

Floods leave Yellowstone landscape 'dramatically changed'

June 15 2022, by Matthew Brown and Lindsay Whitehurst



The roaring Yellowstone River is seen from the air sweeping over trees and near homes Tuesday, June 14, 2022, in Billings, Mont. Credit: AP Photo/Brittany Peterson

The forces of fire and ice shaped Yellowstone National Park over thousands of years. It took decades longer for humans to tame it enough

for tourists to visit, often from the comfort of their cars.

In just days, heavy rain and rapid snowmelt caused a dramatic flood that may forever alter the human footprint on the park's terrain and the communities that have grown around it.

The historic floodwaters that raged through Yellowstone this week, tearing out bridges and pouring into nearby homes, pushed a popular fishing river off course—possibly permanently—and may force roadways nearly torn away by torrents of water to be rebuilt in new places.

"The landscape literally and figuratively has changed dramatically in the last 36 hours," said Bill Berg, a commissioner in nearby Park County. "A little bit ironic that this spectacular landscape was create by violent geologic and hydrologic events, and it's just not very handy when it happens while we're all here settled on it."

The unprecedented flooding drove more than 10,000 visitors out of the nation's oldest national park and damaged hundreds of homes in nearby communities, though remarkably no was reported hurt or killed. The only visitors left in the massive park straddling three states were a dozen campers still making their way out of the backcountry.



Residents of Red Lodge, Montana, are seen clearing mud, water and debris from the small city's main street on Tuesday, June 14, 2022, after flood waters courses through a residential area with hundreds of homes. Credit: AP Photo/Matthew Brown

The park could remain closed as long as a week, and northern entrances may not reopen this summer, Superintendent Cam Sholly said.

"I've heard this is a 1,000-year event, whatever that means these days. They seem to be happening more and more frequently," he said.

Sholly noted some [weather forecasts](#) include the possibility of additional flooding this weekend.

Days of rain and rapid snowmelt wrought havoc across parts of southern Montana and northern Wyoming, where it washed away cabins, swamped [small towns](#) and knocked out power. It hit the park as a summer tourist season that draws millions of visitors was ramping up during its 150th anniversary year.

Businesses in hard-hit Gardiner had just started really recovering from the tourism contraction brought by the coronavirus pandemic, and were hoping for a good year, Berg said.



Flooding from the Yellowstone River is seen in front of Livingston HealthCare's hospital in Livingston, Montana, on Monday evening, June 13, 2022. Livingston HealthCare evacuated its patients and staff on Monday because water over the driveway made access to the building unsafe. While an urgent care clinic remained open, emergency patients were being diverted to other facilities.

Credit: Dwight Harriman/Livingston Enterprise via AP

"It's a Yellowstone town, and it lives and dies by tourism, and this is going to be a pretty big hit," he said. "They're looking to try to figure out how to hold things together."

Some of the worst damage happened in the northern part of the park and Yellowstone's gateway communities in southern Montana. National Park Service photos of northern Yellowstone showed a mudslide, washed out bridges and roads undercut by churning floodwaters of the Gardner and Lamar rivers.

In Red Lodge, a town of 2,100 that's a popular jumping-off point for a scenic route into the Yellowstone high country, a creek running through town jumped its banks and swamped the main thoroughfare, leaving trout swimming in the street a day later under sunny skies.

Residents described a harrowing scene where the water went from a trickle to a torrent over just a few hours.



A house that was pulled into Rock Creek in Red Lodge, Mont., by raging floodwaters is seen Tuesday, June 14, 2022. Officials said more than 100 houses in the small city were flooded when torrential rains swelled waterways across the Yellowstone region. Credit: AP Photo/Matthew Brown

The water toppled telephone poles, knocked over fences and carved deep fissures in the ground through a neighborhood of hundreds of houses. Electricity was restored by Tuesday, but there was still no [running water](#) in the affected neighborhood.

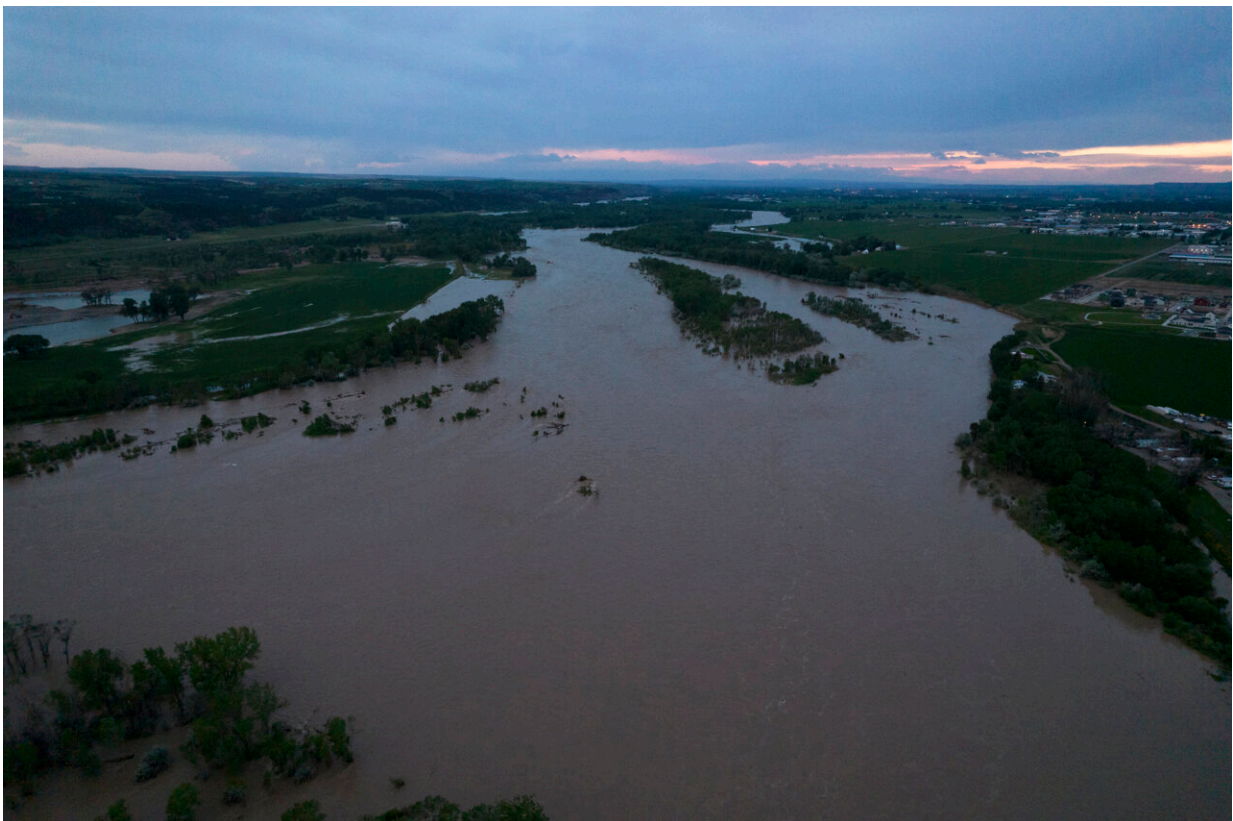
Heidi Hoffman left early Monday to buy a sump pump in Billings, but by the time she returned her basement was full of water.

"We lost all our belongings in the basement," Hoffman said as the pump

removed a steady stream of water into her muddy backyard. "Yearbooks, pictures, clothes, furniture. Were going to be cleaning up for a long time."

At least 200 homes were flooded in Red Lodge and the town of Fromberg.

The flooding came as the Midwest and East Coast sizzle from a [heat wave](#) and other parts of the West burn from an early wildfire season amid a persistent drought that has increased the frequency and intensity of fires. Smoke from a fire in the mountains of Flagstaff, Arizona, could be seen in Colorado.



The roaring Yellowstone River is seen from the air sweeping over trees and near homes Tuesday, June 14, 2022, in Billings, Mont. Credit: AP Photo/Brittany

Peterson

While the flooding hasn't been directly attributed to [climate change](#), Rick Thoman, a climate specialist at the University of Alaska Fairbanks, said a warming environment makes [extreme weather events](#) more likely than they would have been "without the warming that human activity has caused."

"Will Yellowstone have a repeat of this in five or even 50 years? Maybe not, but somewhere will have something equivalent or even more extreme," he said.

Heavy rain on top of melting mountain snow pushed the Yellowstone, Stillwater and Clarks Fork rivers to record levels Monday and triggered rock and mudslides, according to the National Weather Service. The Yellowstone River at Corwin Springs topped a record set in 1918.

Yellowstone's northern roads may remain impassable for a substantial length of time. The flooding affected the rest of the park, too, with park officials warning of yet higher flooding and potential problems with water supplies and wastewater systems at developed areas.



Flood damage is seen along a street Tuesday, June 14, 2022, in Red Lodge, Mont. Residents were cleaning up after record floods in southern Montana this week. Credit: AP Photo/Matthew Brown

The rains hit just as area hotels filled up in recent weeks with summer tourists. More than 4 million visitors were tallied by the park last year. The wave of tourists doesn't abate until fall, and June is typically one of Yellowstone's busiest months.

Mark Taylor, owner and chief pilot of Rocky Mountain Rotors, said his company had airlifted about 40 paying customers over the past two days from Gardiner, including two women who were "very pregnant."

Taylor spoke as he ferried a family of four adults from Texas, who

wanted to do some more sightseeing before heading home.

"I imagine they're going to rent a car and they're going to go check out some other parts of Montana—somewhere drier," he said.

At a cabin in Gardiner, Parker Manning of Terre Haute, Indiana, got an up-close view of the roiling Yellowstone River floodwaters just outside his door. Entire trees and even a lone kayaker streamed by.



In this photo provided by Sam Glotzbach, the fast-rushing Yellowstone River flooded what appeared to be a small boathouse in Gardiner, Mont., on Monday, June 13, 2022, just north of Yellowstone National Park. Credit: Sam Glotzbach via AP



This aerial photo provided by the National Park Service shows a flooded out North Entrance Road, of Yellowstone National Park in Gardiner, Mont., on June 13, 2022. Flooding caused by heavy rains over the weekend caused road and bridge damage in Yellowstone National Park, leading park officials to close all the entrances through at least Wednesday. Gardiner, a town just north of the park, was isolated, with water covering the road north of the town and a mudslide blocking the road to the south. Credit: Jacob W. Frank/National Park Service via AP



Floodwaters are seen along the Clarks Fork Yellowstone River near Bridger, Mont., on Monday, June 13, 2022. The flooding across parts of southern Montana and northern Wyoming forced the indefinite closure of Yellowstone National Park just as a summer tourist season that draws millions of visitors annually was ramping up. Credit: AP Photo/Emma H. Tobin



The highway between Gardiner and Mammoth in Montana is washed out trapping tourists in Gardiner, as historic flooding damages roads and bridges and floods homes along area rivers on Monday, June 13, 2022. Credit: Larry Mayer/The Billings Gazette via AP



Floodwaters inundated property along the Clarks Fork Yellowstone River near Bridger, Mont, on Monday, June 13, 2022. The flooding across parts of southern Montana and northern Wyoming forced the indefinite closure of Yellowstone National Park just as a summer tourist season that draws millions of visitors annually was ramping up. Credit: AP Photo/Emma H. Tobin



The Boulder River south of Big Timber floods roads and homes on Monday, June 13, 2022, as major flooding swept away at least one bridge, washed away roads and set off mudslides in Yellowstone National Park in Montana. Credit: Larry Mayer/The Billings Gazette via AP



This photo provided by Katherine Schoolitz shows flooding in Red Lodge, Mont., on Monday, June 13, 2022. Raging floodwaters that pulled houses into rivers and forced rescues by air and boat began to slowly recede Tuesday across

the Yellowstone region, leaving tourists and others stranded after roads and bridges were knocked out by torrential rains that swelled waterways to record levels. Credit: Katherine Schoolitz via AP



Floodwaters inundate property along the Clarks Fork Yellowstone River in between Edgar and Fromberg, Mont., on Monday, June 13, 2022. The flooding across parts of southern Montana and northern Wyoming forced the indefinite closure of Yellowstone National Park just as a summer tourist season that draws millions of visitors annually was ramping up. Credit: AP Photo/Emma H. Tobin



This photo provided by Katherine Schoolitz shows flooding in Red Lodge, Mont., on Monday, June 13, 2022. Raging floodwaters that pulled houses into rivers and forced rescues by air and boat began to slowly recede Tuesday across the Yellowstone region, leaving tourists and others stranded after roads and bridges were knocked out by torrential rains that swelled waterways to record levels. Credit: Katherine Schoolitz via AP



In this image provided by Sam Glotzbach, the flooding Yellowstone River undercuts the river bank, threatening a house and a garage in Gardiner, Mont., on June 13, 2022. Credit: Sam Glotzbach via AP



Floodwaters inundate property near the Clarks Fork Yellowstone River in between Edgar and Fromberg, Mont., on Monday, June 13, 2022. The flooding across parts of southern Montana and northern Wyoming forced the indefinite closure of Yellowstone National Park just as a summer tourist season that draws millions of visitors annually was ramping up. Credit: AP Photo/Emma H. Tobin



A road is closed from floodwaters along the Clarks Fork Yellowstone River near Bridger, Mont., on Monday, June 13, 2022. The flooding across parts of southern Montana and northern Wyoming forced the indefinite closure of Yellowstone National Park just as a summer tourist season that draws millions of visitors annually was ramping up. Credit: AP Photo/Emma H. Tobin



Floodwaters from the the Clarks Fork Yellowstone River surround a home near Bridger, Mont., on Monday, June 13, 2022. The flooding across parts of southern Montana and northern Wyoming forced the indefinite closure of Yellowstone National Park just as a summer tourist season that draws millions of visitors annually was ramping up. Credit: AP Photo/Emma H. Tobin



In this photo provided by the National Park Service, is high water in the Gardiner River along the North Entrance to Yellowstone National Park in Montana, that washed out part of a road on Monday, June 13, 2022. Credit: National Park Service via AP



Micah Hoffman is seen in his mud-covered yard as a pump removes water from his basement, Tuesday June 14, 2022, in Red Lodge, Mont. Residents were cleaning up after record floods in southern Montana this week. Credit: AP Photo/Matthew Brown



This aerial photo provided by the National Park Service shows the Lower Blacktail Patrol Cabin washed away in Yellowstone National Park on Monday, June 13, 2022. Flooding caused by heavy rains over the weekend caused road and bridge damage in Yellowstone National Park, leading park officials to close all the entrances through at least Wednesday. Gardiner, a town just north of the park, was isolated, with water covering the road north of the town and a mudslide blocking the road to the south. Credit: Jacob W. Frank/National Park Service via AP



This aerial photo provided by the National Park Service shows a washed out road at North Entrance Road, of Yellowstone National Park in Gardiner, Mont., on June 13, 2022. Flooding caused by heavy rains over the weekend caused road and bridge damage in Yellowstone National Park, leading park officials to close all the entrances through at least Wednesday. Gardiner, a town just north of the park, was isolated, with water covering the road north of the town and a mudslide blocking the road to the south. Credit: Doug Kraus/National Park Service via AP



Residents of Red Lodge, Mont., inspect damage to a house that was flooded after torrential rains fell across the Yellowstone region, Tuesday, June 14, 2022. Local officials say more than 100 houses in the small city were flooded. Credit: AP Photo/Matthew Brown



Ken Ebel is seen in front of his flood-damaged house and yard, Tuesday, June 14, 2022, in Red Lodge, Mont. Ebel says sandbags placed by volunteers likely spared his property from further damage. Credit: AP Photo/Matthew Brown



The roaring Yellowstone River is seen from the air sweeping over trees and near homes Tuesday, June 14, 2022, in Billings, Mont. Credit: AP Photo/Brittany Peterson



The roaring Yellowstone River is seen from the air sweeping over trees and near homes Tuesday, June 14, 2022, in Billings, Mont. Credit: AP Photo/Brittany Peterson

In early evening, he shot video as the waters ate away at the opposite bank where a large brown house that had been home to park employees before they were evacuated was precariously perched.

In a large cracking sound heard over the river's roar, the house tipped into the waters and was pulled into the current. Sholly said it floated 5 miles (8 kilometers) before sinking.

The towns of Cooke City and Silvergate, just east of the [park](#), were also isolated by floodwaters, which also made drinking water unsafe. People

left a hospital and low-lying areas in Livingston.

In south-central Montana, 68 people at a campground were rescued by raft after flooding on the Stillwater River. Some roads in the area were closed and residents were evacuated.

In the hamlet of Nye, at least four cabins washed into the Stillwater River, said Shelley Blazina, including one she owned.

"It was my sanctuary," she said Tuesday. "Yesterday I was in shock. Today I'm just in intense sadness."

© 2022 The Associated Press. All rights reserved. This material may not be published, broadcast, rewritten or redistributed without permission.

Citation: Floods leave Yellowstone landscape 'dramatically changed' (2022, June 15) retrieved 26 April 2024 from <https://phys.org/news/2022-06-yellowstone-landscape.html>

This document is subject to copyright. Apart from any fair dealing for the purpose of private study or research, no part may be reproduced without the written permission. The content is provided for information purposes only.