

Weather: ‘Some of these microclimates can be difficult to figure out’

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burying ranch fences. Historical records, which date to 1936 in Halfway and to the late 19th century in Richland, put the difference in stark contrast. Halfway’s average yearly snowfall is 69 inches, Richland’s 17 inches. Although Halfway’s elevation is higher — 2,600 feet compared with Richland’s 2,200 — and snowfall tends to increase with altitude, that difference of 400 feet is much too modest to explain the dramatic snow discrepancy, Anderson said. Indeed, Halfway is much snowier on average than sites at higher elevations, such as the Baker City Airport, which is 800 feet higher but averages about 27 inches of snow per year.

More confounding still, the summit on Highway 86 between the Pine and Eagle valleys, though more than 1,000 feet higher than Halfway, often will have less snow, creating the seemingly backward situation in which the snow gets deeper as you drive down the mountain toward Halfway. Two factors that contribute mightily to the climatological anomaly that is the Pine Valley are its topography and its location relative to the Wallowa Mountains, whose peaks are the tallest in Eastern Oregon, said Anderson and Jay Breidenbach, warning coordination meteorologist at the National Weather Service Office in Boise. Firstly, it is, well, a valley. Because cold air is heavier than warm, cold air sinks. This means that sometimes on calm winter days and nights, especially when there’s snow on the ground to reflect the sun’s heat but no clouds to



EO Media Group Photo/S. John Collins, File
The Pine Valley in eastern Baker County, about 52 miles east of Baker City, is one of the snowiest places in Eastern Oregon even though its elevation, 2,600 feet, is lower than Baker City, La Grande and Enterprise. Meteorologists say the Pine Valley’s proximity to the Wallowa Mountains, and its orientation, make it susceptible to temperature inversions that hold cold air, and in this photo fog, close to the valley floor and make it more likely that storms will drop snow rather than rain.

keep some of that heat from escaping into the atmosphere, valleys tend to be colder than surrounding ridges. Meteorologists call this situation a temperature inversion because it inverts, or reverses, the typical temperature profile, which is that air grows colder the higher you climb. Pine Valley also has a nearby source of cold air in the towering Wallowas, since chilled air tends to drain, as water through a funnel, down into the valley, especially on clear, calm winter nights, Breidenbach said. All valleys are susceptible to temperature inversions, but Breidenbach said inversions typically persist longer in relatively small valleys, such

as Pine Valley. It takes wind to end an inversion — to “scour out” the cold air and replace it with warmer air, he said. In a broader valley, such as Baker Valley, winds that accelerate into the valley as they descend from surrounding higher ground can more easily spread out and displace the trapped cold air, Breidenbach said. Baker Valley’s higher elevation compared to Pine Valley’s also contributes to this tendency, he said. Because wind speeds generally increase the higher you go, a valley at 3,400 feet is more likely to have its temperature inversion ended by winds — what meteorologists call

“mixing out” — sooner than a lower valley where the winds don’t reach as early. The second factor that helps explain Pine Valley’s prolific snowfalls is its proximity to the Wallowas. That range is large and high enough that when moisture-laden Pacific storms sweep in from the west, the air is forced to rise and cool, and because the colder air is the less water it can hold in vapor form, the sodden clouds disgorge much of their moisture. Pine Valley is close enough to the Wallowas that a significant amount of the moisture that douses the peaks spills into the valley. And because the temperature is often below freezing during winter due to

the aforementioned inversion effect, what falls is more likely to be snow than rain, Breidenbach said. The influence of the Wallowas is even more blatant at Cornucopia, the old gold-mining ghost town about 9 miles northwest of Halfway. Although Cornucopia’s elevation of 4,900 feet is still modest for the Wallowas, where more than two dozen peaks top 9,000 feet, the annual snowfall there, measured from 1909 to 1972, was 244 inches — more than 3½ times Halfway’s average. Baker City, of course, is also close to a major mountain range — the Elkhorns, where Rock Creek Butte reaches 9,106 feet. But there are differences between Baker City and Halfway that have dramatic effects on snowfall in the two places, Breidenbach said. Baker City is a bit farther from the mountains than Halfway is, and as winds from passing storms descend the Elkhorns the air, through compression, warms. This warm air can hold more moisture, and by the time the air reaches Baker City, even though the distance is just 6 miles or so, the effects of compression can drastically reduce the amount of precipitation, Breidenbach said. That helps explain why the Elkhorns have the opposite effect that the Wallowas have on Pine Valley — forming a rain (and snow) shadow that extends over much of Baker Valley. The importance of proximity to the mountains is easily enough illustrated by comparing snow depths at the base of the Elkhorns and in Baker City. Although the elevation difference is only about 600 feet, snow at places, such as

Marble and Rock creeks can be 2 feet deep when there’s little or no snow in Baker City. The base of the Elkhorns is basically the same sort of microclimate as the Pine Valley — close enough to share in the mountains’ snow bounty, but not far enough from the peaks to languish in their snow shadow. The trouble for forecasters, such as Anderson, is that the sophisticated computer weather models they use lack the resolution, as it were, to account for microclimates, such as the Pine Valley. Anderson, who has worked at the National Weather Service Office in Boise for several years, said he came to understand this limitation in the models, and to adjust forecasts accordingly. Even so, because the NWS doesn’t generate a specific forecast for an area as small, and sparsely populated, as Pine Valley, forecasts that rely largely on models will still sometimes call for rain in Halfway even when Anderson knows it’s likely to be snow. “Some of these microclimates can be difficult to figure out,” Breidenbach said. Baker County’s Pine Valley isn’t the only such anomaly in the mountainous West, where the dramatic topography complicates weather forecasting. The same mountain range can confound even the cleverest computer models by making some areas soggy while creating rain-shadowed near-deserts in others. He said the institutional knowledge among forecasters at the Boise office, concerning such places as Pine Valley, is passed to new employees so they, too, will recognize when the models might be leading them astray.

Taxes: Most people will benefit again by taking the standard deduction

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The county’s tax professionals recommend reaching out ahead of time to schedule an appointment if you have any questions or have a more complex filing circumstance. Neistadt noted that may include people with investments in partnerships or mutual funds who may not receive their necessary filing documents until March. Barnett added that a complex marital or child situation can also cause confusion when filing. “It shouldn’t be this difficult,” Barnett said of filing taxes. “But I swear since I’ve been helping people with them, the law has gotten from about 4 inches thick to 4 feet thick.” Last year was the first tax season following major federal tax reforms passed by Congress in the Tax Cuts and Jobs Act, which Neistadt said “affected almost everything we did for tax filing season.” Neistadt said the IRS has provided clarifications and additional details on certain aspects of the new laws, but for the most part individuals have little to worry about when it comes to changes this year. “As a general rule, things this year have stayed relatively the same,” Barnett said.

But there’s still room to better understand how to navigate the law. “One misconception I’ve seen a lot of is that because the federal government raised the standard deduction, people are saying, ‘Why am I even bothering looking at my itemizations?’” Read said. “Even though the federal government did, the state of Oregon didn’t.” The Tax Cuts and Jobs Act raised the standard federal deduction for single filers from \$6,350 in 2017 to now \$12,200 this year, along with raising it from \$12,700 for spouses filing jointly in 2017 to \$24,400 this year. Taxpayers must opt for the standard deduction or provide records for itemized deductions, and last year the number of people opting to itemize their deductions dropped from 30% in 2018 to just 10%, according to the IRS. Though most individuals will again benefit more by taking the raised standard deduction, tax preparers say it can still pay to tally them in Oregon. Neistadt said those who make large charitable contributions and those with high property taxes should consider itemizing their deductions, and Read said those who incurred any major medical expenses in the last year

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should be aware of the tax breaks extended by the federal government this season. On Wednesday, the Oregon Department of Revenue announced the extension of tax breaks for medical and dental expenses that exceed 7.5% of an individual’s yearly gross income. The big change businesses in Oregon have on their mind is the Corporate Activity Tax, which was passed by the Oregon Legislature in 2019. “That’s going to be the big change coming down the pike for people like me,” Neistadt said. “Even in this filing season, we’re helping clients determine the impact that the CAT is going to have on them, and get registered for it and make estimated tax payments for it.” The tax requires all businesses in the state that generate \$750,000 in yearly revenue to register with the Oregon Department of Revenue, and to then pay a tax of 0.57% on all revenue exceeding \$1 million. Barnett said nearly every business generates more than \$1 million in revenue and the

only businesses exempt from the tax are grocery stores and fuel distributors. The tax will raise funding for education in the state and is projected to raise \$2.8 billion from 2021 to 2023. Read said businesses are already aware of the coming tax and that most already seek professional help for filing their taxes. But what about people who can’t afford to hire an accountant or pay for another tax preparation service? Each year, the American Association of Retired Persons (AARP) hosts a free tax preparation service called Tax-Aide. The service is staffed completely by volunteers, all trained by the IRS, and is open to people of all ages and incomes. No AARP membership is required. “It’s designed for low or moderate income people who have fairly simple tax return needs,” said Joyce DeMonnin, communications director for AARP Oregon. Last year, volunteers helped Oregonians file 45,000 federal tax returns, DeMonnin said, which yielded \$48

million in refunds. Since many of those who utilize the Tax-Aide services are of moderate to low incomes, DeMonnin said volunteers often help people realize they’re eligible for earned income tax credits, which are a refundable tax credit that is dependent on income and number of children. According to DeMonnin, Tax-Aide helped Oregonians receive \$11.5 million in earned income tax credits last year. Starting Feb. 3, AARP Oregon will hold walk-in tax prep services in three different locations throughout Umatilla and Morrow counties. In Pendleton, people can get free tax assistance at the community room in city hall on Mondays from 8:30 a.m. to 2:30 p.m. Services in Hermiston will be available at the library on Tuesdays and Thursdays from 9 a.m. to 3:30 p.m. Boardman will have services available at the senior center on Wednesdays from 8:30 a.m. to 2:30 p.m. There will also be pop-up locations at the Lexington Town Hall from 9 a.m. to 2:30 p.m. on the Fridays of Feb. 21 and March 6, along with Saturday, March 21. Bob Bruce, state coordinator for AARP Oregon,

said they’ve been fortunate in recruiting volunteers throughout Umatilla and Morrow counties lately, but previous Tax-Aide services provided in Union County at La Grande and Enterprise won’t be operating this year after longtime volunteers decided to step away. The IRS also partners with Free File Inc., which provides free filing program software for families who earned less than \$69,000 in 2019. However, in its annual report to the U.S. Congress, the National Taxpayer Advocate Service listed the Free File services as one of the IRS’s most serious problems entering 2020. According to the report, only 2% of returns were filed with the Free File programing software last year. And of that 2%, the report noted that users were generally dissatisfied with the service. When it comes to tax season, regardless of how you’re filing your return in 2020, just don’t ignore it. “I think it’s important that people are very aware of their financial situation,” Neistadt said. “Not just as it relates to taxes but personally as well. I think that the more you pay attention to what’s going on, the less likely you are to have a major financial crisis down the road.”

Greenhouse gas: ‘If it looks like a duck and acts like a duck, it is a duck’

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allowances, excluding fuel sold at truck stops on interstates within 1.5 miles of the Washington or Idaho border. Emissions from landfills, and from fuels for aviation, watercraft or locomotives, would also be exempt from needing allowances. Blosser said that the carbon reduction targets stipulated in the bill are a science-based “mid-range” compared to national conversations about carbon emission reductions. “I don’t disagree that these are going to be challenging goals to achieve,” he added. Revenue from transportation and non-transportation allowances would flow into separate investment accounts that would be distributed to the state government and to local governments. But Senator Bill Hansell, R-Athena, and his colleagues are thus far unconvinced by the differences between House Bill 2020 and Senate Bill 1530 and they don’t believe the east-side exemptions from transportation fuel fees will save constituents from eventually elevating gas prices. “If it looks like a duck and acts like a duck, it is a duck,” he said. “These are temporary changes.” Hansell didn’t say for sure whether the Republican caucus was planning to walk out on the bill, but

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Capital Press Photo/Sierra Dawn McClain, File
A crowd of over 300 protesters gathered outside the Oregon Capitol in June 2019 to protest House Bill 2020.

he did say that allowing the bill to be referred to voters could dismiss the possibility of a repeat of the 2019 walk-out. “The caucus is prepared

if the people say (cap and trade) is what they want,” he said. Hansell said he and his colleagues acknowledge climate change but pre-

fer incentive-based emissions reductions, such as tax credits, along with carbon sequestration through methods like tree planting. He didn’t specify that Republicans were sponsoring bills related to these strategies, but pointed out that the Senate Republican Office recently stated that Oregon’s CO2 emissions per capita were already the 47th lowest in the U.S. in 2014. “(SB 1530) just starts off with a hammer,” he said. “This is the lynchpin, the battle.” Hansell also criticized the timing of the bill, which currently consists of 86 pages that will be introduced and tweaked starting Monday. He said the 35-day short session in February

isn’t the right place to entertain a lengthy and complicated law. But Roblan and other supporters see it differently. They are heeding scientists’ warnings about the need to act on climate change, and believe the sooner the bill is implemented, the easier and more gradual the effects on businesses. “Partially, this is about urgency,” he said. Roblan added that because the transportation fees won’t hit the Portland area until 2022, there would plenty of time to tweak and analyze the bill after it passes. “We’re the frontier, we’ll always be a place that drives people in the right direction,” he said.