

commentletters

From: Wendy <wlk@sonic.net>
Sent: Thursday, February 18, 2016 1:40 PM
To: commentletters
Subject: General Order for Recycled Water Use



Dear State Water Board Members:

I am copying below the comment letter prepared by the Russian River Watershed Protection Committee, because I support this letter and echo their concerns.

I'm particularly concerned about pharmaceuticals in tertiary treated recycled water. So many Americans take drugs regularly and it is well known that much of this medicine passes through the body and into our sewers. We know these drugs have powerful effects but have no idea what the long term effects of mixtures of drugs will have on all life forms they are in contact with.

Europe and other countries utilize the Precautionary Principle. Until substances are proven safe, they are not allowed to be widely used. And we already know that many toxic chemicals are in wastewater.

Use of recycled water should be strictly limited and monitored.

Thank you for considering our comments.

Sincerely yours,
Wendy Krupnick
4993 B. Occidental Rd.
Santa Rosa, 95401

Because of major drought, the State Water Board's desire to recycle large amounts of wastewater to extend limited potable supplies is understandable, as is preparation of the State Water Board's *General Order for Recycled Water Use* to streamline the process for developing new projects. Yet I am concerned about possible 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. **Toxic substances have been found to remain in even the most highly treated wastewater.**

I am concerned about tertiary wastewater irrigation runoff ending up in our waterways, potentially putting recreating humans, residing fish, wildlife and aquatic life 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 and the water body may have no assimilative capacity of remnant nutrients or toxins in the wastewater. Summer is also the time when humans are most likely to have direct contact with the wastewater through recreational activities. While health departments are very concerned about pathogens, they almost totally ignore toxic exposures.

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.

Please do not authorize this Order in its current form.

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