



**SAN FRANCISCO PUBLIC UTILITIES
COMMISSION**

City and County of San Francisco

London N. Breed

Mayor

SPECIAL MEETING MINUTES

Friday, July 16, 2021

2:00 P.M.

(Approved July 27, 2021)

This meeting was held by Teleconference Pursuant to the Governor's Executive Order N- 29-20 and the Twelfth Supplement to Mayoral Proclamation Declaring the Existence of a Local Emergency Dated February 25, 2020

During the Coronavirus Disease (COVID-19) emergency, the San Francisco Public Utilities Commission's (SFPUC) regular meeting room, City Hall, Room 400, is closed. Commissioners and SFPUC staff will convene Commission meetings remotely by teleconference.

Commissioners

Sophie Maxwell, President

Anson Moran, Vice President

Tim Paulson

Ed Harrington

Newsha Ajami

Michael Carlin

Acting General Manager

Donna Hood

Secretary



1. Call to Order

Chair Ajami called the meeting to order at 2:00 PM.

2. Roll Call

Present: Maxwell, Moran, Paulson, Harrington, and Ajami

Chair Ajami indicated that the subject of the Workshop would be related to water demand projection and water management. She noted this is the fourth water-related workshop to be held. She discussed the continued reliance on the current infrastructure and model which was based on different climate conditions and social and economic values. She stated that climate changes bring drier and hotter weather, wildfires, and flooding, as well as other environmental conditions. She noted the need for transition as a utility, a change in perspective, and the need to assume perpetual demand growth to better understand demand dynamics to make short and long-term changes. She stated that the population has doubled, and that water use has not changed or reduced due to conservation efforts, plumbing standards and codes changes, and technological advancements. She noted that stressors and economic conditions have affected the way water is used.

Tim Paulson echoed Chair Ajami's comments, indicating that it is not just a supply and demand issue but also involves new technology that needs to be discussed.

3. Presentation on SFPUC Water Demand Projections and Demand Management

SFPUC Staff Presentation: SFPUC Retail (i.e., in-City) Current and Historic Customer Demand Projections and Demand Management (conservation programs and local alternative supplies)

Steve Ritchie, Assistant General Manager (AGM) Water, stated that the focus of the Workshop will be on demand and demand management with a focus on (1) retail customers, (2) wholesale customers, and (3) Non-Governmental Organizations (NGO) comments.

AGM Ritchie presented: (1) Urban Water Management Plan (UWMP) Demand Projections: The goal is to make sure the planning process for new developments, pursuant to CEQA through 2045 account for water supply demands and availability of supply or demand management to support new development. The UWMP is not intended to be an actual projection of demand. The projections presented in the 2020 UWMP are closer to an outside envelope of what demands may be in 2045 rather than actual demands; (2) UWMP Demand Projections changes over time; (3) How to Plan for future water supplies: This will be the subject of the next two workshops and will include existing local alternative water supply projects that are still developing, the Westside Enhanced Recycled Water Project, and the San Francisco Groundwater Project.

Demand management actions and new water supply projects are being actively pursued through the planning phase but may or may not be carried forward into construction, depending on the actual demands that are evolving. He stated we need to fully consider the 2020 UWMP demand projections and understand where current demand stands in relation to them, and that we must be mindful of the Supply Assurance of 184 million gallons per day.

Demand Projections:

Sarah Triolo, Water Resources Specialist, discussed demand projections beginning with a display of total 2020 UWMP projected demands on the Regional Water System. She discussed SFPUC retail projections - 2020 UWMP vs. Finance and indicated the basis for projections are not the same. Finance projections account for current and recent trends in water sales and that water sales do not include water loss. The 2020 UWMP projections are based on San Francisco Planning Department projections for housing and employment and does not take into consideration demand impacts such as drought and recessions and provided an example.

Ms. Triolo reviewed data underlying the 2020 UWMP retail demand projections which were updated and improved from 2015. She indicated the 2015 model was based on water use data from San Francisco and Wholesale customers and the 2020 model is based on San Francisco-specific data and that the updated methodology in 2020 resulted in better per capital projections than in 2015.

She stated the retail demand projection and methodology accounted for conservation and onsite reuse savings and included “active conservation” (i.e. savings from programs), “passive conservation” (i.e. fixture replacement), and on-site water reuse.

She indicated residential and commercial water use responded to changes in water rates and air temperature: Response to 10% increase in water rates - single-family, multi-family and commercial decrease in demand; Response to 10% increase in temperature - single-family, multi-family and commercial increase in demand. She stated that future demand projections incorporated in these historical responses.

Ms. Triolo reviewed demand increase driven by housing and jobs growth, indicating the San Francisco Planning Department provides housing and job growth projections, with residential demand projections based on housing unit use and commercial demand projections based on employee use, per day, based on sector. She reviewed projected conservation and onsite water reuse savings. She summarized the biggest growth in updated retail demand projections, noting the greatest increase in demand is in the multi-family residential sector. She indicated retail per capital water use is projected to decline.

Ms. Triolo responded to a question from Commissioner Paulson as to the definition of “single family” noting it is one unit; to a question from Chair Ajami regarding the projected decline of retail per capital water use back to 2015; and a question from Commissioner Harrington as to how active we are on addressing water loss and how we stand compared to others. Brief discussion ensued to efforts to address water loss

and how the SFPUC assists customers on this issue.

SFPUC Retail Water Conservation Program:

Julie Ortiz, Water Conservation Manager, indicated the SFPUC has a comprehensive Retail Water Conservation Program that is robust and has evolved since the 1990's. It includes incentives, assistance, tools education and mandates, and is based on best practices, studies, local conditions, and applicability and is not budget driven. She reviewed the SFPUC's water conservation planning process that regularly evaluates and updates the program to incorporate changes in fixture saturation, codes, customer participation and characteristic, and new technology. She noted a customized conservation model is used to estimate water savings, costs, and plumbing fixture efficiency rates.

Ms. Ortiz stated the SFPUC has implemented and evaluated many measures and currently provides over 20 active measures and mandates with 80-plus evaluated over the years. She stated criteria is used to select measures, including suitability for service area, water savings, feasibility, research benefit and customer interest.

Ms. Ortiz indicated that the Water Conservation Program reduces the population of inefficient fixtures, stating toilets, clothes washers, and shower heads drive indoor water use. Due to conservation, the SFPUC has low inefficient fixture rates and it is expected to decline to almost zero. Discussion ensued on the work with commercial laundry facilities regarding their water use. Ms. Ortiz offered key points about 2020 Water Conservation Program: (1) feasibility attainable, reasonable approach, (2) primary water savings from fixtures, equipment, large landscape, onsite reuse in new large buildings, (3) other valuable measures (education, outreach, water-wise evaluation), and (4) most precise estimate of water savings and program offerings over the next five years. Beyond this, there is less certainty regarding technology, customer participation, and codes and regulatory updates.

She stated the SFPUC will continue to provide extensive assistance that builds on 2010-2020 accomplishments. She noted onsite reuse in an important water conservation measure and that a current ordinance requires large new developments to install onsite systems for toilets, urinal flushing, and irrigation. The SFPUC provides grant funding for voluntary projects to install onsite reuse systems.

Ms. Ortiz stated that the Water Conservation Program decreases per capita water use with current per person daily residential water use at about 42 gallons with a forecasted decrease to 38 gallons by 2025. She stated that from 2005 to 2020 there was a 15% increase in population with a 30% reduction in per person water use, which reflects indoor and outdoor use, and is among the lowest residential per capita water use in the state.

Chair Ajami indicated the State should look at the SFPUC's numbers and reconsider the way the set indoor water use standards to ensure standards are set properly.

Bay Area Water Supply and Conservation Agency (BAWSCA) Presentation:

SFPUC Wholesale Customer Current and Historic Demand Projections and Demand Management

Nicole Sandkulla, BAWSCA CEO, stated BAWSCA's member agencies are committed to regional water planning projections and have coordinated their water planning process since early 2000's. Results in individual agency and regional projections help agencies identify projected total water demand and water conservation savings. Using updated projections help agencies identify planned conservation She indicated the most recent projections were completed in June 2020.

She discussed BAWSCA's demand projections that use a single method for projecting demands and is customized for each agency based on local characteristics and uses a comprehensive end-use (bottom-up) approach.

CEO Sandkulla reviewed BAWSCA's forecasting methodology, which consists of three "layers" (1) Historical Analysis, (2) Drought Recovery, and (3) Service Area Changes. She reviewed BAWSCA's demand model flow diagram (demand model forecast 2020-2045) and reviewed key independent variables that impact demand were identified and evaluated in their economic analysis (weather, economy, service area data, and conservation).

CEO Sandkulla noted that savings from past and projected conservation activity is included in their demand projections. She stated that BAWSCA's Regional Conservation program began in 2001 and currently implements 20 conservation programs in the region. For the 2020 Demand Study, agencies selected new conservation programs to implement from 23 measures that were evaluated. Savings from existing and planned conservation programs were accounted for in demand projections.

She indicated: (1) BAWSCA's regional population is projected to increase by 31% to 2.5M people in 2045 and that 2040 population projections are eight percent greater than previous projections; (2) agency and customer investment in conservation reduced projected 2045 demand by 13%; (3) 2045 demand is projected to be four percent less than the prior 2040 demand projection; (4) from 1986 to 2045, projected population increases 76% while demand decreases one percent; and (5) residential per capita use in 2045 is projected to be equal to the lowest recorded use on record for the region.

Commissioner Paulson departed the meeting at 3:15 PM.

CEO Sandkulla responded to a question from Commissioner Harrington as to whether BAWSCA has more urbanized areas that may get closer to 40 MGD and if so, is data available. She indicated it is and is available in their Demand Study and on their website

She continued with her presentation: (6) purchases from San Francisco Regional Water System is projected to stay below the 184 MGD Supply Assurance through 2045 (local investment in alternative water sources: conservation, recycled water, groundwater, local surface supplies, and brackish water desalination); (7) BAWSCA Agencies will increase investments in and use of local supplies to meet future demands; (8) BAWSCA

will complete a refresh and update of the 2020 Demand Study this fiscal year which will enable demand models to be updated to incorporate the significant changes since the 2020 Demand Study that impact demand projections and will incorporate a sensitivity analysis to better understand how different assumptions for key variables impact demand projections; and (9) review of recent findings from the Pacific Institute on water demand projections.

CFO Sandkulla reviewed BAWSCA's key drivers: (1) Population: BAWSCA demand studies utilize locally derived and region-specific population projections; (2) Economy/Jobs: economic downturns and associated events impact water demand; (3) Weather/Climate: droughts have had the greatest impact on the accuracy of demand projections (severe droughts have lowered demand); (4) Conservation: many factors influence urban water conservation; (5) Drought Rebound: BAWSCA's 2020 Demand Study considered several drought rebound scenarios and selected one based on past experience; and (6) Cost of Water: BAWSCA's Demand Studies use historic customer response to water rate increases to project future impacts on demand.

She reviewed BAWSCA's proposed approach toward Sensitivity Analysis, indicating it will consider various scenarios of population, climate change, employment and drought rebound. Additional water demand factors will be considered with the input of stakeholders; results will include identification to the "most likely" baseline forecast as well as high and low bounds of the forecast range; sensitivity forecast of each variable will be determined; and results will be useful each year to assist in tracking how water demand is behaving as compared to the demand influencers.

CEO Sandkulla concluded by stating BAWSCA and its member agencies are actively planning for a reliable water supply for the future with a clear water management objective, have focus and commitments of BAWSCA and its member agencies, and that BAWSCA is initiating an update to its Long-Term Reliable Water Supply Strategy.

She stated all data and documents referenced can be found on BAWSCA's website: www.bawasca.org/water/reliability

Commissioner Harrington stated it is good to see progress and improvement with BAWSCA's member agencies' demand projections.

In response to a question from Commissioner Moran as to where the per capita usage is in BAWSCA's refresh, CEO Sandkulla indicated it is a calculated result so the refresh will go back into the assumption that build the demand projections.

Chair Ajami thanked CEO Sandkulla for her presentation and for BAWSCA's comprehensive view.

AGM Ritchie stated that during the 2014-15 drought there was State tracking of residential per capita water use by agency and of the lowest 15 per capita use agencies in the Bay Area, twelve were in San Francisco and 11 were wholesale customers.

Non-Governmental Organizations Presentation

Peter Drekmeier, Tuolumne River Trust (TRT), began with a quote from John Fleck “water mangers’ incentives favor erring on the side of caution. The consequences of having too little water are far greater than the consequences of too much.” He stated at the time Mr. Fleck wrote his book Southern Nevada Water Authority was planning to build a controversial 300-mile pipeline to convey groundwater from eastern Nevada to Las Vegas, but that last year the Authority shelved the project. He noted the SFPUC and BAWSCA’s efforts to conserve.

Mr. Drekmeier provided an assessment of urban water demand forecasts in California (The Pacific Institute, August 2020) and that per capita water demand has decreased faster than population growth (SFPUC per capita demand -30%, population eight percent, and total demand -25%).

He stated demand projections affect demand supply and possible rations and that the UWMP shift on demand projections has had an impact. He indicated that using contractual obligations resulted in 55% rationing in the third year of drought but using demand projections reduced rationing from 55% to 40% in the third year of drought.

Mr. Drekmeier stated that the four previous UWMP’s were reviewed (2005, 2010, 2015 and 2020) and that demand projections (vs. actual) have always been inflated and on average the plans were off by 22% in the UWMP.

He reviewed data of historic SFPUC demand projections and historic San Francisco population growth (San Francisco population grew by 117,926 over the past 15 years) and stated the projections are incorrect. He indicated that the UWMP projects San Francisco’s population will grow by 228,275 over the next 15 years, adding twice as many people as in the previous 15 years. He discussed conflicting population projections and that the UWMP population estimate for San Francisco is four times that of the California Department of Finance (DOF) and that using the DOF numbers would reduce residential water use by 10 mgd from UWMP projections. Mr. Drekmeier then reviewed BAWSCA’s population growth.

Mr. Drekmeier stated the UWMP projections depend heavily on Plan Bay Area, which forecasts 1 million more jobs and 2.5 million more Bay Area residents. He discussed a 2018 TRT survey on Plan Bay Area 2040, and of those with an opinion, 85% believe Plan Bay Area would worsen their quality of life. He encouraged that DOF projections be used rather than Plan Bay Area.

Mr. Drekmeier stated that water rates have depressed demand. He reviewed historic and projected wholesale rates, projecting a 33% increase in water rates in the next five years. He stated in San Francisco, the combined water and wastewater rates (single family) are projected to increase by 91% in the next 15 years. He indicated that according to the SFPUC 10-Year Financial Plan, water sales are projected to remain flat over the next 10 years.

He stated that if demand is kept at its current level of 198 mgd the Drought of Record

Repeat (with Bay Delta flows in place) could be managed without rationing or alternative water supplies. He reviewed the Design Drought (with Bay Delta Plan flows in place and rationing), stating that we could make it through five years of Design Drought without rationing or alternative water supplies. Mr. Drekmeier recommended reducing the Design Drought by one year.

Mr. Drekmeier introduced Mr. Chris Shutes, California Sportfishing Protection Alliance. Mr. Shutes indicated that he misunderstood the topic of the meeting and now understands that alternative water supply will be discussed at a subsequent workshop. He expressed appreciation for the technical level of the discussions with the hope dialogue can continue. He noted discussions regarding demand projections in the UWMP and BAWSCA's sensitivity analysis and that it seems difficult to translate variables and nuanced views into messaging. He stated that we need to include sensitivity analysis in conversations and not boil messaging down to issues that polarize and don't lead to solutions. A change in dialogue will result in better policy outcomes.

Commissioner Harrington thanked Mr. Drekmeier and Mr. Shutes for their comments. He stated those who make projections try to do so as accurately as possible, but that water managers have a concern of running out of water and have an innate bias to make sure there is enough water for people. He stated the DOF projections look at running out of money, and that it is hard to overcome both biases and questioned if there is a better way. AGM Ritchie agreed and stated that the reality is there are two different drivers with the "truth" is somewhere in the middle.

Vice President (VP) Moran thanked everyone for their participation. He noted the disparity between the different projections, and he expressed a desire for a better understanding of Plan Bay Area. He stated without that understanding it is more than a difference in incentives. He noted there are State mandates for housing that have not been met and that we have been negligent in creating housing. He stated San Francisco is criticized for approving job development without approving housing development and that the realities need to be recognized. He discussed projections, obligations, water supply assessments, what needs to be considered under varying circumstances, and the limits.

Chair Ajami stated that while population growth and Plan Bay Area seem to be used as a factor or driver in water use, the reality is what has been seen over time, and that population growth has not changed total demand overall. She stated it is not just about per capita water use. She stated that rate increases have a small impact in the reduction of water use but that it is not significant. She stated it is important to recognize stressors on the water system that keep coming with little time for recovery. She discussed BAWSCA's comments on 100 mgd in the plans for Alternative Water Supply on the Peninsula. She stated that the future is uncertain and that the ranges of options and different scenarios need to be considered.

Chris Shutes noted BAWSCA's presentation and stated that policy can drive numbers and stated that the Commission might consider adaptable policy to limit demand at a certain level while recognizing the need to meet demand.

Public Comment

- *Francisco DaCosta discussed the First People who protected and preserved the water and stated that the standards of the Indigenous people are not being met. He stated that no one speaks for the fish. He discussed increasing fires, the need to conserve, and leeching pipes.*
- *Dave Warner stated that past projections overestimated 2020 demand by one-third. He expressed the need to invest in resources for more accurate forecasting. He noted BAWSCA's Demand Study. He stated detailed variance studies should be conducted to improve forecasting demand projections.*
- *Denise Louie noted the difficulty in pinpointing accurate numbers. She stated the fish population is suffering. She asked that the lawsuit against the State Water Board be dropped.*
- *Regina Chichizola, Save California Salmon, expressed thanks for the analysis and for allowing Mr. Drekmeier and Mr. Shutes to present. She stated that projections may be overblown and that people in San Francisco want to conserve water and do the right thing for the fish in the Bay Delta and Tuolumne River. She asked that San Francisco's lawsuit be dropped.*
- *Mark Gonzales, TRT Volunteer, stated that the City should work to increase flows to save the Salmon and the riparian habitat of the river.*
- *Carol Steinfeld, Sierra Club, stated that the effort needs to be made more public and transparent. She stated that the public is not aware of the lawsuits and it needs to be an "all hands effort" for the entire service area and not just retail vs. wholesale.*

Commission Discussion

VP Moran requested that information regarding the differences are between the DOF and Plan Bay Area and within that, what portion reflects legal mandates, such as affordable housing targets, versus those that are aspirational.

At the request of Commissioner Harrington, Chair Ajami provided clarification on her earlier comments regarding population projections, explaining that population and demand projections have decoupled, and that population is not a significant driver of demand anymore. She discussed building 50-liter homes and that the impact of water use needs to be considered.

President Maxwell questioned the goals and asked what other countries are doing. She thanked everyone for their participation.

Chair Ajami thanked SFPUC staff, BAWSCA staff, Mr. Drekmeier and Mr. Shutes for their contributions to the meeting and discussion.

Adjournment

Chair Ajami adjourned the meeting at 4:44 PM.