

To; Rancho Murieta Board Of Directors
cc: Amelia Wilder (for inclusion in board correspondence)

Subject: Water Planning By Assumption
From: John Merchant
June 4,2024

The Maddaus “Story Maps” seem to overlook a significant absence of reservoir storage required to support future development. Maddaus subsequently suggests “alternatives” which appear to compensate for the incompatibility of reservoir storage with future water demand. All the Maddaus’ water augmentation alternatives and scenarios in their list of mitigation options are, in fact, outright assumptions. When creatively applied, these can be crafted to justify the development of 1,000 new homes. I remain uncertain of our ability to support those homes until we have vetted all of the recommended options to mitigate stress on the system. *(These are located at the end of the Phase 3 Story Map)*. None of the Maddaus alternatives are vetted, perfected or readily available for implementation by the District at this time. The suggested remedies are discussed below. *The use of these options in the current water plan raise a significant concern that Maddaus can construct a viable draft water plan at this time.*

1. Use of Lake Clementia as a potable water source require Clementia, presently licensed for recreational use, to be re-licensed and adapted for municipal uses. This change of use is accompanied by a requirement to suspend body contact in Lake Clementia and require rigorous testing of Clementia’s water. Clementia’s water is provided almost exclusively by local drainage and runoff, and does not approach the quality of the raw water we divert from the river and process in our water plants. We have known of this quality issue since 1990 and it has been stated repeatedly in subsequent engineering studies. Use of Clementia as municipal source of water will result in a significant draw-down of lake levels, which are expected to further diminish its water quality. There was an expectation that a recent Wes Yost Engineering study would perform a physical evaluation of water quality and assess the potential impact on our water plant filtration. These tests did not take place, leaving still another assumption.
2. The District’s primary diversion permit restricts storage of diverted water to 3,900 acre feet per annum. It further restricts storage, allowing

only 2,650 acre feet of the permitted 3,900 acre feet of water to be stored in Lake Clementia, Lake Calero and Hole 10 of the South Golf Course. Realignment of this permitted storage to accommodate municipal use will require CSD petition the State Water Resources Control Board (SWRCB) for an amendment to Permit 16762. A separate petition to amend Clementia's recreational license is most likely necessary. It may require several years and great expense to obtain a decision from the SWRCB. These two permit amendments may also produce numerous protests to this application and result in unfavorable rulings. Without the future award of amended permits and licenses, use of Clementia as a mitigative and augmentation option cannot be offered as a viable option. The use of Clementia to support new development is obviously a favorable choice, however, it cannot be considered until amended permits are obtained.

3. Lake Clementia's licensed "source of supply" is water from an "unnamed stream." Water from an 1,100 acre watershed annually fills Clementia with drainage and local runoff. Development in Villages D-F (presently being considered in our water plan), will cause hundreds of acre feet of local runoff and drainage to be removed to a detention basin and retained as urban stormwater. The District does not possess a permit to replace this loss of supply with additional diversions from the river. Furthermore, a 1979 water order requires the District to maximize local runoff and drainage in lieu of drawing water from the river. A map of permitted streams, tributaries and the Cosumnes River is available at solosrm.org. It reveals an over-subscribed river on which no there is no additional permitted water. Increasing the permitted right to additional raw water is a huge "ask" and will be difficult to secure.
4. The District has a license to divert water in summer months, awarded to Mr. Granlee in 1950. This license (16142) allows water to be diverted for summer irrigation below the Granlee's Dam. The District has filed for an "amendment of area" with the SWRCB allowing it to divert raw water from the river and use it to irrigate the RMCC golf courses. This will replace historical golf course use of recycled water and repurpose *all* our recycled water for landscaping in Villages A-C. The absurdity of this concept lies in the discrepancy between this "on paper" permit and the natural reality of the summer flows of the Cosumnes River. The river has been completely dry in the summer as recently as July 2021. This zero flow rate is, by no means, a new phenomenon. In 1920, local residents hand-dug the CIA Irrigation Ditch to divert water from Granlee's Dam, bypassing the natural course of the Cosumnes River.

Using “the ditch” to route summer water downriver is always necessary. Low summer flows on the river percolate into the riverbed and run underground, below Granlee’s Dam and west beyond the District’s boundaries. The suggested repurposing of river water replacing recycled water is a desperate move, and has no place in a water plan with a goal of safety, resilience and reliability. Historically, using recycled water on our the golf courses is viewed as a “sure thing,” guaranteeing reliable summer water for two golf courses. It is also an RMCC entitlement, granted in the 1988 Agreement For Availability and Use of Reclaimed Water. This agreement is available for review on the RMCCSD website. The agreement runs with the land and will transfer to a new owner of the RMCC when it is eventually sold.

5. The consultant’s assumptions include a recommendation that CSD support the use of groundwater wells for both augmented water and an emergency source of supply required by SB552. Surprisingly, the conclusions of the Phase 3 Water Story suggest three to five wells may be required to support this augmentation, requiring wells producing 1000 gallons of water per minute.. There are no existing, available wells to suggest that this augmentation may be considered as a viable option. I a quote from the Phase 3 Water Story: *“Through the engineering assessment performed to analyze groundwater as a supply augmentation option, it was found that the District may expect one to two wells to meet current demand and may expect three to five wells to meet estimated future demands.”* Earlier statements in this same analysis suggest these wells should produce 1,200-2,000 gallons of water per minute. There are no costs, no evaluation of water quality, and no permissions or communication with the Sloughouse Groundwater Authority. We do not understand the total amount of emergency water that will be required and how long that water, in an extreme emergency, will be necessary to sustain a community of 9,500 people. There is no suggestion of how this water will enter our existing system and how much a project of this magnitude will cost. Without proof that the wells will provide a sustainable and reliable source of supply, they cannot be considered as a valid augmentation option and cannot be used in the water plan.
6. There is Story Map analysis that suggests recycled water supplies will grow from 425 acre feet per year to over 900 acre feet per year. Limited development will reduce this quantity, and at present, I find this estimate of 900 acre feet impossible to support. We simply cannot

make this much recycled water. This Maddaus estimate requires careful vetting.

7. Finally, there is a concept which represents the only attainable (and distasteful) option for creating additional water. *That concept is a radical rate of conservation, suggesting that 850 acre feet of water can be saved by implementing a 50% conservation in a drought emergency.* I have continually pointed to past reports which use conservation as a planning tool justifying additional development. It is cavalier to suggest that *we will be just fine* as long as the water plan promises to cut back the water supply of the residents who already live here. Conservation is a reaction to severe water shortage. It does not generate supply that can justify more houses.

I suggest the CSD Board select a safe and reliable option. That option is to leave this plan incomplete until such time as these assumptions of use and assumed augmentation become a documented reality.

Evaluating this water plan as it has taken shape in the last 18 months, I have arrived at an opinion that there is little community support for the “story” presented in the Story Map, and options it presents for the CSD Board. Simply put, our community does not trust this report. I have yet to witness a single resident come to a podium or write a letter suggesting their satisfaction and trust of any of the proposed assumptions or their complete comfort with its data. This plan magnifies risk to the existing community.

I suggest we begin a step by step review of permits, wells and recycled water. To continue the water plan to a draft document is a fools effort that may end badly for our community. I further suggest that we formally notify Sacramento County Department of Environmental Review that a Water Supply Assessment will not be available until the District can assure its existing and future residents the safest most reliable and most sustainable supply of water.

Note: There are two additional resources on the SOLOS website solosrm.org. Both have been forwarded to the SWRCB as reference documents: Click “BLOG” and review “[Rancho Murieta Water Supply and Storage](#)” and “[Lake Clementia And Potable Use](#)”

