

**SONOMA VALLEY ADVISORY COMMITTEE INPUT
SUSTAINABLE MANAGEMENT CRITERIA: GROUNDWATER LEVELS**

Significant and Unreasonable Undesirable Results	
Minimum Threshold	Issues/Questions
Groundwater level declines would be significant and unreasonable if they drop below historical groundwater levels	Focus on GW levels, not wells Depends on historic record availability
Groundwater level declines would be significant and unreasonable if they go below historically low levels and or do not offset sea water intrusion	Depends on level trend (declining levels allow more flexibility; if trend is stable, MT could be close to that) How do we deal with depleted zones?
Borrego Springs (modified): Groundwater level declines would be significant and unreasonable if they are sufficient in magnitude to lower the rate of production of pre-existing groundwater extraction wells below that needed to meet the minimum required to support the overlying beneficial use(s)	Need more than one trigger so can deal with ecosystem impacts: i.e., the root depth of oak trees Do we have production data available?
Consider combining the MTs developed by Borrego Springs, Cuyama and Santa Cruz	Does this include all wells (domestic, ag, municipal)? That any deep aquifer withdrawals would exceed recharge
Groundwater level declines would be significant and unreasonable if they go below historically low levels and or do not offset sea water intrusion	Depletion Areas: Deep Aquifer 2015 levels be classed as already at an intolerable decline
Shallow Aquifer RPMs - establish as 5 feet below the seasonal low point of these well levels - if it reaches this level, it would be a significant unreasonable UR	Intolerable if GSP uses 2015 as a baseline condition in the above-noted depletion areas
Deep Aquifer - minimum threshold of 5 feet below the seasonal low level of any RPM and the same significant unreasonable UR if a single well hits that mark	Account for undesirable results from before 2015, especially in the deep aquifers of the two depletion areas
Deep Aquifer - Aggregate 20' above 2015 levels that deep aquifer levels go any farther down than an in depletion areas (a set-the-bar-high option)	That shallow aquifer system can be used more during wetter years, so as to preserve, rest, and allow deep aquifers to recharge, if they can naturally
Deep Aquifer in Depleted Zones: a different standard needs to be established - one that will be based upon bringing the deep aquifer back to historic levels - in these areas a minimum threshold should be determined after we have an idea of the practicality of restoring the former levels through specific management actions	Concern that politics will make the SMC GW deep aquifer levels get set at a lower level, with a less ambitious goal for sustainability Deep natural recharge does not seem to happen at rates that will help sustainable use. Deep recharge projects will be small, have only localized benefits for raising levels basin-wide, will all pay for this?)
Deep Aquifer in Depletion Areas - Define based on current rates of decline: slow the decline over five or ten years, bend the arc up over the final 10-year period; show improvements by rate of gain	Results that cause significant financial burden to local DACs, including that prevent municipal wells that use GW from supplying beneficial use to DACs

Measurable Objectives	Issues/Questions
Withdrawals do not exceed recharge, especially for deep aquifer system	Need to consider level of depression and rate of decline Desire to see no increase in water bills in DACs in the VOMWD service area due to SGMA project and actions
Historic surface aquifer baseflow to streams is re-achieved where lost and maintained	
Shallow aquifer GW levels be able to support salmon in streams where they were historically	
Bring El Verano groundwater levels up to adjacent surrounding areas	
Groundwater levels that offset seawater intrusion and or are within the 75 th percentile of historical groundwater elevations for the period of record at each monitoring point to ensure levels are above median or average groundwater elevations.	
Monitoring	Issues/Questions
Develop a strategic monitoring well array that supplements existing wells throughout the valley	Need to consider the number of wells in the area and the number of monitoring wells we have. Is it representative?
Shallow aquifer monitoring system: supplement by strategically located wells in the upper watershed for the purpose of determining the extent to which the shallow aquifer is relying upon upper watershed groundwater for recharge	
Portions of the shallow aquifer that overlie the two depleted zones, the density of monitoring wells should be increased, focusing on pathways from ground level to the aquifer	
Consider rate of change as you approach minimum thresholds	
Establish a correlation between historical groundwater-levels from private water wells with longer records and dedicated monitoring wells that are better suited for use as representative monitoring points going forward.	
Consider dropping the “outlier” data points from the groundwater-level data set (the high and the low)	
Possible Management Areas to Consider	
<p>Depletion Areas:</p> <ul style="list-style-type: none"> ○ El Verano ○ Southeast of Sonoma ○ Sea water intrusion in the southeastern area of the City of Sonoma and just outside its southeastern boundaries. <p>Baylands</p>	<p>Depletion areas should be management areas</p> <p>Baylands is a strong candidate of possible development pressure for large tourism venues, saline issues, and need to keep head pressure against the Bay, in both Baylands shallow and deep aquifer systems</p>

SONOMA VALLEY ADVISORY COMMITTEE
ADDITIONAL INPUT VIA EMAIL - SINCE JANUARY 14, 2020 AC MEETING
SUSTAINABLE MANAGEMENT CRITERIA: GROUNDWATER LEVELS

<p>Likes Borrego definition: <i>the minimum required to support overlying beneficial uses</i>: this implies conservation especially by the biggest users, conservation means more sharing, more all working together</p> <p>Ultimate goal is to (1) bring depletion GW levels up to the surrounding levels, and (2) increase the aggregate level so as to have a GW bank account for the future</p>	
<p>Shallow Aquifer RPMs - establish as 5 feet below the seasonal low point of these well levels - if it reaches this level, it would be a significant unreasonable UR</p>	<p>That any deep aquifer withdrawals would exceed recharge</p> <p>Depletion Areas: Deep Aquifer 2015 levels be classed as already at an intolerable decline</p>
<p>Deep Aquifer - minimum threshold of 5 feet below the seasonal low level of any RPM and the same significant unreasonable UR if a single well hits that mark</p>	<p>Intolerable if GSP uses 2015 as a baseline condition in the above-noted depletion areas</p>
<p>Deep Aquifers in Depleted Zones: a different standard needs to be established - one that will be based upon bringing the deep aquifer back to historic levels - in these areas a minimum threshold should be determined after we have an idea of the practicality of restoring the former levels through specific management actions</p>	<p>Account for undesirable results from before 2015, especially in the deep aquifers of the two depletion areas</p> <p>That shallow aquifer system can be used more during wetter years, so as to preserve, rest, and allow deep aquifers to recharge, if they can naturally</p>
<p>Deep Aquifers - Aggregate 20' above 2015 levels that deep aquifer levels go any farther down than an in depletion areas (a set-the-bar-high option)</p>	<p>Concern that politics will make the SMC GW deep aquifer levels get set at a lower level, with a less ambitious goal for sustainability</p> <p>Deep natural recharge does not seem to happen at rates that will help sustainable use. Deep recharge projects will be small, have only very localized benefits for raising levels basin-wide, will all pay for this?)</p>
<p>Deep Aquifers in Depletion Areas - Define based on current rates of decline: slow the decline over five or ten years, bend the arc up over the final 10-year period; show improvements by rate of gain</p>	<p>Results that cause significant financial burden to local DACs, including that prevent municipal wells that use GW from supplying beneficial use to DACs</p>
Measurable Objectives	
<p>Historic surface aquifer baseflow to streams is re-achieved where lost and maintained</p>	<p>Desire to see no increase in water bills in DACs in the VOMWD service area due to SGMA project and actions</p>
<p>Shallow aquifer GW levels be able to support salmon in streams where they were historically</p>	
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Monitoring	
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Possible Management Areas to Consider	
Additional Depletion Area: <ul style="list-style-type: none"> ○ Baylands 	Depletion areas should be management areas Baylands is a strong candidate of possible development pressure for large tourism venues, saline issues, and need to keep head pressure against the Bay, in both Baylands shallow and deep aquifer systems