

Date: February 29, 2008

To: Mayor of Claremont

From: Nicole Scheunemann, Pitzer College

Subject: Public Policy Proposal: Ensuring Water Sustainability in Claremont through Water Conservation Regulations

Problem: Water availability in Southern California is a huge problem whose solution is buried under highly fragmented politics. Water misuse is rampant in the Los Angeles Area. The entire area was built on the lie that it was a tropical paradise, while thousands of acre-feet of water were being pumped in support it. Los Angeles is home to about 10 million people though the natural water supply can only support 1 million. The Los Angeles phenomenon is an amazing feat of human ingenuity, but it is highly unsustainable.

It is important to understand where the water comes from to comprehend why the continued level of use is dangerous. One third of our water use comes from rivers, creeks, lakes and groundwater, many being polluted or overdrawn. There are three aqueducts providing water to the area: The Los Angeles Aqueducts, Colorado River Aqueducts and the Californian Aqueducts. The Los Angeles Aqueducts have sucked the lakes and groundwater tables dry enough to severely affect the native plants and animals. The Colorado River Aqueducts allocates 16.5 million acre-feet of water to seven states and parts of Mexico, more than the average flow of the river. This causes the river to be entirely used up so that water rarely reaches the Gulf of California and has resulted in the loss of 95% of Baja's wetlands. The Californian Aqueducts are also over-allocated and have resulted in the degradation of the delta and wetlands in between Sacramento and The Bay Area. The Los Angeles Area is using borrowed water without a way to repay it. The Los Angeles Basin produces a small amount of water for the amount that is being used here. There are projected shortages at each of the aqueducts.

To add onto the problem of the overuse of water, the politics of its use are highly complex. Water is a public entity, yet, it is owned and distributed by private companies. Those companies do not have incentives to conserve water because it cuts into their profits. The companies buy water to resell to the consumers, however when the consumer conserves water it goes back to the companies. Within the current system it is profitable to resell it to someone else. It is often resold to developers, increasing the problems involved in water scarce landscape. Within this system the water not used is not left in its natural place or ecosystems but is used to further exacerbate environmental degradation.

Solutions: The problem of water use in Los Angeles requires many policy changes and also changes in the ways consumers view water availability. The proposal will cover policy changes for the town of Claremont located at the base of the San Bernardino Mountains. Claremont's water comes from the Claremont Water District and also the Metropolitan Water District which is the manager of the Colorado River Aqueducts. These sources of water are over-allocated, and there are no other places to get water, so the only way to reach for sustainable use of water is to conserve and reuse it. Water is used in many unsustainable ways in which simple conservation is necessary. In order to create incentives for the consumers to conserve water a progressive rate will be put in place. Each household will be allotted a specific amount of water use, extrapolated by the

amount of local water available. An inclining block rate will make each increment of water used over the limit have a greater cost. The common practice in California as of now is to have a flat rate or a declining block rate. The money spent by households going over the limit will not go to the water companies, but back into the community in the form of subsidies and kickbacks. This means that the water company will receive all of the money it would have originally by the flat rate, however when a household increases water use up one block the extra money that they are paying goes to a fund for subsidies for water saving practices. An inclining rate will decrease the water demand that Golden State Water Company supplies for and will therefore decrease the amount of water supplied by the company. A higher number of subsidies will be granted to low income households.

Subsidies can be applied for a multitude of water efficient practices:

- One example is in landscaping. Fifty to seventy percent of the water used residentially goes towards landscaping. Southern California has remade its environment into a tropical paradise, when really it's a dry landscape receiving only 15-20" of rain per year. Subsidies would be paid to people taking out their lawns, planting drought tolerant plants, and removing pools or hot tubs.

- Toilet flushing accounts for almost a third of indoor water use. To decrease this amount installing no flush or ultra low-flush toilets will be required after a home is sold, and subsidies will be available to people who want to replace their toilets.

- Low-flow shower heads, water efficient washing machines and dish-washers would cut down on over 25% of indoor water use. Discounts on these will be made more available through subsidies.

- Discounts will be available every two years for water audits, buying new meters, and for leak detection and repair.

- Installing grey water systems, using reclaimed water, water catchments systems

In addition to subsidies, there will be other measures taken through regulations in the selling of homes, classroom syllabi, and development:

- All homes sold must have leak detection and repair.

- Meters must be installed on all new connections.

- Water billed based on volume of water use.

- All schools will be encouraged to have teachers discuss water use and conservation in their classrooms. These discussions will explain about the subsidies available and allow students to take back information to their families about how to apply and the different technologies and techniques available to conserve water.

- All new developments must be required to prove that they have sufficient on-site water for the project. That means that they cannot import any water from outside the land used for development.

- New buildings will require no flush toilets, low flow sinks, zero water used in landscaping, grey water and catchments systems. If concrete is installed, it must be porous to allow water back into ground.

The goal will be using completely local water sources. If the city could xeriscape entirely as well as replace all inefficient household appliances, 75% of the water would be conserved. Claremont's aquifer could come close to sustaining life here if better water practices are used.

Resources: In preparing my proposal, I consulted with John D. Sullivan, Professor Emeritus of Political Studies, Pitzer College, and Emil Morhardt, Roberts Professor of Environmental Biology, Professor of Biology, Claremont McKenna College. I used the book "Managing Water: Avoiding Crisis in California" by Dorothy Green for data on water use in California and management practices. I looked at the Claremont General Plan and a LA Times article, "Channeling Mulholland", Feb 25, 2008. I met with Matthew Geller, environmental law consultant and Tessa Hicks, our project coordinator.