



January 7, 2015

Via electronic mail

Jeanine Townsend, Clerk to the Board
State Water Resources Control Board
1001 I Street, 24th floor
Sacramento, CA 95814
Email: commentletters@waterboards.ca.gov



Re: *Comments on additional actions that the State Water Board should consider to compel further urban water savings*

Dear Members of the State Water Resources Control Board:

On behalf of the Natural Resources Defense Council (“NRDC”), I am writing with regard to the Public Workshop on Urban Water Conservation held on December 17, 2014. We appreciate the opportunity to submit these comments to the State Water Resources Control Board (“Board”) in response to the request for recommendations on additional actions the Board should consider to compel further urban water savings.

NRDC appeared on the academic and non-governmental panel at the December workshop and presented five recommendations to the Board. This letter includes more detailed information on the five recommendations included in the presentation as well as one additional proposal.

Proposal: Mandatory Monthly Reporting of Revenue and Rate Information

As the drought persists, it is important to know what steps water suppliers are taking to maintain financial solvency, and whether conservation messaging is being reinforced with appropriate price signals. The Board needs to familiarize itself with the landscape of California’s current rate structures as it considers how to approach drought response measures. The Board should collect information on the current measures water suppliers are taking to address revenue shortfalls. We recommend that the Board expand the monthly urban supplier reports to include the following information on water rates and charges:

- Effective date and description of the current rate schedule
- Comparison of forecasted revenues with revenues received year to date
- Measures in effect or pending to address revenue shortfalls including, but not limited to:
 - Drought surcharge rates
 - Excess water use penalty charges
 - General rate increase
 - Use of previously established reserve funds
 - Any other specific measures

Proposal: Mandatory Monthly Reporting of Water Main Breaks and Repair Activity

The California Urban Water Conservation Council (CUWCC) BMP 1.2 requires urban water suppliers to maintain a record-keeping system for the repair of reported leaks, yet very few agencies appear to be making the information in these required records public. Water main breaks that make the news are terrible messaging during the drought, and there are many more small leaks and breaks that don't make the news. By daylighting this information, the Board can encourage more attention from water system managers to improve performance in this area.

The American Water Works Association (AWWA) already has a template for reporting leaks that could be used for reporting to the Board. Additionally, the AWWA also has a benchmark for main breaks per mile that the Board could consider as a potential standard after it collects sufficient data.

NRDC recommends that the Board expand the scope of the monthly urban supplier reports to include the following information on water main breaks and repair activity during the period:

- Time of report
- Leak location
- Type of leaking pipe segment or fitting
- Leak running time from report to repair
- Estimated leakage volume from report to repair, and
- Cost of repair (including pavement restoration costs and estimated property damages, if any)

Proposal: Require retail water suppliers to develop and implement a local enforcement strategy to achieve the replacement of inefficient plumbing fixtures required by state law

Existing California law (Cal. Civil Code § 1101.1 et seq., enacted as SB 407 of 2009) requires all inefficient plumbing fixtures to be replaced with water-conserving plumbing fixtures in single-family residential buildings by January 1, 2017 and in multifamily residential and commercial buildings by January 1, 2019.¹ In cases of properties undergoing major renovations and additions, enforcement of the bill's requirements falls to local building code officials. In the case of all other existing buildings, SB 407 explicitly authorizes, but *does not require*, cities, counties, and water suppliers to enact local ordinances or policies to enforce the bill's provisions.² As a result of this non-mandatory enforcement responsibility, few, if any, local jurisdictions or water suppliers have

¹ In 1992, California enacted SB 1224 (Killea) setting efficiency standards for new plumbing fixtures sold or installed in the state after January 1, 1994, and the federal government adopted similar standards, also effective in 1994. *See* Energy Policy Act of 1992, H.R. 776, 102nd Cong. § 123(f). SB 407 defines "noncompliant plumbing fixtures" as that class of fixtures that predates these standards from the early 1990s, specifically: (1) Any toilet manufactured to use more than 1.6 gallons of water per flush; (2) any urinal manufactured to use more than one gallon of water per flush; (3) any showerhead manufactured to have a flow capacity of more than 2.5 gallons of water per minute; and (4) any interior faucet that emits more than 2.2 gallons of water per minute. SB 407 also requires indoor plumbing fixtures to be replaced earlier than the dates identified above under certain circumstances, such as building additions and renovations that meet certain criteria.

² It should also be noted that nothing in the statute prevents a local jurisdiction from adopting an *earlier* deadline for the replacement of inefficient fixtures.

adopted mechanisms and policies to ensure compliance with the requirements of SB 407. Nevertheless, the law is clear that inefficient plumbing fixtures need to be replaced by dates certain and that enforcement power ultimately lies with local jurisdictions and water suppliers. The Board should help bridge this gap by requiring water suppliers to adopt a local enforcement strategy for SB 407. Such action is not only critical given the state's emergency state of drought, but also is in line with the spirit and directive of Governor Brown's April 25, 2014 Executive Order.

California has over 7 million single-family homes and over 3 million multifamily housing units built before 1994 and originally equipped with inefficient plumbing fixtures.³ Even allowing for accelerated replacement rates that may have been influenced by utility rebate programs, we estimate there are more than 6 million inefficient toilets remaining in more than 3 million single-family homes, along with nearly 4 million inefficient showerheads and nearly 10 million inefficient faucets. Inefficient fixtures in multifamily and commercial buildings would be in addition to these numbers. Replacing all the inefficient toilets that remain in single-family homes could save roughly 90,000 acre-feet per year. Adding savings from showerhead and faucet replacement, and taking into account multifamily and commercial buildings as well, savings from plumbing replacement could yield 150,000 acre-feet or more per year.

The Board should require retail water suppliers, alone or in collaboration with other water suppliers and/or local governments within their service area, to develop and implement a local enforcement strategy to achieve the replacement of inefficient fixtures required by state law. At a minimum, each retail water supplier should adopt procedures to ensure that all inefficient plumbing fixtures have been removed and replaced with water-conserving fixtures whenever there is a change of name on the customer account for a pre-1994 building. This will effectively achieve the same result as a retrofit upon resale ordinance⁴ because a transfer of property ownership usually results in a change of customer account for utility services; the difference is that the responsibility would be on water agencies, as opposed to realtors, to ensure compliance with the state water efficiency requirements. Most importantly, this proposal will provide at least one consistent statewide mechanism by which all water suppliers can help enforce the provisions of SB 407 for all pre-1994 residential and commercial buildings in the state.⁵

Replacement of inefficient plumbing fixtures has been long recognized in California as a type of water conservation strategy. Moreover, the Board's seven-factor test to determine whether a type of water use constitutes waste and unreasonable use would support a finding that the continued use of non-water conserving plumbing fixtures in pre-1994 residential and commercial buildings constitutes waste and unreasonable use of water in violation of the California Constitution. Requiring local strategies to implement SB 407 would curtail the waste and unreasonable use of water because it would require water suppliers to take additional measures this year to accelerate

³ American Housing Survey, *Metropolitan Surveys for 1998, 2002, 2004*, micro data extracted with US Census DataFerrett web application.

⁴ There currently are at least 10 California jurisdictions that have retrofit upon resale requirements: Beverly Hills, Burbank, Cambria Community Services District, Los Angeles (City), Manhattan Beach, North Marin Water District, San Diego (City), San Francisco, Santa Cruz, and Santa Monica.

⁵ Other elements of a local strategy might include continued or expanded rebates, direct installation programs for low-income residences, replacements in public buildings, or compliance certifications for newly leased rental property.

the replacement of inefficient fixtures in advance of SB 407's 2017 and 2019 deadlines, thereby ensuring that the state's water-saving goals are met in time.

For more information on the legal authority for this action, please see the memorandum included here as Attachment A.

Proposal: Water Loss Reporting and Validation

Water loss reduction begins with water loss reporting, and water loss reporting is only as good as the data used to audit the system. Under SB1420 (Wolk, 2014), urban water suppliers are required to include standardized water loss audits in Urban Water Management Plans. Many urban water suppliers have been filing water loss audits with the CUWCC since 2011 under CUWCC BMP 1.2. NRDC reviewed several dozen water loss audit reports from CUWCC member agencies and found significant variability in the quality of data used to prepare those reports and in the validity of the resulting information. We determined that validation of the water loss audit data is essential for the exercise to be fruitful, especially if the data is to be used to set a statewide benchmark for water loss reduction.

Now that water loss reporting is mandatory through the UWMP process starting in 2015, the state will need a mechanism for verifying the data that is submitted. The state of Georgia currently requires annual water loss audits to be filed with the state and has established a process for validating all water loss audits prior to submission using DWSRF funding⁶. NRDC recommends that the Board solicit funding for a water loss data validation project through the State Revolving Fund (SRF). Once available, a validated water loss audit dataset would give the Board an objective basis for setting volume-based performance targets for the reduction of water loss.

Proposal: Mandatory Customer Leakage Notification

Section A.6⁷ of CUWCC BMP 1.2 Water Loss Control, requires urban water suppliers to "advise customers whenever it appears possible that leaks exist on the customer's side of the meter." Addressing customer side leakage, specifically by regularizing customer leak notification as a statewide practice, presents a significant opportunity for conservation.

Some key findings of the 2014 Residential End Uses of Water Study reveal that average customer side leakage was 17 gallons per household per day (gphd), but the median was 4 gphd.⁸ Ten percent of all homes surveyed were leaking an average of 105 gphd, while the other 90% were leaking an average of 8 gphd. Although the results of the 2014 study show that leakage is highly skewed by a small percentage of homes⁹, it is nevertheless a major "use" of water, ranking just below clothes washers, as a share of total indoor consumption.

⁶ Georgia Rules for Water Use Efficiency

http://epd.georgia.gov/sites/epd.georgia.gov/files/related_files/site_page/Water_Use_Efficiency_Rule_Oct_2_2014_Stakeholder_Draft.pdf

⁷ California Urban Water Conservation Council, *BMP 1.2 Water Loss Control, A.6*, available at <http://cuwcc.org/Resources/Memorandum-of-Understanding/Exhibit-1-BMP-Definitions-Schedules-and-Requirements/BMP-1-Utility-Operations-Programs#BMP%201.2>.

⁸ Water Research Foundation, *Some Key Findings of the 2014 REUWS Update Study*, March 31, 2014 (PowerPoint on file with author).

⁹ Top 21 homes, or 3%, accounted for 30% of total leakage in a group of 762 homes surveyed.

NRDC recommends that the Board require urban water suppliers to notify customers when a customer side leak is suspected. Under a proposed draft regulation (included as Attachment B), the water supplier would flag the issue in the customer's billing account, and then attempt to make contact with the customer by leaving a door hanger. If the high consumption level continues into the next billing or meter reading cycle, the water district would attempt to alert the customer again. When the water district alerts customers of the potential leak, it will also advise them to fix the leak promptly and explain to them that it is ultimately their responsibility to make the appropriate repairs.

Proposal: Leverage Funding Opportunities to Incentivize Additional Conservation and Efficiency Efforts

"All state agencies that distribute funding for projects that impact water resources, including groundwater resources, will require recipients of future financial assistance to have appropriate conservation and efficiency programs in place" – Governor Brown, Executive Order, April 2014

Now that the Board has authority over both the Clean Water and Drinking Water State Revolving Funds (SRFs) and additional funding is available from the recently approved Water Bond, there are additional opportunities to incentivize additional conservation and efficiency efforts by applicants for state financial assistance, as called for in the Governor's Executive Order. Under current law, AB 1420 (Laird, 2007), some state loans and grants have required the implementation of demand management measures as a prerequisite for eligibility. Unfortunately there are significant shortcomings in the administration of AB 1420 that should be addressed with future conditioning of eligibility requirements for state funding, namely:

- AB 1420 has not been applied to SRF loans and grants.
- AB 1420 has only been applied to direct applicants of funding and not to recipients of pass-through funding. For example, an IRWMP grant may have one applicant that is subject to AB 1420, but six agencies could receive funding through that grant without meeting any requirements.
- The Department of Water Resources (DWR) does not have effective procedures in place to adequately assess conservation performance and claims made by applicants in self-certification forms.
- The California Urban Water Conservation Council (Council) process of self-reporting can't be relied upon for compliance with current law because the Council's "on-track" determinations have been found to be flawed and numerous water suppliers are not fully implementing demand management measures.

Additional information on the shortcomings of AB 1420 implementation can be found in Attachment C.

The Board should consider establishing eligibility requirements that condition funding for *all* its financial assistance programs for water suppliers on the implementation of conservation practices meeting, at a minimum, the following criteria:

- Conservation requirements will apply to all recipients of state funding, including Board-administered SRFs;
- Conservation requirements will be clear and consistent;

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- A new certification process for verifying implementation of conservation practices will be jointly developed by the Board and DWR;
- Each funding agreement will include a contractual commitment by all water suppliers receiving funds to implement conservation practices, with noncompliance resulting in forfeiture of funding and restitution of previously disbursed funds to the state.

Conclusion

Thank you for the opportunity to provide recommendations for actions the Board should consider to help mitigate the impacts of this and future droughts. If you have any questions or comments, please do not hesitate to contact me at tquinn@nrdc.org.

Sincerely,

A handwritten signature in black ink, appearing to read "Tracy Quinn". The signature is fluid and cursive, with a large initial "T" and "Q".

Tracy Quinn, P.E.
Policy Analyst
Natural Resources Defense Council

ATTACHMENT A – PROPOSAL FOR ACCELERATING PLUMBING REPLACEMENT

Pursuant to Governor Brown’s April 25, 2014 Executive Order¹ to redouble state drought actions, the State Water Resources Control Board (State Board or Board) is directed to adopt emergency regulations pursuant to Water Code § 1058.5, as it deems necessary to ensure that retail water suppliers implement drought response plans to limit wasteful water practices and to promote water conservation. On July 15, 2014, the State Board approved emergency drought regulations to limit outdoor water use. This memorandum discusses one of NRDC’s recommendations for an emergency regulation to be adopted and implemented by the Board during its second round of emergency measure approvals.

Proposal: Require retail water suppliers to develop and implement a local enforcement strategy to achieve the replacement of inefficient plumbing fixtures required by state law

Issue

California has over 7 million single-family homes and over 3 million multifamily housing units built before 1994 and originally equipped with inefficient plumbing fixtures.² Even allowing for accelerated replacement rates that may have been influenced by utility rebate programs, we estimate there are more than 6 million inefficient toilets remaining in more than 3 million single-family homes, along with nearly 4 million inefficient showerheads and nearly 10 million inefficient faucets. Inefficient fixtures in multifamily and commercial buildings would be in addition to these numbers. Replacing all the inefficient toilets that remain in single-family homes could save roughly 90,000 acre-feet per year. Adding savings from showerhead and faucet replacement, and taking into account multifamily and commercial buildings as well, savings from plumbing replacement could yield 150,000 acre-feet or more per year.

Existing California law (Cal. Civil Code § 1101.1 et seq., enacted as SB 407 of 2009) requires all inefficient plumbing fixtures to be replaced with water-conserving plumbing fixtures in single-family residential buildings by January 1, 2017 and in multifamily residential and commercial buildings by January 1, 2019.³ In cases of properties undergoing major renovations and additions, enforcement of the bill’s requirements falls to local building code officials. In the case of all other existing buildings, SB 407 explicitly authorizes, but *does not require*, cities, counties, and water suppliers to enact local

¹ Ca. Exec. Order (April 25, 2014), available at <http://gov.ca.gov/news.php?id=18496> (“Gov. Brown April Exec. Order”).

² American Housing Survey, *Metropolitan Surveys for 1998, 2002, 2004*, micro data extracted with US Census DataFerrett web application.

³ In 1992, California enacted SB 1224 (Killea) setting efficiency standards for new plumbing fixtures sold or installed in the state after January 1, 1994, and the federal government adopted similar standards, also effective in 1994. See Energy Policy Act of 1992, H.R. 776, 102nd Cong. § 123(f). SB 407 defines “noncompliant plumbing fixtures” as that class of fixtures that predates these standards from the early 1990s, specifically: (1) Any toilet manufactured to use more than 1.6 gallons of water per flush; (2) any urinal manufactured to use more than one gallon of water per flush; (3) any showerhead manufactured to have a flow capacity of more than 2.5 gallons of water per minute; and (4) any interior faucet that emits more than 2.2 gallons of water per minute. SB 407 also requires indoor plumbing fixtures to be replaced earlier than the dates identified above under certain circumstances, such as building additions and renovations that meet certain criteria.

ordinances or policies to enforce the bill's provisions.⁴ As a result of this non-mandatory enforcement responsibility, few, if any, local jurisdictions or water suppliers have adopted mechanisms and policies to ensure compliance with the requirements of SB 407. Nevertheless, the law is clear that inefficient plumbing fixtures need to be replaced by dates certain and that enforcement power ultimately lies with local jurisdictions and water suppliers. Thus, the State Board should help bridge this gap by requiring water suppliers to adopt a local enforcement strategy for SB 407. Such action is not only critical given the state's emergency state of drought, but also is in line with the spirit and directive of Governor Brown's April 25, 2014 Executive Order.

Details of Proposal

The State Board should require retail water suppliers, alone or in collaboration with other water suppliers and/or local governments within their service area, to develop and implement a local enforcement strategy to achieve the replacement of inefficient fixtures required by state law. At a minimum, each retail water supplier should adopt procedures to ensure that all inefficient plumbing fixtures have been removed and replaced with water-conserving fixtures whenever there is a change of name on the customer account for a pre-1994 building. This will effectively achieve the same result as a retrofit upon resale ordinance⁵ because a transfer of property ownership usually results in a change of customer account for utility services; the difference is that the responsibility would be on water agencies, as opposed to realtors, to ensure compliance with the state water efficiency requirements. Most importantly, this proposal will provide one mechanism by which water suppliers can help enforce the provisions of SB 407 for all pre-1994 residential and commercial buildings in the state.⁶

The implementation of such a program by a water supplier is quite straightforward. When a property is sold, the previous owner's name will be removed from the water service account, and a new owner will assume the responsibility to pay for water service. At that time, the water supplier should require documentation (i.e. an affidavit or certificate of compliance) for any pre-1994 building stating that all inefficient plumbing fixtures have been removed and replaced with water-conserving fixtures compliant with state law. If existing plumbing fixtures are noncompliant with state law at the time the change of name on the account is made, the new owner may have 90 additional days to remove and replace all inefficient plumbing fixtures, and provide certification when the job is complete.⁷ Failure to remove all inefficient plumbing fixtures within 90 days would result in a surcharge or penalty deemed

⁴ It should also be noted that nothing in the statute prevents a local jurisdiction from adopting an *earlier* deadline for the replacement of inefficient fixtures.

⁵ There currently are at least 10 California jurisdictions that have retrofit upon resale requirements: Beverly Hills, Burbank, Cambria Community Services District, Los Angeles (City), Manhattan Beach, North Marin Water District, San Diego (City), San Francisco, Santa Cruz, and Santa Monica.

⁶ Other elements of a local strategy might include continued or expanded rebates, direct installation programs for low-income residences, replacements in public buildings, or compliance certifications for newly leased rental property.

⁷ San Diego's retrofit on resale ordinance places the responsibility for plumbing replacement on the seller, but allows for the responsibility to be transferred to the buyer, who then has 90 days to complete the replacement. This is memorialized with a "Transfer of Responsibility to Retrofit Certificate," available at <http://www.sandiego.gov/water/pdf/trrc.pdf>.

appropriate by the water supplier until the property becomes compliant with the state’s water efficiency requirements for plumbing fixtures.⁸

Legal Authority for State Board to Adopt Proposed Emergency Regulation

On March 1, 2014, Governor Brown signed emergency drought legislation, SB 104⁹, which includes, among other things, amendments to the California Water Code designed to enhance the State Board’s ability to respond to drought. Specifically, the legislation expands the Board’s authority to issue emergency drought regulations when the Governor declares a drought emergency, and when the Board finds that the emergency regulation is adopted to promote conservation and prevent waste and unreasonable use of water.¹⁰

Furthermore, the Governor’s April 25, 2014 Executive Order orders the State Board to “adopt and implement emergency regulations pursuant to Water Code section 1058.5, as it deems *necessary to prevent the waste, unreasonable use* [emphasis added], unreasonable method of use, or unreasonable method of diversion of water, *to promote water recycling or water conservation* [emphasis added], and to require curtailment of diversions when water is not available under the diverter’s priority of right.”¹¹

A. The State Board May Adopt Proposed Emergency Regulation On the Grounds of Promoting Water Conservation

As indicated in both SB 104 and Governor Brown’s April 25, 2014 Executive Order, the Board is authorized to adopt emergency drought regulations on the grounds of promoting water conservation. Replacement of inefficient plumbing fixtures has long been recognized as a necessary element of the state’s water conservation programs since at least 1991 with the adoption of a Memorandum of Understanding by the California Urban Water Conservation Council.¹² Moreover, existing state statutes, such as SB 407 and AB 715¹³, have explicitly imposed requirements for the installation of water-conserving plumbing fixtures for the purpose of water conservation. As such, the Board has the

⁸ Localities with existing retrofit on resale ordinances may be exempted to the extent that all fixtures covered by SB 407 are covered by local ordinance, and that retrofit is required of both residential and commercial properties.

⁹ Stats 2014, ch 3, §1, available at http://www.leginfo.ca.gov/pub/13-14/bill/sen/sb_0101-0150/sb_104_bill_20140301_chaptered.htm.

¹⁰ Water code section 1058.5 was amended by SB 104 to grant the State Board the authority to adopt emergency regulations during a period for which the Governor has declared a drought state of emergency in order to “**prevent the waste, unreasonable use** [emphasis added], unreasonable method of use, or unreasonable method of diversion, of water, **to promote water recycling or water conservation** [emphasis added], to require curtailment of diversions when water is not available under the diverter’s priority of right, or in furtherance of any of the foregoing, to require reporting of diversion or use or the preparation of monitoring reports.” *See id.*

¹¹ Gov. Brown April Exec. Order.

¹² California Urban Water Conservation Council, *Memorandum of Understanding Regarding Urban Water Conservation*, December 11, 1991, available at <http://www.cuwcc.org/Portals/0/Document%20Library/About%20Us/MOU/MOU%20-%202011-09-14.pdf>.

¹³ This law requires that, on or after January 1, 2014, all toilets and urinals (other than blow-out urinals) sold or installed in California use no more than 1.28 gallons per flush, and 0.5 gallons per flush, respectively. *See* Cal. Healthy and Safety Code § 17921.5 et seq., enacted as AB 715 of 2007.

authority to adopt the proposed regulation set forth in this memo as the purpose of such action is to advance water conservation.

B. The State Board May Adopt Proposed Emergency Regulation On the Grounds of Preventing Waste and Unreasonable Use of Water

SB 104 and the Governor's April 25, 2014 Executive Order also make it clear that the Board has the authority to issue emergency drought regulations based on a finding that the regulation is adopted to prevent the waste and unreasonable use of water.

Additionally, the California Constitution prohibits the waste or unreasonable use of water.¹⁴ The California Legislature has not only vested the State Board with the power to prevent waste, but also has imposed an affirmative duty on the Board to enforce the California Constitution's reasonable use doctrine.¹⁵

In light of the two proclamations stated above, the Board may to adopt the proposed emergency drought regulation if it finds that the continued use of non-water conserving plumbing fixtures in pre-1994 residential and commercial buildings across California constitutes waste and unreasonable use of water. Upon such a finding, the Board not only will have the power but also the *duty* to adopt and implement the proposed regulation set forth in this memorandum in order to ensure that the water-saving goals of SB 407 are met by the required deadlines.

Continued Use of Inefficient Plumbing Fixtures in Pre-1994 Buildings Constitutes Waste and Unreasonable Use of Water

According to the State Board, reasonable use is not a static concept.¹⁶ Instead, determinations of reasonable use depend largely upon the entire set of circumstances of a particular case, and that determination may change as current conditions change.¹⁷ In prior determinations of waste and unreasonable use, the Board has applied a seven-factor test to evaluate whether a use constitutes waste or unreasonable use in violation of the California Constitution and the Water Code: (1) other potential beneficial uses for conserved water; (2) whether the excess water serves a reasonable and beneficial purpose; (3) probable benefits of water savings; (4) the amount of water reasonably required for current use; (5) amount and reasonableness of the cost of saving water; (6) whether the required methods of saving water are conventional and reasonable rather than extraordinary; and (7) the availability of a physical plan or solution.¹⁸

¹⁴ California Constitution, Article X, Section 2.

¹⁵ Cal. Water Code §§ 174, 275, 1050.

¹⁶ State Water Resources Control Board, Draft Order WR 2012-0004 (2012), 6 ("Draft Order WR 2012-0004") [*citing* Imperial Irrigation Dist. V. State Water Resources Control Bd. (1986) 186 Cal.App.3d 1160, 1166].

¹⁷ *Id.*

¹⁸ Draft Order WR 2012-0004 (2012) at 6 [*citing* State Water Resources Control Board, Water Rights Decision 1600, In the Matter of Alleged Waste and Unreasonable Use of Water by Imperial Irrigation District (1984) ("WRD 1600")].

As detailed below, the State Board's seven factors weigh in favor of the Board concluding that the continued use of inefficient plumbing fixtures in pre-1994 residential and commercial buildings constitutes waste and unreasonable use of water, and therefore the Board should adopt an emergency drought regulation that would direct water suppliers to develop and implement a local enforcement strategy to achieve the replacement of inefficient plumbing fixtures required by state law.

Factor #1: Other Potential Beneficial Uses

One of the most important factors to be considered in evaluating the reasonableness of the alleged wasteful use is the identification of other beneficial uses to be made of water which could be conserved.¹⁹ A finding of unreasonable use or method of use does not, however, require the existence of a dispute between competing users. For example, if other parties can demonstrate an intention to utilize water which could be conserved through reasonable conservation measures, the failure to undertake such conservation may be found to be unreasonable.²⁰ Circumstances also matter in determining reasonableness. For instance, during a period of long drought, where mandatory water rationing is in effect, and where a particular water use could stress other water deliveries, that water use is more likely to constitute an unreasonable use.²¹

California is suffering from a third year of drought, with near record-low reservoirs, mountain snowpack, soil moisture, and river runoff. As a direct result, far less water than usual is available for cities, farms, and natural ecosystems. The water that could be conserved as a direct result of replacing inefficient plumbing fixtures in all residential and commercial buildings in the state can provide both immediate relief to cities, farmers, homeowners, and businesses to cope with the current drought and permanent water-supply reliability benefits for the state.

Thus, the present circumstances in California, coupled with the potential to use the water savings from complying with the requirements of SB 407 for other beneficial uses, render the continued use of inefficient plumbing fixtures in pre-1994 buildings a waste and unreasonable use of water.

Factor #2: Whether the Excess Water Serves a Reasonable and Beneficial Purpose

The excessive use of water from inefficient plumbing runs to the sanitary collection and treatment systems, adding to treatment costs. Furthermore, in most coastal communities, the excess water is discharged into the ocean, precluding further beneficial use. Because the excess water used by inefficient plumbing fixtures in most localities does not serve any beneficial use, it therefore constitutes waste and unreasonable use.

¹⁹ WRD 1600 at 24.

²⁰ *Id.* at 25.

²¹ Order WR 2012-0004 at 7.

Factor #3: Probable Benefits of Water Savings

For this factor, the Board considers the probable economic, environmental, and other benefits that would result from the more efficient use of water.²² Replacing all the inefficient toilets that remain in single-family homes could save roughly 90,000 acre-feet of water per year. Adding savings from showerhead and faucet replacement, and taking into account multifamily and commercial buildings as well, savings could reach over 150,000 acre-feet per year. Hence, the probable benefits from requiring retail water suppliers to demand replacement of inefficient plumbing fixture upon a change of customer account weigh in favor of concluding that the continued use of inefficient plumbing fixtures in pre-1994 buildings constitutes waste and unreasonable use.

Factor #4: The Amount of Water Reasonably Required for Current Uses

For this factor, the Board considers the amount of water that is reasonably required for the current beneficial use.²³ If there are conservation measures available to reduce the quantity of water needed to serve existing beneficial uses, then such conservation measures should be utilized. Water-conserving plumbing fixtures provide the same level of utility as inefficient plumbing fixtures. Because water-conserving plumbing fixtures can work just as well as inefficient ones, the continued use of noncompliant plumbing fixtures in pre-1994 buildings constitutes waste and unreasonable use.

Factor #5: The Amount and Reasonableness of the Cost of Saving Water

The fact that water conservation may require the water user to incur additional expenses is no justification for continuing wasteful or unreasonable practices.²⁴ The determination of whether the cost of a conservation measure is reasonable must consider the financing resources along with the value of the water to be conserved.²⁵ Water-efficient toilets and showerheads on the market today, which meet the requirements of SB 407, command little or no price premium over less efficient products as the most basic water-efficient toilets retail for \$100 or less. Moreover, these water-efficient products frequently pay for themselves in savings on water and energy bills in a short period of time.²⁶ The minimal costs to implement the proposed emergency drought regulation, coupled with the potential cost savings as a result of reduced water use, weigh in favor of the Board concluding that the continued use of inefficient plumbing fixtures in pre-1994 buildings constitutes waste and unreasonable use.

²² WRD 1600 at 26.

²³ *Id.*

²⁴ WRD 1600 at 27 [*citing People ex rel. SWRCB v. Forni*, 54 Cal. Appl.3d 743 (1976)].

²⁵ *Id.*

²⁶ For example, a four-person household replacing two 5 gallons of water per flush toilets could expect to save about 26,000 gallons of water per year. At a retail water cost of \$3.25 per 1,000 gallons (about average for Southern California), the cost to purchase and install two basic toilets would be recovered in less than five years, and about half that time for customers paying volumetric rates for their sewer service as well. Moreover, if the costs of fixture replacement at property transfer are wrapped into the mortgage financing of the purchaser, the replacement would be immediately cash-flow positive for the purchaser.

Factor #6: Whether the Required Methods of Saving Water are Conventional and Reasonable Rather than Extraordinary

The Board holds that conformity with local custom should be considered in evaluating reasonableness of use although conformity with local custom does not *alone* preclude a finding of waste in appropriate circumstances.²⁷ With respect to non-compliance with the requirements of SB 407, this factor weighs against a finding of reasonableness because since 1992, California law²⁸ has required all new plumbing fixtures to be water-efficient. Therefore, the continued use of inefficient plumbing fixtures in pre-1994 buildings in the state constitutes waste and unreasonable use.

Factor #7: The Availability of a Physical Solution

For this factor, the Board considers whether there is a physical solution available by which the needs of competing water users can be met.²⁹ If such a physical solution does exist, then the constitutional goal of promoting the maximum beneficial use of the state's waters will be served by adopting it, so long as other water users and in-stream uses are not adversely affected.³⁰ In the case of water waste from inefficient plumbing fixtures, a physical solution not only exists but also is clearly outlined in SB 407. In order to reduce water waste from inefficient plumbing fixtures, all inefficient plumbing fixtures should be removed from existing residential and commercial buildings and replaced with water-conserving fixtures as defined in the state's building codes for newly constructed properties. Because a physical solution exists to conserve water from noncompliant plumbing fixtures, the continued use of inefficient fixtures in pre-1994 buildings constitutes waste and unreasonable use.

Legal Authority for Retail Water Suppliers to Adopt Plumbing Retrofit Regulation

Pursuant to Section 31024 of the California Water Code, all public water agencies have the ability to adopt their own set of regulations governing their terms of service. In addition, Section 1101.8 of the Civil Code explicitly authorizes a retail water supplier or local government to "enact local ordinances or establish policies that promote compliance with" SB 407. Therefore, retail water suppliers clearly have the authority to adopt such ordinances or regulations to promote compliance with SB 407.

Furthermore, water suppliers have a responsibility to prevent the waste of water by their customers during periods of drought or other emergency situations of threatened or existing water shortage.³¹ Therefore, if the Board finds that continued use of inefficient plumbing fixtures constitutes waste and unreasonable use, this will further bolster each water supplier's authority to take additional affirmative steps to eliminate this current form of water waste.

²⁷ *Id.* at 28; Cal. Water Code § 100.5.

²⁸ SB 1224 (Killea), Chapter 1347, Statutes of 1992.

²⁹ *Id.* [citing Peabody v. Vallejo, 2 Cal2d 351, 383-384 (1935), Waterford Irr. Dist. v. Turlock Irr. Dist., 50 Cal.App.213 (1920), People ex rel. State Water Resources Control Board v. Forni, supra, 54 Cal.App.3d at 751-752].

³⁰ WRD 1600 at 28-29.

³¹ Cal. Water Code § 31026.

Conclusion

As discussed above, replacement of inefficient plumbing fixtures has been long recognized in California as a type of water conservation strategy. Thus, the Board's authority to adopt the proposed emergency drought regulation can be grounded in the need to advance water conservation. Moreover, in applying the Board's seven-factor test to evaluate whether a type of water use constitutes waste and unreasonable use, the factors weigh in favor of the Board finding that the continued use of non-water conserving plumbing fixtures in pre-1994 residential and commercial buildings constitutes waste and unreasonable use of water in violation of the California Constitution. As such, pursuant to SB 104 and Governor Brown's April 25, 2014 Executive Order, the Board should issue an emergency drought regulation that would require retail water suppliers, alone or in collaboration with other water suppliers and/or local governments within their service area, to develop and implement a local enforcement strategy to achieve the replacement of inefficient fixtures required by state law. At a minimum, each retail water supplier should adopt procedures to ensure that all inefficient plumbing fixtures have been removed and replaced with water-conserving fixtures whenever there is a change of customer account for a pre-1994 building. Such a requirement should be deemed necessary to promote water conservation and to prevent the waste and unreasonable use of water because it will require water suppliers to take additional measures this year to accelerate the replacement of inefficient fixtures *in advance of SB 407's 2017 and 2019 deadlines*, thereby ensuring that the state's water-saving goals are met in time.

ATTACHMENT B – PROPOSED REGULATION FOR CUSTOMER LEAK NOTIFICATION

Sec. ___ Mandatory Customer Leak Notification by Urban Water Suppliers

- (a) The term “urban water supplier,” when used in this section, refers to a supplier that meets the definition set forth in Water code section 10617, except it does not refer to suppliers when they are functioning solely in a wholesale capacity, but does apply to suppliers when they are functioning in a retail capacity.
- (b) To promote water conservation and to prevent waste and non-beneficial use of water, each urban water supplier shall provide notice to a customer whenever it obtains information that indicates that a leak may exist on the customer’s side of the meter.
- (c) Each urban water supplier shall monitor its system at least annually for customer-side leaks by implementing one or more of the following measures:
 - 1. Acoustic monitoring of water meter, and if leak sounds are heard, the water supplier staff will check connection points on both district side and customer side;
 - 2. Onsite meter reading comparisons of current and prior meter readings to detect for atypical water usage;
 - 3. Customer billing analysis to detect anomalies in billing and/or high consumption; or
 - 4. Any other method submitted to and approved by the State Water Resources Control Board.
- (d) Whenever information obtained under paragraph (c) indicates that a leak may exist, the urban water supplier shall alert the customer of a possible leak by means of a door hanger or other contact methods including, but not limited to, written notice, telephone, and e-mail.
- (e) If consumption has not reduced during the next routine meter read, the urban water supplier shall alert the customer again.
- (f) The urban water supplier shall advise customers that it is their responsibility to fix the leak but may provide any guidance and assistance needed for the repair.

ATTACHMENT C – ADDRESSING THE SHORTCOMINGS OF AB 1420

All applicants and parties receiving funding must meet statutory requirements for State grant recipients, including those laid out for urban water suppliers in AB 1420 regarding the implementation of water demand management measures (DMMs). DWR’s responsibilities in this regard were further underscored by Governor Brown’s April 25 Executive Order.¹ NRDC recently reviewed DWR’s list of water suppliers that it had found to be eligible for state funding based on DMM implementation. As of late June, this list included just eight agencies. (DWR certifications are only good for 12 months, so agencies that submitted documentation more than 12 months ago must reapply.) However we found that four of the eight that DWR had recently found eligible were facially not implementing at least one of the “foundational” BMPs that are required of all urban water suppliers. We then checked the coverage reports prepared by the California Urban Water Conservation Council (CUWCC) for these four agencies and found numerous inaccuracies there as well.

We found similar discrepancies with the CUWCC coverage reports for a group of six retail water suppliers that NRDC selected for review of urban water management plans and DMM implementation nearly a year ago. Each of these six provide sanitary sewer service to retail customers, each of the six provide sewer service with flat, non-volumetric charges for some or all customer classes inconsistent with BMP 1.4 Part 2, yet five of the six received “On Track” designations for BMP 1.4 in their coverage reports from the Council. The CUWCC has never actually assumed the responsibility to “certify” compliance of signatory members with BMPs. However, the generation of coverage reports appears to be similar enough to certification that it may be confusing or misleading. Given the inaccuracies and inconsistencies we’ve found in this review, Council-generated coverage reports cannot be seen as an adequate foundation for DWR to use in determining DMM implementation and state funding eligibility under AB 1420.

DWR’s own forms for urban water suppliers to certify their DMM implementation are out of date and inadequate. Nevertheless, DWR has an affirmative obligation to enforce the requirements of current law, independent of actions that may or may not be taken by the CUWCC. DWR should promptly revise its AB 1420 certification forms sufficient to capture all necessary elements of DMM implementation. And DWR will need to commit sufficient resources to more effectively examine the self-certified claims of urban water suppliers seeking State funding. To do otherwise removes a potentially powerful incentive for water suppliers to implement water efficiency measures, and is unfair to water suppliers that are diligent in their implementation of DMMs.

Additionally, the standard language of funding agreements used to date fails to incorporate specific requirements to implement demand management measures as a condition for funding, nor provide for the restitution of funds if required DMMs are not implemented.

¹ “5. All state agencies that distribute funding for projects that impact water resources, including groundwater resources, will require recipients of future financial assistance to have appropriate conservation and efficiency programs in place.” Ca. Exec. Order (April 25, 2014), available at <http://gov.ca.gov/news.php?id=18496> (“Governor Brown Issues Executive Order to Redouble State Drought Actions”).