Department of Water Resources,

Thank you for giving the people this opportunity to weigh in on the MWELO plan and taking action. We are Grow Water, a Sacramento based nonprofit that is dedicated to the education and implementation of regenerative land use/ design. Rainwater harvesting in earthworks or cisterns, greywater and the teaching of our local history, which we like to call “Story of Place,” are just a few of our specialties. Please visit our site, www.growwater.org to see pictures and get more details.

Sitting in the meeting, it was brought up that the MWELO used “trendy” words with no definition. You see above we use the word “regenerative.” In our talks, we define that as: “A landscape that is resilient in the face of drought, flooding, and other climatic extremes. That can harvest and generate it’s own resources on site while generating benefits to the community and greater watershed.” Our thoughts on the use of “regenerative” terminology in MWELO are this: It is a great concept, but one that we have found difficult to convey simply. We explain to the average person as, “a landscape that’s resilient in the face of climatic extremes.”

You were asked to define “watershed based approach” as one of your “fancy” terms at the meeting. We define it as an approach to design that places high emphasis on cost-effective, lot-level strategies that replicate predevelopment hydrology and reduce the impacts of development. Watersheds are people sheds. As a homeowner or professional, thinking needs to shift where each home, business or public right of way must be managed like a subwatershed that impacts the greater watershed that we all share. In times of drought we have meetings on how to save our water, and in times of flooding we have meetings on how to save the leeves and our homes. A resilient system addresses both issues.

Greywater was mentioned on a few occasions and in the MWELO packet there’s just two sentences provided. We see this as an integral part of a resilient, complete design that should be addressed at greater detail. Rain patterns come and go with one real wet season in California. Greywater is a constant source of water that could be used outdoors in place of potable water irrigation. For example; a household can send up to 2,500 gallons of water a year (or more)from their laundry machines to their landscape, while an average family of 3 taking 5 minute showers with 1.5 gpm flow could send 8,190 gallons of water into their landscape reducing the need of potable water for irrigation needs. If Sacramento were to install 10,000 greywater systems at home level, that would allow the reuse of 100,000,000 gallons of water that wouldn’t be needed for landscaping needs, and saving potable water. This can be easily achieved through education and professional training. New home development, in an ideal world, would have the stub outs mandatory for greywater. It’s also time we start looking at our Air Conditioning units, especially industrial/ business complexes, as a potential source of greywater during dry months. In the bay area, a wonderful group called Greywater Action, has completed a residential study that addresses soil health, salinity issues, plant health, client satisfaction, water savings and much more. Here is the link:
http://greywateraction.org/residential-greywater-system-study/

Another source of unutilized greywater would be in our business and public sectors. Since MWELO doesn’t address these items, we will just let you imagine how much water could be utilized in a landscape from 100’s of people washing their hands or large Air Conditioning units running 12 hours a day. We have seen large exposition centers in Arizona that, by collecting the buildings AC condensation alone, are able to harvest 1,000’s of gallons of water a day and utilize it for landscape irrigation. (www.sacramentogreywater.com)

In our public right aways, public parking areas, business and exposition areas, hardscapes absorb and radiate heat, raising temperatures in the summer months and cause flooding, pooling, and non point source pollution during the wet months. With a resilient LID (Low Impact Development/ Green Infrastructure) approach, we can protect our watershed, and developments by utilizing a variety of practices that mimic or preserve natural drainage processes to manage storm water. LID practices typically retains rainwater and encourages it to soak into the ground rather than allowing it to run off into ditches and storm drains where it would otherwise contribute to flooding and pollution problems. By addressing runoff close to the source, LID can enhance the local environment and protect public health while saving developers and local governments money. (www.sacramentolid.com)

It is difficult to break these pieces down, one at a time, and in isolation from one another as they are all pieces that make up a greater, integrated whole. Quibbling over decimal points, and sprinkler droplet sizes misses the point, and is equivalent to shifting deck chairs on the Titanic. Our state is in danger, and we have not developed, landscaped, or managed our watershed in a way that can be construed as " sustainable." Our once thriving ecosystems and watersheds have been replaced and overpowered by concrete, dams, levys, dikes, inappropriate agricultural practices, and eastern and european eco-scapes that by nature are degenerative in a climate like California. It would be a true pity to see a global hotspot such as California lose its rich biodiversity and function because of poor management, and a loss of our "sense of place."

Another factor in the resilience of these systems is in reducing our energy and carbon footprint. 30% of California's energy consumption is used in pumping, moving and treating water, and over 50% of residential water use is in outdoor irrigation. By allowing rainwater to slow down, spread out and infiltrate into the landscape, utilizing greywater, managing soil, planting local native plants and other climate appropriate plants, etc., we can reduce energy consumption, build better soil, reduce flooding, generate onsite organic matter, create shadier, cooler living spaces, sequester carbon,mitigate non point source pollution, etc. thus reducing the energy intensive importation of resources (ie. pumped, treated, potable water, trucked in, non local organic matter, mined fertilizers, etc.) This single objective touches so many different areas of Water, Energy and Carbon reduction it is beyond "sustainable," but it is resilient / regenerative.

Thank you for taking the time to read our email. We hope to continue an open dialogue with DWR and all others that would like to discuss a resilient design approach. In Southern California Andy Lipkis of Tree People is making great progress in California, showing the potential of a "watershed approach" with incredible demonstration sites such as Elmer Ave. They have now brought in Watershed Management Group from Tucson Arizona who has been teaching and implementing these water harvesting and green infrastructure strategies, creating a resilient watershed model that is being implemented (now mandated) in their city. Grow Water trained under Brad Lancaster and the Watershed Management Group, and early next year, we will start our water harvesting accredited course under the guidance of Watershed Management Group here in Sacramento. In October we're bringing Brad Lancaster to Sacramento to speak to city officials, water districts and the general public on water harvesting strategies and how the regenerative design of these systems work beyond just water usage. Grow Water staff has been trained and certified in water harvesting, greywater systems, and integrated ecological design. We also have training in stream and creek restoration and LID practices.

We would like the opportunity to have DWR partner with us on our road to local, and regional resilience. In a few months we will be teaching workshops with the California Native Plant Society and DWR with curriculum that we contributed to and look forward to strengthening a working partnership with DWR. Please use us as a local resource and email or call us anytime.

We understand that you must have 100's of emails and 1,000's of pages to read and go through especially from large manufactures and multi million dollar corporations that can be largely affected by a resilient design model, though this model could create thousands of new jobs in harvesting/ ecosystem industries, keeping the average Californian working. Through education, we can empower people to make the right choices.

Thank you,

Chris Lopez and Rodger Sargent
Grow Water