San Francisco Supervisor wants buildings to save more water as drought intensifies

San Francisco Supervisor Rafael Mandelman introduces legislation to require new buildings to re-use more water and develop a plan for expanding the City’s recycled water supply

SAN FRANCISCO — Amid worsening drought conditions, District 8 Supervisor Rafael Mandelman introduced an ordinance on Tuesday that would double the amount of water that new large buildings are required to collect and re-use, and direct the City’s Public Utilities Commission to develop a plan to expand San Francisco’s recycled water supply.

“The climate crisis is upon us, and prolonged drought and annual wildfires have become sad and scary facts of life in California,” said Mandelman, who authored San Francisco’s Climate Emergency Resolution in 2019 and passed an ordinance last year requiring all-electric construction in new buildings. “Even as we accelerate our path toward a zero-carbon future, we have to prepare now for the reality of extreme water scarcity in California that we know is being driven by climate change.”

The legislation is being introduced as California enters yet another drought after two consecutive dry winters that have left key water supplies greatly diminished, including the Sierra Nevada snowpack that measured only 60% of its average capacity as of April 1. Last month, Governor Newsom declared a drought emergency in Sonoma and Mendocino Counties, and Marin County’s Water District became the first in the Bay Area to impose mandatory water restrictions. The East Bay Municipal Utility District has declared a Stage 1 drought and voluntary water conservation targets, and the SFPUC has issued a call for a 10% voluntary reduction by large irrigation customers in San Francisco. Just yesterday, the Governor expanded the drought emergency to include an additional 39 counties, including Alameda, Contra Costa, Napa, and Solano Counties in the Bay Area.

“The Plumbers and Pipefitters have a long history of supporting safe and efficient plumbing standards and applaud San Francisco’s leadership in preparing for the severe water shortages that are coming to this state,” said Larry Mazzola, Jr. Business Manager of UA Local 38 Plumbers and Pipefitters. “The re-use of water from on-site treated graywater systems for toilets and other non-potable uses are a proven way to reduce demand for potable water as California faces the threat of persistent water shortages. This ordinance is a step in the right direction and will have a significant positive impact on jobs for our skilled and trained workforce to provide sustainable work opportunities moving forward.”

The ordinance would expand on the City’s 2012 Non-Potable Water Ordinance, which requires the collection, treatment, and re-use of graywater from sources like showers and bathroom sinks for non-potable uses such as toilet and urinal flushing and irrigation in large buildings and
district-scale developments of greater than 250,000 gross square feet (gsf). Smaller developments between 40,000 and 250,000 gsf do not currently have to install on-site water re-use systems, but must submit a water budget demonstrating their water re-use potential to the SFPUC.

The legislation would lower the threshold for large projects to 100,000 gsf, require large commercial buildings to treat and re-use blackwater from toilets and kitchen sinks, expand the required uses of treated graywater in residential and mixed-use buildings to include laundry rooms, and clarify enforcement provisions. Large developments consisting of multiple buildings of more than 100,000 gsf total would also be required to install district-scale graywater re-use systems for non-potable uses in buildings and irrigation. The expanded requirements would apply to new buildings that file permits starting January 1, 2022 and would not apply to 100% affordable housing and permanent supportive housing projects.

The SFPUC estimates that these changes could double the amount of water savings in residential and mixed-use buildings to 30% of total indoor potable water demand, and offset up to 75% of total indoor potable water demand in commercial buildings, a significant increase from the 15% conserved under current requirements. These additional savings would offset the water use of roughly 5,500 San Francisco residents per day.

“When the Non-Potable Water Ordinance first passed, it was an innovative measure that set a national standard for water reuse practices in new developments,” said SFPUC Acting General Manager Michael Carlin. “But we know that there is always an opportunity to expand these measures, especially as we contend with this extended dry season. We want to commend Supervisor Mandelman for strengthening this ordinance to make sure we are using our water as efficiently and responsibly as possible.”

“We are proud of that fact that our partnership with Local 38 and the entire SF Building Trades extends to important, long range issues like affordable housing and environmental sustainability,” said Michael Cohen, Founding Partner at Strada, which has developed San Francisco projects incorporating on-site water re-use systems including the two-acre redevelopment of the former Local 38 union hall at 1629 Market Street. “Given the severity of California’s water supply issues we believe this legislation is an important step in the right direction.”

The ordinance also calls for the City to revisit its recycled water program. Since 1991, the City’s Recycled Water Ordinance has required that property owners within designated recycled water use areas to install recycled water pipes in new construction or remodel projects of more than 40,000 gsf. In 2012, the City began using recycled water from Daly City to irrigate Harding Park and Fleming Golf Courses. Additionally, in partnership with the North Coast County Water District, recycled water is used to irrigate a portion of Sharp Park Golf Course in Pacifica, which is one of SFPUC’s retail water customers. The SFPUC’s Westside Enhanced Water Recycling Project in San Francisco is anticipated to begin operations next year and will deliver recycled water to Golden Gate Park, Lincoln Park Golf Course, and the San Francisco Zoo.
The ordinance would require the SFPUC to present a report to the Board of Supervisors by June 1, 2022 outlining additional opportunities to develop recycled water as well as a purified water supply for San Francisco. Purified water refers to recycled water that has been treated to drinking level standards for potable uses.

"San Francisco cleans its wastewater, then discards most of it to the Bay. In the face of climate change and drought, it’s time to change this wasteful practice,” said Laura Feinstein, Sustainability and Resilience Policy Director at SPUR. “A plan to develop recycled and purified water is crucial to securing drought-resilient water for the City."

The effort follows the passage of an ordinance authored by Mandelman last fall that requires new buildings to be constructed using all-electric technology without natural gas connections starting on June 1 of this year. The all-electric ordinance also directed the SFPUC to examine additional opportunities to expand green building standards that would reduce water consumption in new buildings as well. The SFPUC report issued in April estimated that the Non-Potable Water Ordinance will achieve daily water savings of more than one million gallons of water per day by 2040, and identified recommendations to increase opportunities for cost-effective potable water savings in new developments that were included in the ordinance introduced Tuesday.

“The Sierra Club is excited to see this initiative from Supervisor Mandelman. This is smart matchmaking between two critically important environmental priorities – water reuse and recycling and electrifying our buildings – that works to sustain well-paying union jobs, which itself is another critically important priority,” said Hunter Cutting, a member of the Sierra Club San Francisco Executive Committee. “It’s a great pilot for others cities to watch, and we look forward to continued engagement as this effort moves forward.”

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