

The Register-Guard

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"The way we like to approach it is to help people do the right thing. ..." — KARL MORGENSTERN, EUGENE WATER & ELECTRIC BOARD

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EWEB examines herbicides in the watershed

The utility wades into the divide with environmental chemists to determine if herbicides are being transported from the air to the water. The utility is looking for herbicides in the water for 2007. Eugene water residents are looking for herbicides in the water.

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Spray: Timber companies take precautions

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— and that's the weight of active ingredients alone, before the chemicals are mixed with a delivery agent, company filings show.

"It's a large number, it's a big quantity," said Morgenstern, who analyzed the filings. "That's more than a tanker truck. That's, like, a couple tanker trucks."

But aerial chemical spraying on private land is a legal, decades-old practice among timber companies. Critics have persuaded many government agencies, including Lane County and the U.S. Bureau of Land Management, to cut back on spraying but have made scant headway in curbing spraying on private timberland.

Weyerhaeuser Co. spokesman Mike Moskowitz said applying spray by air is an essential practice in commercial timber production and pilots apply the herbicide with great care.

Weyerhaeuser plans to spray at least 5,232 acres in Lane County — including in the McKenzie watershed — between now and the end of the year, according to notices the company is required to file with the state.

"We have to apply them according to the federal and state laws, and those laws are designed to protect people's health and safety and the

FORESTRY HERBICIDES

Herbicides are most widely used herbicides in the 130,000-square-mile McKenzie River drainage. The U.S. Environmental Protection Agency measures toxicity on a scale of 1 (most toxic) to 5 (least toxic).

◆ **Imazapyr:** Rated 5 for toxicity. State researchers say there is no evidence it causes cancer. The chemical is water-soluble and highly mobile. Its half-life in soils (the time it takes for half of it to disintegrate) is 19 to 34 days.

◆ **Glyphosate:** Rated 2 or 3 for toxicity. State researchers say there is no evidence it causes cancer, but the Northwest Coalition for Alternatives to Pesticides points to studies that show a link with non-Hodgkin's lymphoma. Other studies link the chemical with genetic damage in mice and in human blood cells. It persists in water for 14 to 21 days and has a half-life in soil of 47 days.

◆ **Atrazine:** Rated a 3 for toxicity. It ranks as a possible human carcinogen. In animal studies the chemical was shown to disrupt hormone systems, reducing testosterone in male offspring and interfering with the nursing hormone prolactin. It is moderately toxic to fish and persists in water. It has a half-life of 100 days in surface layers of soil but can last for years underground.

◆ **Hexazinone:** Rated a 1 for toxicity. It ranks as "not classifiable" in its ability to cause cancer but has a high potential to cause eye damage in humans. It can be moderately toxic to birds and slightly toxic to honeybees. It is highly mobile and can travel through soil into water. Its typical half-life in soil is 90 days.

◆ **Triclopyr:** Rated a 3 for toxicity. It ranks "not classifiable" for cancer-causing potential but is acutely toxic and corrosive in the human eye. Rated 4, the chemical over two generations had smaller livers and smaller offspring. Some formulations are highly toxic to trout and salmon. It is highly mobile and can travel through soil into the ground and surface water. Its half-life in soil ranges from 79 to 361 days.

◆ **2,4-D:** Rated 3 for toxicity. It is not classifiable for its cancer-causing ability but its level of exposure has been linked to brain tumors and impaired nervous systems. It may be highly toxic to fish, shellfish, mollusks and fish. It persists in water for as long as 30 months. Its half-life in soils is 10 days on average. Source: Oregon State University Extension Service, Northwest Coalition for Alternatives to Pesticides.

environment," Moskowitz said.

Surgical application

Commercial timber companies use aerially applied herbicides to retard the growth of competing broad-leaf plants on clear-cut acreage that's been newly planted with seedlings.

They spray once just after harvest, once after the seedlings are planted and then — if needed — a third time the following year, all to allow young trees to get their crowns up above the brush, Moskowitz said.

"Then nothing happens for 40 years because when the trees start to grow we just leave it. It's not like we're spraying the same area all the time," he said.

Weyerhaeuser sprays chemicals such as triclopyr, imazapyr and sulfometuron-methyl for the same weed-control purposes that homeowners spray the dandelions in their lawns, Moskowitz said. Forest sprayers, however, use a much more diluted form of spray, he said. Spray drift is a major concern, according to U.S. Environmental Protection Agency documents. The EPA receives thousands of complaints about drifting aerial spray each year.

The Oregon Forest Practices Act, which regulates forestry on private land, requires pilots to leave a 60-foot buffer around significant wetlands, streams

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EDITORIALS & LETTERS

Regrowth at OSU

Dean to continue leading the College of Forestry

Taking a cue from a recent timber-salvage study by an Oregon State University College of Forestry graduate student, OSU has decided to allow the controversy-scorching school to recover on its own rather than to remove and replace the current leadership.

That could prove a wise decision — provided that Dean Hal Salwasser follows through on his promise to make the many changes recommended by an OSU panel that found “significant failures of leadership and narrowness of purpose” at the college, along with a disturbing readiness to advocate for timber industry interests.

It's an encouraging sign that Salwasser released a statement Tuesday saying he intends to make immediate changes at the college. Those changes include consulting with others in the college before giving testimony in Congress, adding new faculty members to the school's executive committee and increasing his contact with faculty, staff and students.

But it remains to be seen how far Salwasser will go in giving conservationists better representation in decision-making and on the school's advisory groups. The dean must also follow through on other substantive committee recommendations, including encouraging more rigorous scientific inquiry and debate, as well as establishing a code of conduct and an ombudsman position.

Just as importantly, the Oregon Legislature and the university must work together in the next session to end the School of Forestry's long-standing dependence on timber-industry funding — a dependence that helped forge an unseemly alliance between industry and academia.

The controversy at the college arose when Salwasser and some senior faculty members attempted to

delay publication of an article by graduate student Dan Donato in the eminent journal Science. The article reported on Donato's research indicating that logging after the 2002 Biscuit Fire in Southern Oregon had hindered forest recovery and increased the risk of future fires.

Those findings ran starkly counter to the timber industry's support for aggressively logging forests burned by wildfire to generate the money to plant new trees and control brush. They also infuriated industry and congressional supporters of a bill to speed up salvage logging after wildfires in national forests — a bill Salwasser had publicly endorsed in the name of the college.

Salwasser's reaction to the study was improper and unprofessional in a university setting, where academic freedom is supposed to be sacred. The dean actually coached timber industry officials on how to respond to Donato's findings, and stood by as six faculty members wrote to Science asking that publication of Donato's paper be delayed.

To his credit, Salwasser has done much to salvage the mess he helped create. He apologized for his conduct in the Donato matter and appointed the review panel that was harshly critical of his leadership.

Salwasser's contrition and commitment to rectify the school's — and his own — failings prompted nearly two-thirds of the College of Forestry's faculty, staff and students to vote in favor of the dean's continued leadership in a survey released this week.

Given those results, recent support voiced by both OSU's provost and president, and the signs of change and growth already emerging from the school's damaged landscape, it's time for Dean Salwasser and the College of Forestry to move forward into a new and different future.

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Commissioners Morrison and Green join committees

Two state commissioners joined committees that extend their service to the county's home.

Commissioners Morrison and Green joined the Oregon Forestry Lands Advisory Committee to help create a plan for the management of federal forestlands in Oregon.

Commissioner Morrison was named to the chair of the National Association of Counties, Oregon Subcommitee of the Justice and Public Safety Steering Committee.

Morrison will advise the Oregon Board of Forestry in identifying the strengths and weaknesses in today's approaches and producing recommendations for improvements to forest management.

Green's tenure as chairman of the statewide Juvenile Crime Prevention Advisory Committee led to his nomination for the steering committee position.

For more information, call 682-4203.

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Send items to: Briefly News at The Register-Guard, P.O. Box 10188, Eugene, OR 97440 or e-mail rgnews@guardnet.com

EWEB: Workers to test McKenzie feeder creeks

Stormy weather, murky science

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The Eugene Water & Electric Board doesn't know how much forestry-related herbicide gets into its drinking water.

Karl Morgenstern, the utility's drinking water source protection coordinator, said some tests have found trace amounts in the river, but it's not enough to cause alarm.

Nonetheless, he said, "We still think maybe there are

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periods during storms when a slug of herbicide comes through that we don't know about.

EWEB customers get their drinking water from the McKenzie feeder creeks. Operators at the utility's water treatment plant north of Springfield sample the water flowing into the system's intake once a month.

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There's no easy, real-time way to analyze the water; they have to send it to a laboratory and wait as long as a week for the results.

The test is a snapshot, operator Steve Blair said. EWEB hopes it's representative of the water flowing through the system, but Blair suspects it's not.

For example, the utility tests for the bacteria giardia and cryptosporidia, he said.

"You know damn good and well it's there," he said. "You know it's everywhere — but you haven't found it because of the nature of the snapshot, or the nature of the camera."

So EWEB crews are trying to get closer to the potential source of herbicides. They're preparing to test McKenzie River feeder creeks for the presence of forestry-related chemicals during storms.

Research shows that at least 80 percent of pollutants entering any given river are washed in during storms.

Last year EWEB crews measured urban runoff into the McKenzie during five storms and found significant amounts of lawn and garden herbicides and pesticides.

Once, on Sept. 30, they tried to gauge forestry herbicide runoff during a storm. Traces of herbicides turned up in McKenzie feeder creeks — Ward, Cogswell and Holden creeks, according to the study.

The storm testing is difficult, Morgenstern said, because it's hard to guess at what point rainfall has the "oomph" to push herbicides from the soil, or how quickly the chemicals reach the river.

Over the next three to five years, EWEB hopes to improve its ability to detect herbicides in the river so it can say with more confidence what level of threat forestry spray poses.

If it can pinpoint a time in a storm cycle in which pesticides and herbicides are likely to reach the utility's water intake, Blair said operators could

temporarily close the intake, or run the water through activated carbon to remove herbicides that regular filtration misses.

END — Diane Dietz

Spray: Activists plan tests

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and lakes. Weyerhaeuser hires mostly military-trained pilots who are skilled and take extra care when they spray the forests, Moskowitz said.

"We use state-of-the-art technology. There are computers inside our helicopters that let the operator know when it's OK to drop the spray, and that's based on weather and wind," he said. "The operators know exactly where that spray is going to go."

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Pesticide fever

But in Lane County, a growing number of activist groups are questioning the aerial application of herbicides.

The groups include the 29-year-old Northwest Coalition for Alternatives to Pesticides, the 7-year-old Oregon Toxics Alliance, the 3-year-old Forestland Dwellers' No-Spray Group and the Pitchfork Rebels, a group of Blachly area residents who coalesced earlier this year against spraying in the western part of the county.

The increase in activism has been spurred by rural population growth, increased knowledge about herbicides, and changing consumer expectations, said Norma Grier, executive director of NCAP.

The groups say they want timber companies to at least stop applying herbicides by air, Grier said, adding, "It's a very crude management approach."

EWEB's Morgenstern said timber management practices in the Willamette National Forest, which leaves 30 percent or 40 percent of the trees in its logging projects, don't require spraying because shade from the remaining trees keeps weeds from growing.

However, Moskowitz said Weyerhaeuser — which owns 575 of the more than 4,500 square miles in Lane County — has a completely different mission from a government agency.

"They protect the forest for mostly recreational use," he said. "Our business is to cut the trees and do the clear-cuts and regrow the trees. It's a totally different situation."

Still, activists and EWEB officials are trying to encourage timber companies to cut back on the use of herbicides.

In recent years, the utility has focused its efforts on reducing farm-related pesticide runoff in a program that is so innovative that Morgenstern was called to Washington, D.C., to describe it to a U.S. Senate advisory panel.

One effort was a plan to haul off any old chemicals farmers have stored in their barns.

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MORE INFORMATION

Companies spraying pesticides or herbicides near water bodies must file notices with the state Department of Forestry. The Eugene-based Forestland Dwellers posts notices for some Lane County spray projects on its Web site: www.forestlanddwellers.org/notices/

"The way we like to approach it is to help people do the right thing — encourage it and not take an adversarial approach," Morgenstern said.

EWEB's forestry-related drinking water protection efforts are in their infancy. Taking a cooperative approach requires the utility to build a good relationship with timber companies, and that's challenging, Morgenstern said.

"They've been attacked and beat up for so long that they're just in a defensive posture," he said. "It's going to be a while before we get some trust so we can break through that and find some solutions that are win-win."

Morgenstern would like timber companies that spray in the McKenzie watershed to provide him their spray schedules so he can better time his stream testing to figure out whether the herbicides are washing into the river and into EWEB's water intake.

In their legal notices, companies are allowed to give as much as a five-month window of when they plan to spray but are not required to list specific dates.

The activists, meanwhile, plan to do some testing of their own. The Forestland Dwellers and the Oregon Toxics Alliance are teaming up with the San Francisco-based Pesticide Action Network North America to erect at least one "drift catcher" air-monitoring device in Lane County. The idea is to sample the air near a rural school.

"We want to use science to back up what we say," said Lisa Arkin, executive director of the Oregon Toxics Alliance, "so we're not just mouthing off."

END

TABLE 1
Forest Pesticide Application by Chemical Type
McKenzie Watershed, 2006

Chemical	Active Ingredient	Total Gallons	Total Acres Treated
2,4-D, LV6	2,4-D	252	25
Accord Concentrate	Glyphosate	1,074	3,466
Accord XRT	Glyphosate	1,105	2,013
Activator 90	NA (Adjuvant)	35	142
Arsenal	Imazapyr	28,074	26,914
Chopper	Imazapyr	567	5,098
Crop Oil	NA (Adjuvant)	66,616	24,604
Escort	Metsulfuron Methyl	8	1,064
Forester	Unknown	138	277
Garlon 4	Triclopyr	8,513	25,291
Garlon3A (Triclopyr Amine)	Triclopyr	167	287
Glyphosate	Glyphosate	376	474
Hasten Oil	NA (Adjuvant)	1,754	921
Herbimax	NA (Adjuvant)	5	43
Induce	Unknown	56	527
LI 700	NA (Adjuvant)	50	474
Liberate Surfactant	NA (Adjuvant)	78	474
Moract	NA (Adjuvant)	70	844
MSO/Method Surfactant	NA (Adjuvant)	1,152	1,371
Oust	Sulfometuron	71	1,085
Oust Extra	Sulfometuron	44	1,411
Phase Surfactant	NA (Adjuvant)	16	638
Serine	Triazine	11	142
Transline	Clopyralid	5	14
Urea	Nitrogen Fertilizer	2,106	41
Velpar DF	Hexazinone	5	14
Grand Total		112,350	97,655