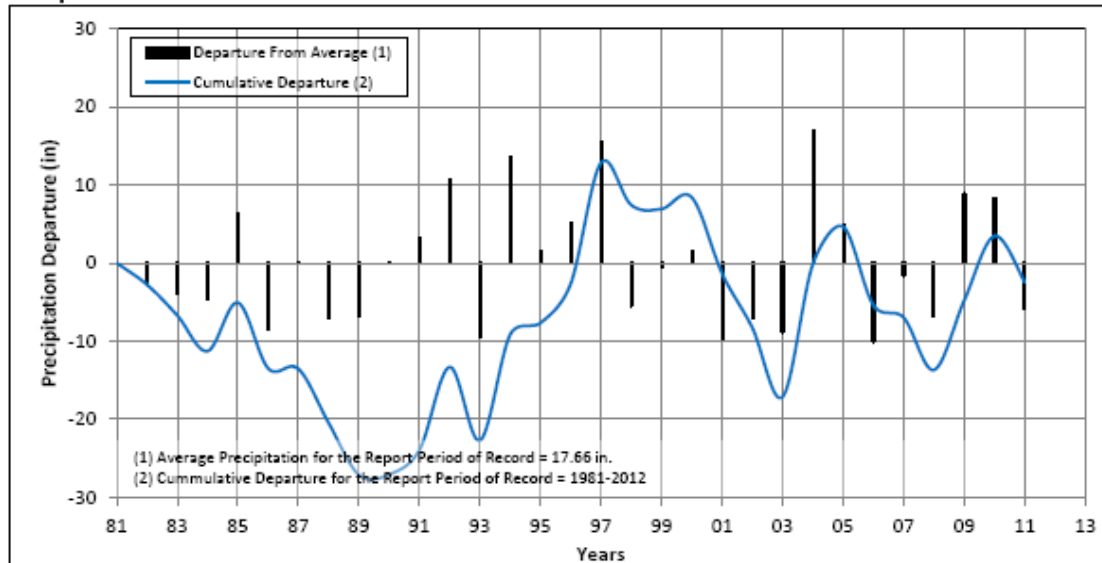
Trend Analysis Results	
BMO Target <sup>(1)</sup>	(50.00 ft)
2012 CD	(49.50 ft)

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



Distribution of 2006 Water Demands to Subarea

Subarea	Agriculture	Municipal	Demand Type			Total	Percentage
			Small Community Systems	Small Commercial Systems	Rural Domestic		
Atascadero Subbasin	1,348	11,735	0	430	2,032	15,545	17%
Bradley	6,933	0	0	184	109	7,226	8%
Creston	9,936	0	0	37	2,338	12,311	14%
Estrella	23,111	3,930	0	1,603	5,433	34,077	38%
North Gabilan	1,758	0	0	0	50	1,808	2%
San Juan	5,347	0	0	0	105	5,452	6%
Shandon	9,896	0	0	69	1,205	11,170	12%
South Gabilan	1,671	0	0	0	213	1,884	2%
<b>Total</b>	<b>60,000</b>	<b>15,665</b>	<b>0</b>	<b>2,323</b>	<b>11,485</b>	<b>89,473</b>	<b>100%</b>
<b>Percent of Total</b>	<b>67%</b>	<b>18%</b>	<b>0%</b>	<b>3%</b>	<b>13%</b>	<b>100%</b>	
<b>Total w/o Atascadero Subbasin</b>	<b>58,652</b>	<b>3,930</b>	<b>0</b>	<b>1,893</b>	<b>9,453</b>	<b>73,928</b>	
<b>Percent of Total w/o Atascadero Subbasin</b>	<b>79%</b>	<b>5%</b>	<b>0%</b>	<b>3%</b>	<b>13%</b>	<b>100%</b>	