


Working Towards Thresholds that are Protective of Community Water Supplies

The examples and potential questions below for two undesirable results — **lowering of groundwater levels** and **degraded water quality** — can help you navigate conversations about undesirable results. Avoiding these two undesirable results are particularly important to those who rely on shallower wells, a single source of water and/or those who want to avoid zones with contaminated water (i.e. small water systems, private well owners, and small farms).

For more information about setting thresholds or other undesirable results please reference the Best Management Practices developed by the Department of Water Resources for the Sustainable Management Criteria:

<http://bit.ly/SustainableManagementCriteria> and the Measuring What Matters report developed by the Union of Concerned Scientists: <http://bit.ly/UCSMeasuringWhatMatters>.

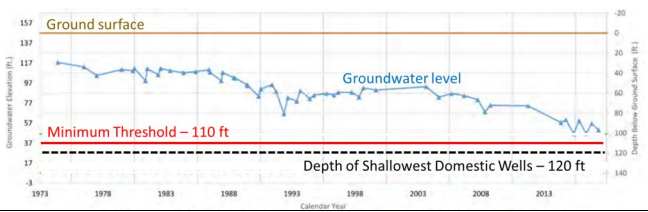


Lowering of Groundwater (GW) Levels

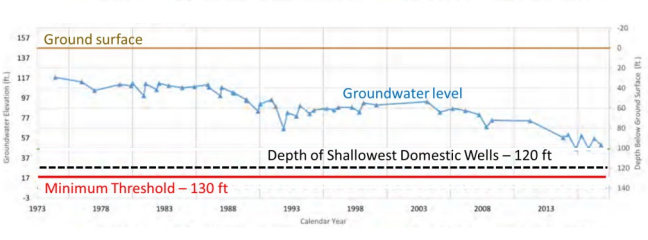
In general, shallower wells (small water systems and domestic wells) are less than 200 feet deep in the Central Valley, but deeper wells (major irrigation, dairy, and urban wells) can be as deep as 3,500 feet. Important questions to ask are:

- What is the average elevation/depth of the shallowest domestic wells in the region? Is the proposed minimum threshold (MT) lower or higher than the average elevation/depth of shallowest domestic wells?
- Do the thresholds — MT and measurable objectives (MO) — for groundwater levels take into account the potential impacts to small systems and households relying on shallower wells?

Minimum Thresholds (MT): Numeric values used to define unreasonable results. The lowest level of the metric that should not be crossed, regardless of fluctuations in dry and wet years.
 Measurable Objectives (MO): Specific measures used to determine whether the GSA of a basin is successful in achieving its sustainability goal and avoiding undesirable results.




Example: As you can see in the figure, the MT is **protective of domestic wells** as it is set above the depth of shallowest domestic wells. A MT set at that level will more likely not result in dry wells and other problems associated with lowering of groundwater levels.



Example: As you can see in the figure, the MT is **not protective of domestic wells** as it is set below the depth of shallowest wells. A MT set at that level will more likely result in dry wells. In such cases, important questions to ask of your GSA are:

- How many wells will run dry with the MT set at that level?
- What actions are proposed to mitigate and help those that rely on shallower wells who will most likely be impacted if the MT is set at that level?



Degraded Quality

Based on the assessment of groundwater basin conditions, GSAs will have to determine which of the contaminants (e.g. nitrates, arsenic, TDS, DBCP, TTHM, uranium) will be included to measure **sustainability** in the region. In general, communities served by small water systems and private well owners are the ones who struggle the most if the groundwater is contaminated. This is due to the implementation, operation and maintenance of treatment systems which can be very expensive and generally require technical expertise. Important questions to ask of your GSA are:

- What water contaminants will our Groundwater Sustainability Plan focus on? Why?
- Do the proposed thresholds (MT and MO) defer to existing local, state or federal regulations? If not, why?
- Does the threshold for water quality take into account the potential impacts to people on shallower wells?
- Are there water quality issues that are not being addressed through the GSP? If so, why?

Existing Water Quality Standards	What is your GSA recommending?
⇒ MCL Nitrate (N) = 10 mg/L ⇒ MCL Arsenic = 0.01 mg/L ⇒ MCL TDS = 500 mg/L ⇒ MCL DBCP = 0.0002 mg/L ⇒ MCL Uranium = 20 pCi/L ⇒ MCL 1, 2, 3 TCP = 5 PPT ⇒ MCL Manganese = 0.05 mg/L ⇒ MCL Iron = 0.3 mg/L	Example: MTs equal or lower than the MCLs in existing regulations and protective of safe drinking water supply. Maximum Contaminant Levels (MCLs) are standards that are set by the United States Environmental Protection Agency (EPA) for drinking water quality.
	Example: MTs higher than the MCLs differ from existing regulations and are not protective of safe drinking water supply. In such cases, important questions to ask are: <ul style="list-style-type: none"> • Why does the MT differ from existing regulations? • How many wells can be considered contaminated (i.e. nitrates, arsenic, etc.) if the MT is set at that level? • What actions are proposed to mitigate and help those who will most likely be impacted if the MT is set at that level?