In recent years, California has tightened rules for reporting diversions of water for agriculture and other uses. One key challenge has been establishing workable standards for the collection of reliable data on relatively small and remote diversions — such as those for far-flung farms and ranches. Under new legislation, a certification program run by UC Cooperative Extension (UCCE) is helping to solve that problem.

The State Water Resources Control Board views accurate diversion reporting as a key element of sound water management. "It's incredibly important to monitor how much water comes into and goes out of the system," says Kyle Ochenduszko, chief of water rights enforcement at the water board. Diversion reports are fed into a state database and support the orderly allocation of water resources by, for instance, enabling the board’s Division of Water Rights to inform water users when new requests to appropriate water might affect their own supply.

Since 1966, the California Water Code has required diverters of surface water, with certain exceptions, to report their diversions to the water board. But in part because the water board lacked fining authority for many years, compliance was poor. In 2009, Senate Bill 8 gave the water board the authority to fine noncompliant diverters an initial $1,000, plus $500 for each additional day of failing to report.

Even so, SB 8 did not stipulate precisely how diversions were to be monitored. Rather, it required diverters to measure their diversions using the “best available technologies and best professional practices,” unless they could demonstrate that such technologies and practices were not locally cost-effective. That is, the requirement left wide latitude for interpretation. So things remained until 2015 — when Senate Bill 88 became law. This piece of legislation, passed amid a historically severe drought, directed the water board to draw up emergency regulations regarding water diversions. The regulations, once completed, required diverters of at least 100 acre-feet of water per year to hire an engineer or appropriately licensed contractor to install all monitoring devices.

Now the requirements were clear. But the provision mandating installation by an engineer or contractor prompted an outcry from many smaller diverters, particularly those in remote areas of the state.

For most diverters near sizable towns — Redding, say — complying with the regulations was manageable, with expenses limited to the cost of a monitoring device and the services of an installer. But diverters in remote parts of Modoc County, for example, were looking at bigger bills, says Kirk Wilbur of the California Cattlemen’s Association. For such diverters, compliance might require importing an engineer or contractor from far away, which would entail significant travel expenses. If a site lacked electricity, as many do, the costs would pile higher (electricity can be necessary in diversions that include a flow meter, or in data transmission from areas without cell service).

So how to reconcile the interests of the state’s diverters with those of the state? How best to balance the public and the private good?

The answer, it turned out, was to empower diverters to install their own monitoring devices — with UCCE playing the empowering role. The idea originated with the Shasta County Cattlemen’s Association. It gained

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**NEWS**

Do it yourself: UCCE workshop eases reporting of water diversions

For ranchers and farmers in remote locations, monitoring water diversions can present special challenges — that a new course helps overcome.

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A diversion site in Modoc County. A 2017 piece of legislation allows water diverters who complete a course offered by UC Cooperative Extension to install their own monitoring devices.
LETTER

Re: Soil- and waterborne *Phytophthora* species linked to recent outbreaks in Northern California restoration sites by Matteo M. Garbelotto, et al. (vol. 72, no. 4, October–December 2018)

WHAT DO YOU THINK?

The editorial staff of *California Agriculture* welcomes your letters, comments and suggestions. Please write to us at: 2801 Second Street, Room 184, Davis, CA 95618, or calag@ucanr.edu. Include your full name and address. Letters may be edited for space and clarity.

I am curious if any researcher has linked the inadvertent introduction of *Phytophthora* to restoration areas to the current practice of using dead plant tissue (compost) as part of the growing media.

If the plant material is grown in a sterile highly permeable mineral media, such as mined pumice, *Phytophthora* organisms will not be promoted. Organic media eventually, if not immediately, promote *Phytophthora* when utilized as a growing medium. As organic substrate particles continue to decompose, the permeability of the medium decreases. The decomposition also consumes oxygen creating conditions perfect for *Phytophthora*.

In agriculture the hydroponic researchers realize the importance of promoting adequate oxygen levels in the rootzone. In floriculture the same concerns have been addressed. They are aware that dead (or alive) organic matter anywhere in the rootzone or irrigation system can result in oxygen levels that are too low for ideal root health.

Horticulture has to follow suit.

Gary Matsuoka
Laguna Hills Nursery

Matteo Garbelotto, UC Cooperative Extension specialist and adjunct professor at UC Berkeley, responds:

*We published a paper in *California Agriculture* in 2015 on the risks of using products that are in between true compost (which is normally truly *Phytophthora*-free) and mulch (see volume 69, issue 4; http://calag.ucanr.edu/archive/?article=ca.v069n04p237). Also, we have found that soil and mulch used for trail-making can be chock full of *Phytophthoras*, and we are alerting stakeholders about the risks of using these two media. Your comments were right on.*