

# Water:

Continued from Page A1

When the port is facing potential trouble with its wastewater, farmers receiving the water get a call from the port.

Madison said such conversations start with Miff Devin, its water specialist.

## The water permit

The port's first permit from DEQ to discharge water onto area farmland came in 1974. Since then, that government permission to dump nitrogen-rich water has been modified and renewed dozens of times.

Now, the permit requires port officials to monitor every step in the process to detect and track nitrogen and nitrate. That duty falls to Devin.

He was hired by the port in 1998 as an IT specialist. In 2011, he added water quality specialist to his duties.

He took on both roles when the port automated its water system.

"How a pump works is basically a giant computer, and then that evolved," Devin explained.

As water quality supervisor, he is tasked to ensure the port is within environmental regulations from DEQ, the Oregon Health Authority and Oregon Water Resources Department. Part of his job is to develop ways to improve and maintain water quality, according to the port.

Each day, the port records the nitrogen levels in the wastewater and how much goes out to area farms. Its state permit restricts how much water can go out given the amount of nitrogen in it and what crops it will be applied to. The amount allowed on a field of onions is different from the amount that can go onto alfalfa.

With those reports, crop testing and yearly soil sampling, DEQ can track how much nitrogen goes out, how much the crops are taking in and, potentially, how much nitrate is leaching into the groundwater. The port contracts outside companies for soil and crop testing and reports their findings to DEQ.

For most of the port's permit history, such reports including hundreds of pages of data on daily nitrogen levels and water discharge amounts to each farm, would be sent quarterly or annually to DEQ. Violations could be detected in the monthly averages for water nitrate levels and the amount that went out.

Regulators typically review those compliance reports only when permits get modified or renewed "due to staffing shortages and



**Jake Madison crouches in a field of alfalfa, a long-rooted crop that can absorb more nitrogen than shallow-rooted crops such as corn and wheat. Along with water from the Columbia River, the Echo farm sprays nitrogen-rich water pumped from processing plants at the Port of Morrow to a holding pond at the farm.**



Kathy Aney for Oregon Capital Chronicle



**Four industrial parks with data processing centers, an ethanol plant and food processors surround the Port of Morrow in Boardman.**



Kathy Aney for Oregon Capital Chronicle

prioritization," according to Laura Gleim, a public affairs specialist at the department.

The reports were submitted in hard copy until 2017 and subsequently electronically. DEQ officials said they routinely were stored and then reviewed in detail when it was time to update the permit. Specialists otherwise look at reports "as they can" outside of those renewals and modifications, Gleim wrote in an email.

The port's permit expired in 2006, but DEQ officials let the agency run on it, largely unchanged, for the next 11 years.

According to Gleim, more than half of the permits DEQ has for wastewater discharge issued in the state are on "administrative extension."

Under the conditions of its permit, the port was required to alert DEQ if a violation had occurred or appeared imminent. According to records of correspondence between the port and DEQ, this was communicated by Devin and, until recently, the port's long-time executive director, Ryan Neal, who died in January, had managed the port since 2018.

## A history of violations

And year after year, the port dumped illegal amounts of nitrogen-rich water, according to violations documented by the DEQ.

In the last decade alone, the port applied at least 628 tons of excess nitrogen to area farmland.

The DEQ repeatedly imposed modest penalties

— if any at all — and usually made no public announcements about the violations to alert people like Guadalupe Martinez and her family. Through the 10 years ending in 2017, the DEQ fined the port just once for over applying nitrogen — \$129,000 — less than 2% of the port's revenue in one year from food processors for handling their wastewater.

DEQ records showed Devin on occasion did alert the agency when storage ponds were nearing capacity but no document released under a public records request showed he directly alerted regulators over the thousands of times the port was pumping excess nitrogen onto area farmlands.

"We never felt like we were technically out of compliance," Devin said.

The port's current executive director, Lisa Mittelsdorf, agreed.

"I think that we've had growth, and regulations have changed at the same time, and I think we're both still studying the science," she said. "Not everyone comes to the same conclusions."

In 2017, port officials announced a plan to install new equipment that could remove some of the nitrogen and create more storage. But by 2021, just part of the infrastructure had been built and none of it was functioning.

According to DEQ records, the port continued to dump illegal amounts of nitrogen-rich water. But reports documenting more than 1,000 violations in those

## WHAT IS NITRATE?

Nitrate is a naturally occurring chemical compound.

**Characteristics:** Colorless, tasteless and odorless.

**Uses:** Commonly used in fertilizers and in explosives. Human consumption: Nitrate occurs naturally at safe levels in some foods and can be in drinking water supplies at levels that pose no health risk.

**Limits:** The federal Environmental Protection Agency set the limit of 10 parts per million for nitrate in drinking water before it becomes unsafe to drink over long periods. Nitrate levels over 10 parts per million may result in serious health defects that can affect all ages, but are especially harmful to infants and pregnant women.

**Health risks:** Research from the National Cancer Institute reports that consuming water with nitrate up to even five parts per million over long periods of time can increase the risk of colon cancer, stomach cancer and several other cancers

years generated no immediate enforcement actions by DEQ. During that time, the port also failed more than 120 times to meet its obligation to monitor nitrogen at farm sites.

That changed in 2020, when port officials asked for state permission to spread the contaminated wastewater over more acres, so there was less potential for improper application on existing fields.

Reviewing the application for nearly a year, a DEQ specialist zeroed in on the daily water discharge amounts going from the port to the farms. In the four years since the port was last sanctioned, DEQ calculated that 165 tons of nitrogen above limits was applied to farmland over the aquifer supplying drinking water for up to 4,000 people.

DEQ's patience with the Port of Morrow was finally exhausted, according to Director Richard Whitman.

In January, DEQ fined the port nearly \$1.3 million and put out a sternly-worded public statement.

"The port is not doing its part," DEQ said in a public statement on Jan. 11.

"We're making a point — a serious point — with the port," Whitman said. "This is one of those situations where, if we see continuing non-compliance by the port, I think that the next step is going to court and seeking an order to curtail operations in some way. So we're at that point with this entity."

## No warnings for those who rely on wells

Meantime, the Martinez family sees no future but bottled water to live on day to day.

In the 18 years they have lived in their home about 6 miles from port headquarters, no one from the port or from any state agency came to

tell them about nitrate, to test their well or provide information and resources related to special filters that can remove the nitrate.

Such filters for an entire house can cost \$4,000 or more. A filter to go under a single sink costs from \$150 to \$250, and needs filter screens inside of it to be replaced every six to 12 months.

No state agency regulates the water quality in domestic wells that people like the Martinez family relies on. The Oregon Department of Environmental Quality, the state health authority and local governments share a duty to spread awareness about safe drinking water.

Gleim said DEQ has participated in annual outdoor schools to teach students about ground and surface water pollution, and periodically participated in community events such as Walmart Safety Day, Farm Fair and local gardening symposiums to get the word out about nitrate pollution.

OHA, with a nearly \$30 billion budget, said on its website that its mission is "ensuring all people and communities can achieve optimum physical, mental and social well-being."

Jonathan Modie, a spokesperson for the agency, said in an email that the agency "provides outreach and education to domestic well users statewide. Since resources for outreach and education of this nature are resource-limited, we have historically been unable to interact directly other than via our website, and through email and phone requests for information."

Modie noted the health authority provides information about nitrate pollution in Spanish on its website.

But after more than 30 years of known pollution in the Boardman area, the agency may be ready to act more aggressively.

"We are in the planning stage now to work with folks in Morrow and Umatilla counties," Modie said, "to conduct outreach and education, support water testing and water treatment solutions around nitrates in groundwater."

*Editor's Note: Oregon Capital Chronicle developed this story in collaboration with the Catalyst Journalism Project at the University of Oregon School of Journalism and Communication. Catalyst brings together investigative reporting and solutions journalism to spark action and response to Oregon's most perplexing issues. To learn more visit catalystjournalism.uoregon.edu or follow the project on Twitter @UO\_catalyst.*

# Stand:

Continued from Page A1

"I sadly have received that dreaded call for every sample submitted," Doherty said.

The maximum level for nitrates in water is 7 parts per million, he said, and shared the result of 25 samples. One sample was .33 ppm. The

second lowest was 8.24. The highest of that lot was 51.22 ppm. The average was 30.77.

The majority of the homes tested had nitrate filters, he said, albeit not generally the more expensive ones that work, but instead the more disposable, more affordable variety.

More alarming, he said, is what the residents reported on a questionnaire asking if they

had experienced any of a short list of nitrate-related health concerns.

"For a small sample, 70 tests to date, I was quite taken aback by the prevalence of persistent headaches, devastating cancers and failed pregnancies," Doherty said. "This weighs incredibly heavy on my heart as I search my soul and wonder if I had only started earlier, could I have

made a difference in these things?"

## A hill worth dying on

Correlating responses to the question with the extremely high nitrate results is almost impossible. But Doherty said he thinks it is "abundantly fair to suggest that in those numbers, the responses we got could certainly be attributed to the increasing

prevalence of high nitrates."

Policy making is about assessing what issues to address and how serious they are, Doherty said. And in this case, he said, it's about making a stand.

"This certainly is, 'a hill I am willing to die on,' Doherty said, "if only that my friends and neighbors don't face that literal peril."

Doherty also touched on

environmental justice. He said the very people who provide the labor force for the region are same people bearing the brunt the nitrate problem, yet they have been "discarded" from the environmental discussions, and they must have a voice in this.

"This is the missing community," Doherty said. "This is a barrier that we must eliminate."

2022

I ♥ Northeast Oregon

PHOTO CONTEST

Visit [eastoregonian.com](http://eastoregonian.com) and enter today!

LOOK! LOOK! LOOK!  
FRESH ARRIVALS!

2022 Chevrolet Trax  
\$26,170

2022 GMC Terrain  
\$40,330

Technician Wanted!  
Call Us Today

1740 Washington Baker City  
1-800-399-391  
[www.bakercitygmsales.com](http://www.bakercitygmsales.com)

BAKER GARAGE, INC.  
ESTABLISHED 1913