

CAR.Committee

From: Wendy Wiltse <420keani@gmail.com>
Sent: Friday, September 11, 2020 10:45 AM
To: CAR.Committee
Subject: Testimony for 9/14 Climate Action and REsilience Committee
Attachments: Testimony9.14.20.docx

Please see attached.

Mahalo,
Wendy Wiltse, Ph.D.
President, Oahu Waterkeepers

To: Kelly King, Chair
Climate Action and Resilience Committee
From: Wendy Wiltse, Ph.D.
President, Oahu Waterkeepers
Date: September 11, 2020

Subject: TESTIMONY FOR SEPTEMBER 14 MEETING OF THE CLIMATE
ACTION AND RESILIENCE COMMITTEE REGARDING "PROTECTION OF THE
NATURAL ENVIRONMENT"

Thank you Committee Members for the opportunity to testify on the matter of protection of the natural environment provided by National Pollution Discharge Elimination System (NPDES) and Underground Injection Control (UIC) Permits issued by the Hawaii Department of Health (DOH).

I am currently President of Oahu Waterkeepers, a non-profit focused on working for clean water. Although I am now retired, I was employed as a scientist by the US Environmental Protection Agency for over 30 years, based in Hawaii on Maui and Oahu for 25 years. At EPA I worked on both Clean Water Act and Safe Drinking Water Act Programs and have a broad knowledge of regulatory programs to protect drinking water and surface waters. I also hold a Ph.D. in Marine Science. I know and respect Darryl Lum and Norris Uehara from my work with DOH.

An important difference between the NPDES permits under the Clean Water Act (CWA) and UIC permits under the Safe Drinking Water Act (SDWA) is that the CWA protects beneficial uses of water bodies, including protection of marine life where the SDWA protects only human health for drinking water sources. UIC protects human health; NPDES protects human health and marine life.

CWA-NPDES	SDWA - UIC
Goal: Protect "beneficial uses" of waters, including marine life	Goal: Protect human health for drinking water
NPDES Maximum Concentration Allowed	UIC Maximum Concentration Allowed
Nitrate - 0.005 mg/L	Nitrate - 10 mg/L
Copper - 0.0029 mg/L	Copper - 1.3mg/L

UIC permits can be less stringent than NPDES permits because they do not take into account the protection of marine life. The above table compares NPDES and UIC in terms of maximum allowable concentrations of two important pollutants. Nitrogen is a fertilizer that can cause excess algal growth and Copper is toxic to some marine

life. The maximum allowable (safe) concentrations of both nitrogen and copper are orders of magnitude higher under the UIC program than for NPDES. We think that drinking water is very pure and safe, but the fact is that marine organisms live in, eat, breathe, and reproduce in the marine water and are way more sensitive than humans to some pollutants.

Another way that NPDES protects marine organisms is the Whole Effluent Toxicity (WET) Test. The WET test assesses the toxic effect of wastewater by measuring a typical organism's mortality, impaired growth, or reproduction when exposed to the wastewater. This is implemented in Hawaii permits by a sea urchin fertilization test. The purpose of the test is to determine if the wastewater impedes fertilization of sea urchin eggs. The WET test as a component of NPDES permits insures that the wastewater, including its soup of chemicals, is not directly harmful to marine life.

When the Committee considers protection of the natural environment under NPDES and UIC programs, it is important to note that wastewater has been demonstrated to harm corals at Lahaina. Therefore it is critical for Maui to recognize that only the CWA and NPDES programs aim to protect marine life.

I understand DOH may consider a hybrid UIC-NPDES permit for Lahaina. They have the authority to do this. It is critical that the permit include WET test requirements, and CWA pollution limits that are protective of aquatic and marine life.