2024 Integrated Water Master Plan Questions

Drought Conservation Rate:

1) Under severe drought conditions, the Story Map says a 30% drought conservation rate will be utilized. Sacramento County's expert stated the study drought conservation rate should be 15% to 20%, *when planning for future development.* The Department of Public Health stated that rate should not exceed 25%. How do you justify using a 30% drought conservation rate, when the experts recommend a lower rate?

Missing Data:

2) A Sacrameto County ordered review of CSD's earlier study found that the"trigger point" (when the drought conservation rate kicks in) was missing from the study. The dates when the conservation begins and ends dramatically impact how long the water supply lasts and also whether or not this assumption is achievable. When does this study assume the conservation rate begins and ends?

3) The capacity of the system (the number of homes that the supply can safely support) was missing from an earlier CSD study. What is the capacity of the system for this study?

Flashboard Capacity Assumption:

4) The Story Board assumes that all lakes are at their flashboard capacity. Ken Giberson, CSD's prior water engineer and the Department of Public Health both stated this assumption is not a safe practice, *when planning for future development*. Why does the CSD believe this assumption is safe when other experts do not?

Recycled Water Assumption:

5) The Story Board assumes that all existing and future Rancho Murieta homes utilize recycled water to irrigate their yards. The study "955 AF Future system supply" figure is based on an average rainfall year (when analyzing drought conditions), is more than double the current supply (even though the size of the community will not double). Since it takes two homes potable water usage to generate enough recycled water to irrigate one residential yard, it appears this number is mathematically inaccurate and significantly overstated. Will this study number be corrected?

6) CSD has a contract with the Rancho Murieta Country Club to deliver enough recycled water to meet the golf course irrigation needs up to and including during drought conditions. Unless this contract is broken, there is insufficient supply to implement the assumption that all existing and new homes will utilize recycled water for irrigation purposes. Is CSD planning on breaking the RMCC contract?

7) The study assumes the RMCC will utilize raw river water instead of the contracted recycled water. There's insufficient summer river flows to keep the courses alive during the summer months. Does the study address the loss of property value that would be associated with the courses dying and RM no longer being a golfing community?

8) Does the study address the immense financial cost of building the infrastructure needed to safely deliver recycled water to the existing and new homes?

Lake Clementia Assumption:

9) The study assumes Lake Clementia is part of Rancho Murieta's potable water supply, but it is not permitted for that purpose. How will the CSD get around this permit fact?

10) Lake Clementia is fed almost entirely by runoff, resulting in poor water quality. What is the cost to upgrade the water treatment plant to process this water?

11) The existing permit states that CSD must optimize runoff into Lake Clementia. The developer plans to build around the lake. How will the CSD optimize natural runoff AND prevent urban runoff from entering our drinking water supply?

12) Years ago, downstream farmers, blocked the potable water usage of Lake Clementia. Since water is scarce isn't it likely the downstream farmers will block this usage, again?

13) If Lake Clementia becomes part of RM's water supply, it is likely body water contact recreation would be prohibited. Does the study address how this usage change will impact existing RM residents?

14) There is no infrastructure in place to transport Lake Clementia's water to the treatment plant. What will the necessary infrastructure cost?

15) Last year, Lake Calero and Lake Chesbro were surveyed. The survey results determined that the capacity of both lakes is less than previously thought and less than assumed in ALL past CSD water studies. Lake Clementia's capacity should have never been included in this study, but because it has been, how do you justify including a capacity that has not been verified (by a new survey) particularly since all three lakes were initially surveyed at the same time, using the same equipment? Isn't it likely Lake Clementia's capacity is also incorrect?

System Loss Rate Assumptions:

16) The Department of Water Resources recommends using the Davis pan when calculating the reservoir evaporation/seepage rate. Ken Giberson, the engineer who completed CSD's earlier studies, stated that using any other testing site would provide a *more optimistic, inaccurate rate.* In the 1990 study the Davis pan was used resulting in a 25% rate. What evaporation/seepage testing site was used for this study and what is the assumed rate?

17) The 1990 Ken Giberson's CSD study used a 10% system loss rate (which calculates water lost through leaking pipe fittings, line breaks etc.). Mr. Giberson stated this LOW rate was utilized because the infrastructure was new and less prone to breaks and leaks. Rancho Murieta has an aging system, more prone to leakage. What rate is used in this study?

Water Usage Number Calculations:

18) All CSD's studies, 1990 on, have used a "Hybrid" EDU (Equivalent Dwelling Unit) Factor, where a predetermined water usage number is assigned to the developer homes, based on lot type, verses the standardized EDU Factor that is based on actual water usage data. Was a "Hybrid" EDU Factor used in this study? If so, please break down the usage numbers and also provide the assumed EDU gallons per day.

Miscellaneous Assumptions:

19) Will the study address the impact Senate Bill 9 or the "Duplex Bill" will have on Rancho Murieta's water supply? How many lots does the study assume will have casita units?

20) Does the study assume that park irrigation will be eliminated during severe drought conditions? If so, what is the cost to the community for loss of use and to replace the landscaping, once the drought is over?

Addressing Changing Cosumnes River Conditions:

21) Downstream water rights are over drafting the Cosumnes River and groundwater causing changing river flow conditions that could directly impact Rancho Murieta's water rights and future pumping. The Cosumnes River is Rancho Murieta's only water source. Will the study address these changing conditions?

Back-up Well Assumption:

22) The Story Map states that well water can be used as a backup supply. Rancho Murieta is underlain by Mesozoic metamorphic rocks which have little to no potential for ground water development. Has an acceptable well been located? If so, has it been tested to verify that it does not tap into the river aquifer (which would be a direct violation of CSD's pumping permit and could lead to revocation of that permit)? Has it been tested to verify that the well has sufficient volume to support Rancho Murieta's water needs? What is the cost associated with this assumption?