Jacobson, Dana

From: Salzano, Tom
Sent: Monday, May 02, 2011 11:15 AM
To: Ryan Orgill
Cc: Tommy Greci; Maggie Herzog; Bolzowski, Michael R.; Jacobson, Dana
Subject: RE: Draft Urban Water Management Plan

Ryan,
Thanks for the input, it is nice to know that Larry thinks we did a good job.

Since the file is so large we have placed an electronic copy on an FTP site for downloading. The following is extracted from our Notice of Intent to Adopt an Urban Water Management Plan for the Visalia District. Let me know if you have any problems accessing the files.

The site can be accessed at http://calwater.ftptoday.com ;
The user name is **cwsftp31** and the password is **K3yb0ard**.

Tom
Thomas A. Salzano
Water Resource Planning Supervisor
California Water Service Company
408-367-8340 Office
408-639-8360 Cell

From: Ryan Orgill [mailto:ROrgill@carollo.com]
Sent: Monday, May, 2011 11:01 AM
To: Salzano, Tom
Cc: Tommy Greci; Maggie Herzog
Subject: Draft Urban Water Management Plan

Hello Thomas,

We are currently preparing the City of Tulare's 2010 Urban Water Management Plan. Last week we met with Larry Dotson from the Kaweah Delta Water Conservation District as part of a Stakeholders meeting. During that meeting he mentioned that CalWater has issued a public review draft UWMP for Visalia's water system. Larry mentioned that you did a great job on the plan, particularly on the safe yield estimates for the groundwater basin. It would be great to review the document and your approach to developing these estimates. Would it be possible for you to send me a pdf of the document?

Thanks,

Ryan F. Orgill, P.E.
Carollo Engineers, Inc.
7580 North Ingram Avenue, Suite 112, Fresno, CA 93711
Phone: (559) 436-6616 Fax: (559) 436-1191

Jacobson, Dana

From: Kim Loeb [KLoeb@ci.visalia.ca.us]
Sent: Thursday, April 14, 2011 9:16 AM
To: Jacobson, Dana
Subject: RE: GW Pumping Graph

OK, thanks Dana.

Kim

-----Original Message-----
From: Jacobson, Dana [mailto:djacobson@calwater.com]
Sent: Thursday, April 14, 2011 9:08 AM
To: Kim Loeb
Subject: RE: GW Pumping Graph

Kim,

Yes, the target demand is higher because of where we started our projection in 2010 using a per capita value that was greater than the 2010 actual. In this case we used an average 2005-2009 as a baseline (which is different from the baseline used to calculate SBx7-7 targets). The reductions begin in 2011, although total pumping increases due to population growth. The SBx7-7 calcualtions can be confusing. If you need any clarification feel free to give me a call.

Dana

Dana Jacobson
Water Resources Planning
California Water Service Company
1720 North First Street
San Jose, CA 95112
Phone: (408) 367-8361

From: Kim Loeb [mailto:KLoeb@ci.visalia.ca.us]
Sent: Thursday, April 14, 2011 8:54 AM
To: Jacobson, Dana
Subject: RE: GW Pumping Graph

Dana,

Great news about 2010 pumping! I bet the rains made a big difference. I suppose you'd already used target demand before actual was available and that is why it is more. Is that correct?

Thanks for sending this right over. Yes, I did get the letter, but haven't had time to pull the Draft UWMP down yet. I intend to review and comment ahead of the meeting. At this point, I think the things I'm aware of that we are still not completely comfortable with are Fugro's estimation of the sustainable yield and groundwater recharge efficiency.

Thanks,
Kim

-----Original Message-----
From: Jacobson, Dana [mailto:djacobson@calwater.com]
Sent: Thursday, April 14, 2011 8:44 AM
To: Kim Loeb
Subject: RE: GW Pumping Graph

Kim,

Attached is the data you requested. The pumping with SBx7-7 reductions is in the column labeled "Target Demand". You will see that in 2010 we reduced pumping considerably, which is great. It's difficult to tell where it came from but we had the cool and wet weather last year, a bad economy, a call for drought reductions, and the meter conversions. Let's hope these savings are permanent. You can also access the data in Appendix C of our Draft UWMP on this site:

http://calwater.ftptoday.com ;
The user name is **cwsftp31** and the password is **K3yb0ard**

You should have received a couple of letters by now seeking review and comment on the Draft UWMP and giving the date and location of the public meeting. It would be great if you would make comments similar to what you did in the past. I was hoping to have another meeting to clean up any loose ends but we ran out of time because of all the waiting, both for information from the Master Plan, and also because of the delay by the State in issuing their guidelines. Needless to say we've been busy pulling together all 24 of our plans over the last couple of months. I feel like we've dealt with the major isues in Visalia but if there are things lingering for you please let us know.

Dana

Dana Jacobson
Water Resources Planning
California Water Service Company
1720 North First Street
San Jose, CA 95112
Phone: (408) 367-8361

From: Kim Loeb [mailto:KLoeb@ci.visalia.ca.us]
Sent: Thursday, April 14, 2011 8:23 AM
To: Jacobson, Dana
Subject: RE: GW Pumping Graph

Hi Dana,

Would the data be at point that you could send it to me know? It would be very helpful for a focused hydrogeologic study we are doing in support of our Water Conservation Plant tertiary treatment upgrade project. Specifically what I'm looking for are the projected annual pumping rates after the SBx7-7 reductions.

Thanks,
Kim

> -----Original Message-----
> **From:** Jacobson, Dana [mailto:djacobson@calwater.com]
> **Sent:** Monday, January 24, 2011 3:43 PM
> **To:** Kim Loeb
> **Subject:** RE: GW Pumping Graph
>
> Kim,
>
> Here is the latest copy of this graph. It may be different from the one that was in the last draft section I sent you. For reasons that I will describe at our next meeting, we have decided to use the SBx7-7 method for the water demand projections. You will see the unadjusted baseline demand, which assumes no conservation, and the target demand, which represents the 20% reduction. You can see the associated data for the target demand at the bottom of this email.
>
> I hesitate to send the entire UWMP data file at this point but should be able to later. The worksheets are in various stages of completion, and we have run into some data problems with the year-end 2010 data. I'm itching to send you a complete copy of the Draft UWMP but we always seem to be waiting on something. In this case its the data problems, and the feasibility analysis for alternative supplies that is coming from the Master Plan, which of course is behind schedule. For purposes of the UWMP we may have to give a more subjective discussion of alternatives and get the details later when the Master Plan is complete.
>
> Dana

Table 4.4−2: Amount of Groundwater projected to be pumped – AFY (Table 19)

Basin Name	2010 (Actual)	2015	2020	2025	2030	2
San Joaquin Valley Groundwater Basin - Kaweah Sub-basin	31,762	37,307	37,390	41,788	46,706	51
% of Total Water Supply	100 %	100 %	100 %	100 %	100%	1(

Dana Jacobson
Water Resources Planning
California Water Service Company
1720 North First Street
San Jose, CA 95112
Phone: (408) 367-8361

From: Kim Loeb [mailto:KLoeb@ci.visalia.ca.us]
Sent: Monday, January 24, 2011 2:51 PM
To: Jacobson, Dana
Subject: GW Pumping Graph

Hi Dana,

I wonder if you could send me the current groundwater pumping graph and data. I have this one from last year, but the figure in your draft UWMP looks slightly different and I know we've been tweaking the population projections. I would like to be sure I have the current version, or in fact, if I could have a copy of the latest version of the VIS UWMP Data 2010-100216.xls file that would be fabulous.

Thanks,
Kim

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Jacobson, Dana

From: Kim Loeb [KLoeb@ci.visalia.ca.us]
Sent: Thursday, June 09, 2011 8:16 AM
To: Salzano, Tom
Cc: Jacobson, Dana; Mirwald, Phil
Subject: Visaila comments on draft UWMP
Attachments: Cal_Water_UWMP_COV_Comments_110606-opt.pdf

Good Morning Tom,

Attached are the City of Visalia's comments on the draft UWMP. The hard copy will follow by mail. As always, please feel free to contact me if you have any questions or wish to discuss.

Regards,

Kim Loeb
Natural Resource Conservation Manager
City of Visalia
559.713.4530
kloeb@ci.visalia.ca.us
www.GoGreenVisalia.com

City of Visalia

425 E. Oak Ave., Ste. 101, Visalia, CA 93291

Natural Resource Conservation

Tel: (559) 713-4531 Fax: (559) 713-4817

June 6, 2011

Mr. Thomas A. Salzano, Water Resource Planning Supervisor
California Water Service Company
1720 North First Street
San Jose, CA 95112-4598

RE: Draft 2010 Urban Water Management Plan, Visalia District

Dear Mr. Salzano:

The City of Visalia (City) appreciates the opportunity to review and comment on California Water Service Company's (Cal Water's) draft 2010 Urban Water Management Plan (UWMP). The UWMP is a crucial planning document relied upon by the City and will be referenced by the City's General Plan Update.

Overall, we find the draft UWMP to be a detailed and well developed planning document. This letter presents the City's comments clarifying information in the UWMP regarding City operations and provides suggestions for making portions of the plan less general and more specific to Visalia.

Of specific concern is the discussion in the Water Supply Alternatives section which provides a quantification of projected supply shortfall based on analysis that is part of Cal Water's Water Supply and Facilities Master Plan (WSFMP). The WSFMP is still being drafted and is not expected to be completed until late 2011. The text specifically indicates that groundwater recharge was not "taken into account" in this analysis. Nor were additional conservation measures considered. Reliance upon analysis contained in the unfinished and unpublished WSFMP is premature and should not be included in the UWMP. Additionally, the UWMP (and the WSFMP) should consider deeper demand reductions through additional conservation measures, not just identification of potential additional water supplies to meet projected demand.

Suggested changes in the discussion below use a format of underline for added text and ~~strikethrough~~ for deleted text.

4 System Supplies

4.4 Groundwater

4.4.2 Groundwater Management Plan

The last paragraph in this section discussing the City's recent groundwater recharge activities is not quite accurate and should be changed as follows:

The City purchased and recharged 2,482 AF and the Visalia Water Management Committee purchased and recharged 5,358 AF in 2010 ~~using both the Groundwater Impact Fee and Groundwater Mitigation Fee~~. Since 2005 the City

and the Visalia Water Management Committee have purchased and recharged 15,940 AF for an annual average of 3,188 AF.

Also, this is the first reference to the Visalia Water Management Committee. The text could indicate something like "see Section 4.4.5 for more information on the Visalia Water Management Committee."

4.4.3 Conservation Ordinance

Text should indicate the City adopted "Stage 3. Mandatory Compliance--Water Warning" about 10 years ago.

Text states that Cal Water employees can issue notices of violation of the City's water conservation ordinance; however, Cal Water District Manager Phil Mirwald verbally informed the City recently that Cal Water no longer will issue notices of violation. He said this was a policy decision from the Cal Water corporate office.

4.4.4 Storm Water Management

The second sentence in the third paragraph "The City continues to work with KDWCD to improve recharge in and around the urban area by sharing facilities" is not quite correct. There are only two facilities which the City shares with KDWCD. Both are upstream of the City. The City has worked with, and continues to work with, KDWCD and others to modify City storm-water basins located near channels to dual-use storm-water and recharge basins.

The fourth paragraph discussing the Storm Water Master Plan incorrectly states that it has not been fully implemented due to water quality concerns. All new construction is required to follow the current Storm Water Master Plan. A revision to the Plan has been started and will be completed with the City's General Plan Update. The following paragraph should be replaced as follows:

~~*The full implementation of the Storm Water Master Plan has been slowed due to water quality concerns associated with the direct connection of storm drain pipelines and to creeks and ditches. It is likely that pretreatment of storm flows may be required prior to discharge into creeks. Moving forward, the City hopes to implement Low Impact Design measures for new developments to reduce storm water quality impacts.*~~

New construction is required to follow the City's current Storm Water Master Plan. An updated Storm Water Master Plan will be completed with the City's General Plan Update. The new Plan will include low-impact design measures and on-site retention to increase storm-water recharge.

4.5 Recycled Water

4.5.1 Wastewater Collection

The second sentence of the first paragraph should be changed as follows:

A small portion of the wastewater produced in the District is disposed of in onsite septic ~~tanks~~ systems, principally in current and former county islands.

The last sentence of the second paragraph states that the treated effluent is "...diluted for use in agricultural irrigation of cotton and silage crops." Effluent used for recharge is

only diluted if there is other water in Mill Creek, but it is not always or purposefully diluted.

The last paragraph of this discussion refers to the effluent ammonia concentration limit as an "MCL". The ammonia limit is a "waste discharge requirement" or "WDR"; MCL's are maximum contaminant levels that apply to drinking water.

4.5.2 Estimated Wastewater Generated

This section appears to overestimate the amount of wastewater that will be generated by the Visalia Water Conservation Plant (WCP). Text states that wastewater quantities were estimated using a per capita value of 120 gallons per day. However, using the data in tables 2.2-2 and 4.5-1 for year 2010, population (134,410) and wastewater flow rate (13 MGD), respectively, yields a more representative value of 97 gallons per day per capita from the WCP.

Figure 4.5-1 is entitled "Estimated Annual Wastewater Generated," yet the data shown are millions of gallons per day (MGD). These values are overestimated by about 4 MGD. Daily effluent generated was 13 MGD in 2010 and is estimated to be 26 MGD in 2032. The tables and discussion use units of AFY, while this figure uses units of MGD. It would be easier to compare the table and figure if they were in consistent units.

The second paragraph of this section "At this time the City expects 100 percent of the treated effluent to be reused through transfer and exchange agreements with local irrigation districts" is not completely accurate. The City plans to reuse 100 percent of its recycled water, the majority through transfer and exchange agreements; however, some of the water will be used for irrigation of the City park and golf course through a purple-pipe system, as discussed in Section 4.5.3.

4.5.3 Potential Recycling

The first paragraph should be modified to:

> *A portion of the effluent from the WCP is now being used for several purposes including placement in percolation basins with incidental groundwater recharge and agricultural irrigation.*

We do not presently use the effluent for direct groundwater recharge. This is an important regulatory distinction.

The second paragraph uses a more accurate estimate of 14,000 AFY of recycled water generated, but this amount is not consistent with figure 4.5-1 or tables 4.5-2 and 4.5-4.

The last sentence of the second paragraph should be modified to read:

> *These areas presently use pumped groundwater to provide their irrigation water supply needs and are not served by Call Water other than for potable water."*

The first sentence of the third paragraph should be changed to read:

> *The City of Visalia is also intending to enter into exchange agreements with one or more ~~several~~ irrigation districts and companies in which the City would ~~divert water to recharge facilities within or east of the City, and~~ deliver recycled water ~~treated effluent~~ to the irrigation districts ~~to replace this supply~~ in exchange for water delivered east of the City for groundwater recharge.*

Table 4.5-4 indicates recharge in City basins of 6,647 AFY in 2015 diminishing in 2020 and 2025. At this time, the City does not envision direct recharge of recycled water in any City basins following upgrade of the WCP to full tertiary treatment. The recycled water will be used for landscape irrigation and exchange with one or more irrigation districts. The exchanged water will be recharged in City basins. And as discussed previously, this table appears to overestimate the volume of recycled water that will be produced by the WCP.

4.6 Transfer or Exchange Opportunities

The sixth and seventh paragraphs of this section discuss the exchange of up to 10,000 AF of Cal Water's banked groundwater in Kern County. The discussion states that the exchange would result in the "ultimate delivery to the Visalia area via the Kaweah River and its distributaries for groundwater recharge." Actually, the exchanged water from Hills Valley Irrigation District is delivered to Visalia via the CVP Friant-Kern Canal.

4.8 Water Supply Alternatives

The water-supply alternatives section is limited to a discussion of supply alternatives needed to meet presumed future demand. Any discussion of future water supplies should also consider demand reductions. As discussed in the UWMP, the majority of the water delivered in the Visalia District is used for landscape irrigation. Opportunities for significantly reducing future demand through much more extensive conservation measures should be analyzed before, or certainly in parallel with, proposal of very expensive infrastructure projects such as surface-water treatment facilities, pipelines, and water-rights acquisition.

As discussed previously, specific quantification of projected supply shortfall is based on analysis that is part of Cal Water's Water Supply and Facilities Master Plan (WSFMP). The WSFMP is still being drafted and is not expected to be completed until late 2011. The text specifically indicates that groundwater recharge was not "taken into account" in this analysis. Nor were increased conservation measures considered. Reliance upon analysis contained in the unfinished and unpublished WSFMP is premature and should not be included in the UWMP. Additionally, the UWMP and WSFMP should consider deeper demand reductions through additional conservation measures, not just identification of potential additional water supplies to meet projected demand.

5 Water Supply Reliability and Water Shortage Contingency Planning

5.1 Water Supply Reliability

We appreciate Cal Water's efforts to evaluate the volume of overdraft due to Cal Water pumping and to establish a safe yield / sustainable pumping rate. This is the first Cal Water UWMP to recognize that Visalia's groundwater resources are limited and that Visalia, and the region as a whole, have been extracting unsustainable amounts of water for a long time.

However, Cal Water's quantification of the sustainable pumping rate relies largely on the City of Visalia Groundwater Modeling Study conducted by Fugro Consultants, Inc. While the modeling study provides useful analysis for comparing different scenarios of pumping and artificial recharge within the model domain, we would strongly caution against overreliance on the modeling study for analysis of pumping in the urban Visalia area within the regional setting of the Kaweah River Basin or KDWCD. This is because the model is highly sensitive

to boundary effects. In other words, impacts due to regional water level changes at the Visalia model boundaries dwarf impacts due to pumping within the model domain.

An estimate of the total volume of water stored in the aquifer is presented in the "Total Groundwater Storage and Average Annual Groundwater Storage Change Calculations" section. Text states that the 62,000 acre Visalia model domain contains about 4 million AF of water stored in the total saturated aquifer thickness of 600 feet. This estimate implies an average porosity of 11 percent for the entire aquifer, which may be reasonable. The UWMP then extrapolates the number of years until the aquifer is dewatered based on the average annual overdraft. This extrapolation assumes that all of the water in storage could be pumped, which is an unreasonable assumption. This would imply that the entire thickness of the aquifer would convert from semi-confined conditions (with a modeled storage coefficient of 0.00001 in model layers 2 and 3) to unconfined conditions with an average specific yield of 11 percent. This evaluation needs a second look.

5.2 Drought Planning

The drought planning section evaluates supply and demand in terms of acre-feet, however, it might be useful to estimate declines in the water table due to drought conditions. In general, as the water table declines more water is drawn from increasingly less permeable sediments causing larger capture zones of pumping wells and increasing concerns due to well interference.

5.5.5 Drought Stages

The drought stage section appears to be generic text not specific to the Visalia District or the City of Visalia. It would seem appropriate to include a discussion of how Cal Water's four drought stages integrate with Visalia's Water Conservation Ordinance stages. Additionally, tables 5.5-1 through 5.5-4 should indicate which actions have already been implemented (e.g., local drought ordinances).

5.5.6 Water Supply Conditions and Trigger Levels

This section discusses the difficulty of setting triggering mechanisms in the Visalia District due to groundwater being the sole source of drinking water. Table 5.5-5 lists "percent shortage" supply reduction triggers for each of the drought stages. However, the UWMP does not identify any criteria by which the percent shortage triggers should be measured. Triggers without a method by which they can be measured are not meaningful and it is not clear that any of the drought planning actions would be implemented as currently written.

6 Demand Management Measures

6.3 Water Savings Requirements

We are concerned with the statement "Because Visalia District is part of a regional alliance, the amount of water savings needed for SBx7-7 compliance may turn out to be less than the amount shown in the table." We strongly encourage Cal Water to achieve the SBx7-7 water savings of 2,195 AF by 2015 rather than a lower regional alliance amount which is not indicated in the UWMP. We assume that the MOU Flex Track water savings of 4 AF is presented simply to show that the planned water savings meet this target.

7 Climate Change

7.2 Strategy

City staff believes that evaluating potential future changes to water supplies due to climate change so that adaptation strategies can be evaluated and implemented is critical, and therefore we are encouraged that Cal Water is undertaking this effort. We look forward to reviewing Cal Water's Climate Assessment Report for the Visalia District when completed in 2013.

Thank you again for the opportunity to review and comment on Cal Water's draft Urban Water Management Plan. Please feel free to contact me at (559) 713-4530 if you have any questions or wish to discuss our comments.

Sincerely,

Kimball R. Loeb, PG
Natural Resource Conservation Manager

Cc: Phil Mirwald, California Water Service Company
Visalia City Council
Steve Salomon, City of Visalia
Leslie Caviglia, City of Visalia
Andrew Benelli, City of Visalia

KAWEAH DELTA
Water Conservation DISTRICT

May 3, 2011

California Water Service Company
1720 North First Street
San Jose, California, 95112-4598

Attn: Thomas Salzano, Water Resource Planning Supervisor

Subject: 2010 Urban Water Management Plan (Visalia District)

Kaweah Delta Water Conservation District (District) appreciates the opportunity to review and comment on the California Water Service Company (Cal-Water) "Draft" 2010 Urban Water Management Plan (UWMP) of the Visalia District. Attached with this letter are certain pages from the Plan with recommended revisions. Please also note that Appendix H "KDWCD Groundwater Management Plan" included an outdated version. The District's current plan was updated on November 7, 2006 and can be obtained upon request.

The District would like also take this opportunity to address a fundamental tenet of responsible use of the basin's groundwater resource. This principle is based upon the fact that groundwater is a finite supply that can be depleted and it is also a supply that can be replenished. The UWMP recognized the region's overdraft condition, which in the simplest of terms is a result of annual groundwater withdrawals over a long-term that exceed the replenishment of the aquifer. Cal-Water is to be applauded for taking the initiative of including the analysis of sustainable groundwater pumping within the UWMP Section on Water Supply Reliability. The information gained from the preliminary sustainable pumping estimate reveals and at the same time confirms our understanding of groundwater supplies available to Cal-Water. However, the perspective stated on page 42 of the UWMP that "the available supply in future years is considered to be equal to the project demand" completely ignores the discussed tenet.

The District recognizes that groundwater overdraft in the Visalia area is not the sole result of Cal-Water's groundwater withdrawals. Still, it is expected that all groundwater supply planning, as represented in the UWMP and other planning documents, should recognize annual average replenishment as a sustainable supply and not available water in storage. Both our organizations understand that providing a stable long-term supply of groundwater is a vital effort that we must focus our cooperative and continuing efforts toward. Therein, the District has been encouraged by Cal-Water's recent active participation with the District and City of Visalia on various groundwater recharge programs and projects.

Respectfully,

Larry Dotson
Senior Engineer

enc.

2975 N. Farmersville Blvd., Farmersville, CA 93223 P 559-747-5601 F 559-747-1989 www.kdwcd.com

California Water Service Company

2010 Urban Water Management Plan

Visalia District

DRAFT

KAWEAH DELTA WATER CONSERVATION DISTRICT COMMENTS (4/28/2011)

March 2011

3.3.2 Low Income Housing Projected Demands

California Senate Bill No. 1087 (SB 1087), Chapter 727, was passed in 2005 and amended Government Code Section 65589.7 and Water Code Section 10631.1. SB 1087 requires local governments to provide a copy of their adopted housing element to water and sewer providers. In addition, it requires water providers to grant priority for service allocations to proposed developments that include housing units for lower income families and workers. Subsequent revisions to the Urban Water Management Planning Act require water providers to develop water demand projections for lower income single and multi-family households.

Cal Water does not maintain records of the income level of its customers and does not discriminate in terms of supplying water to any development. Cal Water is required to serve any development that occurs within its service area, regardless of the targeted income level of the future residents. It is ultimately the City's or County's responsibility to approve or not approve developments within the service area.

For the purposes of estimating projected demands from low income housing, Cal Water used information from the City of Visalia's Housing Element. According to the Housing Element, 4.2 percent of homeowners and [illegible]e lowest income group.[6] These percentages were applie[illegible]mands for single family and multi-family residential customers, respectively. Table 3.3-13 shows the projected demands for low income households.

Need to identify the units presented in this table

Table 3.3-13: Low-income Projected Water Demands (Table 8)

Low Income Water Demands	2015	2020	2025	2030	2035	2040
Single-family residential	1,026	1,038	1,169	1,316	1,469	1,631
Multi-family residential	253	256	288	325	361	400
Total	1,279	1,295	1,458	1,641	1,830	2,031

As a benefit to our customers, Cal Water offers its Low Income Rate Assistance Program (LIRA) in all of its service districts. Under the LIRA Program qualified customers are able to receive a discount on their monthly bills.

[6] "City Of Visalia, Housing Element", Mintier Harnish, March 15, 2010, Page 53

Table 4.5-2: Recycled Water-Wastewater Collected and Treated-AFY (Table 21)								
Type of Wastewater	Treatment Level	2010	2015	2020	2025	2030	2035	2040
Total Collected and Treated	Secondary/Tertiary	18,067	20,442	23,128	25,848	28,890	32,033	35,366
Volume Meeting Recycled Water Standard	Tertiary	0	20,442	23,128	25,848	28,890	32,033	35,366

Upgrades to the WCP are planned to be complete by 2015. At this time the City expects 100 percent of the treated effluent to be reused through transfer and exchange agreements with local irrigation districts. The estimated volume of wastewater disposed of for the District presented in Table 4.5-3 reflects this assumption. By 2040 the volume of water reused under these programs could reach over 35,000 AFY.

Table 4.5-3: Disposal of wastewater (non-recycled) AFY (Table 22)								
Method of Disposal	Treatment Level	2010	2015	2020	2025	2030	2035	2040
• Percolation Ponds • Stream Discharge • Irrigation	Secondary/Tertiary	8,145	0	0	0	0	0	0

4.5.3 Potential Water Recycling

A portion of the treated effluent from the WCP is now being used for several purposes including groundwater recharge and agricultural irrigation. Recharge occurs by diverting treated effluent to City owned recharge Basin 4 located west of the WCP, and by the deep percolation of discharges into Mill Creek. An estimated 2,250 AFY is currently used for recharge in Basin 4. In addition, approximately 6,905 AFY of the treated effluent discharged in Mill Creek is also used directly for agricultural irrigation by nearby farmers. Another 767 AFY is used for agricultural irrigation on City owned farmland near the WCP.

The Effluent Reuse Project proposed by the City of Visalia would provide tertiary treatment and recycling of approximately 14,000 AFY of wastewater from the WCP. The Project calls for the construction of an upgraded treatment facility and a distribution system for the delivery of recycled water to locations near the WCP. A backup delivery system would also be built to Recharge Basin No. 4 to eliminate the possibility to discharges to Mill Creek. The recycled water would be used for several purposes including agricultural irrigation on City owned properties surrounding both the Visalia Airport and the WCP, and for landscape irrigation at Plaza Park and the Valley Oaks Golf Course. These areas presently use pumped groundwater to provide their water supply needs and are not served by Cal Water.

The City of Visalia is also intending to enter into exchange agreements with several irrigation districts and companies in which the City would divert water to recharge facilities within or east of the City, and deliver treated effluent to the irrigation districts to replace this supply. This would increase recharge in the Visalia area thus improving the local water balance. The quantity of water involved in the exchange is uncertain at this

Besides the additional water to be delivered into the area as a contract entitlement, the status as a long-term contractor also affords improved access to surplus federal water supplies that may be available from other federal contractors or which may be surplus to the federal project's overall immediate demands. Monies are being set aside by both Kaweah Delta Water Conservation District as well as the City of Visalia which would enable the purchase of such water supplies when they come available.

If a surface supply could be obtained it would come from two possible sources. The first is from Section 215 of the Reclamation Reform Act (RRA) of 1982 which allows for water designated as unstorable irrigation water to be released due to flood control criteria or unmanaged flood flows. KDWCD has access to this water and continues to work towards maximizing use of these excess flows.

The second source would be to work directly with agricultural users to obtain a water transfer or exchange. These agricultural transfers can be permanent or interruptible. Permanent agricultural transfers involve the permanent acquisition of agricultural water rights and the transfer or change of a water right to municipal and industrial uses either in the form of the cessation of irrigation on formerly irrigated lands or through transfer of flood flows for indirect potable reuse. Interruptible agricultural transfers consist of temporary agreements where agricultural water rights can be used for other purposes. The agreement with agricultural users allows for the temporary cessation of irrigation so that the water can be used to meet Visalia's municipal needs.

Although these sources are available it is unlikely that Cal Water will purchase imported water directly from KDWCD for delivery to municipal and industrial customers in Visalia. Any increased acquisition of surface flows by KDWCD would most likely be used for aquifer recharge, and would be available to Cal Water through groundwater pumping.

that

One transfer opportunity was recently presented by Cal Water. Cal Water has brought the opportunity to purchase water from an "outside-the-basin" water source. There is 10,000 acre-feet of wat[illegible]anked in the City of Bakersfield's groundwater bank, which is owned by Cal Water, can be made available over 5 to 7 years for extraction and ultimate delivery to the Visalia area via the Kaweah River and its distributaries for groundwater recharge.

In order to make the cost acceptable as recharge water, the water will be first delivered to citrus growers in Hills Valley Irrigation District (that can use and are willing to pay for the firm nature of this water) and they in turn will provide the City of Visalia and the Visalia District water in a future year at a cost of somewhere between $25 and $55 per acre-foot at a time when the City of Visalia otherwise does not have access to water at equivalent costs. Thus, the City of Visalia will be able to access 10,000 acre-feet of water it otherwise would not be able to purchase elsewhere at a net cost of somewhere between $25 and $55 per acre-foot. In 2010 1,623 AF were recharged under this agreement, 1,300 of which were purchased by the City at a price of $55/AF and 324 of which were prepaid by Hills Valley at no cost to the City.

4.8 Water Supply Alternatives

As stated earlier, Cal Water is in the process of completing a Water Supply and Facilities Master Plan (WSFMP) for the Visalia District. The WSFMP will include a detailed feasibility analysis of water supply alternatives. This information will be used to develop a water supply strategy for the Visalia District. Because the WSFMP will not be complete until late in 2011, the results will not be ready for inclusion in this UWMP. However, the preliminary results are summarized below.

To meet future demands, the WSFMP has identified a need for additional surface water supply. The difference between projected demand and existing supplies is about 19,000 AFY. This estimate does not take into account current groundwater recharge activities, which are assumed to be embedded in the historical analysis of sustainable pumping rates.

Depending upon the water supply strategy, this quantity is considered to be a lower bookend. If future demands are to be met from treated surface water, one acre-foot of imported supply is assumed to yield one acre-foot of delivered water. If future demands continue to be met from groundwater, with imported water being recharged, additional recharge may be needed to avoid continued water declines, particularly if agricultural pumping within the basin remains unchanged.

The WSFMP is evaluating the following two principal supply scenarios:

- Groundwater with Surface Water Recharge Scenario: Continue to rely on groundwater supply, with acquisition of supplemental surface water for recharge to the groundwater basin.

- Groundwater and Treated Surface Water Supply Scenario: Meet some future demand from treated surface water, and the remainder of demand from groundwater. This scenario assumes that approximately 10,000 AFY would be served from a new surface water treatment plant by 2020, with the plant expanded to treat an additional 10,000 AFY by 2030.

Scenarios may also include expansion of the City water recycling project beyond its proposed initial phase, and will identify Cal Water's planned water conservation programs identified in Cal Water's Water Conservation Master Plan.

The WSFMP has identified several potential sources of surface water for acquisition. The two that appear to be the most promising are:

- Friant Project Contract Water. The Friant project is part of the federal Central Valley Project, and located in the upper reaches of the San Joaquin River watershed. Water is impounded at the Millerton Lake and delivered to the Friant-Kern canal. Friant contractors are principally agricultural agencies in the southern San Joaquin Valley. Two types of water are available to Friant project contractors: Class 1 water, which

MAILED
April 1, 2011

NOTICE OF INTENT TO ADOPT
AN URBAN WATER MANAGEMENT PLAN
AND
HOLD A PUBLIC MEETING
TO
RECEIVE COMMENTS ON THE PROPOSED PLAN

CALIFORNIA WATER SERVICE COMPANY
VISALIA DISTRICT

REMINDER MESSAGE

The Proposed Urban Water Management Plan is now available for review during normal business hours at the Visalia District Customer Service Center, located at 216 North Valley Oaks Drive, Visalia CA 93292-6717.

It is preferred that prior arrangements be made with the district's management for viewing the Proposed Urban Water Management Plan. These arrangements can be made by calling (559) 624-1600.

Cal Water has placed the Visalia UWMP on an FTP site, where City and County officials may access any portion of the plan for review. The site can be accessed at http://calwater.ftptoday.com ;
The user name is **cwsftp31** and the password is **K3yb0ard**.
The UWMP will be available at this FTP site on or about April 1, 2011 through June 15, 2011.

The Public Meeting to receive comments on the Proposed Urban Water Management Plan will be held on May 24, 2011, from 5:00 p.m. to 7:00 in the Visalia District Customer Service Center Conference Room, located at 216 North Valley Oaks Drive, Visalia CA 93292.

If you are unable to attend the scheduled public meeting but want to provide comments regarding the proposed UWMP, you may send your comments in writing via mail or email to:

Thomas A. Salzano, Water Resource Planning Supervisor
California Water Service Company
1720 North First Street
San Jose, CA 95112-4598
tsalzano@calwater.com

Cal Water will receive comments on the proposed UWMP from April 1, 2011 through June 15, 2011.

City of Visalia
425 E. Oak Ave., Ste. 101, Visalia, CA 93291

Natural Resource Conservation
Tel: (559) 713-4531 Fax: (559) 713-4817

June 6, 2011

Mr. Thomas A. Salzano, Water Resource Planning Supervisor
California Water Service Company
1720 North First Street
San Jose, CA 95112-4598

RE: Draft 2010 Urban Water Management Plan, Visalia District

Dear Mr. Salzano:

The City of Visalia (City) appreciates the opportunity to review and comment on California Water Service Company's (Cal Water's) draft 2010 Urban Water Management Plan (UWMP). The UWMP is a crucial planning document relied upon by the City and will be referenced by the City's General Plan Update.

Overall, we find the draft UWMP to be a detailed and well developed planning document. This letter presents the City's comments clarifying information in the UWMP regarding City operations and provides suggestions for making portions of the plan less general and more specific to Visalia.

Of specific concern is the discussion in the Water Supply Alternatives section which provides a quantification of projected supply shortfall based on analysis that is part of Cal Water's Water Supply and Facilities Master Plan (WSFMP). The WSFMP is still being drafted and is not expected to be completed until late 2011. The text specifically indicates that groundwater recharge was not "taken into account" in this analysis. Nor were additional conservation measures considered. Reliance upon analysis contained in the unfinished and unpublished WSFMP is premature and should not be included in the UWMP. Additionally, the UWMP (and the WSFMP) should consider deeper demand reductions through additional conservation measures, not just identification of potential additional water supplies to meet projected demand.

Suggested changes in the discussion below use a format of underline for added text and ~~strikethrough~~ for deleted text.

4 System Supplies

4.4 Groundwater

4.4.2 Groundwater Management Plan

The last paragraph in this section discussing the City's recent groundwater recharge activities is not quite accurate and should be changed as follows:

The City purchased and recharged 2,482 AF and the Visalia Water Management Committee purchased and recharged 5,358 AF in 2010 ~~using both the Groundwater Impact Fee and Groundwater Mitigation Fee~~. Since 2005 the City

and the Visalia Water Management Committee have purchased and recharged 15,940 AF for an annual average of 3,188 AF.

Also, this is the first reference to the Visalia Water Management Committee. The text could indicate something like "see Section 4.4.5 for more information on the Visalia Water Management Committee."

4.4.3 Conservation Ordinance

Text should indicate the City adopted "Stage 3. Mandatory Compliance--Water Warning" about 10 years ago.

Text states that Cal Water employees can issue notices of violation of the City's water conservation ordinance; however, Cal Water District Manager Phil Mirwald verbally informed the City recently that Cal Water no longer will issue notices of violation. He said this was a policy decision from the Cal Water corporate office.

4.4.4 Storm Water Management

The second sentence in the third paragraph "The City continues to work with KDWCD to improve recharge in and around the urban area by sharing facilities" is not quite correct. There are only two facilities which the City shares with KDWCD. Both are upstream of the City. The City has worked with, and continues to work with, KDWCD and others to modify City storm-water basins located near channels to dual-use storm-water and recharge basins.

The fourth paragraph discussing the Storm Water Master Plan incorrectly states that it has not been fully implemented due to water quality concerns. All new construction is required to follow the current Storm Water Master Plan. A revision to the Plan has been started and will be completed with the City's General Plan Update. The following paragraph should be replaced as follows:

~~*The full implementation of the Storm Water Master Plan has been slowed due to water quality concerns associated with the direct connection of storm drain pipelines and to creeks and ditches. It is likely that pretreatment of storm flows may be required prior to discharge into creeks. Moving forward, the City hopes to implement Low Impact Design measures for new developments to reduce storm water quality impacts.*~~

New construction is required to follow the City's current Storm Water Master Plan. An updated Storm Water Master Plan will be completed with the City's General Plan Update. The new Plan will include low-impact design measures and on-site retention to increase storm-water recharge.

4.5 Recycled Water

4.5.1 Wastewater Collection

The second sentence of the first paragraph should be changed as follows:

A small portion of the wastewater produced in the District is disposed of in onsite septic ~~tanks~~ systems, principally in current and former county islands.

The last sentence of the second paragraph states that the treated effluent is "...diluted for use in agricultural irrigation of cotton and silage crops." Effluent used for recharge is

only diluted if there is other water in Mill Creek, but it is not always or purposefully diluted.

The last paragraph of this discussion refers to the effluent ammonia concentration limit as an "MCL". The ammonia limit is a "waste discharge requirement" or "WDR"; MCL's are maximum contaminant levels that apply to drinking water.

4.5.2 Estimated Wastewater Generated

This section appears to overestimate the amount of wastewater that will be generated by the Visalia Water Conservation Plant (WCP). Text states that wastewater quantities were estimated using a per capita value of 120 gallons per day. However, using the data in tables 2.2-2 and 4.5-1 for year 2010, population (134,410) and wastewater flow rate (13 MGD), respectively, yields a more representative value of 97 gallons per day per capita from the WCP.

Figure 4.5-1 is entitled "Estimated Annual Wastewater Generated," yet the data shown are millions of gallons per day (MGD). These values are overestimated by about 4 MGD. Daily effluent generated was 13 MGD in 2010 and is estimated to be 26 MGD in 2032. The tables and discussion use units of AFY, while this figure uses units of MGD. It would be easier to compare the table and figure if they were in consistent units.

The second paragraph of this section "At this time the City expects 100 percent of the treated effluent to be reused through transfer and exchange agreements with local irrigation districts" is not completely accurate. The City plans to reuse 100 percent of its recycled water, the majority through transfer and exchange agreements; however, some of the water will be used for irrigation of the City park and golf course through a purple-pipe system, as discussed in Section 4.5.3.

4.5.3 Potential Recycling

The first paragraph should be modified to:

> *A portion of the effluent from the WCP is now being used for several purposes including placement in percolation basins with incidental groundwater recharge and agricultural irrigation.*

We do not presently use the effluent for direct groundwater recharge. This is an important regulatory distinction.

The second paragraph uses a more accurate estimate of 14,000 AFY of recycled water generated, but this amount is not consistent with figure 4.5-1 or tables 4.5-2 and 4.5-4.

The last sentence of the second paragraph should be modified to read:

> *These areas presently use pumped groundwater to provide their irrigation water supply needs and are not served by Call Water other than for potable water."*

The first sentence of the third paragraph should be changed to read:

> *The City of Visalia is also intending to enter into exchange agreements with one or more ~~several~~ irrigation districts and companies in which the City would ~~divert water to recharge facilities within or east of the City, and~~ deliver recycled water ~~treated effluent~~ to the irrigation districts ~~to replace this supply~~ in exchange for water delivered east of the City for groundwater recharge.*

Table 4.5-4 indicates recharge in City basins of 6,647 AFY in 2015 diminishing in 2020 and 2025. At this time, the City does not envision direct recharge of recycled water in any City basins following upgrade of the WCP to full tertiary treatment. The recycled water will be used for landscape irrigation and exchange with one or more irrigation districts. The exchanged water will be recharged in City basins. And as discussed previously, this table appears to overestimate the volume of recycled water that will be produced by the WCP.

4.6 Transfer or Exchange Opportunities

The sixth and seventh paragraphs of this section discuss the exchange of up to 10,000 AF of Cal Water's banked groundwater in Kern County. The discussion states that the exchange would result in the "ultimate delivery to the Visalia area via the Kaweah River and its distributaries for groundwater recharge." Actually, the exchanged water from Hills Valley Irrigation District is delivered to Visalia via the CVP Friant-Kern Canal.

4.8 Water Supply Alternatives

The water-supply alternatives section is limited to a discussion of supply alternatives needed to meet presumed future demand. Any discussion of future water supplies should also consider demand reductions. As discussed in the UWMP, the majority of the water delivered in the Visalia District is used for landscape irrigation. Opportunities for significantly reducing future demand through much more extensive conservation measures should be analyzed before, or certainly in parallel with, proposal of very expensive infrastructure projects such as surface-water treatment facilities, pipelines, and water-rights acquisition.

As discussed previously, specific quantification of projected supply shortfall is based on analysis that is part of Cal Water's Water Supply and Facilities Master Plan (WSFMP). The WSFMP is still being drafted and is not expected to be completed until late 2011. The text specifically indicates that groundwater recharge was not "taken into account" in this analysis. Nor were increased conservation measures considered. Reliance upon analysis contained in the unfinished and unpublished WSFMP is premature and should not be included in the UWMP. Additionally, the UWMP and WSFMP should consider deeper demand reductions through additional conservation measures, not just identification of potential additional water supplies to meet projected demand.

5 Water Supply Reliability and Water Shortage Contingency Planning

5.1 Water Supply Reliability

We appreciate Cal Water's efforts to evaluate the volume of overdraft due to Cal Water pumping and to establish a safe yield / sustainable pumping rate. This is the first Cal Water UWMP to recognize that Visalia's groundwater resources are limited and that Visalia, and the region as a whole, have been extracting unsustainable amounts of water for a long time.

However, Cal Water's quantification of the sustainable pumping rate relies largely on the City of Visalia Groundwater Modeling Study conducted by Fugro Consultants, Inc. While the modeling study provides useful analysis for comparing different scenarios of pumping and artificial recharge within the model domain, we would strongly caution against overreliance on the modeling study for analysis of pumping in the urban Visalia area within the regional setting of the Kaweah River Basin or KDWCD. This is because the model is highly sensitive

to boundary effects. In other words, impacts due to regional water level changes at the Visalia model boundaries dwarf impacts due to pumping within the model domain.

An estimate of the total volume of water stored in the aquifer is presented in the "Total Groundwater Storage and Average Annual Groundwater Storage Change Calculations" section. Text states that the 62,000 acre Visalia model domain contains about 4 million AF of water stored in the total saturated aquifer thickness of 600 feet. This estimate implies an average porosity of 11 percent for the entire aquifer, which may be reasonable. The UWMP then extrapolates the number of years until the aquifer is dewatered based on the average annual overdraft. This extrapolation assumes that all of the water in storage could be pumped, which is an unreasonable assumption. This would imply that the entire thickness of the aquifer would convert from semi-confined conditions (with a modeled storage coefficient of 0.00001 in model layers 2 and 3) to unconfined conditions with an average specific yield of 11 percent. This evaluation needs a second look.

5.2 Drought Planning

The drought planning section evaluates supply and demand in terms of acre-feet, however, it might be useful to estimate declines in the water table due to drought conditions. In general, as the water table declines more water is drawn from increasingly less permeable sediments causing larger capture zones of pumping wells and increasing concerns due to well interference.

5.5.5 Drought Stages

The drought stage section appears to be generic text not specific to the Visalia District or the City of Visalia. It would seem appropriate to include a discussion of how Cal Water's four drought stages integrate with Visalia's Water Conservation Ordinance stages. Additionally, tables 5.5-1 through 5.5-4 should indicate which actions have already been implemented (e.g., local drought ordinances).

5.5.6 Water Supply Conditions and Trigger Levels

This section discusses the difficulty of setting triggering mechanisms in the Visalia District due to groundwater being the sole source of drinking water. Table 5.5-5 lists "percent shortage" supply reduction triggers for each of the drought stages. However, the UWMP does not identify any criteria by which the percent shortage triggers should be measured. Triggers without a method by which they can be measured are not meaningful and it is not clear that any of the drought planning actions would be implemented as currently written.

6 Demand Management Measures

6.3 Water Savings Requirements

We are concerned with the statement "Because Visalia District is part of a regional alliance, the amount of water savings needed for SBx7-7 compliance may turn out to be less than the amount shown in the table." We strongly encourage Cal Water to achieve the SBx7-7 water savings of 2,195 AF by 2015 rather than a lower regional alliance amount which is not indicated in the UWMP. We assume that the MOU Flex Track water savings of 4 AF is presented simply to show that the planned water savings meet this target.

7 Climate Change

7.2 Strategy

City staff believes that evaluating potential future changes to water supplies due to climate change so that adaptation strategies can be evaluated and implemented is critical, and therefore we are encouraged that Cal Water is undertaking this effort. We look forward to reviewing Cal Water's Climate Assessment Report for the Visalia District when completed in 2013.

Thank you again for the opportunity to review and comment on Cal Water's draft Urban Water Management Plan. Please feel free to contact me at (559) 713-4530 if you have any questions or wish to discuss our comments.

Sincerely,

Kimball R. Loeb, PG
Natural Resource Conservation Manager

Cc: Phil Mirwald, California Water Service Company
Visalia City Council
Steve Salomon, City of Visalia
Leslie Caviglia, City of Visalia
Andrew Benelli, City of Visalia

MAILED
March 4, 2011

NOTICE OF INTENT TO ADOPT
AN URBAN WATER MANAGEMENT PLAN
AND
HOLD A PUBLIC MEETING
TO
RECEIVE COMMENTS ON THE PROPOSED PLAN

CALIFORNIA WATER SERVICE COMPANY
VISALIA DISTRICT

California Water Code, Part 2.6 Chapters 1 through 4 (Sections 10610 through 10656), are known and may be cited as the "Urban Water Management Planning Act."

These California Water Code sections require all urban water suppliers that provide water for municipal purposes either directly or indirectly to more than 3,000 customers or supply more than 3,000 acre-feet of water annually to prepare an Urban Water Management Plan as outlined and identified in those sections. This requirement applies to public and privately owned water utilities.

The plan must describe and evaluate sources of supply, reasonable and practical efficient uses, reclamation, and demand management activities. The components of the plan may vary according to an individual community or area's characteristics and its capabilities to efficiently use and conserve water. The plan must address measures for residential, commercial, governmental, and industrial water demand management.

The act requires urban water suppliers to update their Urban Water Management Plans at least once every five years, and to file updated plans with the Department of Water Resources, the California State Library, and any city or county served by the supplier no later than 30 days after adoption.

California Water Service Company (Cal Water) is an investor-owned public utility providing water service throughout California. In addition, Cal Water is regulated by the California Public Utilities Commission (CPUC).

One of Cal Water's service areas is the Visalia District, which is located in Tulare County. The Visalia District serves the City of Visalia and segments of unincorporated Tulare County including the community of Goshen.

As a defined urban water supplier, Cal Water is preparing an update to its Urban Water Management Plan that will address the water service conditions in the Visalia District. It is Cal Water's intent to adopt that plan and file that plan as required with the Department of Water Resources, the California State Library, and any city or county within which Cal Water provides service.

A key focus of this UWMP update is the conservation requirement set forth in Senate Bill 7 (SBx7-7) as passed in November 2009. SBx7-7 mandates a statewide 20% reduction in per capita urban water use by 2020. In order to quantify the objectives and identify the means of achieving this mandated demand reduction, Cal Water has prepared a Conservation Master Plan.

Cal Water is in the process of expanding current conservation programs and developing new programs for its 24 districts. Over the next five years, Cal Water conservation program expenditures are likely to increase, due in large measure to recently adopted state policies requiring future reductions in per capita urban water use. These state policies include SBx7-7, as well as recent decisions by the California Public Utilities Commission (CPUC) directing Class A and B water utilities to adopt conservation programs and rate structures designed to achieve reductions in per capita water use, as well as the *Memorandum of Understanding Regarding Urban Water Conservation in California* (MOU), of which Cal Water has been a signatory since 1991.

The Conservation Master Plan for the Visalia District will be presented to the Cities, Counties and public served by Cal Water's Visalia District in conjunction with the UWMP.

Schedule of upcoming actions:

On or about April 1, 2011, a copy of the Proposed Urban Water Management Plan and the Conservation Master Plan will be available for review during normal business hours at the Visalia District Customer Service Center, located at 216 North Valley Oaks Drive, Visalia CA 93292-6717.

It is preferred that prior arrangements be made with the district's management for viewing the Proposed Urban Water Management Plan and/or the Conservation Master Plan. These arrangements can be made by calling (559) 624-1600.

As an alternative to reviewing the Proposed Urban Water Management Plan or Conservation Master Plan in Cal Water's Visalia District Customer Service Center, Cal Water will make an electronic copy of the Proposed Urban Water Management Plan available on or about April 1, 2011.

It is Cal Water's intent to place the Visalia UWMP on an FTP site, where City and County officials may access any portion of the plan for review. The site can be accessed at http://calwater.ftptoday.com ;
The user name is **cwsftp31** and the password is **K3yb0ard**.

The UWMP will be available at this FTP site on or about April 1, 2011 through June 15, 2011.

Cal Water will receive comments on the proposed UWMP and the Conservation Master Plan from April 1, 2011 through June 15, 2011.

If there are issues with accessing the electronic copy, you may contact Michael Bolzowski at the company's headquarters at 1720 North First Street, San Jose, California 95112-4598, by calling (408) 367-8200, or by email at mbolzowski@calwater.com.

The Public Meeting to receive comments on the Proposed Urban Water Management Plan and the Conservation Master Plan will be held on May 24, 2011, from 5:00 p.m. to 7:00 in the Visalia District Customer Service Center Conference Room, located at 216 North Valley Oaks Drive, Visalia CA 93292. A presentation on the UWMP and the Conservation Master Plan will begin at 5:30 p.m., with comments being received immediately after.

If you are unable to attend the scheduled public meeting but want to provide comments regarding the proposed UWMP, you may send your comments in writing via mail to:

Thomas A. Salzano, Water Resource Planning Supervisor
California Water Service Company
1720 North First Street
San Jose, CA 95112-4598

Or by email to him at tsalzano@calwater.com

Comments regarding the Conservation Master Plan for Visalia should be sent to:

Kenneth G. Jenkins, Conservation Manager
California Water Service Company
2632 West 237th Street
Torrance, CA 90505

Or by email at kjenkins@calwater.com

If there were any errors in the address to which notice was sent, please send corrections to Tom Salzano at the above address so that we can update our information.

Also, please share this with others on your staff that may have the need to know.

PAGE LEFT BLANK INTENTIONALLY

May 20, 2008

City of Visalia
Andrew Benelli
707 West Acequia Avenue
Visalia, CA 93291

Dear Mr. Benelli,

California Water Service Company (Cal Water) is in the process of preparing an update to the current Urban Water Management Plan (UWMP) for the Visalia District as a part of its 2009 Public Utilities Commission General Rate Case filing. This UWMP will serve as a long term planning document for water supply and can be an important source of information for city and county General Plans.

Cal Water will file the complete updated Plan with the Department of Water Resources in 2010. We are requesting your participation in the updating of this Plan and are seeking comments on the previous version, which was completed and sent to you in 2007.

We intend to address these comments prior to the normal review period, which occurs in the second quarter of 2009. This will facilitate preparation of the final draft of the UWMP and insure that any issues have been resolved to the satisfaction of both our organizations. Please submit your comments by September 1, 2008 so that we have adequate time to address your concerns.

If necessary we are available for a meeting to discuss these concerns or to provide clarification on the contents of the Plan.

If you do not have a copy of the 2007 Visalia District UWMP we would be happy to provide one to you. Please send any comments or questions to my attention:

Thomas Salzano
Water Resources Planning Supervisor
1720 North First Street, San Jose, CA 95112
(408) 367-8340 (phone) (408) 367-8427 (fax)
tsalzano@calwater.com

Thank you for your time,

Thomas Salzano

Thomas A. Salzano
Water Resources Planning Supervisor

May 20, 2008

Kaweah Delta Water Conservation District
Larry Dotson, Senior Engineer
2975 North Farmersville Blvd
Farmersville, CA 93223

Dear Mr. Dotson,

California Water Service Company (Cal Water) is in the process of preparing an update to the current Urban Water Management Plan (UWMP) for the Visalia District as a part of its 2009 Public Utilities Commission General Rate Case filing. This UWMP will serve as a long term planning document for water supply and can be an important source of information for city and county General Plans.

Cal Water will file the complete updated Plan with the Department of Water Resources in 2010. We are requesting your participation in the updating of this Plan and are seeking comments on the previous version, which was completed and sent to you in 2007.

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Thomas Salzano
Water Resources Planning Supervisor
1720 North First Street, San Jose, CA 95112
(408) 367-8340 (phone) (408) 367-8427 (fax)
tsalzano@calwater.com

Thank you for your time,

Thomas Salzano

Thomas A. Salzano
Water Resources Planning Supervisor

Jacobson, Dana

From: Mirwald, Phil
Sent: Monday, June 28, 2010 7:24 PM
To: 'Kim Loeb'
Cc: Salzano, Tom; Jacobson, Dana; Bolzowski, Michael R.
Subject: FW: Urban Water Facilites Planning

Hi Kim
Below is a comment from Larry.

Michael
I am not sure this directly relates to the WS&FMP but here is an FYI.

Phil Mirwald
Cal Water, Visalia
559-624-1600

From: Larry Dotson [mailto:ldotson@kdwcd.com]
Sent: Monday, June 28, 2010 9:55 AM
To: Mirwald, Phil
Subject: Re: Urban Water Facilites Planning

Phil;

I would not recommend changing the Scenario's at this final stage of the Groundwater Model Project.

If the information is critical for some other documents, then there should be some discussion on using the existing scenario with interpolation or a completely differenct contract with Fugro running a revised model scenario.

Larry

> ----- Original Message -----
> **From:** Mirwald, Phil
> **To:** Jacobson, Dana
> **Cc:** Salzano, Tom ; Bolzowski, Michael R. ; Paul Scheibel ; Kim Loeb ; ldotson@kdwcd.com
> **Sent:** Monday, June 28, 2010 8:46 AM
> **Subject:** RE: Urban Water Facilites Planning
>
> Dana
> I do not know how much this changes things but it does concern me that after all this time new numbers are to be introduced.

We are dealing with a total of three separate yet connected updates. Our UWMP and WS&FMP in addition to the City's master plan update. I am not the expert here but if we change population numbers now does that mean we need to rework all the FUGRO scenarios?

Phil Mirwald
Cal Water, Visalia
559-624-1600

From: Jacobson, Dana
Sent: Monday, June 28, 2010 8:37 AM
To: Mirwald, Phil; Bolzowski, Michael R.
Cc: Salzano, Tom
Subject: RE: Urban Water Facilites Planning

For the UWMP the City gave us a buildout population number of 202,703, with the 220,000 number to be reached in 2034 or 2035. Should we contact the City to see if something has changed and do we need to coordinate population numbers for these documents?

Dana

Dana Jacobson
Water Resources Planning
California Water Service Company
1720 North First Street
San Jose, CA 95112
Phone: (408) 367-8361

From: Mirwald, Phil
Sent: Monday, June 28, 2010 7:49 AM
To: Bolzowski, Michael R.
Cc: Salzano, Tom; Jacobson, Dana
Subject: FW: Urban Water Facilites Planning

Here is some information from the company working on the City's planning document. Phil

Phil Mirwald
Cal Water, Visalia
559-624-1600

From: Michael Dyett [mailto:dyett@dyettandbhatia.com]
Sent: Wednesday, June 23, 2010 9:43 AM
To: Paul Scheibel
Cc: Mirwald, Phil; Brandon Smith; Chris Young
Subject: Re: Urban Water Facilites Planning

Paul,
If Cal Water and West Yost use a 220,000 target for 2030 it will show us how future water demands might be met; with residentiial densities, buildout is not clear and they may, in fact change. The residential density approach also may pick up land outside the city, that may not be brought into the city as originally planned. By contast, with a 220,000 target we have a better basis to evaluate sketch plan alternatives (if, for example, one had a slightly higher buildout number, and another a lower number).

It also could be helpful if they could let us know:

- Assumptions about metering and whether any tiered pricing is being considered;
- Assumptions about conservation efforts and use of low-flow toilets and showers in new homes and low-flow in commercial (100%, 50%, or some other ratio)
- Assumptions about greywater use in single-family areas, and
- Any other recycling and reuse planned.

Thanks
Michael

On 6/22/10 5:36 PM, "Paul Scheibel" <PScheibel@ci.visalia.ca.us> wrote:

> Hello Michael- You may recall our discussion where I told you about meeting with Cal Water's consultants (West Yost Associates) for the water infrastructure plan they are preparing. You mentioned that they need to focus on buildout population (220,000) rather than projected res. development densities.
>
> I talked with Phil Mirwald last night. He had passed along that info to the consultants. They will be happy to oblige us, but they asked for some more reasoning information. On that Phil and I drew a blank and thought wee'd go right to the source.
>
> Can you enlighten us some more on this?
>
> Thanks,
> Paul S.

Michael vanVeber Dyett, FAICP
DYETT & BHATIA
Urban and Regional Planners
755 Sansome St. Suite 400
San Francisco, CA 94111
t: 415.956.4300 x14
f: 415.956.7315

www.dyettandbhatia.com

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Jacobson, Dana

From: Larry Dotson [ldotson@kdwcd.com]
Sent: Thursday, January 13, 2011 11:06 AM
To: Jacobson, Dana
Subject: KDWCD Use Study
Attachments: KDWCD USE STUDIES (1963 to 2008).pdf

Dana;

Attached is the information that we discussed.

Larry

Jacobson, Dana

From: Brandon Smith [BSmith@ci.visalia.ca.us]
Sent: Friday, July 17, 2009 2:13 PM
To: Jacobson, Dana
Cc: Leslie Caviglia; Michael Olmos
Subject: City of Visalila Revised Population Projections
Follow Up Flag: Follow up
Flag Status: Flagged
Attachments: Visalia Population Projections 2010-2040.xls

Hello Dana,

Our City staff has discussed about how to best project Visalia's population into the year 2040, and have agreed upon a methodology for Cal Water's use.

The methodology utilizes looking at historic population counts to develop projected population growth rates. We believe that looking at population increases rather than land use distribution is a better-suited methodology at this time. Future city growth may see changes in water demands for each land use category - for example, single-family residential areas may experience less water consumption if higher minimum densities or a landscape ordinance were in effect. However, the City couldn't accurately project these changes until after completion of its General Plan Update. The Update will include the creation of new goals and policies related to water conservation, as well as a new land use inventory. Therefore, it would be best at this time to go with a more conservative approach of using population projections for the current UWMP update, and consider using land use categories for the next UWMP Update after the General Plan Update is completed.

We then determined population projections through the year 2040 using the following annual growth rates:

Period	Annual Rate
2010 to 2020	2.50%
2021 to 2030	2.25%
2031 to 2040	2.00%

The resulting populations for each year are shown on the attached Excel spreadsheet. In summary, we looked at historic populations and the City's current Land Use Element, and made two observations – the City has experienced a steadily declining growth rate over the years, and has experienced a steadily rising population gain over the years. Anticipating that the City will continue to grow and flourish, the above growth rates would most closely follow the City's past trends.

It also needs to be emphasized that the District boundaries will include the community of Goshen and some outlying tracts in addition to the City of Visalia, and these populations also need to be considered.

If you would like to discuss this methodology further, please feel free to contact me by phone or email.

Thank you and have a great weekend,

Brandon Smith, AICP
Senior Planner, City of Visalia
bsmith@ci.visalia.ca.us
Phone: (559) 713-4636
Fax: (559) 713-4814


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Jacobson, Dana

From: Brandon Smith [BSmith@ci.visalia.ca.us]
Sent: Monday, July 06, 2009 6:22 PM
To: Jacobson, Dana
Cc: Michael Olmos; Leslie Caviglia
Subject: Comments regarding UWMP Data
Attachments: VIS UWMP Data 2009.xls

Hello Dana,

Thank you for taking the time to talk with me this afternoon regarding my initial findings and questions on the City of Visalia's UWMP population figures. I'd like to summarize some of my comments in this email, in hopes that you and your colleagues may be better prepared to address these items at Wednesday's meeting.

My primary concern is regarding information in the "population" tab, the area which the population represents, and the methodology for calculating the projections.

Figures are provided for the Estimated District Population in Column I. Estimated District Population is assumed to be the population in the District boundaries, not the population in the City limits. Without knowing what the District boundaries are or how they differ from the City limits, I can't say if these numbers are relatively accurate. It would be helpful to know what the District boundaries are and whether these are expected to change between now and the year 2040.

The Estimated District Population figures are higher than the actual City of Visalia populations for each respective year. Also, the growth rate derived from the projected Estimated District Population is much higher than the projected growth rate used in the Visalia General Plan. In 2010 there is about population difference of about 10,000, and in 2020 there is a population difference of about 23,000. It seems that the growth rate used for the projected Estimated District Populations may be too high, and should more closely match the City's actual growth rate or the Visalia General Plan growth rate. Right now this growth rate is somewhere between 2.5 and 3.0%, and as Visalia grows in population the growth rate should gradually decrease.

Lastly, the US Census 2000 Population and Housing Units in Columns K and L are 98,325 and 34,832, respectively. However, these numbers are not consistent with our 2000 Census Data for City of Visalia, which is 91,565 persons and 32,654 housing units. These numbers are backed up by State Department of Finance records.

Thank you again and I anticipate seeing you on Wednesday.

Brandon Smith, AICP
Senior Planner, City of Visalia
bsmith@ci.visalia.ca.us
Phone: (559) 713-4636
Fax: (559) 713-4814

Jacobson, Dana

From: Mirwald, Phil
Sent: Tuesday, November 16, 2010 12:52 PM
To: Paul Scheibel
Cc: 'kloeb@ci.visalia.ca.us'
Subject: December 8th meeting at 10:30

Hi Paul
The meeting scheduled at our offic on Dec. 8th is likely to focus on water demands and the differing projections between the Urban Plan and the Master Plan, than strictly about population. With this in mind you (or Kim) may want to involve Dick Moss.

Phil Mirwald
Cal Water, Visalia
559-624-1600

Jacobson, Dana

From: Kim Loeb [KLoeb@ci.visalia.ca.us]
Sent: Tuesday, January 04, 2011 4:26 PM
To: Richard Moss
Cc: Jacobson, Dana
Subject: FW: Please review draft water supply section of Visalia District UWMP

Hi Dick,

Do you have handy the estimated amount of effluent that is used for irrigation out of Mill Creek that you can provide to Dana?

Thanks,
Kim

-----Original Message-----
From: Jacobson, Dana [mailto:djacobson@calwater.com]
Sent: Tuesday, January 04, 2011 4:08 PM
To: Kim Loeb
Subject: RE: Please review draft water supply section of Visalia District UWMP

Kim,

Great comments here. Thanks again. I have a question on one of Dick's comments. I'm not sure if I should contact him directly or go through you. Anyways, in the first paragraph of section 3.5.3 he suggests including an accounting of treated wastewater used out of Mill Creek, and/or the amount that is recharged there. Can you help with at least the first part of this? For the second, I don't think that DWR wants indirect reuse included in this section of the UWMP. However, it may be important for calculating credits for the water balance around Visalia.

Dana

Dana Jacobson
Water Resources Planning
California Water Service Company
1720 North First Street
San Jose, CA 95112
Phone: (408) 367-8361

From: Kim Loeb [mailto:KLoeb@ci.visalia.ca.us]
Sent: Monday, January 03, 2011 4:26 PM
To: Jacobson, Dana
Subject: RE: Please review draft water supply section of Visalia District UWMP

OK, Dana, sounds good.

Thanks,
Kim

-----Original Message-----

From: Jacobson, Dana [mailto:djacobson@calwater.com]
Sent: Monday, January 03, 2011 4:23 PM
To: Kim Loeb
Subject: RE: Please review draft water supply section of Visalia District UWMP

Kim,

I don't know the exact date but I'm thinking that West Yost should have something to us within a month or so. We'll need to do an internal review then I can move forward with the UWMP. My guess is that it will be ready about the same time as the conservation section. So maybe we'll be able to tackle both of them at one meeting before the end of February.

Dana

Dana Jacobson
Water Resources Planning
California Water Service Company
1720 North First Street
San Jose, CA 95112
Phone: (408) 367-8361

From: Kim Loeb [mailto:KLoeb@ci.visalia.ca.us]
Sent: Monday, January 03, 2011 4:05 PM
To: Jacobson, Dana
Subject: RE: Please review draft water supply section of Visalia District UWMP

Hi Dana,

OK, sounds like a good plan. Do you know what that time frame might be? In the mean time, please don't hesitate to contact me if you have questions about our comments.

Thanks,
Kim

> -----Original Message-----
> **From:** Jacobson, Dana [mailto:djacobson@calwater.com]
> **Sent:** Monday, January 03, 2011 4:02 PM
> **To:** Kim Loeb
> **Subject:** RE: Please review draft water supply section of Visalia District UWMP
>
> Thanks Kim,
>
> We appreciate you taking the time to thoroughly review the draft UWMP. I think what I'll do is incorporate your comments and finish the section when we get more information from the Master Plan process. At that time I'll send an updated draft then hold another meeting to discuss your comments all at once.
>
> Dana
>
> Dana Jacobson
> Water Resources Planning
> California Water Service Company
> 1720 North First Street

San Jose, CA 95112
Phone: (408) 367-8361

From: Kim Loeb [mailto:KLoeb@ci.visalia.ca.us]
Sent: Monday, January 03, 2011 3:44 PM
To: Jacobson, Dana; Leslie Caviglia; Andrew Benelli; Richard Moss; ldotson@kdwcd.com
Cc: Salzano, Tom; Bolzowski, Michael R.; Mirwald, Phil
Subject: RE: Please review draft water supply section of Visalia District UWMP

Hi Dana,

Thank you for the opportunity to review the draft Visalia District UWMP. I am attaching files containing Andy Benelli's, Dick Moss', and my comments. As the document provided was a PDF, it was difficult to comment in the document itself. Andy's and Dick's comments are scans of their hand-written comments. I embedded my comments in the document. They are visible if you hover over the highlighted text; however, they are a little tough to print. So, I've output the document to a second file with the comments numbered and printed after each page.

Based on our review of the draft document, we agree with your conclusion below that there is still some misunderstanding regarding water management in the area. We believe it would be highly beneficial to have a meeting with you, KDWCD, and the City, to go through our comments, answer any questions you may have, and clear up these misunderstandings prior to finalizing the document.

Regards,
Kim

Kim Loeb
Natural Resource Conservation Manager
City of Visalia
559.713.4530
kloeb@ci.visalia.ca.us
www.GoGreenVisalia.com

-----Original Message-----
From: Jacobson, Dana [mailto:djacobson@calwater.com]
Sent: Thursday, December 09, 2010 1:47 PM
To: Leslie Caviglia; Andrew Benelli; Kim Loeb; Richard Moss; ldotson@kdwcd.com
Cc: Salzano, Tom; Bolzowski, Michael R.; Mirwald, Phil
Subject: Please review draft water supply section of Visalia District UWMP

Good Afternoon,

Attached for your review is a preliminary draft of the Water Supply chapter for the 2010 Visalia District UWMP. Please provide your comments by January 7th, 2011. Please pay particular attention to the areas that deal with your organization so that the information included is accurate. As we found in yesterday's meeting, there is still some misunderstanding on my part as to the details and history of the various water management efforts of both the City and KDCWD. I expect to resume our regular UWMP meetings shortly after your review of this draft. Feel free to call me at (408)-367-8361 with any questions about what has been included in this draft or about the UWMP process in general.

Dana

Dana Jacobson
Water Resources Planning
California Water Service Company
1720 North First Street
San Jose, CA 95112
Phone: (408) 367-8361

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Jacobson, Dana

From: Kim Loeb [KLoeb@ci.visalia.ca.us]
Sent: Monday, January 03, 2011 3:44 PM
To: Jacobson, Dana; Leslie Caviglia; Andrew Benelli; Richard Moss; ldotson@kdwcd.com
Cc: Salzano, Tom; Bolzowski, Michael R.; Mirwald, Phil
Subject: RE: Please review draft water supply section of Visalia District UWMP2
Attachments: DRAFT VIS UWMP CH 3-ab.pdf; DRAFT VIS UWMP CH 3-krl.pdf; DRAFT VIS UWMP CH 3-krl-comments.pdf; DRAFT VIS UWMP CH 3-rm.pdf

Hi Dana,

Thank you for the opportunity to review the draft Visalia District UWMP. I am attaching files containing Andy Benelli's, Dick Moss', and my comments. As the document provided was a PDF, it was difficult to comment in the document itself. Andy's and Dick's comments are scans of their hand-written comments. I embedded my comments in the document. They are visible if you hover over the highlighted text; however, they are a little tough to print. So, I've output the document to a second file with the comments numbered and printed after each page.

Based on our review of the draft document, we agree with your conclusion below that there is still some misunderstanding regarding water management in the area. We believe it would be highly beneficial to have a meeting with you, KDWCD, and the City, to go through our comments, answer any questions you may have, and clear up these misunderstandings prior to finalizing the document.

Regards,
Kim

Kim Loeb
Natural Resource Conservation Manager
City of Visalia
559.713.4530
kloeb@ci.visalia.ca.us
www.GoGreenVisalia.com

-----Original Message-----
From: Jacobson, Dana [mailto:djacobson@calwater.com]
Sent: Thursday, December 09, 2010 1:47 PM
To: Leslie Caviglia; Andrew Benelli; Kim Loeb; Richard Moss; ldotson@kdwcd.com
Cc: Salzano, Tom; Bolzowski, Michael R.; Mirwald, Phil
Subject: Please review draft water supply section of Visalia District UWMP

Good Afternoon,

Attached for your review is a preliminary draft of the Water Supply chapter for the 2010 Visalia District UWMP. Please provide your comments by January 7th, 2011. Please pay particular attention to the areas that deal with your organization so that the information included is accurate. As we found in yesterday's meeting, there is still some misunderstanding on my part as to the details and history of the various water management efforts of both the City and KDCWD. I expect to resume our regular UWMP meetings shortly after your review of this draft. Feel free to call me at (408)-367-8361 with any questions about what has been included in this draft or about the UWMP process in general.

Dana

Dana Jacobson
Water Resources Planning
California Water Service Company
1720 North First Street
San Jose, CA 95112
Phone: (408) 367-8361

Jacobson, Dana

From: Jacobson, Dana
Sent: Friday, December 17, 2010 2:45 PM
To: 'Larry Dotson'
Cc: Salzano, Tom
Subject: RE: Please review draft water supply section of Visalia District UWMP3

Larry,

I have read and accepted all your comments and edits on this draft section. We appreciate you taking the time to do a thorough review.

Dana

Dana Jacobson
Water Resources Planning
California Water Service Company
1720 North First Street
San Jose, CA 95112
Phone: (408) 367-8361

From: Larry Dotson [mailto:ldotson@kdwcd.com]
Sent: Friday, December 17, 2010 8:24 AM
To: Jacobson, Dana
Subject: Re: Please review draft water supply section of Visalia District UWMP

Dana;

Attached is a marked-up copy of KDWCD's comments to the Draft 2010 Visalia District UWMP Chapter 3.

Respectfully,

Larry Dotson
Sr. Engr., KDWCD

> ----- Original Message -----
> **From:** Jacobson, Dana
> **To:** Leslie Caviglia ; Andrew Benelli ; kloeb@ci.visalia.ca.us ; Richard Moss ; ldotson@kdwcd.com
> **Cc:** Salzano, Tom ; Bolzowski, Michael R. ; Mirwald, Phil
> **Sent:** Thursday, December 09, 2010 1:46 PM
> **Subject:** Please review draft water supply section of Visalia District UWMP
>
> Good Afternoon,
>
> Attached for your review is a preliminary draft of the Water Supply chapter for the 2010 Visalia District UWMP. Please provide your comments by January 7th, 2011. Please pay particular attention to the areas that deal with your organization so that the information included is accurate. As we found in yesterday's meeting, there is still some misunderstanding on my part as to the details and history of the various water management efforts of both the City and KDCWD. I expect to resume our regular UWMP meetings shortly after your review of this draft. Feel free to call me at (408)-367-8361 with any questions about what has been included in this draft or

about the UWMP process in general.

Dana

Dana Jacobson
Water Resources Planning
California Water Service Company
1720 North First Street
San Jose, CA 95112
Phone: (408) 367-8361

Jacobson, Dana

From: Brandon Smith [BSmith@ci.visalia.ca.us]
Sent: Tuesday, July 28, 2009 9:29 AM
To: Jacobson, Dana
Cc: Leslie Caviglia
Subject: RE: Population Projections

Thank you Dana. Please feel free to contact me if I can be of any service as you analyze your projections and demands.

Brandon Smith, AICP
Senior Planner, City of Visalia
bsmith@ci.visalia.ca.us
Phone: (559) 713-4636
Fax: (559) 713-4814


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-----Original Message-----
From: Jacobson, Dana [mailto:djacobson@calwater.com]
Sent: Monday, July 27, 2009 1:01 PM
To: Brandon Smith
Subject: RE: Population Projections

Hi Brandon,

Yes, I got your email. Thank you for the information. I've been out of the office more than I've been in it for the last couple of weeks but I did get a chance to look at your spreadsheet. I'll have to discuss you population figures with the folks here and decide how to proceed with coming up with growth projections and ultimately future water demands. Without additional information from the City about housing we will most likely need to rely on our normal method of calculating these things, which uses past service count trends for future estimates. As a comparison, we will also be calculating future water demands on a per capita basis because this is how the state will judge our conservation performance. For this, we can use your population numbers for the City and use our population estimates for those areas outside the City that are still in our service area. I'll let you know if I need anything else.

Dana

From: Brandon Smith [mailto:BSmith@ci.visalia.ca.us]
Sent: Monday, July 27, 2009 11:46 AM
To: Jacobson, Dana
Subject: Population Projections

Hello Dana,

I wanted to check in and make sure you got the email I sent on July 17 regarding the City of Visalia population projections. Please let me know if there is anything else you need at this time to aid in the preparation of the Visalia Plan.

Thanks,

Brandon Smith, AICP

Senior Planner, City of Visalia
bsmith@ci.visalia.ca.us
Phone: (559) 713-4636
Fax: (559) 713-4814

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Jacobson, Dana

From: Andrew Benelli [ABenelli@ci.visalia.ca.us]
Sent: Thursday, September 24, 2009 1:14 PM
To: Jacobson, Dana
Subject: RE: Projected wastewater amounts

Dana,

The Council has authorized a system that will tertiary treat 5 mgd and the rest secondary. We are going to ask them to consider three alternatives for the design. One of the alternatives will be to tertiary treat all of the flow. They agreed to the concept of fully treating all of the flow but held back on a final decision until we know the total cost of full tertiary treatment.

Andrew J. Benelli, PE
Public Works Director
P.O. Box 5078
Visalia, California 93278-5078
559-713-4340

-----Original Message-----
From: Jacobson, Dana [mailto:djacobson@calwater.com]
Sent: Thursday, September 24, 2009 11:08 AM
To: Andrew Benelli
Subject: RE: Projected wastewater amounts

Hi Andrew,

Will you be updating to tertiary treatment regardless of whether the reuse project happens?

Dana

From: Andrew Benelli [mailto:ABenelli@ci.visalia.ca.us]
Sent: Monday, September 21, 2009 10:56 AM
To: Jacobson, Dana
Subject: RE: Projected wastewater amounts

Dana,

I checked in the Waste Water Treatment Plant Master Plan. They used a per-capita flow of 120 gallons per day and 12 percent industrial flow to get an average flow of 26 MGD in 2030. They also calculated an average day maximum month flow of 28 MGD.

Andrew J. Benelli, PE
Public Works Director
P.O. Box 5078
Visalia, California 93278-5078
559-713-4340

-----Original Message-----
From: Jacobson, Dana [mailto:djacobson@calwater.com]
Sent: Monday, September 21, 2009 9:28 AM
To: Andrew Benelli
Cc: Leslie Caviglia; Mirwald, Phil
Subject: Projected wastewater amounts

Hi Andrew,

For the UWMP we need to estimate the quantity of wastewater projected to be produced by our customers in future years. The method that we used in the last UWMP seems to have under estimated this value. According to the proposed reuse project presentation the treatment plant handles about 13 MGD (14,500 AF) right now. Do you have estimates of future treatment quantities through 2040? Historic annual data would be helpful also. If you don't have these then I could just use the 13 MGD as a baseline and apply the City's projected growth rate. Also, can I assume that only our customers contribute to the wastewater stream or are there other sources?

Dana

Dana Jacobson
Water Resources Planning
California Water Service Company
Phone: (408) 367-8361

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Jacobson, Dana

From: Andrew Benelli [ABenelli@ci.visalia.ca.us]
Sent: Monday, September 21, 2009 10:56 AM
To: Jacobson, Dana
Subject: RE: Projected wastewater amounts2

Dana,

I checked in the Waste Water Treatment Plant Master Plan. They used a per-capita flow of 120 gallons per day and 12 percent industrial flow to get an average flow of 26 MGD in 2030. They also calculated an average day maximum month flow of 28 MGD.

Andrew J. Benelli, PE
Public Works Director
P.O. Box 5078
Visalia, California 93278-5078
559-713-4340

-----Original Message-----
From: Jacobson, Dana [mailto:djacobson@calwater.com]
Sent: Monday, September 21, 2009 9:28 AM
To: Andrew Benelli
Cc: Leslie Caviglia; Mirwald, Phil
Subject: Projected wastewater amounts

Hi Andrew,

For the UWMP we need to estimate the quantity of wastewater projected to be produced by our customers in future years. The method that we used in the last UWMP seems to have under estimated this value. According to the proposed reuse project presentation the treatment plant handles about 13 MGD (14,500 AF) right now. Do you have estimates of future treatment quantities through 2040? Historic annual data would be helpful also. If you don't have these then I could just use the 13 MGD as a baseline and apply the City's projected growth rate. Also, can I assume that only our customers contribute to the wastewater stream or are there other sources?

Dana

Dana Jacobson
Water Resources Planning
California Water Service Company
Phone: (408) 367-8361

Jacobson, Dana

From: Leslie Caviglia [LCaviglia@ci.visalia.ca.us]
Sent: Tuesday, July 07, 2009 4:29 AM
To: Jacobson, Dana
Subject: RE: Info for meeting2

HI Dana,
Would you mind sending me another copy of the agenda for Wednesday's meeting? I thought I saved a copy but can't find it now.
Thanks,
Leslie

-----Original Message-----
From: Jacobson, Dana [mailto:djacobson@calwater.com]
Sent: Monday, July 06, 2009 9:11 AM
To: Leslie Caviglia
Subject: RE: Info for meeting

Hi Leslie,

I was hoping to review the City's data and methodology for determining growth and population projections so that we could discuss it at the meeting but haven't received anything yet. It sounds like the schedule for the General Plan Update will lag the UWMP schedule somewhat, so you may not have newer projections made yet. Perhaps it would be good to have Brandon Smith at the meeting also, if you have not already invited him.

Dana

From: Leslie Caviglia [mailto:LCaviglia@ci.visalia.ca.us]
Sent: Monday, July 06, 2009 8:55 AM
To: Jacobson, Dana
Subject: Info for meeting

HI Dana,
I just wanted to touch base with you and make sure you have what you need for our meeting on Wednesday. If you're missing anything, please let me know.
Thanks,
Leslie

Leslie B. Caviglia
Deputy City Manager
City of Visalia
425 E. Oak, Suite 301
Visalia, CA 93291
(559) 713-4317
(559) 713-4800 (F)
lcaviglia@ci.visalia.ca.us

Jacobson, Dana

From: Larry Dotson [ldotson@kdwcd.com]
Sent: Wednesday, November 17, 2010 8:14 AM
To: Jacobson, Dana
Subject: Re: latest recharge basin info

Dana;

The information of Table 28 of the WRI is the most current. You could use the complete detail or draw out only the information that you desire.

Larry

----- Original Message -----
From: Jacobson, Dana
To: ldotson@kdwcd.com
Sent: Tuesday, November 16, 2010 1:26 PM
Subject: latest recharge basin info

Hi Larry,

I would like to include a summary of your recharge basins in the UWMP for Visalia. What is the current count, surface area, and recharge capacity (estimate is ok) of all KDWCD recharge basins? I don't need anything as detailed as Table 28 in the WRI, just a simple summary, unless you would like me to include it. Thanks.

Dana

Dana Jacobson
Water Resources Planning
California Water Service Company
1720 North First Street
San Jose, CA 95112
Phone: (408) 367-8361

Jacobson, Dana

From: Brandon Smith [BSmith@ci.visalia.ca.us]
Sent: Tuesday, September 08, 2009 3:37 PM
To: Leslie Caviglia; Jacobson, Dana
Cc: Andrew Benelli; Michael Olmos; rmoss@ppeng.com; Leffler, Peter [FWI]; Salzano, Tom; Mirwald, Phil; Jenkins, Ken
Subject: RE: Agenda

Hi Dana,
I thought of a question too. Regarding the new Excel spreadsheet that you've distributed by email, is it necessary to bring printed copies of these tables to the meeting? Thanks!

Brandon Smith, AICP
Senior Planner, City of Visalia
bsmith@ci.visalia.ca.us
Phone: (559) 713-4636
Fax: (559) 713-4814
P Save A Tree - Please do not print this email unless necessary.

-----Original Message-----
From: Leslie Caviglia
Sent: Tuesday, September 08, 2009 12:14 PM
To: 'Jacobson, Dana'
Cc: Brandon Smith; Andrew Benelli; Michael Olmos; rmoss@ppeng.com; Leffler, Peter [FWI]; Salzano, Tom; Mirwald, Phil; Jenkins, Ken
Subject: RE: Agenda

Hi Dana,
Just to confirm, is this the data will be discussing tomorrow relating to the water usage numbers for the future?
Thanks,
Leslie

-----Original Message-----
From: Jacobson, Dana [mailto:djacobson@calwater.com]
Sent: Tuesday, September 08, 2009 8:33 AM
To: Leslie Caviglia
Cc: Brandon Smith; Andrew Benelli; Michael Olmos; rmoss@ppeng.com; Leffler, Peter [FWI]; Salzano, Tom; Mirwald, Phil; Jenkins, Ken; Jacobson, Dana
Subject: RE: Agenda

Hi Leslie.

Yes, here is the agenda that I have prepared for tomorrow's meeting.
Please forward it to anyone I may have missed or add any additional
items. We would like to discuss conservation with an update on Cal
Water's propsed plan by Ken Jenkins. Then I would like to come to agreement on the population and growth projections that will be used in the UWMP. The last major topic will be a discussion of water supply. I suspect that this will take several meetings to hash out so I see this more or less as a brainstorming session to get things moving. See you tomorrow.

Dana

-----Original Message-----
From: Leslie Caviglia [mailto:LCaviglia@ci.visalia.ca.us]
Sent: Tuesday, September 08, 2009 3:51 AM
To: Jacobson, Dana
Subject: Agenda

Hi Dana,

Hope you had a great three day weekend! Just wanted to check in and see if there is an agenda for the meeting tomorrrow.
Thanks,
Leslie

Jacobson, Dana

From: Kim Loeb [KLoeb@ci.visalia.ca.us]
Sent: Wednesday, April 21, 2010 9:46 AM
To: Jenkins, Ken; Ruud, Nels [FWI]; Jacobson, Dana; Mirwald, Phil; ldotson@kdwcd.com; Richard Moss
Cc: Salzano, Tom; Leffler, Peter [FWI]; Leslie Caviglia
Subject: RE: Visalia Conservation Savings

Ken,

Thanks for this information. The idea for Scenario 3 is a reasonably aggressive conservation scenario. Of course the 154 gpcd is the statewide 20x2020 conservation target including the coastal regions, but it seemed like it could be a good target to use for more aggressive conservation locally over say a 15-year period.

In the early 1990s, Santa Barbara banned turf irrigation and residents reduced water consumption by more than 50%. While I'm not proposing a scenario which envisions a ban on turf irrigation, reducing Visalia's consumption by an additional 21% for a total reduction of 34% (including Cal Water's 16% 20x2020 reduction) seems entirely feasible, especially over a 15-year horizon. Reducing residential landscape irrigation by 40% would achieve this target.

The City has adopted the state-mandated Model Water Efficient Landscape Ordinance, which should significantly reduce future turf and other high-water use landscape installations. Aggressive turf-replacement programs could be implemented to reduce the amount of currently installed turf. The idea here is to forecast business as usual, which now is really Scenario 2 since these reductions are mandated, and bookend with aggressive action, i.e., Scenario 3. Thoughts?

Thanks,
Kim

-----Original Message-----
From: Jenkins, Ken [mailto:kjenkins@calwater.com]
Sent: Tuesday, April 20, 2010 2:21 PM
To: Kim Loeb; Ruud, Nels [FWI]; Jacobson, Dana; Mirwald, Phil; ldotson@kdwcd.com; Richard Moss
Cc: Salzano, Tom; Leffler, Peter [FWI]
Subject: RE: Visalia Conservation Savings

For clarification purposes our 2020 reduction target, per SBX7 7, is 194 gpcd. This number is arrived at by calculating a 20% reduction from the 10-year average of 243 gpcd from 1996-2005. The 10-year average of 243 gpcd is only used to calculate our 2020 target per SBX7 7.

The baseline that Dana has provided is our starting point to calculate necessary reductions to meet the 194 gpcd requirement. We utilized the most recent 5-year gpcd average for this baseline of 232 gpcd. We have achieved reductions in gpcd since the 1996-2005 period which accounts for the lower percentage reduction from our baseline.

The 20x2020 statewide target of 154 gpcd is set for 2020 not 2025. I would be interested in seeing the assumptions and calculations that were used to determine that reducing residential landscaping irrigation by 40% would allow us to reach 154 gpcd. I don't have an issue one way or the other with using this target for Scenario 3. However, I would caution using any target that is not reasonably achievable.

The 154 gpcd is reducing from the statewide average of 192 gpcd. This takes into account all hydrologic regions in the state and may or may not be the best approximation of what is reasonably achievable in

Visalia.

Ken Jenkins
Conservation Manager
California Water Service Company
(310) 257-1484
kjenkins@calwater.com

From: Kim Loeb [mailto:KLoeb@ci.visalia.ca.us]
Sent: Friday, April 09, 2010 5:18 PM
To: 'Ruud, Nels [FWI]'; Jacobson, Dana; Mirwald, Phil; ldotson@kdwcd.com; Richard Moss
Cc: Salzano, Tom; Jenkins, Ken; Leffler, Peter [FWI]
Subject: RE: Visalia Conservation Savings

Hi Nels,

I agree with using Cal Water's demand based on implementation of SBX7-7 20x2020 mandate, but I'm not sure I follow their math. Cal Water has established a baseline of 232 gpcd. A 20% reduction would result in a demand of 186 gpcd; however, Cal Water's table shows 194 gpcd, a 16% reduction. Dana, would you please explain?

BTW, if we were starting from scratch, I would suggest that this should be the new baseline since it is a state mandate.

For Scenario 3, I suggest we use an aggressive conservation scenario. I suggest that we use the statewide 20x2020 target of 154 gpcd by 2025. This represents an additional 17% beyond the 20% mandate. We could accomplish this if we were able to reduce residential landscape irrigation by 40% (see attached).

There is also Scenario 5 that will be run which will include both conservation and recharge based on the planned trades of recycled water for recharge. We are still working to define the recharge scenarios for this run.

I look forward to seeing the basic results of the baseline conditions per our March 10th conference call before you start on the other scenarios.

Thanks,
Kim

> -----Original Message-----
> **From:** Ruud, Nels [FWI] [mailto:nruud@fugro.com]
> **Sent:** Thursday, April 01, 2010 10:46 AM
> **To:** Jacobson, Dana; Kim Loeb; pmirwald@calwater.com; ldotson@kdwcd.com; Richard Moss
> **Cc:** Salzano, Tom; Jenkins, Ken; Leffler, Peter [FWI]
> **Subject:** RE: Visalia Conservation Savings
>
> FYI. I am planning to return to work on Monday April 5. Per discussions with Larry Dotson and Kim Loeb on March 10, I plan to make some modifications to the model to get it ready to run the revised scenarios. Once the modifications are successfully implemented, I will provide the TRC with some basic results to demonstrate how the updated/calibrated model performed. At this

point, it appears we have information from CalWater to run Scenario 1 (baseline conditions), Scenario 2 (20/20 water conservation savings scenario), and Scenario 4 (baseline pumping rates with artificial recharge programs). Therefore, we need a confirmation from the City of Visalia that they are in agreement with CalWater's revision to Scenario 2 as reflected in Dana's email attachment (see email below). We also need the revised definition for Scenario 3 which I assume will be a different water conservation scenario than Scenario 2. I will not implement any of the scenarios until I have provided the TRC with the basic results of the calibrated model modification and have subsequently addressed any of their concerns about that. Once the model is deemed acceptable, however, I would like to quickly proceed with implementing the revised scenarios. Therefore, it would be appreciated if the TRC could finish defining the remaining scenario in the meantime so that the modeling work can be completed in a reasonable amount of time. Please let me know if you have any questions. Thanks!

Nels

From: Jacobson, Dana [mailto:djacobson@calwater.com]
Sent: Thursday, March 18, 2010 10:49 AM
To: Ruud, Nels [FWI]; Leffler, Peter [FWI]
Cc: Salzano, Tom; Jenkins, Ken; kloeb@ci.visalia.ca.us; ldotson@kdwcd.com; Richard Moss
Subject: Visalia Conservation Savings

Hi Nels,

Over the past few weeks we've had some internal discussions about the best way to calculate conservation savings. The end result is that we have come up with a slightly different method than was described in my earlier emails. We think that it better represents the level of savings required for each of our service districts. It's my understanding that it's not too late to incorporate these new values into your analysis for Visalia. Please use the savings as shown in the attached file. Sorry for all the confusion but we're learning as we go with the SB-7 requirements.

For those of you interested in the methodology here is a summary: Projected demand was calculated two ways. The first method used an average gpcd value from 2005-2009 as a baseline. This baseline value was then applied to the projected population in all years to give us our first demand projection, which indicates what demand would likely be without any conservation. For the second projection the gpcd value was stepped down according to the requirements of SB-7 so that we will meet our interim and final 2020 gpcd target. The difference between the two is considered conservation savings.

Dana

Dana Jacobson
Water Resources Planning
California Water Service Company
Phone: (408) 367-8361

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Jacobson, Dana

From: Richard Moss [rmoss@ppeng.com]
Sent: Thursday, March 18, 2010 12:06 PM
To: Jenkins, Ken; Jacobson, Dana; nruud@fugro.com; pleffler@fugro.com
Cc: Salzano, Tom; kloeb@ci.visalia.ca.us; ldotson@kdwcd.com; Mirwald, Phil
Subject: RE: Visalia Conservation Savings2

Interesting…

The City is currently planning to use part of the reclaimed WW for irrigating Plaza Park and the golf course…but that is replacing water from City owned groundwater wells. The balance will likely go to TID for exchange for surface water to be used for up-gradient GW recharge. Some may ultimately go to the Industrial Park. The cost of extending purple pipe back into the City pushed these other alternatives to the top in terms of reuse. Now if Cal Water were to include purple pipe costs as a water conservation action and help pay for it, it may come closer to penciling out.

Dick

From: Jenkins, Ken [mailto:kjenkins@calwater.com]
Sent: Thursday, March 18, 2010 11:48 AM
To: Jacobson, Dana; Richard Moss; nruud@fugro.com; pleffler@fugro.com
Cc: Salzano, Tom; kloeb@ci.visalia.ca.us; ldotson@kdwcd.com; Mirwald, Phil
Subject: Re: Visalia Conservation Savings

Dana,

You are correct on all counts.

Ken

From: Jacobson, Dana
To: 'Richard Moss' <rmoss@ppeng.com>; Ruud, Nels [FWI] <nruud@fugro.com>; Leffler, Peter [FWI] <pleffler@fugro.com>
Cc: Salzano, Tom; Jenkins, Ken; kloeb@ci.visalia.ca.us <kloeb@ci.visalia.ca.us>; ldotson@kdwcd.com <ldotson@kdwcd.com>; Mirwald, Phil
Sent: Thu Mar 18 11:43:35 2010
Subject: RE: Visalia Conservation Savings

Hi Dick,

Yes, recycled water is taken off the top when calculating gpcd, so any increase in its use will have a great benefit in meeting SB7 targets. Ken, correct me if I'm wrong, but I believe that the recycled water must be replacing water uses that were formerly supplied by potable water, and be within Cal Water's service area. I'm not sure if the proposed uses for the City's reuse program meet these requirements. But the opportunity is certainly there.

Dana

From: Richard Moss [mailto:rmoss@ppeng.com]
Sent: Thursday, March 18, 2010 11:30 AM
To: Jacobson, Dana; Ruud, Nels [FWI]; Leffler, Peter [FWI]
Cc: Salzano, Tom; Jenkins, Ken; kloeb@ci.visalia.ca.us; ldotson@kdwcd.com
Subject: RE: Visalia Conservation Savings

Hi Dana –

I may have asked this question before, so forgive me I did.

Can waste water reuse satisfy part of the "20 by 2020" demand reductions required under SB7?

Dick

From: Jacobson, Dana [mailto:djacobson@calwater.com]
Sent: Thursday, March 18, 2010 10:49 AM
To: Ruud, Nels [FWI]; Leffler, Peter [FWI]
Cc: Salzano, Tom; Jenkins, Ken; kloeb@ci.visalia.ca.us; ldotson@kdwcd.com; Richard Moss
Subject: Visalia Conservation Savings

Hi Nels,

Over the past few weeks we've had some internal discussions about the best way to calculate conservation savings. The end result is that we have come up with a slightly different method than was described in my earlier emails. We think that it better represents the level of savings required for each of our service districts. It's my understanding that it's not too late to incorporate these new values into your analysis for Visalia. Please use the savings as shown in the attached file. Sorry for all the confusion but we're learning as we go with the SB-7 requirements.

For those of you interested in the methodology here is a summary: Projected demand was calculated two ways. The first method used an average gpcd value from 2005-2009 as a baseline. This baseline value was then applied to the projected population in all years to give us our first demand projection, which indicates what demand would likely be without any conservation. For the second projection the gpcd value was stepped down according to the requirements of SB-7 so that we will meet our interim and final 2020 gpcd target. The difference between the two is considered conservation savings.

Dana

Dana Jacobson
Water Resources Planning
California Water Service Company
Phone: (408) 367-8361

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Jacobson, Dana

From: Brandon Smith [BSmith@ci.visalia.ca.us]
Sent: Thursday, May 28, 2009 9:33 AM
To: Leslie Caviglia; Jacobson, Dana
Cc: Michael Olmos
Subject: RE: Visalia District Urban Water Management Plan Update

Hi Leslie,

No problem. I recall receiving your email some time ago, however I was of the impression that Dana would be getting in touch with me. I will try making contact by phone this afternoon.

Brandon Smith, AICP
Senior Planner, City of Visalia
bsmith@ci.visalia.ca.us
Phone: (559) 713-4636
Fax: (559) 713-4814
P Save A Tree - Please do not print this email unless necessary.

-----Original Message-----
From: Leslie Caviglia
Sent: Thursday, May 28, 2009 4:05 AM
To: Jacobson, Dana; Brandon Smith
Cc: Michael Olmos
Subject: RE: Visalia District Urban Water Management Plan Update

Hi Brandon,

Would you please contact Dana Jacobson with California Water Service regarding Visalia statistics for the Urban Water Management Plan that the City of Visalia is working with Cal Water on. This relates back to the e-mail that Mike Olmos sent previously indicating you would be the most knowledgeable person to assist Dana with getting the information needed. Just for convenience, I'm providing both of your contact information:

Brandon Smith
713-4636
bsmith@ci.visalia.ca.us

Dana Jacobson
408-367-8361
djacobson@calwater.com

Dana and Brandon, please let me know if I can be of assistance.

Thanks,
Leslie

-----Original Message-----
From: Jacobson, Dana [mailto:djacobson@calwater.com]
Sent: Wed 05/27/2009 8:48 AM
To: Leslie Caviglia
Cc:
Subject: RE: Visalia District Urban Water Management Plan Update

Hi Leslie,

I haven't heard from Brandon yet but look forward to it. Please have him call me or forward his contact info to me and I'll get things rolling.
Thanks.

Dana

_____

From: Leslie Caviglia [mailto:LCaviglia@ci.visalia.ca.us]
Sent: Friday, May 22, 2009 12:19 PM
To: Jacobson, Dana
Subject: RE: Visalia District Urban Water Management Plan Update

HI Dana,

I know that Michael Olmos gave you Brandon's name as a contact for the growth/population data. Has he contacted you? As I was catching up on e-mails, I realized that there may have been some confusion over who was going to call who. If you and Brandon have not connected, then I'll make sure that happens early next week. Also, with regards to getting the timeline the end of this week or early next, that will be fine. I sincerely appreciate the follow up.

Thanks,

Leslie

-----Original Message-----
From: Jacobson, Dana [mailto:djacobson@calwater.com]
Sent: Monday, May 18, 2009 1:53 PM
To: Leslie Caviglia
Cc: Andrew Benelli; rmoss@ppeng.com; ldotson@kdwcd.com; molmoss@ci.visalia.ca.us; Donjia Huffmon; Mirwald, Phil; Salzano, Tom; Jenkins, Ken
Subject: Visalia District Urban Water Management Plan Update

Hi Leslie,

Attached is a spreadsheet that contains most of the data we normally use to develop the UWMP for Visalia. It has been updated to include actual data through 2008. A previous version with data through 2006 was included as Appendix C in the 2007 UWMP. I would like to get started on the 2010 UWMP by coming to agreement on the growth, population, and water demand projections for our service area. Please let me know who will be the primary contact for this analysis and have them give me a call so that we can discuss the methodology used to develop these projections. The spreadsheet is rather large and it might be helpfull for me to walk somebody through it over the phone.

We are also working on a general schedule for development of the UWMP and will submit it to you later in the week. Give a call if you have any questions. Thanks.

Dana

Dana Jacobson

Water Resources Planning

California Water Service Company

Phone: (408) 367-8361

Jacobson, Dana

From: Michael Olmos [MOLMOS@ci.visalia.ca.us]
Sent: Tuesday, May 19, 2009 7:33 AM
To: Jacobson, Dana
Cc: Brandon Smith; Leslie Caviglia; Mirwald, Phil; Andrew Benelli; Chris Young; Fred Brusuelas
Subject: RE: Visalia District Urban Water Management Plan Update 3

Dana, our Senior Planner, Brandon Smith, will help you analyze growth data for Visalia. Brandon is heavily involved in our current General Plan Update and is very knowledgeable on our growth statistics.

Thanks for involving us in this process.

Mike Olmos
Assistant City Manager/
Community Development Director
City of Visalia
559-713-4332
molmos@ci.visalia.ca.us

-----Original Message-----
From: Jacobson, Dana [mailto:djacobson@calwater.com]
Sent: Monday, May 18, 2009 2:01 PM
To: Michael Olmos
Subject: FW: Visalia District Urban Water Management Plan Update

Hi Michael,

It looks like I got your address wrong the first time. Please read below. Thanks.

Dana

From: Jacobson, Dana
Sent: Monday, May 18, 2009 1:53 PM
To: lcaviglia@ci.visalia.ca.us
Cc: abenelli@ci.visalia.ca.us; rmoss@ppeng.com; ldotson@kdwcd.com; molmoss@ci.visalia.ca.us; gcollins@ci.visalia.ca.us; Mirwald, Phil; Salzano, Tom; Jenkins, Ken
Subject: Visalia District Urban Water Management Plan Update

Hi Leslie,

Attached is a spreadsheet that contains most of the data we normally use to develop the UWMP for Visalia. It has been updated to include actual data through 2008. A previous version with data through 2006 was included as Appendix C in the 2007 UWMP. I would like to get started on the 2010 UWMP by coming to agreement on the growth, population, and water demand projections for our service area. Please let me know who will be the primary contact for this analysis and have them give me a call so that we can discuss the methodology used to develop these projections. The spreadsheet is rather large and it might be helpfull for me to walk somebody through it over the phone.

We are also working on a general schedule for development of the UWMP and will submit it to you later in the week. Give a call if you have any questions. Thanks.

Dana

Dana Jacobson
Water Resources Planning
California Water Service Company
Phone: (408) 367-8361

Jacobson, Dana

From: Leslie Caviglia [LCaviglia@ci.visalia.ca.us]
Sent: Monday, June 15, 2009 9:06 PM
To: Jacobson, Dana
Cc: Leslie Caviglia
Subject: RE: Visalia UWMP development schedule

Hi Dana,
I wanted to follow up on this prior to our meeting in July. Have you gotten the population and water projections that were noted in our previous conversation and on the timeline? Please let me know if there is anything further that you need from us in order to have our July meeting be productive.
Thanks,
Leslie

-----Original Message-----
From: Jacobson, Dana [mailto:djacobson@calwater.com]
Sent: Friday, May 29, 2009 10:51 AM
To: Leslie Caviglia; Brandon Smith; rmoss@ppeng.com; ldotson@kdwcd.com; Mirwald, Phil; Jenkins, Ken; Salzano, Tom
Subject: Visalia UWMP development schedule

Hi,

Here is the timeline for development of the Visalia District 2010 UWMP. I envision these as soft dates that we can use to keep us on track. My hope is that we can compile most of the necessary information and agree on the methodologies used in the report this summer and fall so that the writing part will go smoothly next year. Please let me know if you have any comments and I will revise the schedule accordingly.

Dana

Dana Jacobson
Water Resources Planning
California Water Service Company
Phone: (408) 367-8361

Jacobson, Dana

From: Jacobson, Dana

Sent: Tuesday, December 08, 2009 1:59 PM

To: 'Leslie Caviglia'; 'Brandon Smith'; 'Andrew Benelli'; 'rmoss@ppeng.com'; 'Michael Olmos'; 'ldotson@kdwcd.com'; Salzano, Tom; Mirwald, Phil; Jenkins, Ken; 'Leffler, Peter [FWI]'; 'Ruud, Nels [FWI]'; 'kloeb@ci.visalia.ca.us'

Subject: UWMP Meeting

Attachments: 12-16-09 UWMP Agenda.doc; 12-16-09 UWMP Info.pdf

Good Afternoon,

Here is the agenda for next Wednesday's UWMP meeting. If you have anything else to add please let me know. The conservation discussion may be limited as Ken Jenkins will not be able to attend. However, there should be plenty to talk about with respect to water supply.

I have attached a packet of information that contains Fugro's preliminary analysis of overdraft that can reasonably be attributed to Cal Water and the City. This includes a discussion of the safe yield and groundwater storage. I also included the population growth and water demand projections that we previously agreed on, just in case we want to revisit them in light of the overdraft analysis. See you next week.

Dana

Dana Jacobson
Water Resources Planning
California Water Service Company
Phone: (408) 367-8361

Jacobson, Dana

From: Jacobson, Dana

Sent: Monday, May 18, 2009 1:53 PM

To: 'lcaviglia@ci.visalia.ca.us'

Cc: 'abenelli@ci.visalia.ca.us'; 'rmoss@ppeng.com'; 'ldotson@kdwcd.com'; 'molmoss@ci.visalia.ca.us'; 'gcollins@ci.visalia.ca.us'; Mirwald, Phil; Salzano, Tom; Jenkins, Ken

Subject: Visalia District Urban Water Management Plan Update

Attachments: VIS UWMP Data 2009.xls

Hi Leslie,

Attached is a spreadsheet that contains most of the data we normally use to develop the UWMP for Visalia. It has been updated to include actual data through 2008. A previous version with data through 2006 was included as Appendix C in the 2007 UWMP. I would like to get started on the 2010 UWMP by coming to agreement on the growth, population, and water demand projections for our service area. Please let me know who will be the primary contact for this analysis and have them give me a call so that we can discuss the methodology used to develop these projections. The spreadsheet is rather large and it might be helpfull for me to walk somebody through it over the phone.

We are also working on a general schedule for development of the UWMP and will submit it to you later in the week. Give a call if you have any questions. Thanks.

Dana

Dana Jacobson
Water Resources Planning
California Water Service Company
Phone: (408) 367-8361

Jacobson, Dana

From: Jacobson, Dana
Sent: Tuesday, August 25, 2009 12:05 PM
To: 'Brandon Smith'
Cc: 'Leslie Caviglia'; Salzano, Tom; 'abenelli@ci.visalia.ca.us'
Subject: Visalia UWMP growth and water demand projections
Attachments: CWS UWMP Projections.xls

Brandon,

I have readjusted our Urban Plan projections using the information you provided. We will present this material at our next meeting on September 9th. But if you have any questions beforehand please let me know. The attached spreadsheet contains our new population, service count, and water demand projections. We will now be calculating water demands two ways. The first is based on historic water use per service and the second is based on per capita use (we call this the conservation target). The second method represents a 20% reduction in per capita use by 2020 to allow for passage of SB 261 or similar legislation.

Dana

Dana Jacobson
Water Resources Planning
California Water Service Company
Phone: (408) 367-8361

Jacobson, Dana

From: Kim Loeb [KLoeb@ci.visalia.ca.us]
Sent: Monday, January 24, 2011 3:46 PM
To: Jacobson, Dana
Subject: RE: GW Pumping Graph

Hi Dana,

Thanks, this is appreciated. I understand about the UWMP data file.

Thanks,
Kim

-----Original Message-----
From: Jacobson, Dana [mailto:djacobson@calwater.com]
Sent: Monday, January 24, 2011 3:43 PM
To: Kim Loeb
Subject: RE: GW Pumping Graph

Kim,

Here is the latest copy of this graph. It may be different from the one that was in the last draft section I sent you. For reasons that I will describe at our next meeting, we have decided to use the SBx7-7 method for the water demand projections. You will see the unadjusted baseline demand, which assumes no conservation, and the target demand, which represents the 20% reduction. You can see the associated data for the target demand at the bottom of this email.

I hesitate to send the entire UWMP data file at this point but should be able to later. The worksheets are in various stages of completion, and we have run into some data problems with the year-end 2010 data. I'm itching to send you a complete copy of the Draft UWMP but we always seem to be waiting on something. In this case its the data problems, and the feasibility analysis for alternative supplies that is coming from the Master Plan, which of course is behind schedule. For purposes of the UWMP we may have to give a more subjective discussion of alternatives and get the details later when the Master Plan is complete.

Dana

Table 4.4–2: Amount of Groundwater projected to be pumped – AFY (Table 19)

Basin Name	2010 (Actual)	2015	2020	2025	2030	2035	2040
San Joaquin Valley Groundwater Basin - Kaweah Sub-basin	31,762	37,307	37,390	41,788	46,706	51,787	57,176
% of Total Water Supply	100 %	100 %	100 %	100 %	100%	100 %	100 %

Dana Jacobson
Water Resources Planning
California Water Service Company
1720 North First Street
San Jose, CA 95112
Phone: (408) 367-8361

From: Kim Loeb [mailto:KLoeb@ci.visalia.ca.us]
Sent: Monday, January 24, 2011 2:51 PM
To: Jacobson, Dana
Subject: GW Pumping Graph

Hi Dana,

I wonder if you could send me the current groundwater pumping graph and data. I have this one from last year, but the figure in your draft UWMP looks slightly different and I know we've been tweaking the population projections. I would like to be sure I have the current version, or in fact, if I could have a copy of the latest version of the VIS UWMP Data 2010-100216.xls file that would be fabulous.

Thanks,
Kim

Jacobson, Dana

From: Leslie Caviglia [LCaviglia@ci.visalia.ca.us]
Sent: Tuesday, July 07, 2009 4:29 AM
To: Jacobson, Dana
Subject: RE: Info for meeting2

HI Dana,
Would you mind sending me another copy of the agenda for Wednesday's meeting? I thought I saved a copy but can't find it now.
Thanks,
Leslie

-----Original Message-----
From: Jacobson, Dana [mailto:djacobson@calwater.com]
Sent: Monday, July 06, 2009 9:11 AM
To: Leslie Caviglia
Subject: RE: Info for meeting

Hi Leslie,

I was hoping to review the City's data and methodology for determining growth and population projections so that we could discuss it at the meeting but haven't received anything yet. It sounds like the schedule for the General Plan Update will lag the UWMP schedule somewhat, so you may not have newer projections made yet. Perhaps it would be good to have Brandon Smith at the meeting also, if you have not already invited him.

Dana

From: Leslie Caviglia [mailto:LCaviglia@ci.visalia.ca.us]
Sent: Monday, July 06, 2009 8:55 AM
To: Jacobson, Dana
Subject: Info for meeting

HI Dana,
I just wanted to touch base with you and make sure you have what you need for our meeting on Wednesday. If you're missing anything, please let me know.
Thanks,
Leslie

Leslie B. Caviglia
Deputy City Manager
City of Visalia
425 E. Oak, Suite 301
Visalia, CA 93291
(559) 713-4317
(559) 713-4800 (F)
lcaviglia@ci.visalia.ca.us

Jacobson, Dana

From: Andrew Benelli [ABenelli@ci.visalia.ca.us]
Sent: Monday, September 21, 2009 9:38 AM
To: Jacobson, Dana
Subject: RE: Projected wastewater amounts3

Dana,

Most of the Watewater customers are Cal Water customers. There are a few that have private wells or belong to water districts. I think that using the population growth rates will give a close estimate. I'll see if we have anything more accurate.

Andrew J. Benelli, PE
Public Works Director
P.O. Box 5078
Visalia, California 93278-5078
559-713-4340

-----Original Message-----
From: Jacobson, Dana [mailto:djacobson@calwater.com]
Sent: Monday, September 21, 2009 9:28 AM
To: Andrew Benelli
Cc: Leslie Caviglia; Mirwald, Phil
Subject: Projected wastewater amounts

Hi Andrew,

For the UWMP we need to estimate the quantity of wastewater projected to be produced by our customers in future years. The method that we used in the last UWMP seems to have under estimated this value. According to the proposed reuse project presentation the treatment plant handles about 13 MGD (14,500 AF) right now. Do you have estimates of future treatment quantities through 2040? Historic annual data would be helpful also. If you don't have these then I could just use the 13 MGD as a baseline and apply the City's projected growth rate. Also, can I assume that only our customers contribute to the wastewater stream or are there other sources?

Dana

Dana Jacobson
Water Resources Planning
California Water Service Company
Phone: (408) 367-8361

Jacobson, Dana

From: Kim Loeb [KLoeb@ci.visalia.ca.us]
Sent: Wednesday, July 28, 2010 10:15 AM
To: Jacobson, Dana; ldotson@kdwcd.com
Cc: Salzano, Tom; Mirwald, Phil; 'Mark Larsen'
Subject: RE: Request for summary of Hills Valley transfers

Hi Dana,

It is my understanding that these have been the only transfers by the Hills Valley Irrigation District pursuant to the "Letter of Agreement Transfer/Exchange of Banked Water Supply" dated October 1, 2008.

Regards,

Kim Loeb
Natural Resource Conservation Manager
City of Visalia
559.713.4530
kloeb@ci.visalia.ca.us
www.GoGreenVisalia.com

-----Original Message-----
From: Jacobson, Dana [mailto:djacobson@calwater.com]
Sent: Wednesday, July 28, 2010 8:44 AM
To: Kim Loeb; ldotson@kdwcd.com
Cc: Salzano, Tom; Mirwald, Phil
Subject: Request for summary of Hills Valley transfers

Larry and Kim,

I would like to put together a summary of the Hills Valley transfers for the UWMP. So far I have a record of the February and May 2010 runs, which were 1,299 and 324 AF, respectively. If there are any others from this year or previous years, please let me know so I can include them. Thanks.

Dana

Dana Jacobson
Water Resources Planning
California Water Service Company
1720 North First Street
San Jose, CA 95112
Phone: (408) 367-8361

Jacobson, Dana

From: Jacobson, Dana
Sent: Monday, October 25, 2010 8:14 AM
To: 'Leslie Caviglia'
Subject: RE: Stormwater/Wastewater description for UWMP

Thanks Leslie,

I hope to resume the UWMP meetings shortly. The Water Supply and Facilities Master Plan is moving along faster than we had anticipated back at the beginning of the UWMP process, so it makes sense to wait and include as much of the water supply analysis and long term strategy as possible. You should hear from me in about a month's time with a draft of the Water Supply section then in about another month with the Conservation section.

Dana

Dana Jacobson
Water Resources Planning
California Water Service Company
1720 North First Street
San Jose, CA 95112
Phone: (408) 367-8361

-----Original Message-----
From: Leslie Caviglia [mailto:LCaviglia@ci.visalia.ca.us]
Sent: Monday, October 25, 2010 2:24 AM
To: Jacobson, Dana
Subject: RE: Stormwater/Wastewater description for UWMP

Hi Dana,
Sorry for the delay in getting back to you, but everyone seems to agree that what is now included in the existing conditions report is accurate with regards to stormwater and wastewater. Here is a link to the most recent release:
http://www.visaliageneralplanupdate.com/reports.html
Again, sorry about the delay.
Thanks
Leslie

_____
From: Jacobson, Dana [djacobson@calwater.com]
Sent: Friday, October 01, 2010 8:36 AM
To: Leslie Caviglia
Cc: Kim Loeb; Andrew Benelli; Salzano, Tom; Mirwald, Phil
Subject: Stormwater/Wastewater description for UWMP

Hi Leslie,

The Existing Conditions Report of City's GPU contains a nice description of your stormwater plan and wastewater system. Do you mind if I use this as the base for my discussion of these things in the UWMP?

Wastewater is a required element in the UWMP and must be included. Stormwater management is not a required element but it is an important peice in the overall water management strategy for Visalia and your efforts should be noted.

Dana

Dana Jacobson
Water Resources Planning
California Water Service Company
1720 North First Street
San Jose, CA 95112

Phone: (408) 367-8361

Jacobson, Dana

From: Leslie Caviglia [LCaviglia@ci.visalia.ca.us]
Sent: Monday, October 04, 2010 2:28 AM
To: Jacobson, Dana
Cc: Kim Loeb; Andrew Benelli; Salzano, Tom; Mirwald, Phil
Subject: RE: Stormwater/Wastewater description for UWMP1

Hi Dana,
Let me get back to you on this. The current existing conditions is a draft, and a considerable number of changes have been made. Let us take a look and see if there have been changes to this section that should be included in your work. I'll get back to you this week.
Thanks,
Leslie

From: Jacobson, Dana [djacobson@calwater.com]
Sent: Friday, October 01, 2010 8:36 AM
To: Leslie Caviglia
Cc: Kim Loeb; Andrew Benelli; Salzano, Tom; Mirwald, Phil
Subject: Stormwater/Wastewater description for UWMP

Hi Leslie,

The Existing Conditions Report of City's GPU contains a nice description of your stormwater plan and wastewater system. Do you mind if I use this as the base for my discussion of these things in the UWMP?

Wastewater is a required element in the UWMP and must be included. Stormwater management is not a required element but it is an important peice in the overall water management strategy for Visalia and your efforts should be noted.

Dana

Dana Jacobson
Water Resources Planning
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1720 North First Street
San Jose, CA 95112
Phone: (408) 367-8361

Jacobson, Dana

From: Kim Loeb [KLoeb@ci.visalia.ca.us]
Sent: Thursday, July 01, 2010 2:47 PM
To: Mirwald, Phil; Jacobson, Dana
Cc: Salzano, Tom; Bolzowski, Michael R.; Paul Scheibel; ldotson@kdwcd.com
Subject: RE: Urban Water Facilites Planning

Phil, Dana, and all,

The City has decided with KDWCD that it does not make sense to make changes to the population numbers in the Visalia numerical groundwater model at this late date in the process. As the model's principal use is for comparison of scenarios against a business-as-usual baseline, the discussed 4% change in 25-year population growth would not be expected to significantly affect the model scenarios (if at all) and is certainly within the precision of the model.

It may still make sense to adjust the population numbers for the other efforts. Each should be evaluated on its own basis taking into consideration the purpose of the study, the impact of the change of population to the findings, the end use of the study, and the stage of development.

Regards,

Kim Loeb
Natural Resource Conservation Manager
City of Visalia
559.713.4530
kloeb@ci.visalia.ca.us
www.GoGreenVisalia.com


Save A Tree - Please do not print this email unless necessary.

-----Original Message-----
From: Mirwald, Phil [mailto:PMirwald@calwater.com]
Sent: Monday, June 28, 2010 8:47 AM
To: Jacobson, Dana
Cc: Salzano, Tom; Bolzowski, Michael R.; Paul Scheibel; Kim Loeb; ldotson@kdwcd.com
Subject: RE: Urban Water Facilites Planning

Dana
I do not know how much this changes things but it does concern me that after all this time new numbers are to be introduced.

We are dealing with a total of three separate yet connected updates. Our UWMP and WS&FMP in addition to the City's master plan update. I am not the expert here but if we change population numbers now does that mean we need to rework all the FUGRO scenarios?

Phil Mirwald
Cal Water, Visalia
559-624-1600

From: Jacobson, Dana
Sent: Monday, June 28, 2010 8:37 AM
To: Mirwald, Phil; Bolzowski, Michael R.
Cc: Salzano, Tom
Subject: RE: Urban Water Facilites Planning

For the UWMP the City gave us a buildout population number of 202,703, with the 220,000 number to be reached in 2034 or 2035. Should we contact the City to see if something has changed and do we need to coordinate population numbers for these documents?

Dana

Dana Jacobson
Water Resources Planning
California Water Service Company
1720 North First Street
San Jose, CA 95112
Phone: (408) 367-8361

From: Mirwald, Phil
Sent: Monday, June 28, 2010 7:49 AM
To: Bolzowski, Michael R.
Cc: Salzano, Tom; Jacobson, Dana
Subject: FW: Urban Water Facilites Planning

Here is some information from the company working on the City's planning document. Phil

Phil Mirwald
Cal Water, Visalia
559-624-1600

From: Michael Dyett [mailto:dyett@dyettandbhatia.com]
Sent: Wednesday, June 23, 2010 9:43 AM
To: Paul Scheibel
Cc: Mirwald, Phil; Brandon Smith; Chris Young
Subject: Re: Urban Water Facilites Planning

Paul,
If Cal Water and West Yost use a 220,000 target for 2030 it will show us how future water demands

might be met; with residentiial densities, buildout is not clear and they may, in fact change. The residential density approach also may pick up land outside the city, that may not be brought into the city as originally planned. By contast, with a 220,000 target we have a better basis to evaluate sketch plan alternatives (if, for example, one had a slightly higher buildout number, and another a lower number).

It also could be helpful if they could let us know:

- Assumptions about metering and whether any tiered pricing is being considered;
- Assumptions about conservation efforts and use of low-flow toilets and showers in new homes and low-flow in commercial (100%, 50%, or some other ratio)
- Assumptions about greywater use in single-family areas, and
- Any other recycling and reuse planned.

Thanks
Michael

On 6/22/10 5:36 PM, "Paul Scheibel" <PScheibel@ci.visalia.ca.us> wrote:

Hello Michael- You may recall our discussion where I told you about meeting with Cal Water's consultants (West Yost Associates) for the water infrastructure plan they are preparing. You mentioned that they need to focus on buildout population (220,000) rather than projected res. development densities.

I talked with Phil Mirwald last night. He had passed along that info to the consultants. They will be happy to oblige us, but they asked for some more reasoning information. On that Phil and I drew a blank and thought wee'd go right to the source.

Can you enlighten us some more on this?

Thanks,
Paul S.

Michael vanVeber Dyett, FAICP
DYETT & BHATIA
Urban and Regional Planners
755 Sansome St. Suite 400
San Francisco, CA 94111
t: 415.956.4300 x14
f: 415.956.7315

www.dyettandbhatia.com

Jacobson, Dana

From: Kim Loeb [KLoeb@ci.visalia.ca.us]
Sent: Wednesday, January 19, 2011 10:12 AM
To: Jacobson, Dana
Cc: Richard Moss; Andrew Benelli; Jim Ross
Subject: RE: UWMP/potential recycled water uses

Dana,

This probably makes sense for planning, but it may make sense to increase landscape irrigation somewhat as the City anticipates building out our purple-pipe system in the further. However, we haven't attempted to quantify this and it is somewhat dependant upon the General Plan Update which is currently under development.

Regards,
Kim

-----Original Message-----
From: Jacobson, Dana [mailto:djacobson@calwater.com]
Sent: Wednesday, January 19, 2011 10:02 AM
To: Kim Loeb
Cc: Richard Moss; Andrew Benelli; Jim Ross
Subject: RE: UWMP/potential recycled water uses

Thanks Kim,

DWR requires these estimates in 5 year increments. So I think what I'll do is use our total wastewater generation value for the total potential recycled water use and subtract your landcsape irrigation and ag exchange numbers. And the rest will go to recharge.

Table 4.5–4: Recycled Water - Potential Future Use-AFY (Table 23)

User Type	Description	Feasibility	2015	2020	2025	2030	2035	2040
Agricultural irrigation	Agricultural exchanges	Yes	12,521	17,561	22,602	27,616	30,759	34,092
Landscape irrigation	City Properties	N/A	1,274	1,274	1,274	1,274	1,274	1,274
Groundwater recharge	City basins	Yes	6,647	4,293	1,972	0	0	0
Indirect potable reuse	Pump to City basins	N/A	0	0	0	0	0	0
Total			20,442	23,128	25,848	28,890	32,033	35,366

Dana

Dana Jacobson
Water Resources Planning
California Water Service Company
1720 North First Street
San Jose, CA 95112
Phone: (408) 367-8361

From: Kim Loeb [mailto:KLoeb@ci.visalia.ca.us]
Sent: Wednesday, January 19, 2011 9:02 AM
To: Jacobson, Dana
Cc: 'Richard Moss'; Andrew Benelli; Jim Ross
Subject: RE: UWMP/potential recycled water uses

Hi Dana,

Jim Ross, the water conservation plant manager, has provided the following estimates on current wastewater effluent usage. We know the annual volume of wastewater effluent discharged. We also know the volume of the effluent discharged to City-owned farmland. While we do not have a quantification of the remaining water usage, Jim estimates that the remainder of the effluent is used evenly between recharge and irrigation by downstream farmers pumping from Mill Creek. Those estimates are as follows:

	Mil Gals	AF
City Ag Use	250	767
Ag from Mill Creek	2,250	6,905
Recharge	2,250	6,905

The recharge comprises water percolated in ponds at the treatment plant, in the Mill Creek channel, and at Basin 4.

Towards filling in the table below, following are estimates of recycled water use:

	13 MGD - 2015		22 MGD - 2025	
	Mil Gals	AF	Mil Gals	AF
Total Recycled Water	4,745	14,562	8,030	24,643
City Landscape Irrigation	415	1,274	415	1,274
City Agriculture Irrigation	250	767	250	767
Agriculture Exchange	4,080	12,521	7,365	22,602

I hope this information is helpful and look forward to meeting soon to discuss the UWMP in more detail.

Thanks,
Kim

-----Original Message-----
From: Jacobson, Dana [mailto:djacobson@calwater.com]
Sent: Thursday, January 06, 2011 9:27 AM
To: Kim Loeb; Richard Moss; Andrew Benelli
Subject: UWMP/potential recycled water uses

Gentlemen,

One of DWR's suggested tables for the UWMP includes an accounting of potential uses for recycled water similar to the one below. For this exercise my plan was to assume that all the treated water could find a use, that any landscape irrigation would not be replacing Cal Water deliveries, and that indirect potable reuse by pumping treated water up to City recharge basins is not likely at this point (vs. ag echanges). I was going to split the use between recharge as a result of the ag exchanges and direct reuse by ag customers. Based on your preliminary discussions with the irrigation districts, do you have a recommended percentage for each of these? If you have other uses such as wildlife or wetlands habitat please let me know.

Table 3.5−2: Recycled Water—Potential Future Use-AFY (Table 23)

User Type	Description	Feasibility	2015	20
Agricultural Irrigation	Agricultural Exchanges			
Landscape Irrigation	Outside Service Area/Not Cal Water Served	N/A	0	0
Groundwater Recharge	Agricultural Exchanges			
Indirect Potable Reuse	Pump to City Basins	N/A		
Total			20,442	23,1

Perhaps the bigger issue is how much detail we should include about potential uses at this point. It sounds like maybe it is a little early to give this any certainty in this document because the agreements are not in place. Also, it seems that our master plan is not giving a lot of thought to recycled water based on the assumption that the City has planned uses for all the water, so we may not have a lot to go on as far as feasibility. It sounds like maybe you guys question this assumption. But unless we have something more concrete to go on we may be stuck with a little vagueness. Maybe this should be a topic of our next meeting.

Dana

Dana Jacobson
Water Resources Planning
California Water Service Company
1720 North First Street
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Phone: (408) 367-8361

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MAILED
April 1, 2011

NOTICE OF INTENT TO ADOPT
AN URBAN WATER MANAGEMENT PLAN
AND
HOLD A PUBLIC MEETING
TO
RECEIVE COMMENTS ON THE PROPOSED PLAN

CALIFORNIA WATER SERVICE COMPANY
VISALIA DISTRICT

REMINDER MESSAGE

The Proposed Urban Water Management Plan is now available for review during normal business hours at the Visalia District Customer Service Center, located at 216 North Valley Oaks Drive, Visalia CA 93292-6717.

It is preferred that prior arrangements be made with the district's management for viewing the Proposed Urban Water Management Plan. These arrangements can be made by calling (559) 624-1600.

Cal Water has placed the Visalia UWMP on an FTP site, where City and County officials may access any portion of the plan for review. The site can be accessed at http://calwater.ftptoday.com ;
The user name is **cwsftp31** and the password is **K3yb0ard**.
The UWMP will be available at this FTP site on or about April 1, 2011 through June 15, 2011.

The Public Meeting to receive comments on the Proposed Urban Water Management Plan will be held on May 24, 2011, from 5:00 p.m. to 7:00 in the Visalia District Customer Service Center Conference Room, located at 216 North Valley Oaks Drive, Visalia CA 93292.

If you are unable to attend the scheduled public meeting but want to provide comments regarding the proposed UWMP, you may send your comments in writing via mail or email to:

Thomas A. Salzano, Water Resource Planning Supervisor
California Water Service Company
1720 North First Street
San Jose, CA 95112-4598
tsalzano@calwater.com

Cal Water will receive comments on the proposed UWMP from April 1, 2011 through June 15, 2011.

Jacobson, Dana

From: Salzano, Tom
Sent: Monday, May 02, 2011 11:15 AM
To: Ryan Orgill
Cc: Tommy Greci; Maggie Herzog; Bolzowski, Michael R.; Jacobson, Dana
Subject: RE: Draft Urban Water Management Plan

Ryan,
Thanks for the input, it is nice to know that Larry thinks we did a good job.

Since the file is so large we have placed an electronic copy on an FTP site for downloading. The following is extracted from our Notice of Intent to Adopt an Urban Water Management Plan for the Visalia District. Let me know if you have any problems accessing the files.

The site can be accessed at http://calwater.ftptoday.com ;
The user name is **cwsftp31** and the password is **K3yb0ard**.

Tom
Thomas A. Salzano
Water Resource Planning Supervisor
California Water Service Company
408-367-8340 Office
408-639-8360 Cell

From: Ryan Orgill [mailto:ROrgill@carollo.com]
Sent: Monday, May, 2011 11:01 AM
To: Salzano, Tom
Cc: Tommy Greci; Maggie Herzog
Subject: Draft Urban Water Management Plan

Hello Thomas,

We are currently preparing the City of Tulare's 2010 Urban Water Management Plan. Last week we met with Larry Dotson from the Kaweah Delta Water Conservation District as part of a Stakeholders meeting. During that meeting he mentioned that CalWater has issued a public review draft UWMP for Visalia's water system. Larry mentioned that you did a great job on the plan, particularly on the safe yield estimates for the groundwater basin. It would be great to review the document and your approach to developing these estimates. Would it be possible for you to send me a pdf of the document?

Thanks,

Ryan F. Orgill, P.E.
Carollo Engineers, Inc.
7580 North Ingram Avenue, Suite 112, Fresno, CA 93711
Phone: (559) 436-6616 Fax: (559) 436-1191

Jacobson, Dana

From: Kim Loeb [KLoeb@ci.visalia.ca.us]
Sent: Thursday, April 14, 2011 9:16 AM
To: Jacobson, Dana
Subject: RE: GW Pumping Graph

OK, thanks Dana.

Kim

-----Original Message-----
From: Jacobson, Dana [mailto:djacobson@calwater.com]
Sent: Thursday, April 14, 2011 9:08 AM
To: Kim Loeb
Subject: RE: GW Pumping Graph

Kim,

Yes, the target demand is higher because of where we started our projection in 2010 using a per capita value that was greater than the 2010 actual. In this case we used an average 2005-2009 as a baseline (which is different from the baseline used to calculate SBx7-7 targets). The reductions begin in 2011, although total pumping increases due to population growth. The SBx7-7 calcualtions can be confusing. If you need any clarification feel free to give me a call.

Dana

Dana Jacobson
Water Resources Planning
California Water Service Company
1720 North First Street
San Jose, CA 95112
Phone: (408) 367-8361

From: Kim Loeb [mailto:KLoeb@ci.visalia.ca.us]
Sent: Thursday, April 14, 2011 8:54 AM
To: Jacobson, Dana
Subject: RE: GW Pumping Graph

Dana,

Great news about 2010 pumping! I bet the rains made a big difference. I suppose you'd already used target demand before actual was available and that is why it is more. Is that correct?

Thanks for sending this right over. Yes, I did get the letter, but haven't had time to pull the Draft UWMP down yet. I intend to review and comment ahead of the meeting. At this point, I think the things I'm aware of that we are still not completely comfortable with are Fugro's estimation of the sustainable yield and groundwater recharge efficiency.

Thanks,
Kim

-----Original Message-----
From: Jacobson, Dana [mailto:djacobson@calwater.com]
Sent: Thursday, April 14, 2011 8:44 AM
To: Kim Loeb
Subject: RE: GW Pumping Graph

Kim,

Attached is the data you requested. The pumping with SBx7-7 reductions is in the column labeled "Target Demand". You will see that in 2010 we reduced pumping considerably, which is great. It's difficult to tell where it came from but we had the cool and wet weather last year, a bad economy, a call for drought reductions, and the meter conversions. Let's hope these savings are permanent. You can also access the data in Appendix C of our Draft UWMP on this site:

http://calwater.ftptoday.com ;
The user name is **cwsftp31** and the password is **K3yb0ard**

You should have received a couple of letters by now seeking review and comment on the Draft UWMP and giving the date and location of the public meeting. It would be great if you would make comments similar to what you did in the past. I was hoping to have another meeting to clean up any loose ends but we ran out of time because of all the waiting, both for information from the Master Plan, and also because of the delay by the State in issuing their guidelines. Needless to say we've been busy pulling together all 24 of our plans over the last couple of months. I feel like we've dealt with the major isues in Visalia but if there are things lingering for you please let us know.

Dana

Dana Jacobson
Water Resources Planning
California Water Service Company
1720 North First Street
San Jose, CA 95112
Phone: (408) 367-8361

From: Kim Loeb [mailto:KLoeb@ci.visalia.ca.us]
Sent: Thursday, April 14, 2011 8:23 AM
To: Jacobson, Dana
Subject: RE: GW Pumping Graph

Hi Dana,

Would the data be at point that you could send it to me know? It would be very helpful for a focused hydrogeologic study we are doing in support of our Water Conservation Plant tertiary treatment upgrade project. Specifically what I'm looking for are the projected annual pumping rates after the SBx7-7 reductions.

Thanks,
Kim

> -----Original Message-----
> **From:** Jacobson, Dana [mailto:djacobson@calwater.com]
> **Sent:** Monday, January 24, 2011 3:43 PM
> **To:** Kim Loeb
> **Subject:** RE: GW Pumping Graph
>
> Kim,
>
> Here is the latest copy of this graph. It may be different from the one that was in the last draft section I sent you. For reasons that I will describe at our next meeting, we have decided to use the SBx7-7 method for the water demand projections. You will see the unadjusted baseline demand, which assumes no conservation, and the target demand, which represents the 20% reduction. You can see the associated data for the target demand at the bottom of this email.
>
> I hesitate to send the entire UWMP data file at this point but should be able to later. The worksheets are in various stages of completion, and we have run into some data problems with the year-end 2010 data. I'm itching to send you a complete copy of the Draft UWMP but we always seem to be waiting on something. In this case its the data problems, and the feasibility analysis for alternative supplies that is coming from the Master Plan, which of course is behind schedule. For purposes of the UWMP we may have to give a more subjective discussion of alternatives and get the details later when the Master Plan is complete.
>
> Dana

Table 4.4−2: Amount of Groundwater projected to be pumped – AFY (Table 19)

Basin Name	2010 (Actual)	2015	2020	2025	2030	2
San Joaquin Valley Groundwater Basin - Kaweah Sub-basin	31,762	37,307	37,390	41,788	46,706	51
% of Total Water Supply	100 %	100 %	100 %	100 %	100%	1(

Dana Jacobson
Water Resources Planning
California Water Service Company
1720 North First Street
San Jose, CA 95112
Phone: (408) 367-8361

From: Kim Loeb [mailto:KLoeb@ci.visalia.ca.us]
Sent: Monday, January 24, 2011 2:51 PM
To: Jacobson, Dana
Subject: GW Pumping Graph

Hi Dana,

I wonder if you could send me the current groundwater pumping graph and data. I have this one from last year, but the figure in your draft UWMP looks slightly different and I know we've been tweaking the population projections. I would like to be sure I have the current version, or in fact, if I could have a copy of the latest version of the VIS UWMP Data 2010-100216.xls file that would be fabulous.

Thanks,
Kim

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