



UTILITY CONSUMERS' ACTION NETWORK

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Mr. Bailey:

Ask yourself whether the following scenario is acceptable.

A responsible water customer who uses 10 HCF of water each month cuts back his usage by 50 percent. His water bill is reduced by only 1/3.

This highly efficient customer now uses only 5 HCF each month. Over half of his water bill is a fixed fee that is not tied to water use.

This highly efficient water customer pays approximately \$37 a month for water, while his equally efficient neighbor on the other side of the highway who is served from an adjacent water agency pays less than \$12 a month for the same amount of water.

His wildly wasteful neighbor next door, on the other hand, uses four times as much water as he does each month, but his water bill is only 2½ times as high.

If this is a scenario that you think is inappropriate for San Diego, let alone, any water utility in the desert Southwest, then you need to take action. Because not only it is highly inappropriate pricing of an increasingly scarce commodity, but it is illegal.

California's *20x2020 Water Conservation Plan* (20x2020 Plan), or Senate Bill X7 7, requires the state to reduce per capita urban water demands by 20 percent by the year 2020. This means that on average, households will need to use 1/5 less water than what they are currently using. Retail agencies, including the City of San Diego's Public Utilities Department, are obligated to develop a strategy and adhere to this plan to be eligible for certain statewide grants and loans. The 20x2020 Plan recommends agencies "provide a forum for stakeholder advice on refinement and

implementation” regarding their 20x2020 strategy. *20x2020 Water Conservation Plan* (2010). To achieve the 20x2020 demand reduction, the Utility Consumers’ Action Network (UCAN), respectfully advises the City Water Utility to implement an allocation-based, or water budget, rate structure.

One of the most effective tools for achieving reduction in water use is an agency's water rate structure. The current rate structure of the City Water Utility (City) does not encourage conservation. In fact, it not only discourages conservation but it actually encourages water waste. Moreover, it violates California’s Proposition 218 (hereinafter “218”), which sets limitations on the collection of water rates and fees. In order to comply with 218 and meet the 20x2020 Plan, the City must adopt an allocation based rate structure.

Over two years ago, UCAN made a formal request to the City to adopt a more accurate pricing scheme that rewarded water-smart customers. Such a structure is feasible, as many local water agencies similar to San Diego have implemented one. This structure is also affordable, as the initial costs will be recovered through conservation savings. Our request fell upon seemingly deaf ears. San Diego no longer has the luxury of continued parching as the City fiddles.

In this letter, we outline a plan to implement allocation-based rates by which the City can comply with current law and begin rewarding those customers who do the “right thing” by treating water with the respect that it deserves.

II. **Background**

At the urging of UCAN and the Independent Rates Oversight Committee (IROC), the City had agreed to investigate a restructuring of water rates to promote conservation by sending a stronger price signal to customers. The restructuring effort was one of the City’s Action Plan Items as stated in the Management Response to the FY2008 IROC Annual Report issued on October 7, 2009. At the January 2010 IROC meeting, the Interim Public Utilities Director, Alex Ruiz, made a presentation on the rate restructuring study. He addressed alternative pricing structures, including additional tiered rates, more steeply tiered rates, and an allocation-based, or water budget approach for single family residences. Initial plans were to incorporate a rate restructuring into the planned 2011 Cost of Service Study. However, it now appears that a Water Department rate increase may not be necessary in 2011 and the Cost of Service Study will be postponed.

The postponement of this Cost of Service Study should NOT stop progress on the rate restructuring effort. UCAN has contacted consultants who perform rate studies and confirmed that a rate restructuring effort to promote conservation should ideally be performed as a revenue-neutral study, *separate* from a rate increase Cost of Service Study. Furthermore, a water rate restructuring to

promote conservation will make customers' bills more dependent on water use than they are under the current rate structure, and will reduce water bills for low-volume water users. This would benefit many seniors on fixed incomes and others who, despite reducing their water consumption, are struggling to pay their ever-increasing water bills. Sound policy judgment and simple common sense dictate that the City capitalize on this opportunity and implement conservation rate pricing BEFORE any future rate increases go into effect.

III. **The Current Rate Structure Does Not Encourage Conservation**

San Diego's current rate structure for single family residential customers consists of (1) a fixed fee for fixed costs that is independent of water use (base fee); and (2) a three-tiered inclining-block rate that fluctuates based on the amount of the customer's water use (commodity charge). This base fee (individually) and the rate structure as a whole disincentivize water conservation. Together they will hinder the City's efforts to comply with the 20x2020 Plan and work towards water independence.

a. **The City's Base-Fee Discourages Conservation**

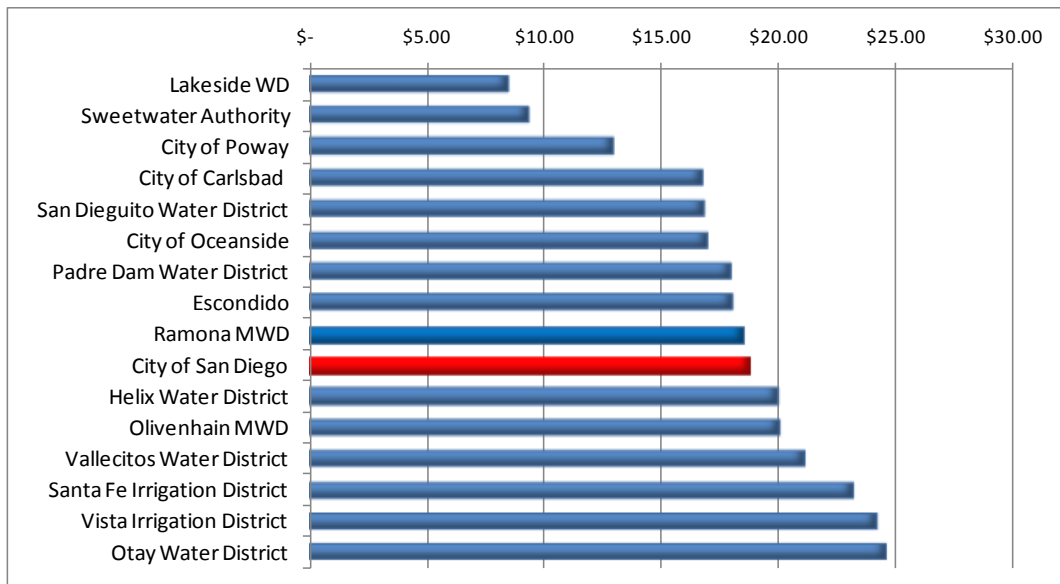
Fixed charges – such as the City's water base fee – do not encourage conservation. Utilities can increase conservation by lowering fixed charges and increasing charges based on how much water is used. This allows water users to make consumption decisions based on a more accurate accounting of the benefits of using less water. In 2007, the California Urban Water Conservation Council established specific guidelines for what constitutes a conservation rate. To meet California's conservation rate criteria, at least 70 percent of the monthly utility revenue must come from volumetric commodity rate revenue. (McLarty and Heaney 2008). The City's reported average residential water consumption rate is 14 HCF per month. The base fee makes up a larger proportion of the bills of customers who conserve water and consume less than the average water user. Residential customers using half the average will have a commodity charge that is only 56 percent of their bill, as opposed to at least 70 percent, as it should be. A reduction in the base fee will be necessary to achieve conservation pricing.

Not only does the base fee take up too large a portion of the water bill, but it covers costs that it should not. The American Water Works Association's (AWWA) Manual 1, Principles of Water Rates, Fees, and Charges (2000), states that the fixed charge should recover costs *solely* related to customer accounting, meter reading, and meter servicing. According to the most recent City of San Diego Cost of Service Rate Study, in addition to the AWWA recommended costs, San Diego's fixed base fee includes a portion of the capital costs for system peaking. The capital costs related to system peaking include costs for distribution mains and storage facilities to supply water at higher than average flows in response to peak demands. These costs should not be covered by the base fee. Removing these extra costs would decrease the base fee and increase the revenue from

commodity fees, resulting in a more equitable rate structure that effectively incentivizes conservation. AWWA suggests that a revenue stabilization fund be used to balance the need for conservation and the need for revenue stability (AWWA 2000).

The chart below provides a comparison of monthly fixed charges for residential customers in the larger member agencies of the San Diego County Water Authority. While the City of San Diego is approximately in the mid-range for fixed charges, note that the Lakeside Water District and Sweetwater Authority have significantly lower fixed costs. Sweetwater Authority completed a cost of service study in January 2010 which strictly adhered to AWWA methods for setting fixed charges. The result is that their fixed readiness-to-serve charge (base fee) was reduced by 63 percent. Rate restructuring in the Lakeside Water District has also reduced their fixed costs relative to commodity fees, resulting in a fairer and more equitable rate structure, especially for low-volume users. It is noted that the Vallecitos Water District has a “frugal” discount which reduces the base fee by 20 percent if monthly water use is less than 5 hundred cubic feet (HCF). This discount is not reflected on the chart.

Comparison of Fixed Monthly Charges for a 5/8 inch Residential Meter



Charges based on December 2010 fee schedules; UCAN Water Project, www.UCAN.org/water

b. The City’s Rate Structure as a Whole Discourages Conservation

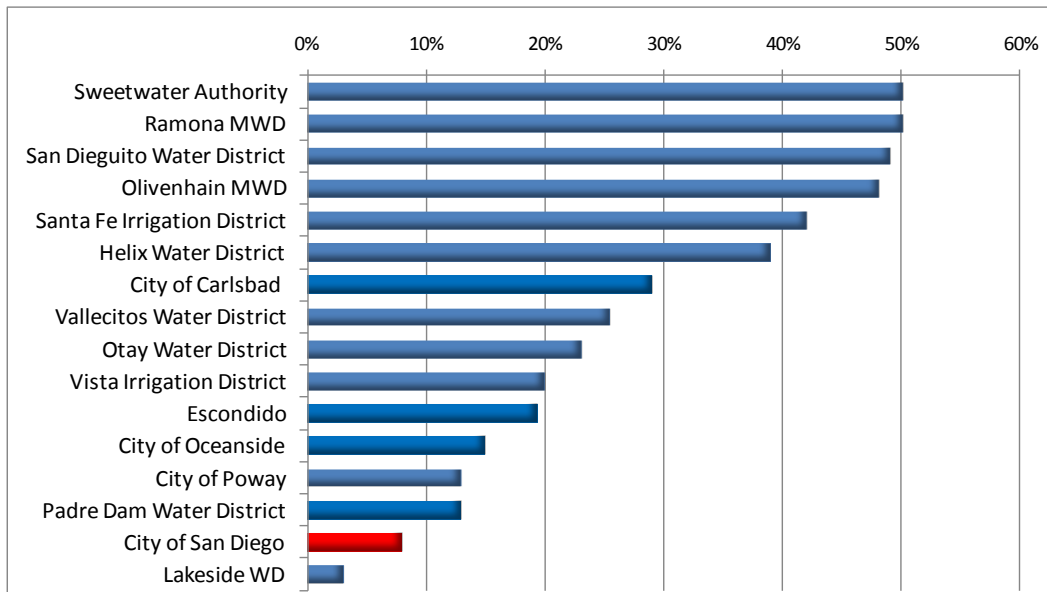
In order for an inclining block water rate structure to be effective, the rate difference between tiers must be sufficient to provide an economic incentive (a price signal) to use water efficiently. The Alliance for Water Efficiency (<http://www.allianceforwaterefficiency.org/>), a stakeholder-based

non-profit organization dedicated to the efficient and sustainable use of water, provides the following recommendations for conservation rates:

- A large portion (two-thirds or more) of total water charges are based on the quantity of water the customer consumes;
- Three to four separate price blocks;
- A first price block that is set so that minimum water usage is provided to a typical household at a reasonable price;
- A price that increases from block-to-block by greater than 50%.

When rates increase by 50 percent from one block to the next, customers think twice before using more water. They try harder to conserve so that they do not get bumped up into the second or third block which charges a higher rate. While the City’s current tiered rate structure is comprised of three rate blocks, the price difference between blocks is inconsequential. As a comparison, the chart below provides the price difference between the first and second tiers of the larger member agencies of the San Diego County Water Authority. While several agencies approach or meet the Alliance for Water Efficiency recommendation of 50 percent, the City of San Diego has the second lowest price differential at 8 percent. It is noted that the price difference between the second and third tiers for the City of San Diego is only slightly better at 12 percent.

Residential Commodity Rates - Percent Difference Between First and Second Tiers

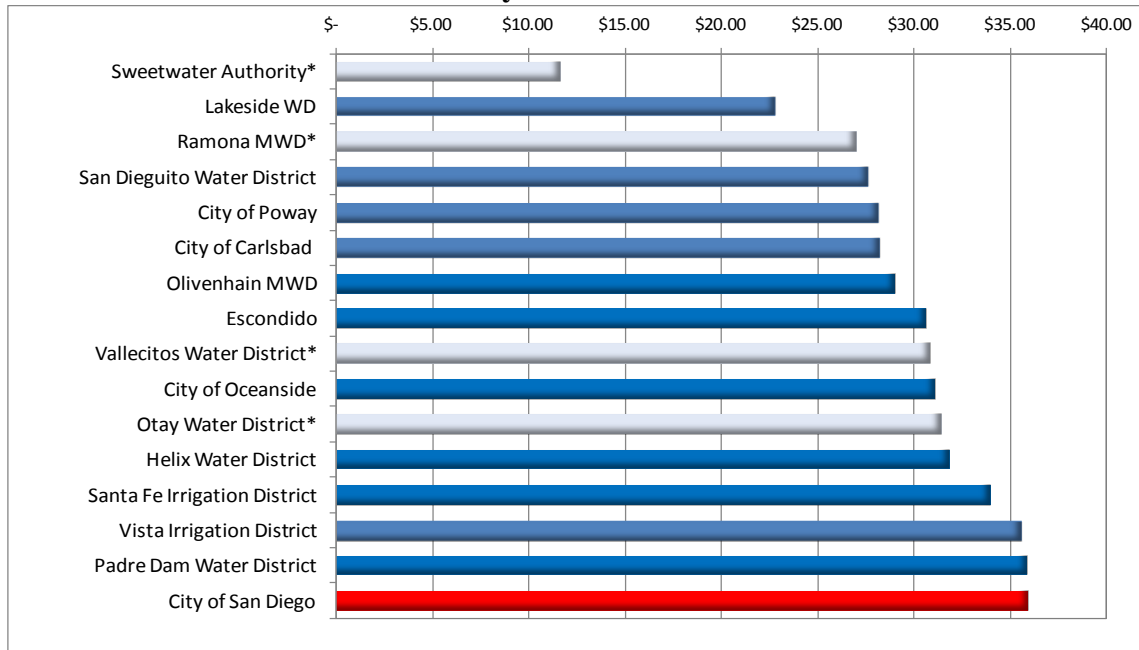


Charges based on December 2010 fee schedules; UCAN Water Project, www.UCAN.org/water

The combination of a high base fee and relatively flat tiered commodity rates results in the City of San Diego having the least affordable water for households that conserve the most. Seniors on fixed incomes and low-income households that limit their water use out of necessity to indoor water consumption will typically use much less water than average. Yet these low water users will pay

more for their water if they live in the City of San Diego than if they live in neighboring water districts. The chart below shows the monthly charge for customers in several San Diego County water districts using 5 HCF of water, which is approximately 36% of the City’s average water use of 14 HCF. It is noted that four of the agencies provide a “frugal” discount or lifeline rate if monthly water use is at or below 5 HCF.

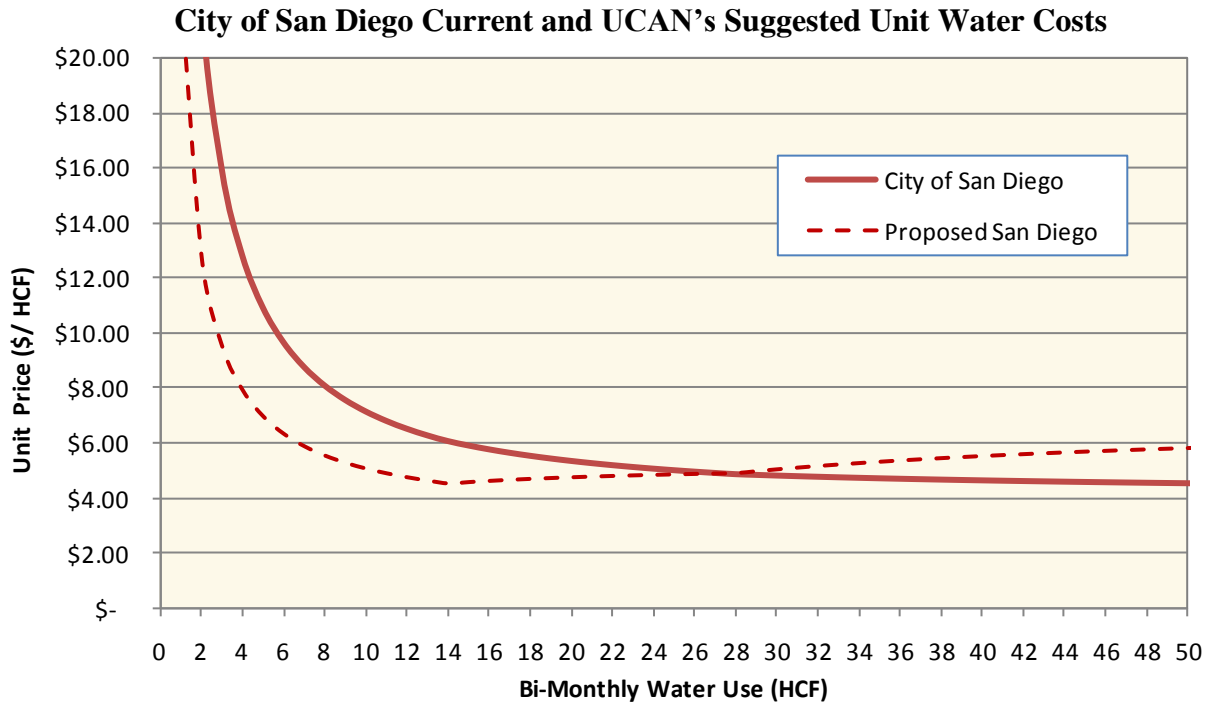
Monthly Water Bill based on 5 HCF



Charges based on December 2010 fee schedules; UCAN Water Project, www.UCAN.org/water

* Cost reflects “frugal” or lifeline discounts for low water use

The relationship between water rates and water use is highly influenced by the law of demand. As the per-unit price of a good or service decreases, the quantity demanded tends to increase. The City’s existing water rate structure actually encourages customers to increase consumption, as when both the base fee and commodity charge are combined, the per-HCF cost of water decreases with increased use. The following chart shows the City’s unit water costs for various levels of consumption, and also provides an example of proposed unit costs that are achievable with a lower base fee and more steeply tiered commodity rates. Note that for the proposed rates, the unit cost of water remains approximately the same at the average water consumption rate.



IV. The Current Rate Structure Violates Proposition 218

Proposition 218 sets rules for rates and fees and applies to the City’s water rates. This includes both the commodity fee and the base fee. (*Bighorn-Desert View Water Agency v. Verjil* (2006) 39 Cal. 4th 205, stating “all charges for water delivery... are charges for a property-related service, whether the charge is calculated on the basis of consumption or is imposed as a fixed monthly fee”).

Under 218, the rates charged to a water customer cannot exceed the proportional cost of providing that customer’s water service. In other words, the fee that the City charges for water may not exceed the cost of providing that water. The City’s current rates violate this rule, as the inclining block water rate does not appear to bear any “rational relationship,” to the true cost of service. The City’s 2006 Water Cost of Service Rate Study recommended that the City continue its tiered rate structure without calculating the cost of the City’s conservation efforts or the systemic cost of water waste. The tiered rate structure was continued based on this recommendation. There has been no clear relationship established between these specific costs and the additional revenue generated by the higher tiers.

V. The City Must Adopt an Allocation-Based Rate Structure in Order to Comply With Proposition 218 and Meet its Conservation Goals

In an allocation-based rate structure, a basic use allocation (water budget) is established for each customer account. Each water budget is an estimate of the reasonable water use for a given

property, and is based upon factors such as the number of occupants, the size of lot or irrigated area, climate and seasonal data, and the type or classification of use. Cal. Water Code § 372. Each customer pays tiered or inclining rates based on this use allocation. Customers who exceed their reasonable use allocation pay higher rates which include a “conservation charge,” while those whose use reflects “more than reasonable conservation efforts” pay lower rates. Cal. Water Code § 372. The prices for the tiers must “be established in an ascending relationship that is economically structured to encourage conservation and reduce the inefficient use of water.” Cal. Water Code § 372.

Allocation-based rate structures are generally seen as superior to inclining block rate structures and are perceived as being fairer by water customers. Customers benefit from a clearer and more equitable relationship between those who create costs and those who pay for them. Customers also benefit from better information, which allows them to make better decisions regarding their consumption.

Allocation rates are also better than inclining block rate structures for water agencies. Such rates provide a practical method with which to address supply limitations by giving the City a tool to ensure that each and every customer has a rate structure that rewards conservation. (*Water Budgets and Rate Structures – Innovative Management Tools, AWWA ppt presentation, DeOreo*). This is especially important in San Diego, where it has been established that conservation is considerably less expensive than purchasing additional water or finding new alternative water sources to meet increasing demand. *San Diego’s Water Sources: Assessing the Options, Equinox Center (2010)*. Furthermore, the City of San Diego has a limited and fixed supply of cheap, local water. Any reduction in demand will reduce the ratio of imported water to local supply, and thus reduce the overall water supply cost. An allocation-based rate structure also gives utilities better tools for managing customer demand. This can lead to improved cash flow stability, and can be used to reduce demand during droughts and to monitor customer compliance with drought restrictions. (*Water Budgets and Rate Structures – Innovative Management Tools, AWWA ppt presentation, DeOreo*).

Allocation-based rates are being adopted by an increasing number of California cities. Agencies that have allocation-base rates include:

- Los Angeles Department of Water and Power (LADWP)
- Eastern MWD (cities and unincorporated areas in south Riverside County) Rancho California Water District (Temecula and Murrieta)
- The Corona Department of Water and Power
- The Valencia Water Company
- El Toro Water District (Laguna Hills, Mission Viejo, Aliso Viejo, Lake Forest and the City of Laguna)

- Moulton Niguel Water District (Aliso Viejo, Laguna Niguel, Laguna Hills, Mission Viejo)
- Irvine Ranch Water District (City of Irvine, Newport Beach, Lake Forest and unincorporated areas of south Orange County)
- City of San Clemente
- Monterey District Tariff Area
- City of Santa Rosa
- City of San Juan Capistrano
- Helix Water District – *proposed* (La Mesa, El Cajon, Lemon Grove and unincorporated areas)

The implementation method for allocation-based rates varies considerably by agency. For residential customers, most agencies calculate a budget for indoor water use based on the average per capita water consumption and assign a default value for the number of occupants in each household. A budget for outdoor water use is based on the lot size, and some agencies incorporate more detailed calculations to determine the net irrigated area, considering the square footage of the house and paved areas. Several agencies assign a default budget for outdoor water use that is applied to smaller lots, with more detailed calculations used only for larger lots. The Helix Water District has proposed a water budget only for lots larger than one-half acre. Water budgets also consider seasonal weather variations and climate zones. Eastern Municipal Water District, which has a very large service area with a variety of terrain and climate zones in Riverside County, has established 50 micro zones and uses daily Evapotranspiration (ET) values for each zone to establish the monthly water budget. At the opposite spectrum, the LADWP has fixed water budgets for three temperature zones and two watering seasons, high and low. The City of San Diego will need develop a water budget approach that considers its resources, customer base, and water use reduction goals.

a. Allocation-Based Rate Structures Comply With Proposition 218

Unlike San Diego’s current inclining-block rate structure, allocation-based rate structures *prima facie* comply with 218. In response to widespread hesitation by utilities to implement conservation rates because of possible 218 violations, in 2008 the California Legislature passed AB 2882, which carves out a 218 safe haven for allocation-based rate structures. This safe haven only applies to allocation-based rate structures that meet the following criteria:

- The rates establish a basic use allocation for each customer account that provides a reasonable amount of water for the customer’s needs and property characteristics. (Water Code § 372(a)(2)).
 - This allocation may be based upon occupancy, the type or classification of use, the size or lot or irrigated area, local climate and billing data, and/or other criteria. (Water Code § 372(a)(2)).

- c. The rates impose a basic charge on all water used within the customers' basic use allocation. (Water Code § 372(a)(3)).
- d. In order to encourage conservation, a utility may apply a lower rate to water use that represents "superior" or "more than reasonable" conservation efforts. (Water Code § 372(a)(3)).
- e. In order to create an incentive against waste, the rates may apply a conservation charge upon increments of water use in excess of the basic use allocation. The prices for the lowest through highest tiers must ascend, so that higher tiers are associated with higher rates. The tiers must be economically structured to encourage conservation and reduce the inefficient use of water. (Water Code § 372(a)(4)).

Note that inclining block water rates such as San Diego's do not establish individualized base use allocations for each customer, and as such do not fall within the AB 2882 safe haven.

There is no excuse for the City to not implement an allocation-based rate structure. The size and complexity of the City of San Diego should not be a deterrent, as cities similar and more complex than San Diego, such as Los Angeles, have implemented such a structure. Since there is so much flexibility as to the type of allocation-based rate structure that can be implemented, the City can pick and choose a type that would be the most practical and make the most sense for it to implement. For example, if it is too administratively unwieldy to calculate the irrigated area on each lot from aerial photos, water budgets for outdoor use can be assigned per a lot size range (LADWP), calculated from the lot size and building area (El Toro Water District), or assigned a default budget for smaller lots, while budgets for larger lots are calculated based on more factors (San Juan Capistrano).

Some customers might resent their neighbor being allocated more water than them just because they have a larger backyard, or they may not believe water is being allocated fairly. However, if they are educated through community meetings and other outreach methods, they will come to understand that this is the only legal tiered system allowed, it is the fairest, and it will help them make wiser, more educated choices regarding their water use.

The cost of implementing an allocation-based rate structure should also not prevent this from going forward. As previously mentioned, it has been established that conservation is considerably less expensive than purchasing additional water or finding new alternative water sources to meet increasing demand. *San Diego's Water Sources: Assessing the Options*, Equinox Center (2010). From the data we have seen, customers start conserving right away once an allocation-based structure is adopted. And again, the City of San Diego has a limited and fixed supply of cheap, local water. Any reduction in demand will reduce the ratio of imported water to local supply, and

as a result, reduce the overall water supply cost. Thus, the cost of implementing an allocation-based rate structure will be made up through the savings of having to buy increasingly expensive water.


VI. Conclusion

Thus, in order to meet the 20x2020 Plan and ensure Proposition 218 compliance, UCAN advises that the City:

- Adopt an allocation-based rate structure as soon as possible to:
 - ensure that bills for low water use customers are more dependent on water use than under the current rate structure;
 - provide price incentives that reward conservation by sending a strong price signal at all water use amounts;
 - distribute water costs fairly and equitably per the American Water Works Association (AWWA) water rate guidelines;
 - meet the City's obligations under the 20x2020 plan; and
 - ensure compliance with the legal requirements of 218
- Perform a revenue neutral study that will have revised rates in place before the next series of City-driven price increases.

This is a time sensitive matter, as the longer the current rate structure is in place, the longer Proposition 218 is being violated and the longer residential water customers are being discouraged from conserving water. We have concluded the City's actions are contrary to law and will be taking action by mid April if we don't hear back. Thus, we would appreciate a written response at your earliest convenience.

On behalf of UCAN,



Bianca Garcia
UCAN Water Project Manager