Staff Written Responses to Public Comment Provided for the 2020 Urban Water Management Plan (UWMP) and Water Shortage Contingency Plan (WSCP)

Topic 1: Water Demand and Population Projections

The demand projection data set is the result of a very granular level of analysis and not simple calculations such as the number of connections times the average household size. The latter would result in overestimating demand by a significant margin. For example, consider that the CCSD currently has 3,783 residential connections. If we assumed a population based on average household size alone, the result would be 8,246 people (3,783 x 2.18). This ignores other data available to us, such as zero reads in utility billing and vacancy rates provided by both the 2010 U.S census and the 2019 five-year American Communities Surveys. In addition, the model tries to stay within certain parameters, such as reserving 20% of capacity for commercial and visitor serving purposes per the CCSD's Coastal Development Permit issued for the wastewater treatment plant in 1977. Demographic data trends suggests that part-time occupancy and vacation rental use will continue to rise in Cambria. CCSD billing account data reinforces this assumption, with the majority of new accounts consisting of 2 permanent residents or less. As a result, the model assumed a one percent increase in single-family residential population year over year through 2043 when new connections would cease due to the current buildout goal of 4,650 residential accounts. Though this updated demand projection is based on data driven model analysis and revised assumptions, staff will continue to monitor and calibrate the model as needed.

Topic 2: Water Savings Estimates (Seasonal Concerns)

Water savings using the Passive Savings Methodology are calculated based on the average number of bathrooms and water fixtures per residence. End use of water inside the home does not fluctuate based on season the way outdoor end use does. The number of times the average person flushes a toilet remains the same throughout the year regardless of seasonal weather patterns.

Topic 3: Water Supply Estimates and WRF Contributions

The Water Reclamation Facility (WRF) provides two benefits related to supply augmentation: an increase in available water supply due to direct injection **plus** the prolonged ability to pump from the San Simeon Well Field due to the mound created by the injection well and the slowing of outflow to the ocean. As stated in the UWMP, all reinjected water from the WRF is put to beneficial use as gradient control regardless of the volume extracted as drinking water.

While maintaining a water balance in the San Simeon aquifer is important, operation of the WRF provides greater flexibility for CCSD's water operations due to the protective gradient and lagoon discharge features. The proposed Instream Flow Study will better inform the CCSD's Adaptive Management Plan, which is used to ensure project impacts are avoided or properly mitigated. The CCSD monitors the creek lagoon and would modify operations to prevent an inflow of saltwater toward the percolation ponds and freshwater aquifer. During extreme droughts, the CCSD may contact the riparian landowners along San Simeon Creek Road to request pro rata reductions in water use. The protections afforded by operating the WRF are beneficial to all who rely on San Simeon Creek underflow.

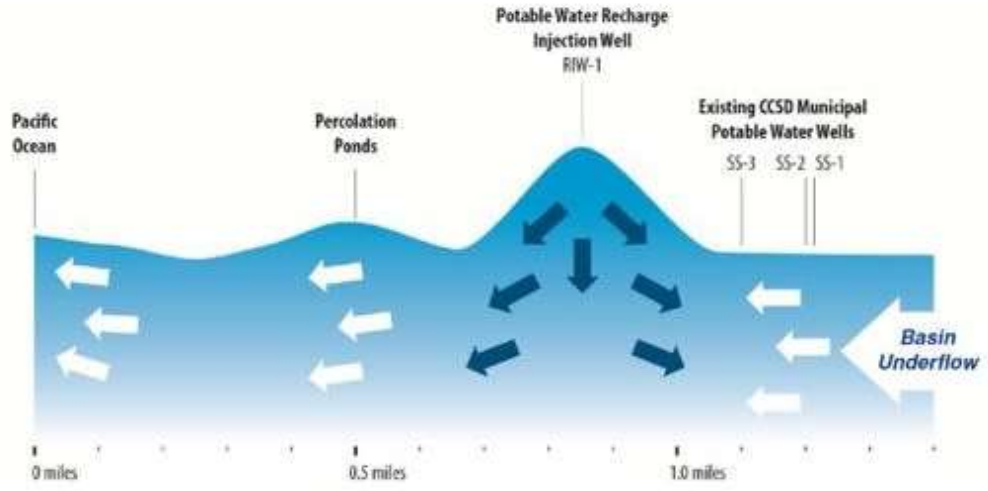

Figure 1 - WRF gradient control benefits

Topic 4: Water Supply Estimates Using Annual Average

The 725 acre-feet per year supply for normal years is based on historic production totals. Shortage analyses are based on the single dry year (section 7.1.3.2) and historic 5 consecutive dry years (section 7.1.3.3). Dry season supply is factored into the annual totals after considering physical constraints of the aquifers and permitting constraints associated with CCSD water licenses.

Topic 5: Shortage Indicator for Remaining Aquifer Capacity

Past groundwater models provide a framework in which to predict remaining aquifer volumes. These are still utilized for informational purposes but have varied in accuracy and will not trump well level and gradient indicators.

Benefits and Limitations of Water Resource Planning

Staff would, again, like to stress that the UWMP and WSCP are both planning documents and do not determine policy or operating protocol for the CCSD. CCSD staff will continue to monitor operations in both aquifers to ensure efficiency of use and stewardship of the delicate coastal ecosystem in which we live and work. The UWMP and WSCPs are living documents and can be amended as better information becomes available or priorities shift. Staff would like to thank all who have taken the time to review, digest, interpret, and critique these plans.