

## **commentletters**

---

**From:** Noel Bouck <noelb@sonic.net>  
**Sent:** Monday, February 15, 2016 8:21 AM  
**To:** commentletters  
**Subject:** Wastewater uses



*Noel Bouck  
3000 Joy Road  
Occidental, CA 95465  
707-874-2767*

*February 14, 2016*

[commentletters@waterboards.ca.gov](mailto:commentletters@waterboards.ca.gov)

### **Comment letter- General Order for Recycled Water Use**

#### **Dear State Water Board Members:**

As a microbiologist with a Yale PhD, I am concerned about your desire to recycle large amounts of wastewater to extend limited potable supplies. What concerns me is the probably unintended consequences of authorizing this without more study.

There are currently about 85,000 chemicals registered for use, and almost none are regulated. At least 1000 have endocrine disrupting characteristics whereby exposure to minute amounts, especially by children, have been demonstrated scientifically to cause a multitude of serious health problems. Furthermore, impacts on fish may be even more devastating, and when people eat the fish, they may have a dual exposure to a whole range of disease causing substances.

Wastewater treatment systems bring together a huge range of chemicals, including cleaning products, pharmaceuticals, personal care products, building products, and much more. Merged together in the wastewater, it is unknown how they combine to form new, and sometimes more dangerous compounds. Sometimes, two benign substances can react to become a toxic substance. Unfortunately, toxic substances have been found to remain in even the most highly treated wastewater.

As a member of the Salmon Creek Watershed council that acts to enhance the run of coho salmon in our watershed, I am concerned about tertiary wastewater irrigation runoff ending up in our waterways, potentially putting fish and their food at serious risk. The Order claims that if wastewater meets "Title 22" standards and all other applicable laws intended to protect public health, then recycled water is safe for approved uses, including the irrigation of food crops, and spraying of children's parks and schools, etc. Yet none of these regulations address endocrine disruption, nor most toxins, nor the pesticides that runoff from the wastewater application. It is notable that even organic vegetables can be irrigated with wastewater.

Furthermore, these projects would be operated in the summer time, when flows may be extremely low because of drought when our creeks have limited ability to rid themselves of remnant nutrients or toxins in the wastewater. .

State Panel Scientists have not adequately addressed the 'low dose affect', which has been demonstrated in peer-reviewed studies to sometimes have highly toxic results. Instead, the State Panel has made a premature, and inadequately considered determination that it is safe to irrigate urban landscapes with tertiary wastewater without even monitoring the impacts of these toxins.

**I beg of you, please do not authorize this Order in its current form.**

Sincerely,

