

# **ATASCADERO AREA SUBBASIN SUSTAINABLE GROUNDWATER MANAGEMENT OVERVIEW**

## **INTRODUCTION**

The passage of the Sustainable Groundwater Management Act (SGMA) in 2014 brought into focus the importance of sustainably managing groundwater at the basin/subbasin level and the consequences of not having a plan to achieve sustainable groundwater management. The California Department of Water Resources (DWR), in its role as a regulating and assisting agency, has been assigned the task of developing and implementing two sets of regulations:

- Basin Boundary Modification Regulations (adopted in November 2015)
- Groundwater Sustainability Plan (GSP) Regulations (currently in draft form)

Combined, these two sets of regulations provide very clear direction on the process for a groundwater basin/subbasin boundary modification and preparation of a GSP that meets SGMA's objectives for achieving sustainable groundwater management at the local level.

The general principles guiding GSP evaluation (as included in the draft GSP Regulations) include the following:

- Must achieve sustainability goal for the entire basin in 20 years
- Cannot adversely affect an adjacent basin
- Meet a substantial compliance standard
- Provide a description of basin-wide governance to reach sustainability
- Establish a timeline and priority for filling data gaps
- Implement an adaptive management process (as necessary)

A GSP that has deficiencies identified by DWR and that does not meet the substantial compliance criteria can receive an '*Inadequate Determination*' that could result in:

- Potential intervention by the State Water Resources Control Board (State Water Board), which may result in dictated pumping reductions and payment by the local stakeholders for all of the state intervention costs.
- Loss of local control to manage the subbasin and find solutions to address the overdraft conditions to achieve sustainable groundwater management

The roles and approach of State Water Board intervention are described in the December 15, 2015 letter (Attachment B3b) from the State Water Board Executive Director to the San Luis Obispo County Director of Public Works. The closing statement of this letter, provided below, highlights the importance of the requested basin boundary

modification to support sustainable groundwater management in the Atascadero Area Subbasin and avoid the likely State Water Board intervention in the Paso Robles Subbasin.

*‘Regardless of a water user’s basis of right, using groundwater in a manner that exacerbates overdraft of a basin is both unsustainable and unreasonable. Groundwater users in overdrafted basins must work together to manage the basin sustainably, or state intervention will bring the basin to a sustainable condition until such time as basin water users can themselves sustainably manage the basin for this and future generations.’*

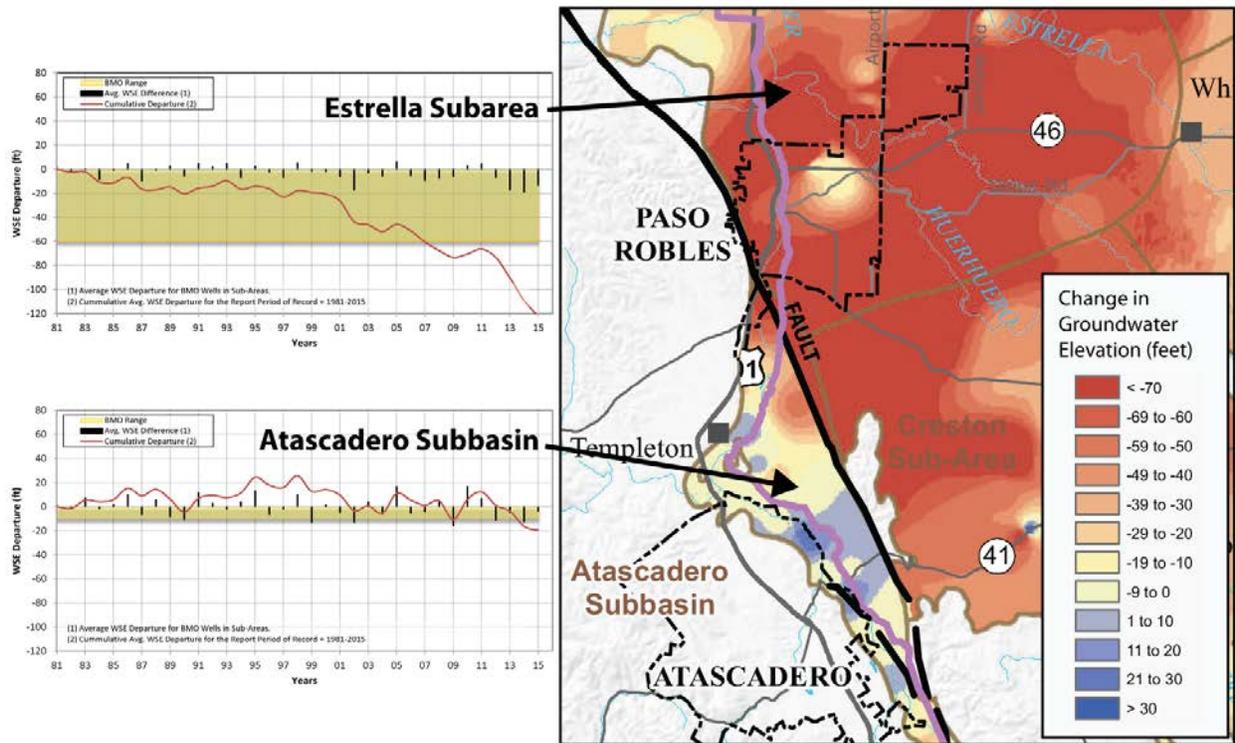
## **IMPORTANCE OF BASIN BOUNDARY MODIFICATION TO THE ATASCADERO AREA**

DWR Bulletin 118 has identified the Atascadero Area Subbasin as part of the larger Paso Robles Groundwater Subbasin. However, the Atascadero Area (referred to here as the Atascadero Area Subbasin) has long been identified locally as being hydraulically separate from the larger Paso Robles Groundwater Subbasin due to the Rinconada Fault, which impedes groundwater flow between the two subbasins.

The proposed Atascadero Area Subbasin has consistently maintained higher groundwater levels while groundwater levels across the Rinconada Fault in the Paso Robles Subbasin have been declining for years. This barrier to flow restricts flow of groundwater from the Atascadero Area Subbasin to the Paso Robles Subbasin. Separating the Atascadero Subbasin from the Paso Robles Subbasin will not make the Paso Robles Subbasin less likely to be sustainably managed.

While this difference was noted in numerous technical studies and recognized by the governing authorities of several local agencies, there was not an urgent need to formally separate the two basins until the passage of SGMA.

For the 1997 to 2013 period, groundwater levels in the Atascadero Area Subbasin have remained stable (see Atascadero Subbasin composite hydrograph on Figure 1) and the subbasin is continuing to be sustainably managed to avoid undesirable results such as lowering groundwater levels and reduction in groundwater storage. In contrast, groundwater levels in the Paso Robles Subbasin have declined by about 40-70 feet (as identified in the Estrella Subarea in Figure 1), resulting in two of six undesirable results identified in SGMA (lowering groundwater levels and reduction in groundwater storage).



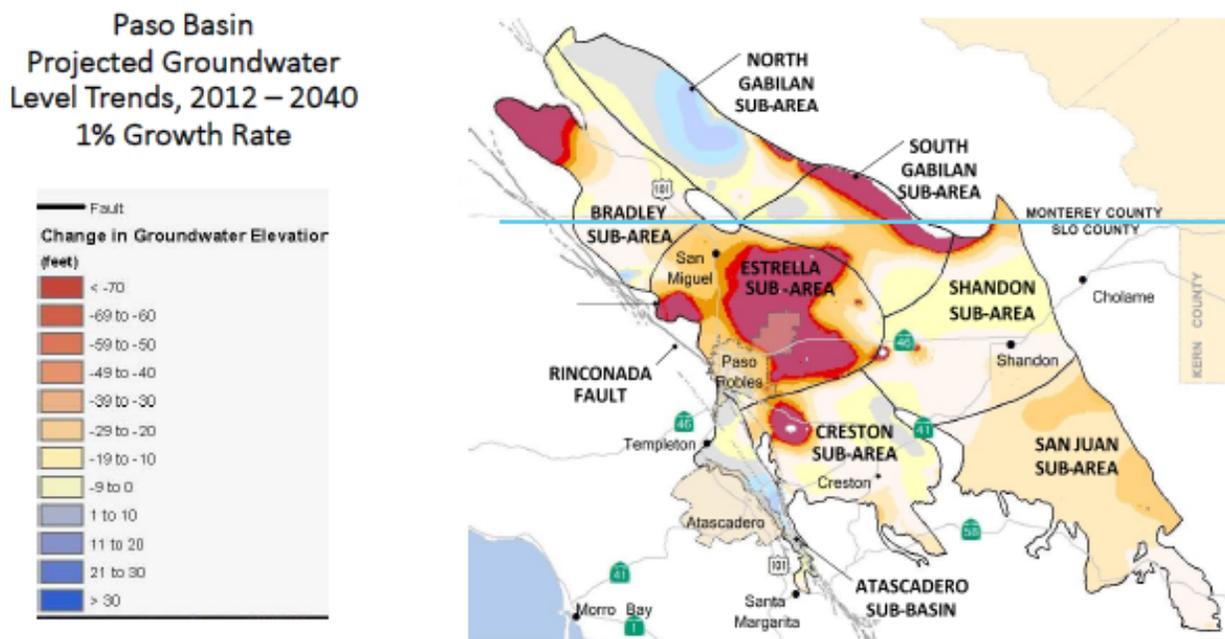
**Figure 1 – Generalized Difference in Spring Groundwater Elevations between 1997 and 2013**  
 (Source: <http://www.slocountywater.org/site/Water%20Resources/Water%20Forum/>)

Because of this continued groundwater level decline in the Paso Robles Subbasin, and the lack of a formal separation between the Paso Robles Basin and the Atascadero Basin, the Atascadero Subbasin has been identified by DWR to share the same status as the Paso Robles Basin:

- **High Priority Basin** - SGMA revised the State Water Code to direct DWR to develop initial statewide groundwater basin priorities by January 31, 2015. In early 2015, DWR concluded that the basin prioritization process was finalized in June 2014 under the California Statewide Groundwater Elevation Monitoring (CASGEM) Program. As a result of the analysis, the Atascadero Basin shares the *high priority* designation of the Paso Robles Basin.
- **Critical Overdraft** - SGMA also directed DWR to identify groundwater basins and subbasins in conditions of critical overdraft. As defined by SGMA, 'A basin is subject to critical overdraft when continuation of present water management practices would probably result in significant adverse overdraft-related environmental, social, or economic impacts.' As a result of this analysis, the Atascadero Basin shares the *critical overdraft* designation of the Paso Robles Basin.

## PROJECTED GROUNDWATER CONDITIONS

Based on the most recent groundwater modeling work completed in the Paso Robles Basin, it appears that future changes in groundwater level will be similar to the past conditions described above for both the Paso Robles Subbasin and the Atascadero Area Subbasin. As seen in Figure 2, assuming a 1 percent growth rate, groundwater levels in parts of the Paso Robles Subbasin will experience additional declines of up to 70 feet in some areas. This pattern of groundwater level declines and corresponding decreases in groundwater storage suggest that the Paso Robles Subbasin may not meet the SGMA criteria for a sustainably managed basin. This is in stark contrast to the Atascadero Area Subbasin where groundwater levels are expected to be stable and can be operated sustainably.



**Figure 2 – Paso Basin Projected Groundwater Level Trends, 2012 to 2040 with 1% Growth Rate**

(Source: San Luis Obispo County Flood Control and Water Conservation District, Paso Robles Groundwater Basin Model Update , 2015))

## PATHS TO SUSTAINABILITY FOR PASO ROBLES AND ATASCADERO BASINS

DWR recognizes that the relationship between uncertainty and sustainability may track differently for Groundwater Sustainability Agencies (GSAs) throughout the state, but does state that ultimately each GSA must achieve their sustainably goal after 20 years of implementation. This requirement highlights some of the major differences between the Paso Robles Subbasin and the Atascadero Area Subbasin, and highlights the

importance of the proposed basin boundary modification to achieving sustainable groundwater management in the Atascadero Area Subbasin.

Figure 3 (below) is modified from DWR's sustainability-uncertainty figure to emphasize the high sustainability/low uncertainty conditions of the Atascadero Subbasin in contrast to the low sustainability/high uncertainty conditions of the Paso Robles Subbasin. The reason for the different paths to sustainability between the two subbasins is summarized on Table 1.

**Atascadero Area Subbasin** - The water demands in the Atascadero Area Subbasin total about 16,000 acre-feet per year. Urban demand totals about 12,000 acre-feet per year. The remaining demands consist of agriculture, rural residential and small commercial demands. All water demands in the Atascadero Subbasin are met with groundwater.

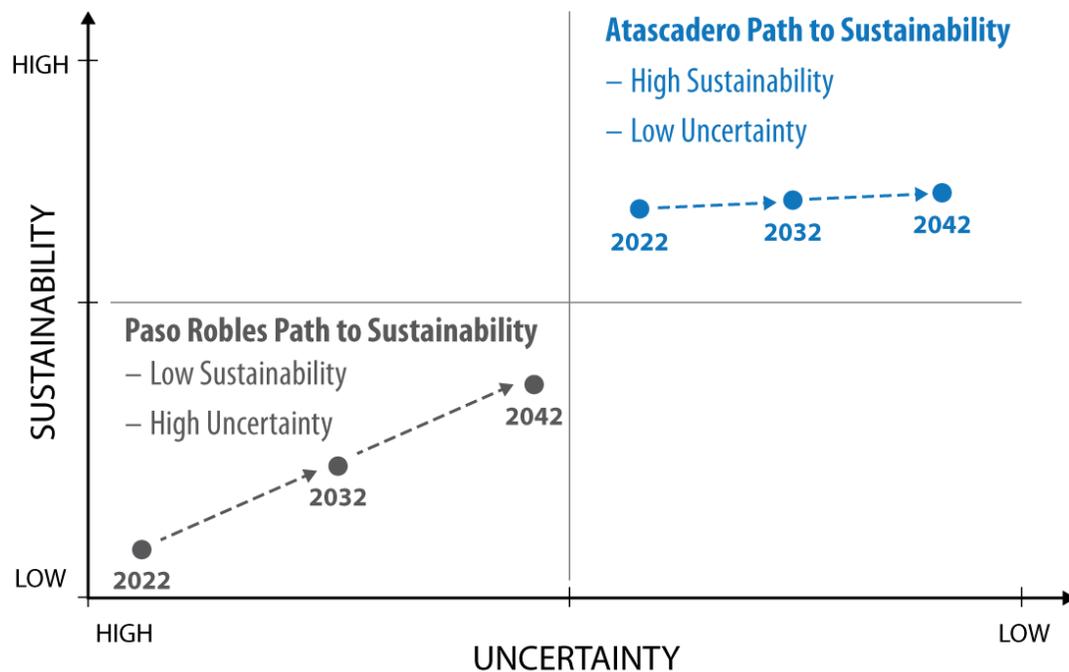
In general, the Atascadero Area Subbasin has operated at, and is expected to continue to operate at, a high level of sustainability through the 20-year implementation period extending from 2022 to 2042 for the following reasons:

- The prior investment of Templeton Community Services District (TCSD) and Atascadero Mutual Water Company (AMWC) to import water from the Nacimiento Water Project reduced the net groundwater pumping in the subbasin. In addition, both TCWD and AMWC have contract amendments into the San Luis Obispo County Board of Supervisors to increase their combined subscription to the Nacimiento Water Project to 3,650 acre-feet per year.
- Both TCWD and AMWC have effectively implemented municipal water conservation; AMWC achieved a 27% reduction in water use in 2015 compared to 2013 while TCWD achieved a 31% reduction in water use in 2015 compared to 2013) to further reduce groundwater demand in recent dry years.
- There is relatively low water demand uncertainty in the subbasin because it is relatively small, and largely developed, so demands and supplies are in balance and not anticipated to materially change during the implementation period (2022 to 2042).

**Paso Robles Subbasin** – The water demands in the Paso Robles Subbasin total about 75,000 acre-feet per year. Agricultural demand totals about 60,000 acre-feet per year. The remaining demands consist of municipal, rural residential and small commercial demands. All water demands in the Paso Robles Subbasin are met with groundwater.

In general, the Paso Robles Subbasin has experienced a considerable increase in water demands since 1997. While the City of Paso Robles has contracted to import 4,000 acre-feet per year of surface water from the Nacimiento Water Project, the amount of water is small relative to the total demand in the subbasin. Because the

demand has exceeded the annual recharge for an extended period of time, groundwater levels have declined to the point of the basin being considered in a state of critical overdraft. It is expected that it will take considerable time and effort to reverse the trend in declining groundwater levels.



**Figure 3 – Path to Sustainability for the Paso Robles and Atascadero Area Subbasins**  
(Source: modified from Department of Water Resources)

There is also considerable uncertainty as to future groundwater management in the subbasin. This uncertainty was reinforced on March 8, 2015, when the formation vote<sup>1</sup> of the Paso Robles Water District was resoundingly rejected by three quarters of the stakeholders in the subbasin, and funding for sustainable groundwater management activities was also rejected. These actions will put increased pressure on San Luis Obispo County to take a larger role in groundwater management in the subbasin. Additionally, as mentioned, there is considerable risk of the subbasin facing State Water Board intervention, which would likely result in a forced decrease in groundwater pumping in the subbasin.

<sup>1</sup> The San Luis Obispo County Local Agency Formation Commission (SLO LAFCO) and the San Luis Obispo County Board of Supervisors each excluded the Atascadero Area Subbasin from the formation vote of the Paso Robles Water District because they recognized its hydrogeologic distinction and its managed sustainability versus the Paso Robles Subbasin.

**Table 1– Conditions Contributing to Sustainable Groundwater Management**

Paso Robles Conditions	Atascadero Conditions
<p><b><u>Low Sustainability:</u></b></p> <ul style="list-style-type: none"> <li>• Declining groundwater levels since 1997</li> <li>• Identified as Basin in Critical Overdraft Conditions by DWR</li> <li>• Large and growing agricultural water demand</li> </ul>	<p><b><u>High Sustainability:</u></b></p> <ul style="list-style-type: none"> <li>• Proven record of sustainable groundwater management (no undesirable results)</li> <li>• 20+ years of stable groundwater levels</li> <li>• Import surface water from the Nacimiento Water Project</li> <li>• Ability to implement M&amp;I conservation to reduce groundwater demand in dry years</li> </ul>
<p><b><u>High Uncertainty:</u></b></p> <ul style="list-style-type: none"> <li>• Potential for continuing increase in water demands with additional land development</li> <li>• Rejection of basin stakeholders of formation of a water district</li> <li>• Rejection of funding to support sustainable groundwater management</li> <li>• As of the date of this submittal there is no clear entity taking on groundwater management leadership in the Paso Robles Basin</li> <li>• San Luis Obispo County has inquired with the State Water Board on their approach to groundwater management</li> </ul>	<p><b><u>Low Uncertainty:</u></b></p> <ul style="list-style-type: none"> <li>• Relatively small subbasin</li> <li>• No material increase in water demands anticipated</li> <li>• Largely M&amp;I water demands</li> <li>• Proactive agencies providing sustainably groundwater management for many years</li> <li>• The Atascadero Area Subbasin does not appreciably supply water to the Paso Robles Subbasin and its separate management will not make sustainability less likely in the Paso Robles Subbasin</li> <li>• Most recent groundwater modeling projects minor changes in groundwater levels in Atascadero Area Subbasin through year 2040</li> </ul>

**CONCLUSIONS**

Separating the Atascadero Area Subbasin from the Paso Robles Subbasin through the Basin Boundary Modification process included in the SGMA would result in the following benefits:

- Continue to support sustainable groundwater management in the Atascadero Area Subbasin in a cost-effective and efficient manner while complying with the requirements and schedule identified by the SGMA
- Continue to coordinate with the groundwater management activities in the Paso Robles Subbasin to support their pursuit of sustainable groundwater

management, but not be subjected to their fate if they cannot meet all the requirements and deadlines of the SGMA

- Avoid State Water Board intervention in the Atascadero Area Subbasin
- Not result in lowering the ability to manage the Paso Robles Subbasin sustainably