

https://www.bozemandailychronicle.com/news/environment/no-perfect-solutions-the-fight-over-how-to-protect-thegallatin-river-from-pollution/article\_8e445362-1605-5efb-9c5b-a7da30b6fba4.html

## No perfect solutions: The fight over how to protect the Gallatin **River from pollution**

By Helena Dore Chronicle Staff Writer Nov 19, 2021



A group of commercial buildings, in the background, and a Big Sky County Water & Sewer District facility overlook sewage and water holding ponds in Big Sky on Wednesday, Nov. 10, 2021.

## Big Sky has a problem.

It produces too much wastewater to store, and despite the best efforts of many, nutrients keep reaching the Gallatin River watershed. All the while, new resorts, hotels, condos and homes are cropping up, adding more wastewater to the system.





Lots of people want to solve the problem, and they all have different tacts. Some are seeking solutions through collaboration and innovation. Others have turned to the courts.

Environmental groups, area developers and residents of Big Sky have sought new ways to recycle sewage so they can avoid discharging nutrients directly into the headwaters of the upper Gallatin River.

Earlier this year, state regulators approved a permit that allows the Yellowstone Club to make snow with recycled wastewater, and the Big Sky County Water and Sewer District is expanding and upgrading its wastewater treatment plant.

Meanwhile, the Gallatin River Task Force has worked hard to get a new water and sewer district approved in Gallatin Canyon. The task force hopes a new district will centralize wastewater collection, reducing overall nutrient pollution.

John Meyer, attorney for the Cottonwood Environmental Law Center, has taken a more litigious approach to solving the problem. He's asking a judge to block new sewer connections to the district.

Meyer and groups Montana Rivers and Gallatin Wildlife Association sued Big Sky's water and sewer district in federal district court in July 2020. The groups claimed the district was discharging too many nutrients into the West Fork Gallatin River without a proper permit.

That case has lingered in court for the past year, and in February, Meyer asked a judge to halt new sewer connections to the district. He also asked the judge to bar the district from using nitrogen-rich treated wastewater to irrigate Big Sky's Meadow Village golf course.



A row of houses in Big Sky in various stages of construction are dusted with snow on Wednesday, Nov. 10, 2021. Samuel Wilson/Chronicle/Report for America

Mark Stannard remembers the Big Sky of yesteryear. Twenty years ago, the town was a laid-back getaway from the madness of the world. There was minimal traffic, powder that would last for days and moose that regularly strolled by the Gallatin River, he said.



conservation committee and a member of Trout Unlimited in Pennsylvania, and in that role, he regularly deals with the effects of nutrient pollution on streams.

Factors like high water and air temperatures, low stream flows and exposure to sunlight can all trigger algal blooms, according to experts with the Montana Department of Environmental Quality. But nutrient loading — or the unnatural accumulation of nitrates and phosphates in rivers and streams — prime the waterways for those blooms.

If they happen often enough, blooms along the upper Gallatin River could cause juvenile fish populations to decline, and the kinds of aquatic insects there could change. The river system supports lots of mayflies, caddisflies and stoneflies, but recurring blooms could shift its taxonomy to become more scud-based, according to DEQ.

"Big Sky has a septic system that needs to be updated as it continues to grow," Stannard said. "There are plans, and that's great, but we're continuing to make the river the victim of more and more nitrogen and phosphorus leaching into the stream."

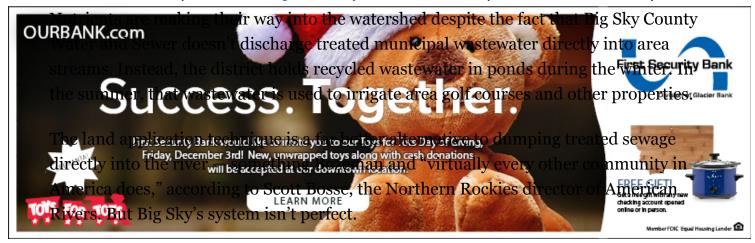


The West Fork Gallatin River, left, flows into the main fork of the Gallatin River on Wednesday, Nov. 10, 2021. Samuel Wilson/Chronicle/Report for America

The Gallatin River Task Force, a nonprofit group that monitors water quality around Big Sky, has found that "pet waste, poorly-maintained septic systems, land application of treated wastewater, fertilizer, household detergents and erosion" contribute to nutrient loading.

But a 2020 Upper Gallatin Nutrient Assessment and Reduction Plan identified municipal wastewater as the leading source of nitrogen stream loading in the West Fork, followed by onsite septic systems. The study was compiled by experts from the firm WGM Group and was largely based on the task force's data.

The Gallatin River's West Fork, South Fork and the Middle Fork of the West Fork all run through Big Sky and are listed by DEQ as "water-quality impaired" due to elevated levels of nutrients. The West Fork is one of the Gallatin River's main tributaries.



The biggest challenge with land application, Bosse said, is finding ways to dispose of treated wastewater in the winter months, since there's limited infrastructure for storing it. At this point, evidence suggests the district is over-irrigating area golf courses with it, he said.

For Bosse, over-irrigation is an indication that Big Sky needs to find additional ways to dispose of or recycle its wastewater. And it doesn't help that development isn't showing any signs of slowing.



A crane looms over a development being constructed in Big Sky on Wednesday, Nov. 10, 2021.



Rich Chandler, the director of environmental operations at Lone Mountain Land Company and the Yellowstone Club, said that discharging treated wastewater directly into the river would be a far less expensive option for Big Sky, but residents, environmental groups and developers all don't want to see that.

"It's going to get warmer. It's going to get drier. We are going to become more of an impact on the planet than we were yesterday," he said. "We need to start getting real creative real quick if we want these areas that are real special to us to stay special."

By voting to approve an infrastructure tax early in 2020, area residents opted to foot a more than \$20 million bill for a now-\$50 million upgrade and expansion to the district's wastewater treatment plant, Chandler said.

Construction of the new facility is already underway. Once it's completed in the next couple of years, municipal wastewater will get treated to a far higher quality, and the district's average daily treatment capacity will double, staff have said.

Big Sky's commitment to clean water doesn't end at the upgrade, according to Chandler. The Yellowstone Club this year closed in on a permit to use treated wastewater to make snow. It's a method that few other resorts have tried, and it's been a significant investment for the private club, he said.

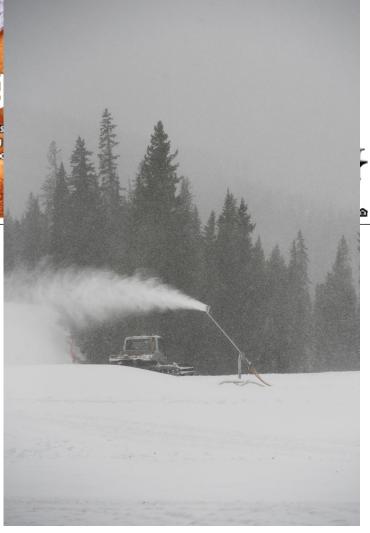
Chandler is confident that the snowmaking process itself will reduce the amount of nutrients that make it into the watershed, and the extra snow will bolster snowpack. That's important when considering projected climatic conditions for the area, he said.

"Direct piping isn't the right thing to do. Not if we care about the health of the Gallatin. Not if we care about managing our water and keeping our water as long as we can in the head works facility," Chandler said. "I have children, and I want that resource to be



Cottonwood Environmental Law Center has challenged DEQ in state court over its decision to issue the permit, citing concerns over pharmaceutical pollution.

American Rivers reviewed the science behind the club's snowmaking permit, and the group supports the project, according to Bosse. Providing that there's a big enough buffer between manmade snow and area streams, plants and the soil should take in excess nutrients before they make it into the Gallatin, he said.



A snow making machine adds to naturally falling snow in the base area of Big Sky Resort on Wednesday, Nov. 10, 2021.

Samuel Wilson/Chronicle/Report for America

While Bosse is worried about Big Sky's future, and the town hasn't been entirely successful at avoiding pollution, the overall goal of reducing nutrient pollution is admirable and deserves support, he said.



Snow collects on a tarp meant to prevent leakage from a water and sewage holding pond managed by the Big Sky County Water & Sewer District on Wednesday, Nov. 10, 2021.

The treatment plant upgrade is designed to significantly reduce nutrient levels in municipal sewage, but staff from the Gallatin River Task Force are still concerned about the role onsite septic systems play in Big Sky's broader pollution problem.

Gardner said.



The area's resort tax has provided about \$12 million to go toward the infrastructure,

Before infrastructure is put in place, officials should put together a cumulative effects analysis that looks at where all the new waste will go, according to Guy Alsentzer, executive director of Upper Missouri Waterkeeper. Doing that up front will prevent a bad decision that sacrifices the Gallatin River, he said.

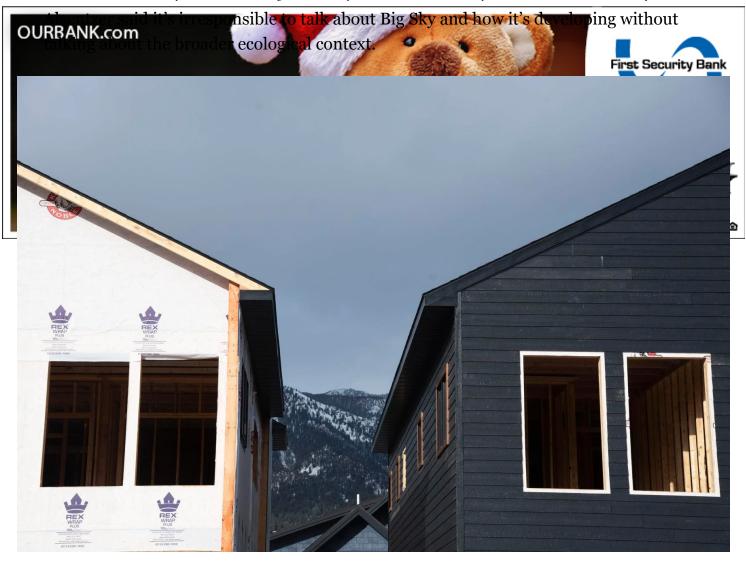
Alsentzer said private septic systems along the Gallatin River aren't providing the level of treatment necessary to protect local groundwater quality, and that's a concern because development plans have started to pick up in the area.

In July, Upper Missouri Waterkeeper and the Montana Environmental Information Center challenged DEQ over its decision to issue a wastewater disposal permit to developers who want to build Lazy J South — a sprawling, high-end residential development — on an old septic system in the canyon area.

Plans for other major projects have popped up along water sources. Developers behind the Flatiron project sought zoning approval to build a hotel, commercial and residential buildings and workforce housing on about 500 acres along the Middle Fork.

Nine people spoke up in opposition to the project at a zoning meeting, citing concerns over impacts on water quality and availability, wetlands, groundwater and traffic.

The Big Sky Planning and Zoning Commission recommended that Gallatin County's zoning commission deny a permit request for the development. Flatiron developers later requested that the county commission table the permit request indefinitely.



Two houses are under construction in Big Sky on Wednesday, Nov. 10, 2021.

Water quality in Bozeman and the larger Gallatin Valley diminished many decades ago due to agricultural and construction practices, but the same can't be said for Big Sky, he said.

Big Sky sits atop a sensitive headwaters region, and it's one of the first major human developments that people come across when they exit Yellowstone National Park.

"It doesn't get any more clean than that," Alsentzer said.

"As a whole, larger Big Sky is outstripping the carrying capacity of the landscape when it comes to human development," he said. "Big Sky's achilles heel has been, and remains, how will we take responsibility for our growth?"



"It's brought us to where we are today, where a blue-ribbon, world-class trout stream 50 miles downstream from Yellowstone National Park's border is experiencing prolific, sustained neon-green algal blooms, and they are getting worse," he said.



Traffic moves upstream on U.S. Highway 191, wet from melted snow, towards Big Sky in Gallatin Canyon on Wednesday, Nov. 10, 2021.

Samuel Wilson/Chronicle/Report for America



need to apply for a Clean Water Act permit," he said. "In this case, Big Sky can't apply for a Clean Water Act permit because the West Fork of the Gallatin River is already water quality impaired."

The district's attorneys claimed in a brief filed earlier this month that the three features identified by Cottonwood are not "point sources" of pollution as defined by the Clean Water Act, and the district is not required to obtain a discharge permit. Point sources are single, identifiable sources of pollution, like pipes or ditches.

The features aren't point sources because the district does not operate the golf course, its underdrain system is not connected to storage ponds and the pond's liners are designed to prevent groundwater leakage, the attorneys argued.



A putting green is guarded by yellow cord during the off-season at Big Sky Golf Course on Wednesday, Nov. 10, 2021. Samuel Wilson/Chronicle/Report for America

"The District operates the Big Sky community's water and sewer systems responsibly and legally," the district wrote in an emailed statement. "The Montana DEQ oversees the District's irrigation and its pond facilities and the District follows the plans and standards that DEQ has approved."

Staff from the district wrote that Big Sky County Water and Sewer is not a polluter, and the district's entire purpose is to minimize pollution by treating wastewater. Montana DEQ reaffirmed in 2020 that the district doesn't need a discharge permit for its operations, they wrote.

Meyer wants an injunction on new sewer hookups, which he hopes will put a pause on development in the area. He said that's quickly becoming the most viable option available to reduce nutrient pollution.

"This is ultimately an issue of over-consumption. It's not like people need to live in Big Sky. These are vacation homes," Meyer said. "Any new connection is only going to exacerbate the issue. We don't want to keep adding more sewage to the problem."

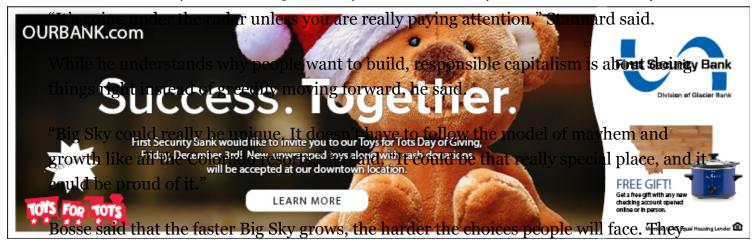


A recently constructed row of houses are perched above the water and sewage holding ponds in Big Sky on Wednesday, Nov. 10, 2021.

Stannard said it's important to bring different parties together to talk about and address pollution, but when that fails, there's a need to go the legal route.

Recently, he and a group of about 70 Big Sky residents started banding together to discuss options for addressing the growth they are seeing around the town. They started tuning into zoning and planning meetings and commenting on development proposals.

The catalyst for the group's formation, said Stannard, was the Flatiron development proposal. But when he and others started looking at how many projects were getting approved, it opened up their eyes to the scale of new growth coming into the area.



need to connect the dots between development and degradation of rivers, and they haven't done that to date, he said.

"We all got high on the fumes of development and rising land prices and rising home prices, and we lost sight of the most important things about living here, which are the waterways that define us," Bosse said. "It's not too late, but the clock is ticking."



The West Fork Gallatin River runs around two rocks near the confluence with the main fork of the Gallatin River on Wednesday, Nov. 10, 2021.

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## Helena Dore

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