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August 21, 2024

Rancho Murieta CSD  
General Manager and Board Members  
15160 Jackson Road  
Rancho Murieta, Ca, 95683

Dear Ms. Mimi Morris and Board Members,

This letter is in response to the Public Records Act Request submitted at the July 17, 2024 Board meeting. That request was the result of water study questions going unanswered for sixteen months. Although I offered to wave the Public Records Act Request (if my questions were answered) it came as no surprise - to me - that the requested documents were delayed and once received provided little additional information.

Although CSD's response may be within "the letter of the law," the information provided is not in keeping with "the spirit of the law." From my perspective, CSD's refusal to answer simple study questions is "stonewalling," at it's finest.

A Board member did provide some of the requested information, resulting in the attached breakdown.

One important question remains unanswered: "When does the study assume drought conservation measures begin and how long does the study assume those measures will be in place?"

A study chart, found on the CSD website, appears to state that drought conservation measures begin when the lake capacity levels drops to 95%, *which is almost every month of every year, including years of heavy rainfall.* It should also be pointed out that the study drought conservation rate is 30%. This number is in addition to the state mandated 20% water usage reduction level by the year 2020, which Rancho Murieta has not met.

In my opinion, any Board member who votes to approval additional development, before knowing the study drought conservation details, will be guilty of malfeasance.

Sincerely,

Janis Eckard



## CSD STUDY SUPPLY AND DEMAND NUMBERS

3708 Acre Feet - Lake Calero's and Lake Chesbro's capacity, w/flashboards (\*1)  
- 737 Acre Feet lost to reservoir evaporation - average years (\*2)  
- 287 Acre Feet lost to reservoir seepage - average years (\*3)  
- 237.02 Acre Feet Dead Storage - unusable portion of lakes (\*4)  
**2447.02 ACRE FEET NET AVAILABLE SUPPLY or**  
**2,089.28 ACRE FEET without flashboards**

1716 Acre Feet - CURRENT DEMAND less water lost to leaks and breaks(\*5) (\*6)  
281.6 Acre Feet - APPROVED DEVELOPMENT  
**1997.6 Acre Feet = TOTAL DEMAND**

### **REASON WHY THESE NUMBER MAY NOT BE ACCURATE.**

1. This number includes the flashboard capacity of the reservoirs. Relying on the flashboard capacity of the reservoirs is not an acceptable practice, per The Department of Public Health and Ken Giberson (the water engineer who completed CSD's 1980-1990 studies). Although Rancho Murieta has been able to fill this capacity in "most" years. Planning development reliant on water that may or may not be available is not a safe practice. **The total capacity without flashboards is 3,350.28 AF or 357.72 Acre Feet less than the study number.**
2. This is an "average years" figure and does not represent drought conditions. Dry years result in additional evaporation losses.
3. This is an "average years" figure and does not represent drought conditions. Dry years result in additional seepage losses.
4. All prior studies state that the dead storage portion of Lake Chesbro and Lake Calero is 350 Acre Feet, 68.4 Acre Feet more than the current study.
5. The study assumes a 12% current and future system loss rate. The 1990 CSD study used a 10% rate, described as low, due to the fact that the system was relatively new and less prone to leakage. The average life expectance of a pipe is 50 years. Rancho Murieta's infrastructure is old and in need of repair/replacement. Is a 12% loss rate realistic?
6. The current demand number is likely understated for the following reasons: a) The Department of Public Health discovered that CSD's 2010 study understated the existing demand figure by 8%. The 2010 number was 1710 AF (almost identical to the current 1716 figure). Significant development has occurred since 2010. b) There are homes missing from the study. c) The CSD does not use the industry standard method of calculating existing and future water usage.

THESE NUMBERS REPRESENT **ANNUAL** SUPPLY AND DEMAND TOTALS.

RANCHO MURIETA WAS UNABLE TO FILL IT'S LAKES DUE TO REDUCED COSUMNES RIVER FLOWS, DURING THE 1976-1977 WATER YEAR. RANCHO MURIETA CANNOT PUMP FROM THE RIVER, DURING SUMMER MONTHS. **IF RANCHO MURIETA EXPERIENCES ANOTHER 1976-1977 DROUGHT EVENT, IT WOULD BE NECESSARY FOR THE COMMUNITY TO SURVIVE A *MINIMUM* OF 17 MONTHS WITHOUT RIVER WATER. UNLIKE MOST COMMUNITIES, RANCHO MURIETA DOES NOT HAVE A BACKUP WATER SUPPLY.**



<b>ADDITIONAL SUPPLY WITH LAKE CLEMENTIA AS A PERMITTED STORAGE RESERVOIR</b>	<b>ACRE FEET</b>
<b>Clementia Gross Storage</b>	<b>850</b>
Clementia Evaporation using current 19.8% evaporation rates	(168)
Seepage using current 7.7% seepage rates	(65)
<b>Net Clementia Storage on June 1 (100% full)</b>	<b>617</b>
<b>Calero &amp; Chesbro Net Storage (from chart 1)</b>	<b>2,449</b>
<b>Clementia Net Storage. (from above)</b>	<b>617</b>
<b>Total Net Storage With 3 Permitted Reservoirs</b>	<b>3,066</b>
<b>Total Present Annual Water Demand + All Annual Entitled Demand for which there are county approved final maps (chart #1 above)</b>	<b>1,997.6</b>
<b>Excess Storage In Calero, Chesbro and Clementia on June 1. Pumping may not begin until November 1</b>	<b>1,068.4</b>
<b>Average months of supply on June 1 of a water year without conservation in place with Lake Clementia available for potable use</b>	<b>5.3</b>
<b>Aggressive, 50% conservation will double water storage. &amp; double the average months of supply</b>	<b>10.6</b>

- Neither a two or three reservoir supply provide an “emergency” or additional contingency source of supply  
Emergency storage is not shown in these charts
- Clementia dead storage is unknown and is not shown. Clementia has not been evaluated with bathymetric and Clementia’s actual storage is unknown. Clementia is permitted for 850 acre feet of storage but is included in a per annum storage limits contained in Permit 16762. Per annum storage is limited to a total of 2,650 acre feet that may be stored in Clementia, Calero and Hole 10 South.

**STORAGE IN PERMITTED CALERO  
AND CHESBRO RESERVOIRS**

**ACRE FEET**

**Gross Storage Combined Calero + Chesbro  
including stop logs, using bathymetric results  
of reservoir capacity**

**3,708**

Evaporation Calero + Chesbro

(737)

Seepage Calero + Chesbro

(287)

Dead Storage Calero + Chesbro

(233)

**Net Storage Combined Calero + Chesbro  
(assumes 100% full on June 1 of a water year  
after subtracting annual losses for  
evaporation, seepage and dead storage**

**2,449**

**Actual Water Demand on 12/31/2022 (includes  
water billed and systems losses and un-billed  
water**

**1,716**

Entitled Development Beyond 12/31/2022

+ Retreats

24

+ Riverview

92

+ Residences

165

+ Murieta Gardens

0.6

**Total Present Water Demand + All Future  
Entitled Demand for which there are county  
approved final maps**

**1997.6**

**Average Demand Per Month**

**166.4**

**Excess Storage In Calero and Chesbro at the  
end of diversion on June 1 (assumes 100% full)  
This is NOT emergency storage !**

**451.4**

**Average months of supply on June 1 of a water  
year without conservation in place**

**2.7**

**Aggressive, 50% conservation will double  
double the average months of supply**

**5.4**