

**City of Fresno Recharge Fresno
Water Reliability Community Forum
Monday, Sept. 29, 2014**

Summary

The Recharge Fresno Water Reliability Community Forum on Monday, Sept. 29, was the first in a series of four to be held in fall 2014. An open house was held from 6 to 7 p.m. during which members of the public could visit information stations and speak one-on-one with subject matter experts. At 7 p.m., the neutral facilitator opened the meeting with an overview of the agenda and ground rules for the discussion portion of the forum.

A video (available here: <http://www.youtube.com/watch?v=Hxmg2QKirLs>) was shown about how important water is to the City of Fresno, and its residents and business owners. After the short video, Brock Buche, City of Fresno Supervising Professional Engineer, gave a presentation about Fresno's water resources. He went over the main sources of water, including groundwater and surface water, and described that the City of Fresno relies on groundwater for nearly 90 percent of its water supply. The City had an abundant and resourceful aquifer at one time, but new wells were drilled to meet City demands. Over time, the City has not been able to offset the high levels of groundwater pumping. Groundwater levels are dropping drastically, and pumping is not sustainable.

Mr. Buche explained that the City has dealt with challenging water situations in the past, including groundwater contamination in the 1980s. One attendee asked what the source was of TCP in the groundwater, and Mr. Buche explained that it came from application to agriculture land in vineyards and orchards. He explained that natural and intentional groundwater recharge does not keep up with the amount of water that is pumped. The water demand is 153,000 acre-feet per year, and groundwater pumping is 134,000 acre-feet per year. Taking treated surface water, intentional recharge, and natural and inflow recharge into account, the deficit pumping is 40,000 acre-feet per year.

Mr. Buche explained that the city has relied on groundwater for more than a century, and as the groundwater supply decreases, deeper pumping is required. Deeper pumping means increased energy costs, diminishing quality and the possibility of exhausting the available water within the existing wells. Currently, the groundwater is at 130 feet below the surface.

Mr. Buche explained that the City pays for surface water supplies from the Sierra Nevada Mountains that currently can't be used because there is not infrastructure in place that can treat and transport the water to residences and businesses. Allocations in a normal year would be 110,000 acre-feet of surface water. He explained that a solution to Fresno's water situation should have long-term reliability, should be sustainable and resilient, should support economic vitality, and should be safe and affordable.

The neutral facilitator then led a discussion with subject matter expert panelists about Fresno's water resources. Below are the questions asked of the panelists, as well as the answers given.

Question –What is unique in Fresno from your perspective? Is this the same situation facing other parts of the Central Valley and California?

Response from Jon Traum, U.S. Geological Survey – This is a typical situation throughout the Tulare Basin, and many places are experiencing overdraft. Many places in the Tulare Basin also have agriculture

around them, and agriculture is also pumping groundwater. It's a combination of the City and the agriculture in the area. As a whole, the Basin is declining by 1.5 million feet a year, which is basically the size of Pine Flat Reservoir.

Response from Gary Serrato, Fresno Irrigation District – It is unique that the City of Fresno and Fresno Irrigation District work together to sustain a groundwater supply. The City and Fresno Irrigation District both have contracts with the Bureau of Reclamation, and we also have a great supply from the Kings River. However, we aren't seeing that supply right now because of the drought. We need to do a better job of capturing the water supply when it's available to us. The Fresno Irrigation District is able to capture the water and deliver it to growers, and the water stays in the area. However, it is important that we recharge the groundwater system and treat surface water.

Comment from Laura Whitehouse, City of Fresno Utility Advisory Committee – The Utility Advisory Committee was used to learn about the water situation and figure out what to do. For years, we haven't done anything, and now, we really need to make changes. We need to change the way we plant our yards, we need to think about our friends in agriculture and about how many showers we take. It's going to cost more money if you use more water. Part of our City has water that isn't that clean, and the water down below is going down. We need to do something.

Comment from Martin McIntyre, San Luis Water District – Up and down the valley, groundwater overdraft is a serious problem. A distinct advantage that the City of Fresno has is that their problem is curable. They have available surface water resources to cure their problem. Recharging the groundwater is critically important. As the groundwater supply decreases, and the "bowl" deepens, contaminants move, and it's important to apply the resources to solve this issue. The good news, though, is that we have the availability of surface water.

Comment from Ernie Taylor, California Department of Water Resources – We do have an availability of surface water supplies. The Department of Water Resources has encouraged local areas to be more flexible with water supply and be more sustainable and reliable. Fresno has an opportunity to expand supplies to surface water instead of using groundwater for more than 80 percent of its supply. Any time we can change that, including pumping less, we should. Groundwater should be our back-up supply and surface water should be the main supply.

Comment from Dr. John Suen, Fresno State University – There is no possible answer to how much groundwater there is. Imagine a bathtub with sand and water. Then someone sticks a straw in and sucks it up. There is a limited amount of clean water on top and dirty water on the bottom. Digging deeper wells causes worse water quality that needs to be treated, which costs more money. Groundwater is not unlimited.

After the panelists had an opportunity to respond about Fresno's water resources, the facilitator led a question and answer session between members of the public and the panelists.

Comment – I would like to present a third option to using surface water and groundwater. Desalinization has been successful in other places, including Florida and Santa Barbara. These plants can treat 150 billion gallons per day.

Question – Why hasn't a pipe been constructed from Millerton Lake to Fresno already?

Response – There is a canal that brings 70,000 acre-feet of water, but Fresno isn't making effective use of that source. We're not treating that water because we don't have the necessary infrastructure in place, and part of the plan is to build that infrastructure. That is part of the plan; to build infrastructure.

Question – Don't we have a significant number of ponding basins close to the canals?

Response – There are a significant number of basins. Some are permeable and some percolate three or four feet per year. They are inadequate and don't have enough permeability to recharge the water.

Question – We have done 30 to 60 feet wells for percolation. Why can't we drill a dozen wells to increase percolation?

Response – Channels are prone to plugging. Injecting the water generally doesn't work unless water has been treated prior to injection.

Question – I heard there was a treatment plant at Dakota and Armstrong that was built five years ago. Why isn't that being utilized?

Response – That is the T-3 facility. It originally had a three-million gallon tank, and it was modified to include a surface water treatment portion. It is currently capable of treating surface water, but it hasn't been brought online yet. It was completed in November 2013.

Question – How many acre-feet of water are used in an urban square-mile compared to an agricultural square-mile?

Response – An urban square-mile takes about three feet of water, and an agricultural square-mile also takes about three feet. It is roughly equal use of water per foot.

Question – We provide residential water solutions. Because there is a 15-18 month delay for well drilling, I suggest rainwater collection. What is the percentage of runoff that we are not able to collect because our ponding basins can only collect one inch of rain?

Response – We do recapture rainwater. The City has ponding basins throughout the city as part of the Fresno Metropolitan Flood Control District. When they are not being utilized to collect storm water, they are used for groundwater recharge. The Fresno Irrigation District takes it to facilities to be treated and utilized.

Question – The Chamber of Commerce and a group called Prosperity of Fresno are pushing market forces and pushing urban growth. This is going to increase water demand and is not sustainable. There is a limit of growth on a finite resource. If we are going to continue to have our major economic force be agriculture, we've got to deal with both.

Response – More people does mean more water. In the United States, water usage is 150 gallons per person per day. The Fresno area uses roughly 220 gallons per person per day. In Marin County, it's 88 gallons per person per day. Where I grew up in Hong Kong, I used two gallons per day.

Response – The Utility Committee discussed conservation. The thought has been that citizens who use less water pay less and those who use more water pay more. That is not a feasible option anymore. We should do all we can to conserve water.

Question – Is there any way to measure horizontal movement of water that is being percolated?

Response – We can use monitoring wells every few miles to measure how fast the water is moving horizontally. We also use computer models.

Question – Is there going to be a concentrated effort for agriculture to use less pesticide and go more organic?

Response – We are dealing with legacy contamination that was applied years ago.

Response – The cost of pesticides drives farms to be more efficient.

Question – As part of the water bond, as far as the additional storage, I know we haven't fully utilized our full allocation. Is there going to be an opportunity for us to bank that water as a city?

Response – The Bureau of Reclamation is one of the partners with the State of California looking at storage, and there is actually going to be a public meeting about Upper San Joaquin River Storage Investigation in Fresno on Oct. 16 at Piccadilly Inn. Storage would be authorized by Congress, and we are looking at providing water to the Friant Water Authority and possibly as far down as Los Angeles, but it will all be determined once the legislation is written.

Comment – The Helms Project was the first major release of water that hit Friant Dam and filled it halfway with sand. They couldn't shut off the pumps because electricity wouldn't be generated and people would stop making money. Seals got eaten away. The dry creek reservoir was built without any government oversight and they built the dam higher for no reason. Equipment was brought down from Alaska for the project. The San Joaquin River has been going full-blast. Our farmers are getting nothing from it. Pacific Gas & Electric has a plan to buy all the farms so they can build solar farms.

Comment – In the 1970s, it was a worse drought, however, Mother Nature takes care of us. In the 1980s, we got enough water to supply the world, but we didn't preserve it. Now we need to take that water and preserve it for our needs.

Comment – People of Fresno are getting the picture and want to conserve water. I think we need our trees. I hope something will be built into this plan to save the trees. The City of Fresno should consider helping residents with systems that can save and recycle water they use.

Comment – The City is planning to prohibit watering and street trees planted between the sidewalk and street. The City of Fresno is responsible for saving those trees. They need to be preserved to combat high temperatures in the summer. The City needs a plan to save the trees.

Question – Is it more costly to pump water from wells or treat surface water?

Response – It depends. As groundwater levels have dropped, depths have reached so low that it is cheaper to treat surface water. Ideally both operations would be balanced and utilized.

Comment – The City spent half a million dollars to keep us out of this issue and to sue us three times. We don't need the Southeast Surface Water Treatment Facility. Here's what I say: 30 to 60 million gallons per day in the Northeast Plant would cost less than \$100 million, cut use from 140,000 acre-feet per year to 120,000 acre-feet per year, plant drought-resistant plants, cut watering from 22 to six hours per week, recycle 25,000 acre-feet per year, build the ponding basins. 80 percent of water use is agricultural use.

Question – What about forest fires? We have really thick forests that should be trimmed so water can flow through. Water after a fire is destroying birds, plants and animals. Runoff is dirty, too.

Response – The California Department of Water Resources is working on improving the forest thinning and planning for wildfires.

Question – My household uses 185,000 gallons of water per year. However, there are hundreds of new homes being built. Why are we allowing new homes to be built when we don't have enough water?

Question – If Proposition 1 goes through and Congress authorizes Temperance Flat, how long will it take to be built, and how much water will come from it?

Response – Construction could take more than 10 years.

Question – Where will water be injected into the groundwater basin? If you inject the water, how will that site be selected? What is the hydraulic gradient when you inject the water?

Response – The City considered boreholes in existing basins. Basins on the north side typically have percolated hundreds of feet per day, which is very poor. To try and enhance the percolation, we tried drilling 24-inch boreholes 50 feet deep. This year, we got rates up to about 3,400. Through active basin maintenance and cleaning, we will get higher usage. The active recharge plan is more cost-effective.

Question – What is the efficiency of a ponding basin? If you put in 1,000 acre-feet into a ponding basin, how much will actually go into the ground?

Response – The number will vary greatly because it is natural percolation. It depends on the sub-surface materials. Basins will percolate from less than one-tenth of a foot per day to one half foot or even a foot per day. In Fresno, on average, we lose four feet per year to evaporation. I also want to correct something: agriculture does not take 80 percent of water supply of the state. About 40 percent of state water supplies go to environmental uses, about 40 percent goes to agricultural uses and 20 percent goes to urban and industrial uses.

Question – Now that the City of Fresno has installed the residential water meters, how much has the City been able to save?

Response – In 2008, the City saved 150,000 acre-feet and in 2014, the City saved 120,000 acre-feet.

Comment – How is water kept in the aquifer after recharge and not pumped out in unincorporated areas? We have the State Water Bond coming up, and as I understand it, \$700 million of \$2.7 billion is for residential use and the rest goes to agriculture. According to the Fresno Bee, farms use five sixths of the water, but I guarantee residents will pay 99 percent of the bill. We shouldn't be in this position. In terms of planning and being proactive, what about riparian rights and new proposed dams? I don't think the City gets no fresh water even though the dams are advertised as a fresh water source for families.

Comment – I see the City has a budget for cookies. I thank the City for having a third party moderator. The issue here is how much this will cost the consumer to solve the problem. It's good to see experts here. I love these public discussions. We need to solve the problem conjunctively. The City also needs to develop a water budget.

Comment – Each one of these forums should be repeated in each of the areas. Some people can't attend all of them because they are too far.

Question – Is there anything that regulates new developments based on water availability?

Response – There is a statute for growth and water availability. Every community must do a water assessment to ensure a water supply for at least 20 years prior to the approval of a house development.

Comment – More water will be conserved if restaurants only served water when people asked for it.

Question – Have City leaders reached out to Congressional leaders to say we need more money for infrastructure repairs?

Answer – The City looks for a variety of ways to partner with state and federal elected officials to find funding sources. One of the programs is funded through Proposition 84. We have one last funding cycle that can pay for some infrastructure. We have to go through a prioritization process in order to decide which projects would receive funding.

Question – We have a population of 700,000 people. Why do we only have 135,000 water meters?

Response – We have 510,000 people, with typically three people per household. Apartment complexes only have one meter.

Comment – There is no mention of water in the City’s General Plan.

Question – For newer construction, would it be feasible for non-potable water to be used for landscaping without it infiltrating deep wells?

Response – Recycled water is part of the plan.

After the question and answer session, the facilitator concluded the forum. Three more community forums will be held from 6 p.m. to 8:30 p.m. on Monday, Oct. 13, Monday, Oct. 27, and Monday, Nov. 10. Locations and additional information is available at www.RechargeFresno.com.

**City of Fresno Recharge Fresno
Water Reliability Community Forum
Monday, Oct. 13, 2014**

Summary

The City of Fresno held the second water reliability community forum in a series of four on Monday, Oct. 13, at Orazo Elementary School. The open house portion took place from 6 to 7 p.m., during which members of the public could visit information stations and speak one-on-one with subject matter experts. At 7 p.m., the neutral facilitator opened the meeting with an overview of the agenda and ground rules for the discussion portion of the forum.

A video (available here: <http://www.youtube.com/watch?v=VZEWG0U9Zlg&feature=youtu.be>) was shown about potential water solutions for the City of Fresno, and its residents and business owners. After the short video, Mr. Tommy Esqueda, director of the Public Utilities Department, gave a presentation about solutions for Fresno's water situation. He went over the community challenges, including declining groundwater levels, pending groundwater quality standards and the California state Sustainable Groundwater Management Act. The groundwater basin loses the equivalent of one and a half times the size of Pine Flat Reservoir every year.

Mr. Esqueda explained that safe and reliable water, affordable pricing, a sustainable and resilient water supply, and being consistent with community values are priority tasks for the City of Fresno. He explained that in a normal year, there are 180,000 acre feet available for use and we are only able to use about 20,000 of it due to limited treatment capacity and the lack of pipelines to transport the water to treatment facilities. About 50,000 acre feet is used to recharge groundwater.

Mr. Esqueda proposed a water resource strategy that encompasses a continued emphasis on conserving water to reduce water demands, maximizing available surface water resources, using more recycled water, investing in water system rehabilitation and replacement, and updating aging infrastructure.

Mr. Esqueda then presented a list of solutions including recharge basins, conservation programs, raw water pipelines, surface water treatment facilities, treated water pipelines, well and pipeline repairs and replacements, and treated water storage tanks.

The neutral facilitator then led a discussion with subject matter expert panelists about Fresno's water resources. Below are the questions asked of the panelists, as well as the answers given.

Comment from Laura Whitehouse, City of Fresno Utility Advisory Committee: For years, the Utility Advisory Committee met and discussed water utilities. Three years ago we came up with a report to present to the City Council. One part of this report is a five year study on what to do with utilities. The difference between what was happening then and what's happening now is now we've been in a drought for three years. So now it's interesting to see what we presented to the City Council in terms of our recommendations. There are eight points that we came up with: 1) The need for a Southeast Surface Water Treatment Facility, 2) The need to mitigate the threat of groundwater production loss in Southeast Fresno, 3) The need to expand the Northeast Surface Water Treatment Facility, 4) The need

to replace aging pipes, 5) The need to reduce continued negative impact on groundwater table, 6) The need to provide incentive for conservation through landscaping and irrigation technology improvements, 7) The need to reduce power and energy costs toward groundwater pumping, and 8) The need to move the Department of Public Utilities toward qualification for more favorable interest rates and government grant programs. We presented this to the City Council three years ago. These are the solutions we came up with that we were recommending to the City Council. We became very excited about cultural landscaping. I have always grown up with a front yard that's green and a backyard that's green. I took out my back yard lawn and replaced it with drought tolerant plants. At the end of the day we live in California not Seattle and we don't get as much rain. We have to start thinking differently.

Question: If you only had 30 seconds, and you had something you wanted the group to know, what would it be?

Response from Martin McIntyre, San Luis Water District – We're losing a lot of groundwater. If we could actually see, like looking into a lake, what is happening to our water table, we would have solved this problem a long time ago. The universe of water supply in the state is changing dramatically. More and more water is dedicated to environmental purposes. It's increasingly difficult to secure an adequate supply of water. Up and down the valley today there are communities that are out of water. Competition and costs is going to become increasingly difficult to deal with. The good news is Fresno has an adequate water supply. A very unique position among other cities. We don't have to worry about where our future water is coming from for now. What we lack, however, is the infrastructure to make use of it.

Question: If it's so obvious, why hasn't it happened yet? Are there reasons why we've waited so long?

Response from Martin McIntyre, San Luis Water District: There has been a lack of political will to initiate water infrastructure changes. These problems were known, identified and submitted back in 1992. Fresno also had a lack of political will to implement metering, which is largely attributed to the decline in per capita water consumption. There were forces in the community that tried to prohibit the installation of meters, which are now mandated statewide. Essentially, political will has been the lacking component.

Response from David L. Orth, Kings River Conservation District: We actually have been doing something. For the last 10 years we've been working regionally with a lot of water agencies in cities through an integrated planning process to identify these overdraft issues and develop strategies through water conservation, water use efficiency and groundwater recharge facilities, and have implemented parts of the vision from the presentation tonight. We've added 20,000 acre feet of recharge capacity in the basin. Now we need another 180,000 acre feet of recharge capacity to find a balance. We are doing things. They cost money and take political commitment, but we are working in that direction because we recognize how important it is.

Response from Kassy D. Chauhan, California State Water Resource Control Board: The regulation of groundwater has changed drastically over the last several years. There are constantly new regulations being implemented that make it increasingly difficult for water systems to comply with regulations whether it be treatment of groundwater or surface water. There are going to be increased regulations on groundwater and we need to take that into account when we are considering the City's overall groundwater supply.

Response from Alan Hofmann, Fresno Metropolitan Flood Control District: We have been in partnership with the City to put their water in a flood control system to ensure there is always a balance between having enough storage and availability for when it starts raining, and putting the water in the

basins for groundwater recharge. We want to maximize the amount of water we're putting in the ground for you. It's been effective but we just need a lot more water.

Comment: I worked with Doug Vagim and would like to share some numbers. We are taking out 134,000 acre feet. There is a potential recharge for 46,000 acre feet, rain going in. So we are taking out 40,000 acre feet more than is going back in. I would cut the 130,000 acre feet of groundwater pumping down to 120,000 acre feet. Then you'd have 45,000 acre feet net going in, instead of 40,000 acre feet coming out. Instead of the City watering 22 hours a week we can cut down to watering six hours a week. Let's increase the ponding basins from 300 acres to 700 acres. Right now we've got 300 acres, makes 50,000 acre feet a year of recharge, add 400 more acres, that would result in 67,000 acre feet of water so you would be up to 117,000 acre feet of recharge. We are doing 20,000 acre feet per year at the Northeast Surface Water Treatment Facility, double that to 40,000 acre feet. Now you're at 157,000 acre feet a year of total treatment out of 180,000 acre feet from Friant and Kings Canyon. So there you would have 157 out of 180 or 80 percent. I have six recommendations: 1) reduce watering landscape from 22 hours to six hours, plant drought tolerant plants 2) build 400 more acres of ponding basins 3) double the Northeast Surface Water Treatment Facility production from 30 million to 60 million 4) replace aging water mains and replace leaks 5) enter into agreement with Fresno, Clovis and agriculture to create a water budget every year, and 6) limit growth.

Response from Tommy Esqueda: The population growth rate we are using is 1.9 percent, which is less than the natural rate of growth in our city. Our growth rate basically represents births over deaths and represents the people living here now. It's just enough to support people who decide to stay in Fresno. Expanding the Northeast Surface Water Treatment Facility is an idea that we are looking at. What we have learned from the current water strategy is that we have all our eggs in the groundwater basket. So the strategy of building the Southeast Surface Water Treatment Facility is to create a second entry point for water in case canals and pipelines go down. We have a plan for groundwater recharge and we will make more recharge happen in this City because that is a good water management strategy. We want to stay consistent with community values. It sounds like what you are proposing is to have the government intervene and say how much water you can use and what plants you have to plant. That's not the system we have now but if the values of the community said to restrict water we would head in that direction.

Question: Hasn't the government intervened recently with stage 2 water restrictions?

Response from Tommy Esqueda: Yes, but we have no plan in place for the future. That was a recommendation to the City Council.

Comment: We are talking about a general plan to take care of the problem now, but we are not looking to the future to take care of the problem then. I mentioned desalination at the last meeting. For example, in Santa Barbara they tested a desalination plant and were able to produce 150 million gallons of water in one day. They have seven of these plants in Florida. It comes down to what we can afford, they're expensive to run. Besides doing a short term plan, we need a long term plan because Fresno is only going to get bigger.

Follow-up Question: When you say desalination for Fresno, the source would be the ocean? Yes, the source would be the ocean.

Comment: We have such a severe water situation why are we watering 22 hours a week when we should be watering six hours. I want to address something from the last forum, and that is that a secondary treatment plant was built to the tune of \$30 million that has been sitting idle on Armstrong and Dakota. How is that going to be brought forth and how will it help us? There is a rat infestation there.

Response by Brock Buche, City of Fresno Supervising Professional Engineer: That facility was recently completed, and I can assure you there is no rat infestation there. Right now, we are not putting treated water through the facility but we are utilizing the tank. So as system demands require we pump water out of that tank, we are putting it into the distribution system. That facility was built because we understood that building a large, permanent facility, such as the Southeast Surface Water Treatment Facility, is a major undertaking. With development occurring in that area, there was no groundwater to sustain the area. This package facility was built to meet those demands, and it takes advantage of the surface water supply we have. It is a well thought-out facility, and it's modular, so we can relocate the pieces and parts that make up the facility if a permanent facility comes online.

Question: How many people were on the City of Fresno Utility Advisory Committee? Were any school trained engineers appointed?

Response from Laura Whitehouse, City of Fresno Utility Advisory Committee: There were eight people, each person was appointed by a city council member and the mayor appointed two people. One was a retired director of planning for Fresno, a couple farmers, a fundraiser, a professor from Fresno City College and two attorneys. We were appointed because we were citizens from all different socioeconomic groups, with diverse backgrounds and different levels of education. We had technical consultants and city staff who provided technical information.

Question: Will you explain contextually how agriculture in Fresno uses recycled water?

Response from Gary Serrato, Fresno Irrigation District: We have an excellent program with the City of Fresno. Over at the regional wastewater treatment facility, the city is pumping and exporting everything out to that regional plant. Secondary water that has been treated at the regional plant is recharged back into the underground and then we pump it out and send it to farmers. There is an agreement that every two acre feet delivered out there we supply an acre foot of Kings River water to the city. So we're keeping water up there, providing it to the city and utilizing wastewater treatment.

Response from Kassy D. Chauhan, California State Water Resource Control Board: What you can do with recycled water depends on how much it's been treated. So depending on the level of treatment you can do different things. The agreement that the City has with the Fresno Irrigation District now is they have to put the water into the ground and then pump it out and put it into canals.

Question: What is the plant on Armstrong for? What is it going to do? Is it like the Chestnut plant? When did they start building and finish that plant? When do they plan to start using it?

Response by Brock Buche, City of Fresno Supervising Professional Engineer: The plant was built because the ground in that area did not have capability for a well. We take water from the Fresno Irrigation District and run it through the package facility to distribute to the Fresno Irrigation District. Another component of the plan is to construct a pipeline tying the City of Fresno to the City of Clovis to take advantage of water coming from their plant when it's available. It was started in 2010 and completed in November 2013.

Comment: I'm concerned about Southeast Surface Water Treatment Facility because if you build the plant people from LA and the Bay Area will come to Fresno. Fresnoans can get by without this new plant if we increase capacity at other plants. It would even help if we built a smaller plant and dedicated it to be used for infill.

Comment: Why don't we use water-efficient toilets to conserve water? The ones with two options, one flush versus two flushes.

Response from Laura Whitehouse, City of Fresno Utility Advisory Committee: I've seen two flush systems in New Zealand and Australia but none of our public places here have that option. That's a solution, too.

Comment from Ron D. Jacobsma, Friant Water Authority: To speak to conjunctive use generally in the valley, we employed a lot of water conservation techniques in agriculture, and it saves energy costs but it doesn't enhance the overall water equilibrium. What we're finding is we miss flood irrigation when times are wet because we want to get the water into the ground. Now we don't have a means of doing that. We encourage all of our member districts to maintain groundwater equilibrium.

Comment: Normally people don't water 22 hours a week. If we only had 6 hours a week there would be too much water pressure during that 6 hours. The 22 hours a week is just so that the watering is spaced, not so that the full 22 hours is taken by watering.

Question: What happened to the \$200 million of state drought relief money that was awarded to the district but no local district got that money?

Response from David L. Orth, Kings River Conservation District: We've been successful locally at channeling money into the system. Prior to that, though, the Kings Basin Integrated Water Management Authority has received about \$65 million worth of general obligation bond funding so we have the process in place.

Comment: Land subsides and can drop many meters when groundwater is over pumped. This graphic shows our water table has been drastically dropping, so how is this going to work?

Response from Gary Serrato, Fresno Irrigation District: We are a conjunctive use area. That means we capture as much water as is available to us during flood releases so we can put into the ground so it'll build back up. Recharge basins are an example. The last time we had a flood release year we put so much water back in that the table rose to within 15 feet of the surface. Because of our soil type, we aren't facing subsidence.

Comment: If you want to talk about community values, I don't think anyone wants the big trees to die. The conservation factor that doesn't seem to be being looked at is the use of gray water. Showering, washing clothes, etc. can be put to watering trees. I think gray water should be facilitated by the city. And affordability, I don't want poor people to be priced out of the water market. We should have a tiered rate.

Comment: The Unity Church has water conservation toilets. We have two developments that have lakes, getting ready to build a third. Do lakes recharge? Who is going to pay for the development of the Southeast Surface Water Treatment Facility? I'm concerned about groundwater impacts from fracking.

Response by Brock Buche, City of Fresno Supervising Professional Engineer: Lakes are a great amenity but it's not the greatest use of a resource. The City has a rebate program that encourages citizens to have their home or business inspected to promote conservation.

Response from Kassy D. Chauhan, California State Water Resource Control Board: The California State Water Resources Control Board will be studying fracking related to drinking water. There are concerns with gray water, because water quality problems can occur with gray water. We don't want to solve one problem and create another one. Regardless of the use for water that comes out of ground, if it is coming out of Fresno's water system it has to meet all drinking water standards.

Response from Kassy D. Chauhan, California State Water Resource Control Board: The drought is real. The Department for Clean Drinking Water is dealing with a lot of communities who have no water. Water conservation is so critical. Fresno is in a unique position because we have water supplies but we lack the infrastructure to treat it.

Comment from Tommy Esqueda: It sounds like we agree that conservation continues to be part of our strategy. We're doing it, but we can do more. It also seems like we agree on the idea that we have an aging infrastructure and we're on a replacement cycle of more than 300 years. We need to repair the system and keep it viable so it's not leaking and breaking. There is a general agreement that we should fix the stuff we already have. We like the idea of recharge, and we are currently doing recharge. We're in a unique position with our subsidence and we have a very responsive aquifer under us so that when we do recharge, the water goes down there and it stays down there. Recharge continues to be part of the portfolio that we want and we continue to maintain our partnerships to get more access to that. Where we still seem to have some challenges is should we or should we not make the investment to get water from the mountains and bring it into the City.

The neutral facilitator concluded the meeting and invited the community to the next Water Reliability Community Forum on Monday, Oct. 27, at 6 p.m. at Rutherford B. Gaston Middle School at 1100 E. Church Ave., Fresno, 93706.

**City of Fresno Recharge Fresno
Water Utility Financing Summit
Monday, Oct. 20, 2014**

Summary

Participants

Stephanie Babb	Greater Fresno Apartment Association
Ryan Cogdill	Howard Jarvis Association
Gladys Deniz	City of Fresno Utility Advisory Committee
Jason Duke	Fresno Unified School District
Rachel Eslick	Fresno Chamber of Commerce
David Herb	Local Advocate
Alfonso Hernandez	La Tapatia
Randy Hergenroeder	Busseto Foods (CFO)
George Hostetter	The Fresno Bee
Myrna Lewis	La Tapatia
Leland Parnagian	Economic Development Board: Fowler Packing Co.
Michael Prandini	Building Industry Association
Tim Thiesen	Fresno Taxpayers Association
Doug Vagim	Initiative Proponents
Steve Wayte	Initiative Proponents
Laura Whitehouse	City of Fresno Utility Advisory Committee
Nick Yovino	City of Fresno Utility Advisory Committee
Josh Ziese	State Water Resources Control Board

Presenters

Tom Pavletic	Municipal Financial Services
Mike Lima	Controller and Finance Director, City of Fresno
Bruce Rudd	City Manager, City of Fresno
Thomas Esqueda	Director of Public Utilities, City of Fresno
Henry McLaughlin	Chief of Administrative Services, City of Fresno Water Division
Brock Buche	Chief of Engineering and Planning, City of Fresno Water Division

Facilitator

Lewis Michaelson	Katz & Associates
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Agenda

Introductions and Agenda Review	Lewis Michaelson	10:30 a.m. – 11 a.m.
Water Resource Challenges and Proposed Solutions	Brock Buche	11 a.m. – 11:45 a.m.
Funding Sources/Cost Implications	Mike Lima	11:45 a.m. – 12:30 p.m.
Cost Recovery	Tommy Esqueda	1 p.m. – 1:30 p.m.
Customer Water Meter & Consumption Characteristics	Henry McLaughlin	1:30 p.m. – 2 p.m.
Cost Allocation and Rate Structure Alternatives	Tom Pavletic	2:15 p.m. – 3:15 p.m.
Other Considerations	Tommy Esqueda	3:15 p.m. – 4:15 p.m.
Wrap Up	Lewis Michaelson	4:15 p.m. – 4:30 p.m.

Welcome and Introductions

Mr. Michaelson opened the meeting with introductions and with an overview of the purpose of the meeting which is to provide a forum for in-depth discussion of the funding options available to the City of Fresno to pay for large capital expenditures, and the ways these costs are recovered by utilities.

Presentation 1: Water Resource Challenges and Solutions

Presenter: Mr. Brock Buche

Mr. Buche presented an overview of the City of Fresno's water resources, current water resource and delivery challenges, and recommendations made to date to address those challenges.

Discussion

- Participants discussed the City of Fresno projected growth and demand rate of 1.9 percent, which impacts planning for future water demand. Mr. Esqueda noted that Fresno's projected growth rate is low and is would not cover the students currently in the Fresno Unified school system assuming all current students choose to stay in Fresno.
- Mr. Vagim said that Recharge Fresno is about future growth and reflects the "if you build it, they will come" mentality. He said that the city still has ample groundwater and federal agencies are not going to cut the city off from these resources. He stated that having water will solicit growth.
- Mr. Vagim also said that Fresno needs to collaborate with its neighbors since groundwater is a regional issue.
- Mr. Vagim said that Recharge Fresno is based on broad assumptions and that the U.S. Geological Survey does not know how much groundwater is available. He stated that we don't know how deep the aquifer is because we don't have the money to understand.
- Mr. Vagim requested that the City come up with a water budget and the State require a water budget.
- Mr. Vagim said Fresno has the same problem with water now that we had with air quality in the 1990s. He said Fresno needs economic resources to study the problem.
- Mr. Esqueda stated that Mr. Jonathan Traum from U.S. Geological Survey attended the first community forum, and said the aquifer loses the equivalent to one and a half Pine Flat Lakes per year.
- Mr. Prandini (Building Industry Association) said that the building community will be paying a proportionate share of the 1.9 percent growth rate.
- Discussion continued related to proposed capital plans and resources, including the pros and cons of intentional recharge versus construction of a new surface water treatment facility, but the facilitator reminded the group that that discussion was outside the purpose of the meeting today.
- Mr. Vagim asked questions regarding the Kern Canal, Enterprise Canal, and the T-3 Storage Tank.
- Ms. Eslick (Chamber of Commerce) asked about how deep the City can drill for water. Mr. Buche stated that the furthest the City can drill is about 800 feet.

Presentation 2: Funding Mechanisms and Cost Implications

Presenter: Mike Lima

- Mr. Lima presented information about the advantages and disadvantages of various funding mechanisms, including developer fees, "Pay as you Go" (PayGo), grants, loans and revenue bonds.

Discussion

- Mr. Duke asked about cost reductions through production and deferred maintenance program; discussion was deferred until after financing and rate presentations.
- Mr. Vagim asked who picks up the biggest fee for a water line in new areas. Mr. Prandini responded that developers would pick up the fee.

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- Mr. Prandini said that development fees pay for and can effect capital expenditures like water lines, sewer lines. His fees go to the City and other developers who tap into the line also pay.
 - Mr. Vagim asked if PAYGO part of the base for the revenue bonds. Mr. Lima said that PAYGO and bonds are usually all part of the equation for infrastructure projects.
 - Mr. Ziese discussed the amount of money available for loans, and said the State Water Resources Control Board is seeking to expand that amount as there is a significant need and demand for that funding. He also said that Drinking Water State Revolving Fund is operating as a bank on a cash flow basis. Right now an annualized basis is around \$100 million to \$150 million. They are just now beginning to assess growth rate and demand.
 - Attendees also discussed debt, how the City approves revenue bonds, the latest Fitch Report and ratings for the City of Fresno, and sources of funding to cover revenue bonds (ratepayer and developer fees).

Presentation 3: Cost Recovery

Presenter: Tommy Esqueda

Mr. Esqueda presented information about cost recovery vehicles which, for water utilities, predominantly involve user fees or taxes. He also presented information about regulations and industry standards which stipulate the ways in which rates are developed including an emphasis on proportional distribution of cost of service. A summary of advantages and disadvantages of user fees versus parcel based tax systems was presented.

Discussion

- Mr. Wayte said that he would like to return to flat fees as he feels he is subsidizing the water usage from other municipalities like the City of Sanger. Mr. Esqueda stated that the meters and current fees are supposed to represent how people use water proportionally.
- Mr. Vagim said he is interested in parcel based tax and used school funding as an example of how this could apply to water services. If you are in a house with no kids and have a higher assessment, then you pay more even if you don't have kids. If water is so important let's not throw out the idea of a parcel based tax. Mr. Vagim equated the value of education to the value of water. "For example: Metropolitan Flood Control District did a benefit assessment so people who lived in flood zones paid more. It was flat and those rates went down as the bonds were paid off. A participant responded that 46 percent of Fresno's rent, which would make the parcel assessment difficult and would not provide equity.
- Mr. Herb stated his concern about creating a usage fee when the City is encouraging conservation. He suggested that the developer fee be enhanced. Mr. Herb made the analogy of a franchise. He said that there is a value for developers in having access to the City of Fresno water system versus developing their own system, and developers (or users) should have to pay a fee for the privilege of having that value. Much like a coffee shop – you can open an individual coffee shop or you can open a Starbucks – you will pay more because of the value that comes with that brand or franchise. Mr. Prandini replied that the City got away from the UGM concept some years ago and noted that there is also a connection fee, in addition to the impact fee.
- Attendees further discussed parcel based tax:
 - If there is parcel based it doesn't encourage conservation
 - Other municipalities use PAYGO and developer fees
 - A parcel-based tax would require voter approval
- Mr. Wayte asked if and when the rate increases or bonds end.

Presentation 4: Customer Water Meter and Consumption Characteristics

Presenter: Henry McLaughlin

Mr. McLaughlin presented information about the ways in which different classes of water users (irrigation, single family residence, and nonresidential) use water on a given date and throughout the year. He then explained how this usage information is important to the rate making process based on charging for proportional water use and impacts to the water system.

Discussion

- Mr. Vagim stated that he thinks sewer and drinking water rates should be proportional to one another. He mentioned that in many areas, sewer bills are based on usage during certain times of the year (winter months when outdoor use is reduced), since indoor use affects the sewer system versus outdoor use.

Presentation 5: Cost Allocation and Rate Structure Alternatives

Presenter: Tom Pavletic

Mr. Pavletic described the way rate makers approach the rate development process analyzing revenue requirements, allocating revenue requirements proportionally to users, and then designing rates which to include fixed charges and variable charges. He then described options of uniform rates for all classes of customers, uniform rates for different classes of customers (residential, non-residential, irrigation, etc.), and tiered rates for either all customers classes or select customer classes.

Discussion

- Mr. Wayte suggested consideration of a hybrid model where developers pay more. Mr. Prandini responded that law doesn't allow for what Mr. Wayte suggested.
- Mr. Vagim asked how 180 cubic feet (cf) per month was agreed upon as an "average." Mr. Pavletic referred to the 2013 Water Rate Study which indicated 180 cf but was prepared when the City had no meter data for single family residences. The appendix lists seven or eight ways that usage was analyzed. Mr. Pavletic noted that, as a rate consultant, estimates have to be conservative to ensure that revenue is covering debt. If revenue is too high after implementation of a new rate, the City Council then can delay rate increases or even reduce rates without having to through a Proposition 218 process. If too low, then additional rates, and a 218 process, would be required.
- Mr. Vagim asked about the American Water Works Association M-1 Manual section on private funding. Mr. Pavletic responded that if a company such as California American Water Company owned the City of Fresno water system, then then they would get a rate of return on the value of the capital. Mr. Rudd said that bond holders are investors, and they are also looking for a rate of return.
- Mr. Vagim suggested that the empty lots in the Tower District should downsize their meters as it would save \$60 to \$70 per year. Mr. Vagim said his point is that there are other people who should have different size meters. Mr. Esqueda said that he would look into this further.
- Ms. Eslick asked if the City of Fresno can attach numbers to tiers. Mr. Pavletic responded stating that the City of Fresno doesn't have the analysis for this.
- Mr. Cogdill (Howard Jarvis) asked how the City of Fresno would justify the rate points between tiers. How would those be set so they are not arbitrary? Mr. Pavletic stated that he only recommend two tiers because of the lack of data. Mr. Winer added that he justified two tiers based upon the average usage and showed this through a graph included in the PowerPoint presentation. Mr. Cogdill said that the system would have to be equitable and justifiable.

Presentation 6: Other Considerations

Presenter: Thomas Esqueda

The final presentation focused on other potential funding sources or opportunities to minimize cost impacts on customers. Among discussion items were affordability evaluations (Community

Development Block Grant guidelines, etc.), subsidies for low income customers, and conservation rebates or financial aid.

Discussion

- Mr. Duke discussed his interest in recycled water programs and inquired about deferred maintenance programs. “What are the figures for proposed reductions in operations and maintenance, cost avoidance or deferred maintenance? Where’s the sustainability piece to what Fresno wants to do? We serve 70,000 kids and a lot of water goes through the school.” Mr. Duke said that he would like to apply for the State’s DROP program for recycled water. (The facilitator clarified that the reference to “sustainability” was specific to actions that would save money and reduce rates.)
- Ms. Deniz suggested that Community Forum #3 include information about:
 - What is the baseline?
 - How do you allocate priorities?
 - How much can we afford during each 5 year period?
- Mr. Herb concluded that we need to put an effort into figuring out a “franchise fee” to decrease the cost for other users.
- Mr. Yovino suggested that Community Forum #3 summarize the first two forums, and find a simple way to simplify funding and rate information which is the most complicated
- Mr. Theisen confirmed that the City of Fresno has a base rate and consumption (variable) rate, and he stated that this is the fairest way to distribute the costs. He asked how much money is received by the Water Division and what portion goes to infrastructure. Mr. Esqueda stated that of the \$70 million annual budget about \$2 million to \$4 million goes to fix existing infrastructure. Mr. Theisen responded that the City has historically low-balled this portion of the budget, and it needs to be addressed so that 20 years from now, the City will not be back at the table and still behind the curve on infrastructure. Mr. Theisen also stated that he dislikes tiered rates, so this needs to be a flat rate. He suggested that the rate be based on consumption and “one simple rate.” He also reiterated that the City cannot let the opportunity of using surface water go by. The City has access to two rivers and must take advantage of this. “We need to get ahead of the curve.”
- Ms. Babb expressed her concern that the more the rates are delayed the more this impacts the apartment owners’ ability to budget. Her association members had already budgeted for the four year increase and now don’t know what to budget for.
- Mr. Vagim expressed that CDBG and PACE programs still need to be discussed.

**City of Fresno Recharge Fresno
Water Reliability Community Forum
Monday, Oct. 27, 2014**

Summary

The City of Fresno held the third water reliability community forum in a series of four on Monday, Oct. 27, at Rutherford B. Gaston Middle School. The open house portion took place from 6 to 7 p.m., during which members of the public could visit information stations and speak one-on-one with subject matter experts. At 7 p.m., the neutral facilitator opened the meeting with an overview of the agenda and ground rules for the discussion portion of the forum.

A video (available here <https://www.youtube.com/watch?v=OzU-uEcA0E4&feature=youtu.be>) was shown about securing the water future for the City of Fresno. After the short video, Mr. Tommy Esqueda, director of the City of Fresno Department of Public Utilities, gave a presentation reviewing water supply challenges, including aging infrastructure and declining groundwater levels. He explained that the Sustainable Groundwater Act regulates levels of groundwater being pumped and how that affects Fresno's water future. He also covered a series of projects, including conservation programs; well and pipeline repairs and replacements; recharge basins; raw water pipelines; surface water treatment facilities; and treated water pipelines.

Mr. Esqueda then introduced Mr. Mike Lima, the finance director for the City of Fresno. Mr. Lima explained how the City would go about paying for large investments. Mr. Lima explained the benefits and downsides of each option, including PAYGO, developer fees, grants, loans and bonds. He explained that the best method would be a combination of methods including 21 percent with cash sources, 12 percent low-interest loan debt and 67 percent bonds.

Mr. Esqueda emphasized that water rates must be proportional to the cost of service under the California Constitution, as well as the American Water Works Association guidelines. The first option when designing rates is a uniform rate. Everyone pays the same unit rate (currently \$0.61) in a uniform rate. The second option when designing rates is a uniform rate based on class. This means that residential, nonresidential, and irrigation classes all pay different uniform rates. The third option when designing rates is a tiered rate. This means that there is a rate for the first tier of water use and an additional charge for higher usage.

The neutral facilitator led a discussion with expert panelists about investing in Fresno's water infrastructure. Below are the questions asked of the panelists, as well as the answers given.

Gladys Deniz, City of Fresno Utility Advisory Committee, Comment: We appreciate the infrastructure that Fresno has built. Water is important to invest in for the sustainability of our future. We are looking at an option of providing surface treatment facilities to capture the surface water from the Kings River and San Joaquin River. That infrastructure is necessary to build in a sustainable plan for our future. We have tapped into the least costly provision for water-drilling wells, putting in pumps. We are fortunate to have the aquifer. With a 30 year decline in that aquifer we must bring online surface waters to facilitate the sustainability of providing future investment in Fresno. People should say this is a safe

place to live. We need a sustainable water supply. The Utility Advisory Committee was privileged to listen to all the experts from the City and other external experts that provided information on how we can improve the city's water with the least cost to the public.

Jeff Roberts, Granville Homes, Comment: Investments should be made in the water system. Water is something that is a necessity. For any community to survive there must be a reliable water supply. There is not a lot of flexibility for developers in terms of what we can do to affect that other than the characteristics we can build into our homes and neighborhoods to be water-wise. This drought has given the development industry a reality check, and we are doing things that we've never done before, like offering synthetic lawn in some of our developments and changed the fixtures to make them more efficient. These are some things we can do but when it comes to what the City can do, we have to look to them for expertise to see what type of system needed. When we are asked to build a part of that system, it is our responsibility to do that so we can enjoy the benefits of water directly to homes and the city facilities.

Doug Vagim, Measure W Proponent, Comment: What are our Fresno needs now? What are our Fresno needs in the future, plus and minus how much growth you want to add to Fresno? This plan estimates growth of another 250,000 people, increasing our population to 750,000 people. The problem is, who is going to pay for those new people? Under the old system, developers were pitching in. This new system is the reverse. The plan that was defeated by this initiative proposed nearly 70 percent debt. They tell us Fresno is out of water, but last year water was sold for \$325 per acre foot to a district outside Fresno County. What is your expense? How much water do you have? How much water do you really need? Because I'm saying they don't need that plant in the southeast. 71 percent of the proposed rate increase will be used for the new surface water treatment facility. The City of Fresno should give back the 14 square miles for the treatment facility.

Tommy Esqueda, Director of Public Utilities, Comment: One way to look at our water situation is the state regulations. The regulations say that local governments should use surface water supplies for primary use so the groundwater can recharge, and then in periods of drought, groundwater will be available. So why didn't we do it 25 years ago? I've been here four months, and I've been asking myself that question. The groundwater table has been falling, we have had groundwater contamination in this city before, we have to take wells offline, we lose pressure, your irrigation systems don't work and we are there again now. When the new state groundwater regulations go into effect, it could require Fresno to take out 55 million gallons a day of production we have today. If we don't have replacement water available, there will not be pressure in the system. We will have to come up with a solution and present it to the state. With these new state requirements in place, our current water system is not sustainable.

Martin McIntyre, San Luis Water District, Comment: I know a little bit about why that plan didn't get implemented 25 years ago. It's a consequence of politics. Nobody wants to raise utility rates. The problem in the long term is if you don't make timely adjustments to rates and reinvest in the system, you will have a failed system. The appropriate utility rate is the rate that can sustain a long term viable water supply system. What companies hear when they want to locate to Fresno is that our water system is weak. The City of Fresno did sell some water this past year. That water was all delivered on the west side of Fresno County, and they sold the water because it was an asset and they weren't able to make use of that asset otherwise. It was logical to sell some of that asset, put it in the bank to help with the PAYGO alternatives.

Tim Thiesen, Fresno Taxpayers Association, Comment: The burning question is, why didn't we do this 25 years ago? Nobody likes to raise rates. We need to take advantage of the resources we have. Fresno is in a very unique situation that we have two rivers to draw on and that is something that we can't ignore. If we don't have a plan in place for what we are going to do, the State of California will step in and they will give us a plan, which will be extremely painful.

Kassy Chauhan, California State Water Resources Control Board, Comment: The way that we have done business up until now is changing. We have talked about the fact that we have been able to rely solely on groundwater and that those days are changing and it is quickly coming to an end. The TCP regulation is coming quickly, probably in the next year or so. That will require initial monitoring within six months of adopting that regulation. Within three years after that if you are out of compliance, the City will have to demonstrate to the state how they are going to come into compliance. The City has been through this before, but they are now going to potentially lose about a sixth of their source of supply. The other side of the coin is that the days of pumping as much from the ground as we want are coming to an end. You are going to have to demonstrate that you have a plan in place to replenish whatever water is pumped. The governor recognizes that this is important, which is why he adopted and signed into law this regulation. We have to do something here in Fresno to ensure that we are not over drafting the groundwater basin. I have heard comments about why we can't keep pumping, and that there is an infinite amount of water in the aquifer. That is simply not true. There may be enough water, but is it good quality water that we can use? The answer is with stricter regulations, it's becoming more and more expensive to use solely groundwater as a source of supply.

Question: When you talked about Community Development Block Grant money, why didn't you talk about the audit that was done in 2012 and how much money of that the City is going to have to pay back? Why plant 360 acres of almonds that are watered every day, when people are losing their wells because of that. How much money did the City make on the water sale? Why do we have a \$13 standby fee just to have the water sitting there?

Jeff Roberts, Granville Homes, Response: About a year and a half ago Granville Homes got involved in this property that had become somewhat of an eyesore in southwest Fresno. There was a failed attempt to develop the property into a golf course and residential development, and it had become a dumping ground. We bought the property with the understanding that we would try and farm the property in an interim basis while waiting for the market to catch up. We spent a lot of money cleaning up the property and planting the almond trees with the most efficient irrigation systems. I think that we have gotten that property to a much cleaner, better state than it was several years ago. And the water use is not only being pumped, but it is set up to take advantage of the Fresno Irrigation District (FID) supply. We worked to bring back that supply to the property so it wouldn't require pumping. That property has been farmed for more than 70 years through a combinations of FID water and groundwater. In the future when the property is developed into homes it will use the same amount of water it does as a farm for almonds.

Tommy Esqueda, Director of Public Utilities, Response: Regarding your question about a standby fee, we have the pumps running all the time. Any given day of the week we are running electricity, chemicals, carbon, broken pipes and leaks. The water is there pressurized for you. We can't just turn it off. There is an inherent cost of keeping the system pressurized, and at any given time of the day we have about 20 wells running to keep the system running. The \$13 is variable based on the meter size.

Question: On the standby fee, for the average citizen its \$13 but you're saying for businesses and bigger lots it is different?

Response: Yes, the cost will increase or decrease proportionally. The standby fee can be from \$10 to up to \$700 or \$800 based on the meter size.

Question: If you are looking at a dime and you're looking at a nickel and you're throwing away the dime because it looks smaller, where is your sense of economy? What guarantees that the surface water treatment facility will get us an incredible water treatment system? As for the developers, if you are going to use a property, please invest in a percolation pond. If the electricity is so expensive to run a well, put solar energy panels on top of the percolation pond. Water is needed but we need good sense. We do not need opulence, we need simple things that work.

Tommy Esqueda, Director of Public Utilities, Response: In June 2013, the City hired an engineer to design a water plant. The original plan for that project was about \$200 million. As a result of the effort that Mr. Vagim has brought forward and direction from the council, that plant is now smaller, as is the investment. I appreciate the idea of solar, but we need power around the clock, especially at night when the pumps are running. We are doing some solar, but it is not practical for us to be using it on the pumping system right now.

Comment: The Southeast Surface Water Treatment Facility appears to be new development, and as such, it should be paid for by developer fees. If development fees were higher, it might slow down development which would then reduce demands on the water system. I don't believe developer fees adequately cover the cost. Also, a lot of communities in California are using tiered rates successfully, and there are state guidelines on how to implement tiered rates. It is because of high water users that our groundwater has dropped so much. The level 'A' users should bear the brunt of that through tiered rates. Put fees on the level 'A' users to pay for this project.

Tommy Esqueda, Director of Public Utilities, Response: The State is going to come in, in January, and have us come up with a plan to correct the problem we have right now. We have a hole under the city that is about 600,000 acre feet. The only way we are going to solve this is to stop pumping. The first thing you do when you find yourself in a hole is stop digging.

Comment: I have no problem with investing. You can even double my water rate. But, you are going to have to deliver something. If I am going to pay twice as much, I expect something in return. I'm not convinced that this plan is going to carry us into the future with a state-of-the-art system. It solves the immediate problem and the State issues, but where does it put us in the future?

Tommy Esqueda, Director of Public Utilities, Response: One of the things we considered in this plan is using a tried and true technology for the surface water treatment facility. We have something that is in use that is very tried and true and will be needed to carry us into the future.

Comment: I was on the Utility Advisory Committee. We made the recommendation three years ago that we increase the rates. I was under the impression three years ago that the Southeast Surface Water Treatment Facility was being built to combat possible contamination of the wells in the southeast. When I go into Starbucks, I spend more than \$0.61 on an iced tea. Why are we in such an uproar over a \$25 monthly increase over the next few years? I am a real estate agent and I am more worried about the devaluation of property in Fresno. If I don't have a yard that looks nice, if we don't have parks, if our trees are dying, our property values are going to go down drastically.

Comment: The City has a UGM process to cover the cost of developers at the fringe of the city. Building and connecting their system will totally interconnect both systems. It does a good job above covering those costs. Developers are required to prove when proposing a new subdivision that they have a sustainable supply of water for 20 years, and hooking into that system is like buying into a franchise. If you want to hook onto the City's water system you should pay a franchise fee which could go toward dealing with some of the costs of establishing this new infrastructure. If \$1.5 million to \$2.5 million a year of CDBG money could be freed up, it would reduce the cost of infrastructure for inner-city residents. The fastest way to establish a built-in conservation program is to have a progressive tiered rate structure. Pay for what you use and if you use too much, you have to pay more.

Comment: I recently read that 10 percent of the potable water in America is lost to waste and leakage in the pipes. Fixing our infrastructure is one thing that should be done regardless of whatever happens with building a new treatment facility. That would be one way we could stop digging and reduce the amount of water we are using. I have heard from a couple people to just stop growth in Fresno. Unfortunately when you stop building homes, the cost of the available homes increases. As we all saw in 2005 and 2006 before the price decline, the price of homes became unaffordable for some Fresno citizens. If we cut off southeast Fresno and refuse to build any new homes, it will make the cost of housing too much to afford. Where do multi-family homes fall into? Do they fall into the residential category?

Tommy Esqueda, Director of Public Utilities, Response: Multi-family homes fall into the non-residential category.

Comment: Here's what we can do to stop the Southeast Surface Water Treatment Facility from being built: reduce watering landscape from 22 hours to six hours, plant drought tolerant plants, limit growth, develop a water budget, double the Northeast Surface Water Treatment Facility production from 30 million gallons per day to 60 million gallons per day, add 400 more acres of ponding basins, implement tiered rates, replace aging water mains and replace leaks.

Comment: When we object to paying more, we forget about all the years that we were underpaying. If we want a future for this community, we need to compensate for those years. Water is a valuable commodity, and if we don't have it, our property values are going to plummet. I strongly support using tiered rates that will be used to pay the bonds for this project. I think we need to invest exactly what the city proposes because we need our future.

Question: Is it true that 71 percent of the Southwest Surface Water Treatment Facility was not needed? In a previous meeting, it was stated that the plan was to bring a 72-inch pipe from Clovis, am I to understand that those pipes connect to the plant on the south to somehow recharge it?

Martin McIntyre, San Luis Water District, Response: Southeast Fresno is not amenable to recharge. The soils are tight and the groundwater is weak there. This plant is principally to serve that portion of the community which has weak groundwater and also is where the greatest amount of TCP is located. East Fresno would be in big trouble if we don't have a plan to replace that groundwater.

Tommy Esqueda, Director of Public Utilities, Response: If we used a pipeline we would figure out a way to put the water into recharge basins that would travel a long way. It would serve two purposes, one would be to feed the plant and the other to feed recharge basins.

Question: Under this plan, I understand that you want to get this surface water treated, so where is the groundwater recharge component coming from? How long will that recharge take to fill up the hole? When you get your recharge done, what is going to happen to regional water movement?

Tommy Esqueda, Director of Public Utilities, Response: There are recharge basins located all over the city. Right now we take some of the surface water and take it through canals and drop it into recharge basins. We have met with the Fresno Irrigation District to build more basins. The problem with building basins is that nature tells you where to put the basin. We have to work together to figure out where in the city we can put a basin. We have about \$10 million more in this plan to add recharge basins.

Gary Serrato, Response: The quickest way to get groundwater recharge is to build a surface water treatment facility. You're able to treat surface water and deliver it to the household while shutting off pumps. There is underground water movement, but when you are putting water into the hole, it will most likely stay there.

Tommy Esqueda, Director of Public Utilities, Response: Out of 180,000 acre feet, right now we're using 50,000 acre feet to recharge. In the future, on a good year, we could add an additional 50,000 to 60,000 acre feet to these recharge basins.

Comment: We have at least 100,000 customers in this water district. If we give \$10 each on this infrastructure that is at least \$1 million each month. You're talking about raising it \$25 a month, that's \$200 million.

Comment: I'm not anti-growth, but I am anti-sprawl. However, there is a very big lack of trust among the residents because we have seen things like Operation Re-zone. I'm curious when you say the developer fees cover the costs. I imagine the pipes have a lot to do with maintaining the cost of water. I know the facts of life, it is cheaper for developers to go buy 30 to 40 acres on the edge of town and build a whole new development. I think that a lot of the people are suspicious of the cost and whether or not the developers are truly paying their fair share.

Comment: Why are we talking about rates when we don't have a plan yet.

Comment: My concern as a business owner is that we talk about a fair, equitable, pay-for-what-you-use system and then we talk about a tiered system. Pay-for-what-you-use is not a tiered system. That means everyone pays the same. Now, I'm hearing about this standby fee that appeared on our bill a few months ago. \$13 is a lot to some people but not so much to others. Commercial peoples are paying 8 to 10 times more already because of some of the tiered system rates. Did you look at a system where it is tiered verses pay-for-what-you-use?

Tommy Esqueda, Director of Public Utilities, Response: We are looking at many different options. Currently, we have a uniform system by classification of user.

Comment: Part of the reason we have skepticism in our community is that we do have a lack of trust. I believe that before you sell the plan, you really need to have something in writing for people to see. What are the options? What are the costs? It's about being totally transparent. If people have a better understanding they'll embrace it more.

Tommy Esqueda, Director of Public Utilities, Comment: We have one more community forum on Nov. 10, and we will share the preliminary proposal that we would make to the Council in November.