

## **ACONA Meeting Notes**

March 4, 2014

After introductions, the following topic was discussed: **Drought**

### **Foreboding Weather: Live it up while you can**

Robert Haw, Senior Member of the Engineering Staff, SMAP Project, JPL

Extreme weather events and the climate crisis

What is weather? It varies by the hour, day, and season.

What is climate? It's the weather patterns averaged over a long time -- decades, centuries.

Rob showed a video of average global temperatures from 1884 to 2011, indicating a vast warming trend.

### **Extreme weather events**

- Bitter cold weather in the East, worst drought year in California, 96° in Alaska, fish freezing in Europe. Typhoons in the Philippines and Taiwan. Flooding in Pakistan. Cedar River, Iowa: two floods. Massive flooding in Australia. Heavy rains two years in a row in Colombia. Four-story floods in Korea.
- Munich Re, one of the two largest re-insurance companies in the world, attributes this to climate change.
- Heat being released is like 400,000 Hiroshima A-bombs every day.
- As CO2 levels increase, so does global temperature. Oceans become more acidified. Rob's record of temperatures in Altadena for the last 20 years shows an upward trend. Summer temperatures over the last three decades show a dramatic shift toward warmer temperatures. A new extreme heat color had to be added in Australia to their temperature map. Plastic water bottles were melting in the heat.
- Where is heat going: glaciers are melting. Climate change is affecting the water cycle. Atmosphere is 4 percent more humid than it was four years ago. That may seem counterintuitive, but: More heat, more evaporation, more humidity but dryer land, bigger dust storms, expanding deserts. Rivers are drying up. Bigger wildfires. Global food price spikes due to devastating crop losses.

### **Debunking anti-climate change myths**

Myth: Volcanoes emit more CO2 than humans

Reality: Humans emit more than 200 times more than volcanoes

Myth: Sunspots are causing the temperature rise

Reality: Solar activity has diminished.

Myth: Scientists models are in error

Reality: Multiple independent lines of physical evidence demonstrate that climate change is real.

### **What you can do**

Capture sunlight and water at home.

Drive less.

Insulate your home.

Plant drought-resistant lawns.

Be conscious of your water use and find ways to use less. (Examples: Do you let the water run while you brush your teeth? While you wash your hands? While you shampoo your hair?)

Advocate for a change in federal policy on carbon emissions.

## **Alternate Water Systems**

Carlos Borja, Chief Environmental Specialist, LA County Dept. of Public Health  
Chief of Cross Connection & Water Pollution Control Program

## **Alternate Water Systems**

- Rainwater/stormwater harvesting/catchment: rainwater is not pure water; varies in quality according to where/how it falls. Municipalities are making proposals for harvesting rainwater.
- Recycled water: waste water that has been treated on a municipal level to be used for irrigation.
- Graywater: Graywater has been approved for many years. It's been in the plumbing code but implementation rules were strict. Rules have been relaxed. Using graywater would help recharge the water table. Graywater can't be stored because it turns septic very quickly.
- Urban run-off: Santa Monica is working aggressively to capture all urban run-off water in the city.
- Industrial sources of water: ice melt, cooling towers (if chemical-free, could be used for irrigation after salts are removed, but there are no codes to allow this).

## **Why Public Health cares**

Alternate water systems are non-potable. Drinking water needs to be safeguarded. Alternate water sources used for irrigation cannot be plumbed to interface with the potable water supply.

Permits: Yes/No? Not for clothes washers, but there are rules. There must be a diverter to switch from irrigation to the sewer system, for example. Must be discharged beneath mulch (for example, or other groundcover) to protect animals. Must not be allowed to pool and stand.

## **Q&A**

Mike Davidson, Global Water Resource Management Consultant

If you want to make a dramatic impact on climate change, stop drinking bottled water.  
The Anthropocene: proposed name for the geological epoch we're in now, greatly dominated and affected by humans.

Concern: Roundup and other weedkillers in runoff and groundwater.

No one has accurate data on how much water people use each day.

Useful sites:

[www.graywatercorps.com](http://www.graywatercorps.com)

[www.laundry-to-landscape.com](http://www.laundry-to-landscape.com)

[www.rainbarrelsintl.com](http://www.rainbarrelsintl.com)

[www.bewaterwise.com](http://www.bewaterwise.com)

[www.citizensclimatelobby.org](http://www.citizensclimatelobby.org)