

WASC Proposal ID: Smallman: Water Conservation Accounts

*The Water
Conservation
Accounts Plan*

Created By: Bill Smallman, P.E.

Introduction

There is no question that an enormous amount of water could be conserved with some added improvements and/or changes in the way we use water at home. We have seen this during droughts, and applaud everyone for doing their part for conserving water. Problem is this is only temporary. When the rains come back, people stop using some of their conservation tasks because they are labor intensive. Having specialized plumbing, grey water systems, drought resistant landscaping, etc., is a substantial investment. But with this investment, people conserve water even in wet years, because it is no longer labor intensive. How can we give even more incentives to get these conservation improvements installed on the majority of homes in the County?

Conservation Accounts

I got this idea from serving as a Director for the Lompico County Water District and being a homeowner interested in installing water conservation improvements. I am not sure if this has been attempted anywhere. It basically would increase incentive for homeowners aside from rebates and lower water bills. These accounts are means to put more money in the hands of the consumers so that these improvements get installed in a large percentage of homes. During droughts, many people do an enormously good job in conservation. The goal of this is to get improvements made so that conservation is a day to day easy task, and is done even in wet seasons. For example, during this drought, I have been putting a bucket in the shower, collecting the water, and then using it to flush the toilet. I'd prefer to either have a flash hot water heater next to the shower, or clever hot water piping, or have the water piped to a tank above the toilet. The list of these improvements is long, and people are coming up with many new ideas and inventions. It also includes installing drought resistant landscaping and rain catchment systems. There is no one size that fits all, so the homeowner is the perfect judge to decide which system will work at his or her home and lifestyle. This will provide an economic boost for local contractors and suppliers for this work and materials required.

So, the idea is simply this: Each water agency shall show a special account on a line on each invoice. This account will accrue money from a percentage of the billing. The water agency shall also apply for grants for this program to help build these accounts.

Example: Steve has a \$1,000 conservation account balance shown on his water invoice. This motivates him to install a grey water system which will work well in his house and lifestyle. He goes and spends \$1,500 and submits all his paperwork and/or proof that he used a contractor who has been approved by the water agency. The water agency sends him a check for \$1,000. A negative balance of <\$500> shows on the invoice. This continues to accrue money and go to positive for additional conservation improvements at his house.



Change in how we Charge for Water

We need to change how we charge for water. All water agencies charge a base rate then charge extra for additional water on a tier system. They also count on this money to run their agency. When people start conserving during droughts, the Water Districts don't have enough money. I believe we need to slowly increase base charge was enough to run the agency, and start using more and more of the high water use charges toward conservation improvements. Part of the money could go toward capital improvement for the water agency, and also into these conservation accounts. Eventually there will be widespread conservation improvements furnished and installed from the money of high water users.

Implementation

All of the water agencies would have to create a resolution to create these accounts. The exact structure of how they would work, and how the accounts would accrue money, would have to be developed by each agency. Each agency would also have to apply for grants for the program.

An Important Consideration

It also depends on where you live to determine which conservation improvement is best for you. For example, I live in a rural area, and I could collect about an average of 30 gallons a day of grey water. I don't have a large garden, but I could use all of this water for it, and not use any tap water. Many rural residents seem to not have large gardens, because they already live in areas with natural landscaping. They do not have to add landscaping, just clean up the natural grounds. Someone who lives in the City however, is likely to be connected to the sewer collection system. It would help to recycle grey water, but keep in mind, this water could also be recycled at the plant. It may be wiser for the City dweller to invest his or her money into drought resistant landscaping, or rain catchment instead. Their house is on an improved lot, so landscaping needs to be added.

Effectiveness, Practicability, Environmental and Community Considerations

- **Effectiveness:** We have had rebate programs and the tier water billing system for years, and they are proven to be not be very effective. When there are droughts, and people are asked to conserve and they do, Water Districts are put in the awkward position of not having enough money. Conserving and recycling water is part of contributing to a sustainable water system, and people can do this at home, on site, using less energy and more environmentally friendly way. We spend billions on doing the same thing away from the house, but we have the mindset that is somehow different. Fact is, when people know they have money to spend on something, they spend it- so I believe this is far more effective pushing conservation, other than a drought.
- **Practicability:** I believe this is the most practical way to change the billing so that there is always enough money to run the agency, and the other money goes towards conservation.
- **Environmental Considerations:** There really is no environmental negative impact with this plan. People will conserve and recycle more water at home, which means less environmental impact of collecting, storing and treating water outside the home, which does have negative environmental impacts.
- **Community Considerations:** This will also cause a needed economic boost and an increase in jobs for the community for doing this work and providing materials. Water agencies can create a list or preferred contractors, suppliers and consultants, promoting higher quality of work and maximize conservation efforts.