

Appendix C

Well Depth Analysis

Three primary data sources were analyzed to determine well screen depth in the Basin:

1. A USGS texture database containing well screening information developed for the PVHM (Hanson et. al. 2014),
2. All available well completion reports (WCR) downloaded from DWR SGMA data viewer, and
3. A WCR Access database and accompanying spatial dataset of well locations provided by PV Water. PV Water's WCR datasets proved to be the most reliable and were subsequently used for all further well depth analyses.

Wells without screen depth information and wells not screened within the Aromas aquifer were removed from the analysis. To determine whether a well is screened in the Aromas aquifer involved combining screen information with the PVHM's geologic layers and land surface elevations. Where the bottom of a well screen occurred above the top of the Aromas aquifer, the well was removed from analysis (Figure 1). Likewise, if the top of a well screen occurred below the top of Purisima Formation, the well was removed from analysis (Figure 2)

Figure 3 displays the results of this analysis, which generally removed wells along the mountainous periphery of the Basin and shallow wells in the central Basin. The former largely corresponds to wells screened solely in the Purisima Formation, while the latter generally reflects shallow wells screened in the overlying alluvium.

Many well depth analyses completed for ongoing and submitted GSPs focus solely on domestic well depths, as these are typically the shallowest water supply wells. However, as the Basin has many agricultural groundwater users, the analysis needs to ensure all well use types are reflected in resulting SMC. Wells with more than one use (i.e., domestic/agricultural) were categorized with domestic wells as they may represent smaller operations more reflective of domestic usage patterns.

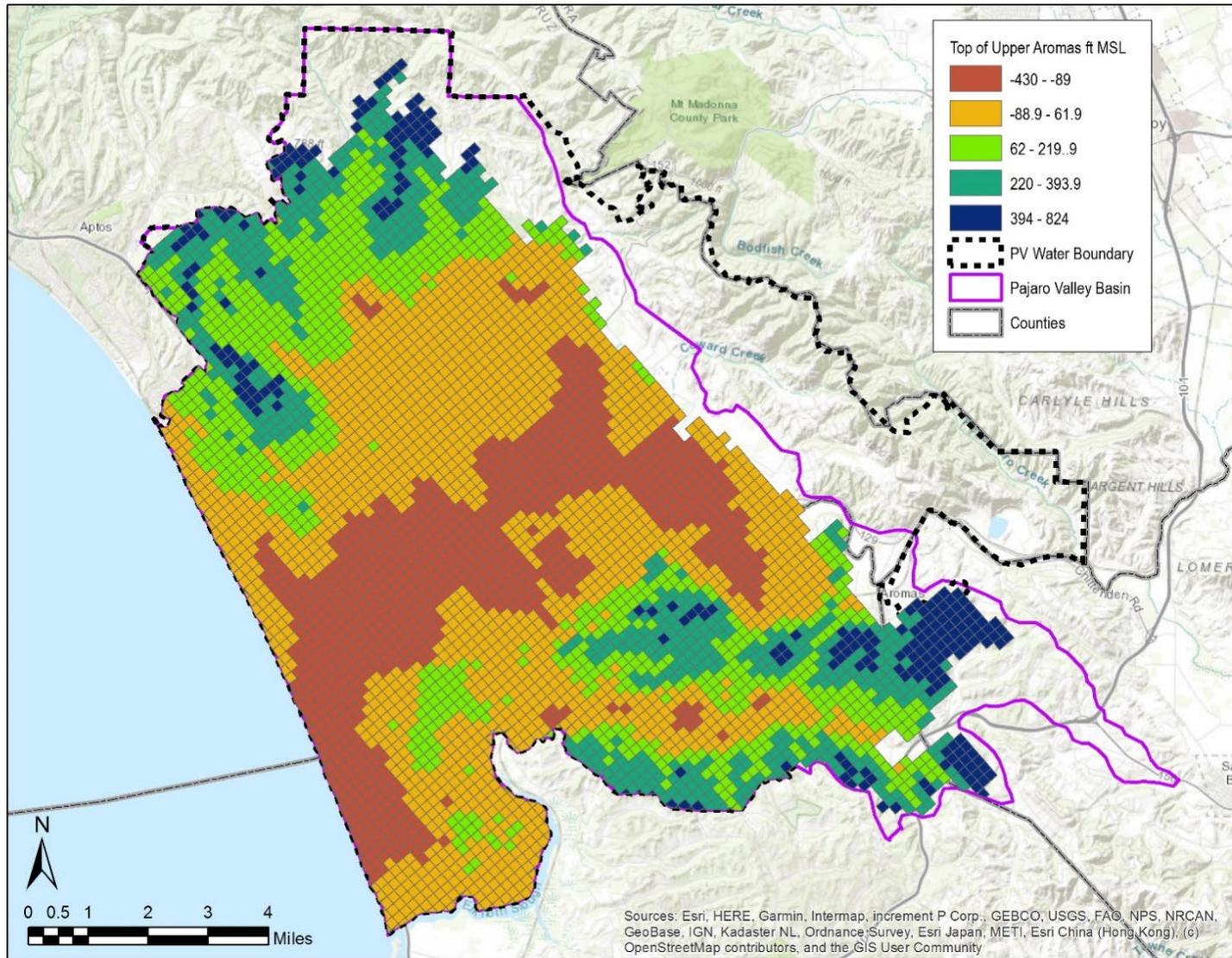


Figure 1. Top of Aromas Aquifer From Pajaro Valley Hydrologic Model

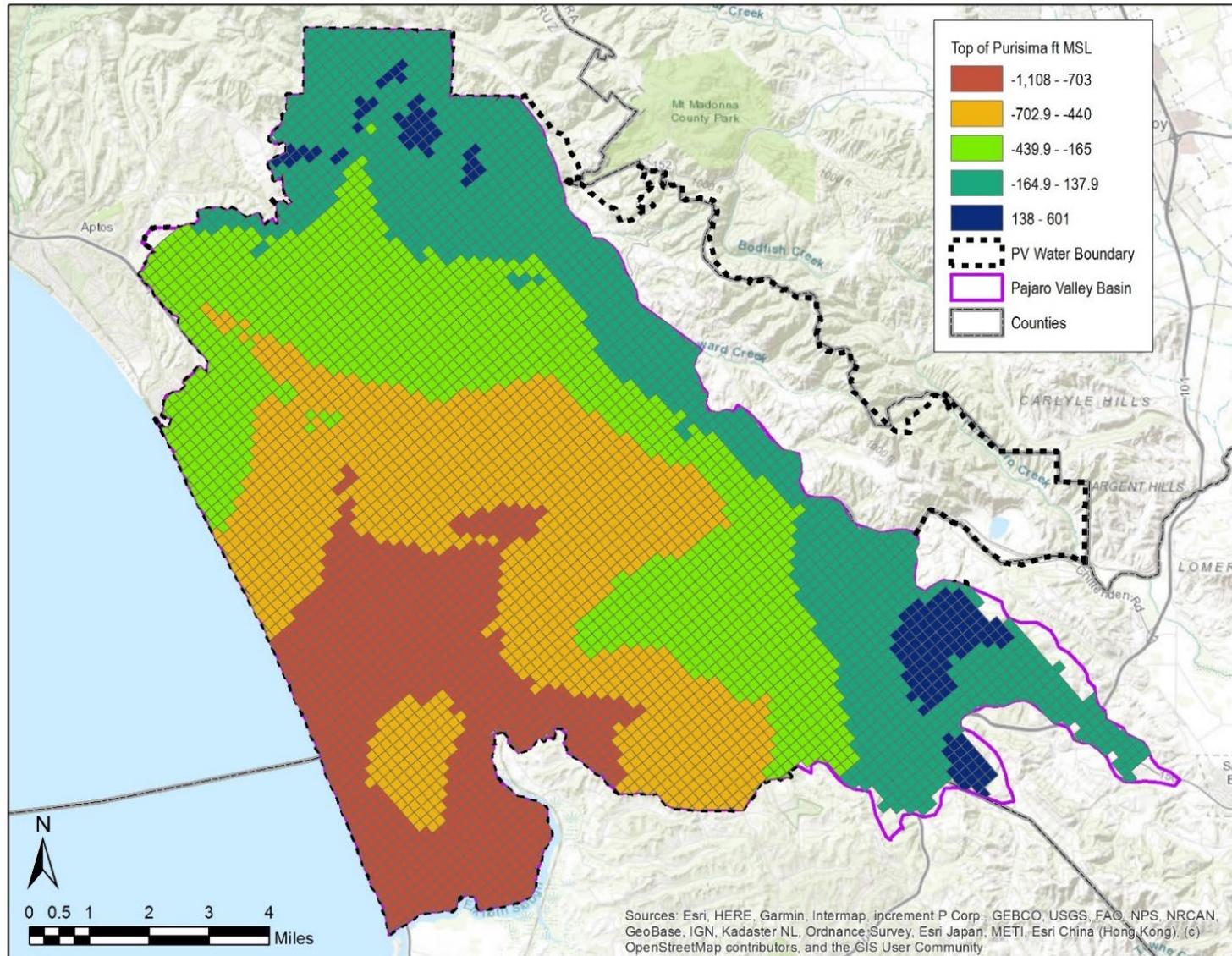


Figure 2. Top of Purisima Formation From Pajaro Valley Hydrologic Model

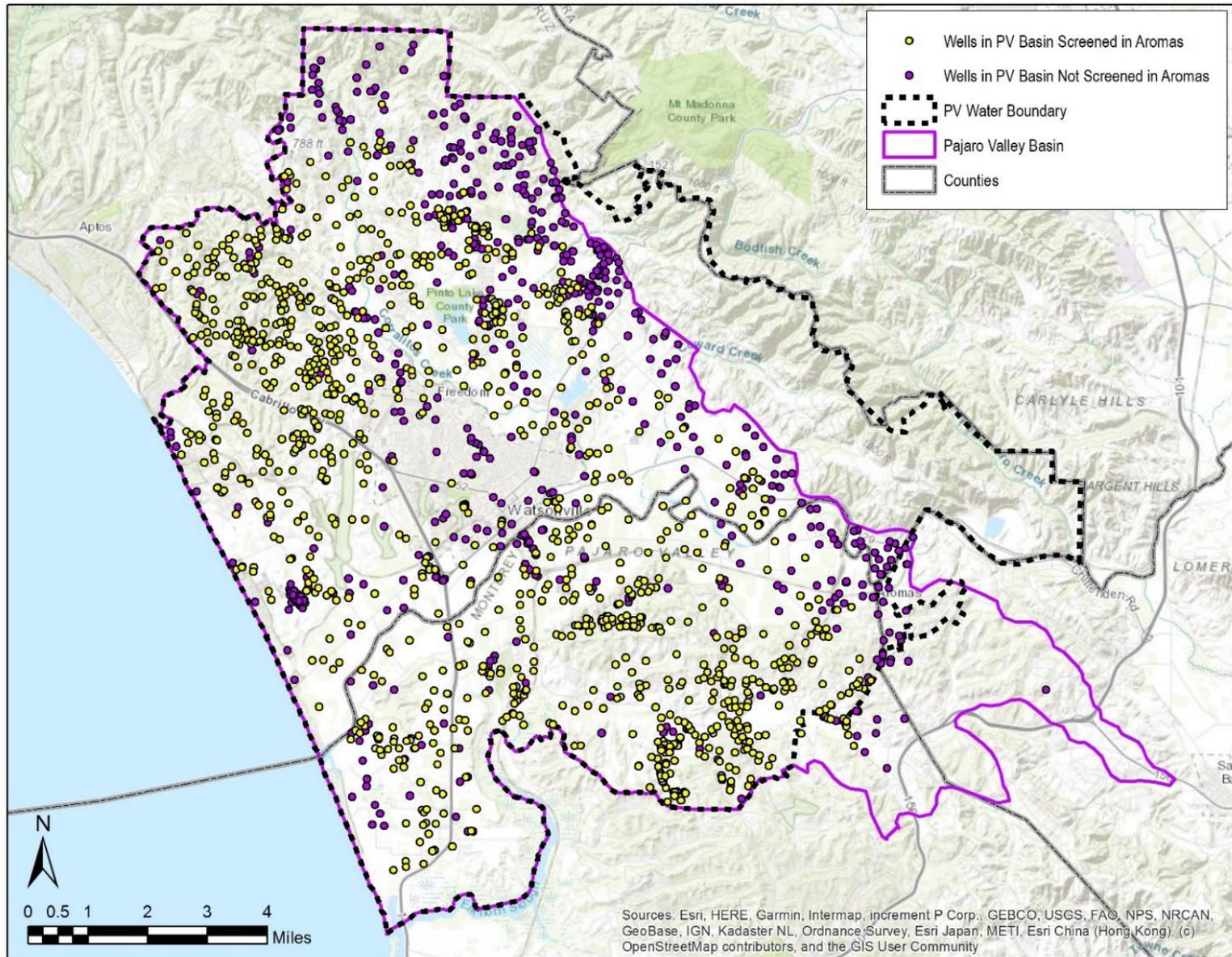


Figure 3. Wells Screened in Aromas Aquifer and in Other Aquifers