Town Hall Questions
May 30, 2024

May 30, 2024: DRAFT
Pending Answers to
Q#035 and #036.
Q#026 dropped
because it duplicated
Q#005

Q#001

Due to the fact that the state is requiring water districts to reduce usage, how likely is it that this change ***(allowing Clementia to be used as a source of drinking water)*** would be approved?

The District will adhere to our permit conditions and pursue the intent of the permit conditions for Clementia. The state has approved changes of usage for other water districts in similar situations, like El Dorado Irrigation District. See also the Supply StoryMap for the full memo from CSD's water rights expert.

Q#002

How safe is it to rely on Lake Clementia, for future development, when you don't know if Lake Clementia's domestic water usage will ever be permitted?

All options need to be examined, including Clementia Reservoir.

Q#003

With greater demand and reduced supplies now, isn't it likely downstream entities might again attempt to block expanding Lake Clementia's usage?

This question requires the District to speculate as to the reactions of downstream entities.

Q#004

How would Lake Clementia usage change impact the community?

There are two governing state agencies: SWRCB for Water Rights & DPH DDW for drinking water standards (dws). The District has Clementia Water Rights. Past Master Plans and Permits all point to Clementia Reservoir as the community's drought reserve water source. The consultants used the quantity connected to the permitted water right to calculate the potential supply availability under various riverflow conditions. DPH determines if the District can treat/deliver water and meet dws. DPH cites two paths to meet DW standards, one eliminates all body-contact usage and one allows body-contact. Without Clementia, the community accepts more risk of water shortfalls.

Q#005

How will CSD prevent urban runoff contamination and maximize runoff storage in Clementia per Permit #16762?

There will be some runoff lost due to construction of houses around Clementia Reservoir, but the majority of the runoff that feeds Clementia comes from the upper watershed and Jean Reservoir. Regarding urban runoff contamination, as a regular part of its construction permitting process, CSD evaluates grading in order to make sure that urban runoff does not go into the reservoir.

Q#006

Is there infrastructure in place to transfer this water to the treatment plant?

There is an existing pipeline that connects Clementia Reservoir to Calero Reservoir.

Q#007

Given overstated storage capacities of Calero and Chesbro per drone surveys, is Clementia's storage capacity also overstated?

Clementia was not surveyed, so the District does not know if its storage capacity is overstated.

Q#008

Can the CSD break the contract to provide recycled water to the RMCC?

The agreement between CSD and RMCC for requires CSD to provide reclaimed water to RMCC for use on the golf course. The agreement does not contain a term allowing CSD to unilaterally terminate or change the agreement. The agreement could be terminated if RMCC breaches it, or it could be amended by mutual agreement of the parties.

Q#009

How can recycled water grow from 437 AF to 955 AF when the proposed development does not double the size of the community? (only another 1,000 homes)

The projected recycled water acre feet includes wastewater from non-residential development whose wastewater also needs treatment and disposal as recycled water.

Q#010

How can the study assume average precipitation supplies when analyzing a drought?

The study uses actual, historic river flow data (aka hydrology) from specific years to simulate various scenarios:
a) average year conditions and
b) low flow drought conditions against both current demands and future estimated build-out demands. See also Supply and Demand StoryMaps.

Q#011

If current residents were to add infrastructure for recycled water what would be the per household cost?

Retrofitting existing homes for recycled water has not been proposed as an alternative.

Q#012

What type of Water Right does RM have?

The District has 13 Water Permits and four Water Licenses some are Riperian and some are Appropriative.

Q#013

Can our water right be amended? If so, when and how often? By what agency? Is it clear that permits are not granted if water is not available? Do we have either a high or low priority?

Water Rights are authorized by Permits issued by the State Department of Water Resources. Amendments may be requested as needed, there is no limit to requests for changes. CSD Permits indicate required flow levels needed before pumping can occur. It is difficult to say with certainty whether the District has a higher or lower priority than any other user of the river.

Q#014

Have those with water rights who are located downstream from Rancho Murieta been invited to the Town Hall? What are the future needs of communities upstream from RM?

No, those with water rights downstream have not been invited to the Town Hall. The future needs of communities upstream from Rancho Murieta are limited so that other water rights are protected on the basis of their own permit requirements.

Q#015

Has CSD clearly informed residents that local governments do not administer water rights?

CSD has tried to convey the complex governing structure around water in California.

Q#016

Has the State Water Board been invited to the May 30 meeting? Or, are they aware of RM concerns?

CSD has not invited the State Water Board to the Town Hall Meeting, but the Board is aware of water concerns throughout California including those in Rancho Murieta.

Q#017

Regarding the climate change effect, it seems the study is already using the worst case scenarios when the water was less than what we could pump. When you plug in climate change, what does that do to the model if you have already included not being able to pump water?

The climate change impact in the model either amplifies or dampens the river flows. So, it's layering in an additional factor. We expect more water in the winter months and less snowpack. So, in some cases it's amplifying flows like in winter months, and other times it dampens.

Q#018

Did you look at whether or not we have the actual houses and the ability to get rid of our recycled water, or are you just assuming it's all being used somehow in lieu of potable water?

The study did calculate if current and future houses outfitted with purple recycled pipe would be able to fully utilize the recycled water. Calculations show there are enough houses to use up all the recycled water.

Q#019

Where are we at on using Clementia as a backup supply?

Staff has begun preliminary efforts to investigate using the current water right for potable water usage. The next steps are either statutory change (legislation) or elimination of body-contact usage and approval by the Division of Drinking Water (at Department of Water Resources).

Q#020

If water conservation efforts reduce wastewater, how will enough recycled water be available?

Most conservation efforts are based on outdoor irrigation rather than indoor usage and the indoor usage provides the raw source water for the recycled water system and the study accounts for lower indoor usage in the future usage calculations.

Q#021

Will the planned use of raw water to water the golf course come from storage lakes other than those reservoirs that supply the water treatment plant?

The District has a permit to draw raw water directly from the river for irrigation purposes so there would be minimal to no impact to those additional storage reservoirs.

Q#022

Do you have estimated CIP Water Treatment Plant or water delivery system upgrade costs, etc., to improve delivery of the water?

The estimated costs for improvements is part of the CIP analysis that is in the alternatives being prepared.

Q#023

Given the 670FSA, what is CSD's legal requirement to provide water and what is that cost?

The District's General Counsel is reviewing the 670FSA and will be providing a formal memo in June.

Q#024

The two options that are being presented to the board are using Clementia as a possible water source or augmenting water supply with the use of wells. What's the prospects of those? What's the timeframe for those? And what's the cost involved?

The consultants are working on evaluating the cost, prospects, and timeframe for additional sources of water and their results will be included in the report.

Q#025

The study says 475 acre feet of recycled water come from 2,700 home and projects 955 acre feet with only another 1,000 homes. So I'm wondering, where's all this recycled water coming from?

The projected recycled water acre feet includes wastewater from non-residential development whose wastewater also needs treatment and disposal as recycled water. The combined 475 acre feet of recycled water plus the new homes and the commercial usage increases overall recycled water to 955 feet.

Q#027

In 1979, downstream farmers fought to block usage of Lake Clementia as a drinking water supply. With more limited water supply today, why do we think those downstream farmers will go along with a permit change?

The District's permit #16762 authorizes 850 acre feet to be pumped annually into Clementia Reservoir. The proposed usage of this water as a potable water supply does not impact that water right and does not impact the water rights of those downstream from the community.

Q#028

How will there be enough recycled water for all the existing and new houses if there is not currently enough for the country club. Isn't the lack of recycled water infrastructure an expensive obstacle?

Using raw water for the golf course makes more recycled water available for existing and new houses. The plan is to utilize raw water pumped from the river to supplement recycled water used to irrigate the country club.

Q#029

Is it possible to expand supply/storage before the buildout occurs?

It is possible to expand both supply and storage with either a changed usage of Clementia or the creation of a groundwater supply/storage through an aquifer storage and recovery system which is one of the recommendations in the study.

Q#030

Given current permits and infrastructure, does the future water demand, if currently approved development is completed, exceed available supply? If so, where in your StoryMap sections do you state such?

Future water demand at full buildout does not necessarily exceed current supply. Per scenarios included in the study and the consultant's April Board presentation, an average year will result in sufficient water, but an historic drought year may result in insufficient water at full buildout. Historic or "worst-case" drought is defined as the 1976-77 drought during which no pumping at all was possible, leaving the community completely reliant on whatever water was left in the reservoirs from prior years.

Q#031

Will you provide statements in the final draft specifying the feasibility, cost and timeframe for implementing the alternative water supply sources you have identified?

Yes.

Q#032

Does your modeling account for the apparent 18 – 20% loss of stored water due to evaporation and/or seepage identified by Mr. Merchant? If so, in what manner?

Different types of losses have been accounted for. There are reservoir evaporation/seepage losses and there are distribution system losses (pipe leaks, under-registering meters) which are the difference between water treated and water delivered. The analysis performed is based on the best availability data and the consultants will recommend how to improve data, such as an on-site weather station for a local evaporation rate rather than regional data. The amount of evaporation and seepage varies based on the time of the year and the level of the lake.

Q#033

Assuming full capacity in Calero and Chesbro at the conclusion of the pumping season, what is the volume of available water in those reservoirs prior to dead zone if water is not available to be pumped from the river and assuming an 18% evaporation/seepage rate?

The volume of available water prior to dead zone in Calero is 2,565 acre feet and in Chesbro is 1,143 acre feet, for a total of 3,708 AF. The respective dead storage in both of those reservoirs, is 233 acre feet and 32 acre feet. If there were two successive dry years, the community would run out of water.

Q#034

In suggesting using raw water directly from the Cosumnes River to irrigate the golf course, did you account for the low river flows during the summer months when the water would most likely be needed?

Yes, the lower river flows were accounted for in the recommendation to use raw water for golf course irrigation. The raw water permit (Permit #10144) allows for pumping for irrigation when the river flow is at 1.24 cubic feet per second and pumping is authorized between May 1st and October 31st.

Q#035

How many acre feet of water would be saved by a 30% conservation target.?

Under current demand, a 30% conservation target would result in a savings of 515 acre feet of water.

Q#036

What was the highest conservation rate attained historically?

The highest conservation rate attained historically would be the 28.5% reduction from roughly 2004 to 2018 when gallons per capita per day dropped to roughly 250 from over 350. This usage rate includes both indoor and outdoor consumption and predates more effiicient plumbing fixtures and irrigation practices being put in place by CSD customers.

Q#037

Is there an estimate of success in requesting Clementia as an alternate source for water supply?

Given that the state has approved changes of usage for other water districts in similar situations, chances of success are plausible based on evidence of other communities' success. The District will adhere to permit conditions and pursue the intent of the permit conditions for Clementia.
See also the Supply StoryMap for the full memo from CSD's water rights expert.

Q#038

Have any discussions with OCC or DDW been initiated regarding the feasibility of modifying permits and licenses to use Clementia for potable water supply?

District staff (Michael Fritschi) and the West-Yost consultants have been in conversation with the DDW.

Q#039

Assuming current permits and infrastructure, without a drought or other catastrophic failure, at what level of additional buildout would our supply and storage of water exceed projected demand?

Future water demand at full buildout does not necessarily exceed current supply. Per the scenarios included in the study and the consultant's presentation to the Board on April 17th, an average year will result in sufficient water even at full buildout.

Q#040

Will study use prior District conservation rate of 50%, or current industry standard rate of 20 -25%? How long will study assume restrictions be in place? Will study's conservation rate be in addition to or include S87 compliance? (S87 mandated 20% reduction in water usage by 2020).Will study quantify community's financial losses based on assumed conservation rate?

District Policy 90-2, Conservation in Extreme Drought, which you may be referring to, includes a max. conservation rate of 50% only in extreme drought emergency situations and required by state law. Conservation rates are changes to everyday usage through water-efficient fixtures, etc., per SBX7-7, which called for 20% reduction of everyday water usage by 2020 which the District achieved. The study does not focus on financial considerations of drought, but rather on quantifiable supply & demand.

Q#041

Will the study use the assumption that the lakes are at their flashboard-enhanced capacity, (going into a drought) contrary to normal planning practices per the Department of Public Health and CSD's prior water study engineer, Ken Giberson?

The modeling effort has the ability to evaluate both with and without flashboards.

Q#042

Lake Clementia's capacity has been utilized in past studies, even though it is solely permitted for recreational usage and not for residential consumption. Will this study rely on that capacity?

Yes.

Q#043

Will the study use the developer assumption that park irrigation will be eliminated during severe drought conditions?

The consultants did not receive or utilize any assumptions from developers regarding park or other irrigation.

Q#044

A developer's reduced evaporation/seepage rate has been used in recent studies. Will this analysis use the DWR-recommended Davis plan when calculating this rate or the predetermined reduced developer rate?

This analysis uses the Folsom Lake Reservoir evaporation data as the best available data and the seepage model developed for the existing reservoirs prepared by District Engineer Giberson (the Giberson Model).

Q#045

The 1990 CSD study used a 10% system loss rate, because the system was new and less prone to breaks and leaks. A reduced developer's assumption rate has been used in recent studies, even though Rancho Murieta has an older system. What rate will this study use?

The study used an average 12% loss rate (2020-2022) that is included in the Demand StoryMap description. This is based on historic actual data that shows actual system water losses.

Q#046

Downstream water rights are overdrafting Cosumnes River & ground water, causing changing river flow conditions that could directly impact RM's water rights and future pumping. Because the Cosumnes River is RM's only water source, will the study address these changing conditions?

The District does not foresee any impact on the District's water rights from any changes from downstream use.

Q#047

Will the study use an industry standard EDU (Equivalent Dwelling Unit - the water used by the average household}, based on actual water usage numbers or the developer's "Hybrid" EDU Factor?

The study is using actual usage data from current lot types and projecting that usage on similar lot types to calculate the future usage. This approach is much more refined and accurate than an EDU-based approach.

Q#048

Will the study use the developer assumption that future lots over 12,000 square feet have a reduced water allocation? If so, how will this be achieved?

No, the study is not reducing water allocations on future lots over 12,000 square feet. The study is using actual usage data from current lot types and projecting that usage on similar lot types to calculate the future usage.

Q#049

Will the study contain the capacity of the system (missing in the prior study)?

Yes.

Q#050

Will the study address the impact Senate Bill 9 or the "Duplex Bill" (like Accessory Dwelling Units (ADUs) will have on Rancho Murieta's water supply?

The study does take ADU water usage into the demand calculations. For additional details, see the Demand StoryMap.

Q#051

Will the study show reduced storage capacity from recent drone surveys & address the fact that building around reservoirs will decrease runoff water capacity?

The study does utilize the storage capacity data found by drone for both Calero and Chesbro.

Regarding runoff, any water runoff that goes into Clementia cannot be used for potable water use because there is no water right for water brought in by runoff.

Q#052

Will the study address ALL omissions and concerns raised in the (County-ordered CSD review) January 4, 2010 West Yost Associates Technical Memorandum and the Oct. 5th 2010 and Nov. 16, 2012 letters written to the CSD, from the Department of Public Health?

The study is based on the current, best available data and will not be evaluating reports or letters from over a decade ago.

Q#053

Will the study contain a trigger point when drought conservation measures must be followed?

The District is required to have a Drought Plan to address different levels of drought and corresponding conservation requirements. The Drought Plan will be developed following completion of the IWMP. Separately, any state-mandated-conservation requirements would trigger conservation measures.

Q#054

Will study consider CSD guarantee to fulfill RMCC's water needs before providing water for houses? CSD's tertiary water treatment doesn't meet residential usage quality requirements:multi- million dollar investment needed to meet state regs. If recycled used, is it achievable & who pays for WWTP improvements?

The study does consider the RMCC-CSD agreement guarantee that RMCC's needs be satisfied before other users. The District's current wastewater tertiary treatment **does meet** state requirements for dual-plumbed systems for non-potable irrigation so noo additional, costly enhancement to the treatment system is required to meet state requirements.

Q#055

What are the assumed beginning and ending drought conservation dates?

Typically, it is hard to know when a drought is truly over, but the state often measures snowpack, etc. and determines whether continued extreme conservation measures are required.

Q#056

Does the study assume that the conservation measures are phased in or is the 30% conservation rate the only assumed conservation figure? If the reduction measures are phased in, please provide details.

In the model, the measures are phased in at different levels of drought. The details may be seen in the Scenarios StoryMap.

Q#057

Will the study correct the inaccurate numbers pointed out during the 5-15-2024 meeting?

Please specify which numbers you think were inaccurate.