

# COLUMBIA GORGE AIR QUALITY



The Columbia River Gorge has long loomed large as one of Washington and Oregon's most treasured landmarks, boasting breathtaking mountaintop views, waterfalls and some of the mightiest winds in the Pacific Northwest. Over the last few years, those winds have become a hot topic in the boardrooms of government agencies and conservationist groups. Measures that could drastically affect Gorge air quality are beginning to move from propositions into economic and environmental realities.

Differences in air pressure and density on either side of the Cascade Mountains push air down through the narrow walls of the Gorge, the only sea-level gap through the Cascade Mountain Range. This creates a wind tunnel that generates gusts that can reach up to seventy miles per hour.

This wind tunnel drastically affects the climate of both the west and east ends of the Gorge, giving Portland winters their frigidity and an extra kick to river currents.

As these winds are strong enough to push trucks, they have an irresistible pull to tourists. In the summertime, visitors flock to the Gorge to windsurf on its sprightly waters.

The many who love the force of the wind on their face may be surprised to know that it holds a load of pollutants, from carbon monoxide to mercury and ammonia. Hikers will find cliff-side views hampered by haze 95 percent of the time. The high deposits of ammonia compounds found in fog and rain have also worried many specialists, who fear the effects that pollutants, especially nitrogen deposits may have on Native American rock art and other testaments to the Gorge's long history.

The geological makeup and weather patterns of the Gorge augment the problem. Pollutants floating high above the ground are collected by winds and pushed into the Gorge walls, where they are trapped and compacted. These contaminated winds become an unwelcome, but regular winter visitor to the Dalles area.

A 2008 study from the Southwest Clean Air Agency identifies Gorge air pollution as the sum of many man-made and natural emissions throughout Washington and Oregon. As such, no initiative by itself can put an end to the problem.

And with natural emissions from volcanic eruptions and forest fires impossible to account for, it's hardly predictable how fast it will get better.

“That’s part of the challenge,” said Paul Mairose, Southwest Clean Air Agency’s chief engineer. “We’re trying to make a significant change in the Gorge, but we can only deal with a small slice of the pie-that’s the manmade stuff”.

But that small slice still packs a lot to deal with.

East of the Gorge is Boardman, OR, where a Portland General Electric coal-fired plant operates without pollution controls mandated by the Clean Air Act. The smog from this plant is the biggest contributor to the air quality problems in the Gorge and the surrounding area, particularly in the fall and winter. PGE is now seeking to close the plant.

Two options are most prominent on the table: keep the plant running until 2040 with \$470 million worth of new pollution controls, or close it in 2020 and operate without the upgrades.

While federal regulations make the 2040 option easier to execute, the 2020 option is currently under review by the Oregon Department of Environmental Quality.

The conservation group Friends of the Columbia Gorge is currently pushing for a 2014 close- date they deem more economical and environmentally beneficial. The DEQ meanwhile, is also considering a 2015 close.

All parties involved agree the plant needs to close. However, the 2020 option is not well received.

“We anticipated pollution controls, which would be a major reduction in pollution,” Mairose said. “If Boardman continues to pollute, then that’s a major setback,”

Regardless, the Southwest Clean Air Agency predicts cleaner Gorge air by 2018, barring natural disasters. Their study suggests that Gorge air quality is not worsening, but staying relatively consistent if not marginally improving.

The Clean Air Act has mandated that natural air visibility conditions must be restored by 2064 in Class 1 areas. Class 1 areas include landmarks like the Alpine Lakes Wilderness Area, Mt. Rainer National Park.

While the Gorge is not a Class 1 area, it lies in such close proximity to Mt. Hood and several others that measures to meet the Clean Air Act’s requirements will also work to its benefit. Greener technologies like sulfur-reducing engines and new federal regulations on man-made emissions are also expected to make a difference in the long run.

In the short term, things aren’t so certain. For nearly a decade, the Confederated Tribes of the Warm Springs has been lobbying for an off-reservation casino in the heart of the Gorge.

Members of the Oregon Legislature, as well as preservationist groups like Friends of the Columbia Gorge, have expressed worry over the ramifications of new construction, tourism and population growth. The impact this may have is hazy and hard to foretell.

According to the Southwest Clean Air Agency's study, "In-Gorge area emissions are the smallest contributor to the Gorge modeling domain." An Environmental Impact Statement released by the Warm Springs in early August reiterates this fact. "It's not going to be a Boardman sized impact," said Mairose regarding the casino. "Anecdotally, we don't see it as the largest piece."

Yet the cumulative environmental effects of even small traffic increases and population growth are still a cause for concern and should be accounted for in any environmental analysis, said Michael Lang, the conservation director of Friends of the Columbia Gorge.

The Environmental Impact Statement (EIS) for the casino predicts a need for 684 new housing units throughout areas neighboring the Gorge. It also forecasts an increase in man-made emissions, particularly from automobiles.

Nevertheless, the Warm Springs is confident that these new emissions will not delay the move toward cleaner air.

“Given the EPA’s future anticipated tightening of emissions control standards and a continued overall downward trend in emissions, it is expected that impacts...would continue to decline, even with the proposed project,” reads the EIS.

The document, over 1000 pages long, does little to convince Lang. “The environmental analysis is basically bankrupt”, he said.

Much of his skepticism stems from the consultants and lawyers who wrote it. “There’s a conflict of interest when the consultants who are in charge of a document pertaining to public land are paid by [the Warm Springs],” he said.

With so much yet undecided, the future of the Gorge’s air quality remains hazy. But with the federal mandate in place for clean air by 2064, someone has to get something done. As Mairose said, “It’s measured on a long term basis, not a short term basis”.

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