



Rough Waters Ahead

**The Impact of the Trump Administration's
EPA Budget Cuts on Montana's Waterways**



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Executive Summary

Montana's waterways are critical to the health and welfare of our families, our communities, and wildlife.

Montana's natural beauty hides major challenges facing our waterways. Fish and other aquatic wildlife struggle to survive in some of our rivers and streams, not all residents have safe water to drink, and mining wastes pollute many of the state's waterways. But, with the dedicated work of local, state and federal governments – along with residents – the long process of restoring Montana's waterways to health is underway.

The U.S. Environmental Protection Agency has been essential to those efforts – supporting and working with state and local officials and residents to keep pollution out of our waterways, hold polluters accountable, restore degraded waterways to health, and study and monitor Montana's waterways to ensure their future health and safety.

That progress is now in jeopardy. The Trump administration has proposed deep and devastating cuts to the EPA's budget. Even if the president's proposed cuts are scaled back by Congress, they would still have profound negative impacts on the agency's ability to deter pollution from mines, oil spills, logging, sewage treatment plants, runoff and other sources, while undercutting efforts to restore lakes, rivers and streams across Montana.

We need a strong EPA with sufficient resources to support local cleanup efforts and to partner with

state government and communities to protect and restore Montana's waterways.

Montana's lakes, rivers and streams are being protected and restored with funding and effort from the EPA. The EPA has worked to:

- **Keep pollution out of our waterways:** The Bitterroot River is the third-most heavily fished trout river in Montana. Angling interest in the Bitterroot has, in part, resulted from efforts to counteract historic water pollution issues, such as sediment, nutrient loading, elevated temperature, and metal pollution.¹ The Montana Department of Environmental Quality and the EPA have collaborated since 2003 to set pollution limits to restore the Bitterroot watershed.² As a result of these limits and extensive restoration efforts, the Bitterroot watershed is now on the path to recovery. For example, Meadow Creek, a stream in the headwaters of the Bitterroot River that could not support aquatic life due to sediment pollution and damage caused by overgrazing, had so improved by 2016 that the state no longer classified it as impaired. It now offers healthy habitat for aquatic life.³
- **Hold polluters accountable:** Nearly a century of mining and smelting contaminated Silver Bow Creek with heavy metals, rendering the water so toxic that the creek had no fish.⁴ In 1983, the EPA designated the Silver Bow Creek/Butte Area on the upper Clark Fork as a Superfund site, and the agency has enforced and overseen the creek's cleanup by Atlantic Richfield Company and 25

other polluters.⁵ Work has included removing contaminated tailings, reforming a natural channel in the creek, and restoring riparian and aquatic habitat, all of which has returned a wild and native trout fishery to Silver Bow Creek.⁶ The EPA continues to oversee the final stages of cleanup and long-term monitoring of the area.

- **Restore waterways to health:** Logging and grazing in the Swan River Valley dumped sediment into the valley's creeks, threatening native bull trout populations.⁷ The Montana Department of Environmental Quality used EPA funding to support Swan Valley Connections' work to help educate local landowners about forestry practices such as buffer zones that counter erosion and protect bull trout.⁸ Swan Valley Connections' close collaboration with landowners across the Swan Valley cut sediment loading by at least a third,

resulting in better river conditions.⁹ The Montana Department of Environmental Quality recently received additional EPA funding to remove old bridge abutments and collaborate with the U.S. Forest Service to study additional options to reduce runoff from logging roads.¹⁰

- **Conduct research and educate the public:** Researchers at Little Big Horn College and Montana State University who received EPA funding surveyed water quality in hundreds of homes on the Crow Reservation, finding metal, nitrate and bacteria contamination from polluted groundwater and streams in more than half of homes tested.¹¹ The research team's findings allowed members of the Crow tribe to better understand drinking water threats and to obtain tools to protect public health, such as water coolers and home filtration systems.¹²

Table ES-1. How Clean Water in Montana Depends on the EPA

Montana's waters are cleaner because the EPA:	The EPA continues to protect clean water by:
Collaborated with the state to set pollution limits for the Bitterroot River Watershed	Funding the Montana Department of Environmental Quality's water pollution control program
Supported the state drinking water supervision program, which detected and stepped in to correct pollution in the Whitehall water supply	Funding the state's public water system supervision program, which ensures the implementation of the Safe Drinking Water Act in Montana
Identified the polluters responsible for contaminating Silver Bow Creek and enforced and monitored cleanup	Overseeing final stages of cleanup in Silver Bow Creek and long-term monitoring, and enforcing cleanup at 17 other Superfund sites across Montana
Helped fund local groups to restore the Blackfoot watershed	Funding restoration efforts across the state
Supported collaboration with landowners to improve forestry practices in the Swan River Valley	Funding projects to improve land management and decrease runoff pollution across Montana
Supported research that surveyed hundreds of tribal homes and improved access to clean water on the Crow Reservation	Supporting research into new threats to water quality and human health impacts of water pollution

The Trump administration’s proposed cuts to the EPA budget put these and other critical programs in danger – threatening the future health of Montana’s waterways.

- Many federal grants from the EPA to state governments for clean water would be slashed by 30 percent or more – making it more difficult for already cash-strapped state agencies to do their jobs and delaying important locally led cleanup efforts.¹³ For example, the proposed budget would end grants to state governments and tribal agencies to address pollution from farms, storm-water runoff and other dispersed sources.¹⁴
- Research and development funding would be cut by 47 percent, limiting support for scientists, residents and local communities trying to understand the ever-changing threats facing their waterways.¹⁵ For instance, the EPA’s Safe and Sustainable Water Resources research program, which supports science and technology research to protect drinking water, would be cut by more than a third.
- Funding for EPA’s Superfund cleanup program would be reduced by 30 percent, slowing progress on existing cleanup sites and preventing new cleanups from being added.¹⁶
- Overall, the EPA budget would be reduced by 31 percent.¹⁷
- Even if Congress makes some of these budget cuts less drastic, Montana’s waterways will still suffer without full funding of EPA programs.

Table ES-2. Estimated EPA Grant Funding Losses to Montana if Trump Administration’s Proposed Budget Is Enacted (table shows selected programs)¹⁸

Program (most recent year of funding for which data are available)	Funding in most recent year	Estimated lost funding due to proposed Trump admin. cuts
Water Pollution Control Grants (FY16)	\$2,404,000	\$721,200
Nonpoint Pollution Control Grants (FY15)	\$893,706	\$893,706
Drinking Water Protection and Enforcement Grants (FY17)	\$1,360,000	\$408,000
Superfund-Related Grants (FY17)	\$3,497,656	\$1,049,297
TOTAL	\$8,155,362	\$3,072,203

Note: Estimates are calculated assuming EPA budget cuts affect all states by the same percentage. Reductions are based on grants from most recent fiscal year.

The job of cleaning up and protecting Montana’s streams, rivers and lakes is not done. Only a well-funded EPA can continue the legacy of progress in

cleaning up Montana’s waterways and ensure that they are healthy and safe for us and future generations to enjoy.

Montana's Waterways Provide Drinking Water and Recreation Opportunities

Montana, "The Last Best Place," is known for its pristine mountain lakes and rivers. Its aquifers and waterways supply one million residents with drinking water, irrigate fields, and provide habitat for blue-ribbon fisheries and diverse wildlife. Outdoor recreation opportunities attract millions of people to world-famous public lands and waterways. "Big Sky Country" is also known for its fishing, with hundreds of miles of legendary trout streams. Annually, anglers spend a collective 3.5 million days fishing the waters of Montana.

Despite the importance of water to Montana, Montana's waterways have suffered and continue to suffer serious and, in some cases, lasting damage.

- Since the first gold rush in the 1860s, mines have released toxic acids and metals into waterways. These pollutants, from both abandoned mines and mines that are still operating, have built up in rivers, lakes and reservoirs, killing fish and wildlife and threatening the drinking water of Montanans.²³
- As the state's population has grown, sewage treatment facilities haven't always kept up, releasing poorly treated or untreated sewage. This has exposed people to bacteria and pathogens and polluted rivers and lakes, like popular Flathead Lake, to the point where their ability to support aquatic life has become impaired.²⁴

Photo: skeeze via Pixabay, CC 0.



Kayaking on Lake McDonald in Glacier National Park.

- Cattle grazing, road-building, logging, mining and farming have damaged watersheds and increased polluted runoff.²⁵

The creation of the EPA in 1970, the passage of the Clean Water Act in 1972, and the adoption of the Superfund law in 1980 enabled efforts to protect and clean up Montana's waterways. The EPA was granted tools, funding and enforcement authority to compel industrial, agricultural and municipal polluters to reduce pollution; clean up contaminated sites or ensure that polluters do so; limit runoff pollution; and restore



Flathead Lake is a popular recreation destination.

water quality to protect the natural environment and the families of Montana.

But Montana's waterways still face serious pollution threats, including agricultural runoff, contamination from current and abandoned mines, spills from oil and gas pipelines, and discharge from wastewater treatment plants. Thousands of miles of the state's

rivers and streams are too polluted to be used for fishing, swimming or drinking water. The EPA budget proposed by the Trump administration would cut funding for clean water protection, enforcement, restoration and research in Montana, impeding the ability of local, state and federal officials to prevent pollution and protect the state's waterways to health.

Trump Administration Budget Cuts Would Hobble the EPA's Work to Protect Our Waterways

The Trump administration's proposed fiscal year 2018 budget, released in May 2017, cuts funding for the Environmental Protection Agency by 31 percent, from \$8.2 billion in fiscal year 2017 to \$5.7 billion in fiscal year 2018.²⁷ That would return the agency's budget to 1970s levels, adjusted for inflation, despite the EPA's vastly expanded congressionally mandated responsibilities and the continued severe threats facing our waterways.²⁸ Congress will likely modify the administration's budget, but, even if proposed cuts are scaled back, they would still have disastrous impacts on the EPA's ability to protect our waterways.

The Environmental Protection Agency plays a vital role in ensuring that the nation has clean water for drinking and recreation, and for sustaining fish, plants and wildlife. The EPA works directly to ensure the requirements of the Clean Water Act, the Safe Drinking Water Act and other laws protecting water quality are met, and also supports the work of states in implementing and enforcing those laws. The budget cuts proposed by the Trump administration would weaken the EPA's efforts on both fronts.

Cuts Would Affect Human Health and Hamper Scientific Research

Dramatic budget cuts mean that the EPA would be less able to protect clean water and hold polluters ac-

countable across the country. The Trump administration's proposed budget indicates that the EPA would need to reduce its staff by nearly one-quarter.²⁹

Environmental programs run by the EPA and related to water are slated for a 34 percent reduction.³⁰ This would make it harder for the EPA to reduce runoff pollution, monitor waterways for contamination, and protect watershed lands and wetlands that are critical to keeping our waterways clean and healthy. The EPA's resources for pursuing polluters and enforcing water quality protections would also be slashed, with a proposed 24 percent budget cut.³¹

Funding for research and development by the EPA is slated for a 47 percent reduction, a larger research and development cut than for any other agency.³² Budget cuts proposed for the Office of Science and Technology that would harm water quality include:

- A 36 percent budget cut for the Safe and Sustainable Water Resources program, which provides the science and technological research to protect water for drinking and wildlife.³³
- A 40 percent cut in funding for the Human Health Risk Assessment program, which seeks to understand how environmental contaminants affect human health.³⁴
- A 31 percent cut for the Chemical Safety for Sustainability program, which studies the poten-

tial health and environmental impacts of manufactured chemicals throughout their lifecycle and seeks to develop faster analytical tools to more quickly identify risks.³⁵

- A 61 percent cut to the Sustainable Healthy Communities program’s research in support of better cleanup technologies for Superfund sites.³⁶
- A 38 percent cut to the Homeland Security Research Program, which includes efforts to understand how to decontaminate water supplies in the event of a chemical, biological or radiological attack.³⁷
- A 23 percent cut to the Forensics Support program, which documents sources and types of pollution to help EPA’s enforcement actions against polluters.³⁸

Cuts Would Slow Efforts to Prevent Pollution and Clean Up Contamination

The budget cuts would also limit the EPA’s support for the work that state and tribal governments do to

protect water quality. Many state and tribal assistance grants for clean water are slated to be reduced by 30 percent or more.³⁹

The proposed budget eliminates entire programs that have helped states to protect water quality. The budget would:

- End grants to state governments and tribal agencies to address pollution from farms, storm-water runoff and other dispersed sources.⁴⁰
- End grants that help local governments identify and clean up underground storage tanks that may be leaking oil or other hazardous pollutants into groundwater.⁴¹

Other aspects of EPA’s budget that affect water quality are also slated for cuts. For example, funding for efforts to clean up hazardous waste sites, which have the potential to pollute water, is in jeopardy. Table 1 shows potential funding losses in Montana for selected programs.

These budget cuts to EPA’s national work and its support of state and local action would harm water quality in Montana.

Table 1. Estimated EPA Grant Funding Losses to Montana if Trump Administration’s Proposed Budget Is Enacted (table shows selected programs)⁴²

Program (most recent year of funding for which data are available)	Funding in most recent year	Estimated lost funding due to proposed Trump admin. cuts
Water Pollution Control Grants (FY16)	\$2,404,000	\$721,200
Nonpoint Pollution Control Grants (FY15)	\$893,706	\$893,706
Drinking Water Protection and Enforcement Grants (FY17)	\$1,360,000	\$408,000
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TOTAL	\$8,155,362	\$3,072,203

Montana's Water Quality Is Threatened by the Trump Administration's EPA Budget Cuts

The EPA plays a critical role in protecting clean water in Montana. The EPA works with the state to establish and enforce limits on pollution, clean up pollution and restore damaged streams and rivers, identify parties responsible for pollution and compel their participation in remediation, and pursue research to better understand threats to clean water. The budget cuts proposed by the Trump administration will greatly weaken the EPA's ability to ensure that water in Montana is clean enough for drinking, swimming and fishing.

More Pollution in Montana Waters

The most important task in protecting Montana's waterways is preventing pollution from reaching and contaminating the waterways. Sometimes that means setting limits on what polluters can release to waterways. Other times, it means taking decisive action to eliminate longstanding threats.

EPA Funding Supports Montana's Drinking Water Supervision Program

Beginning in 2015, routine sampling of tap water in Whitehall, Montana, revealed levels of uranium that exceed the long-term level that the EPA believes

is safe for human health.⁴³ The Montana Department of Environment Quality ordered the Town of Whitehall to send notices to residents on a quarterly basis.⁴⁴ The notices explained that residents did not need to switch to bottled water but that "some people who drink water containing uranium in excess of [the limit] over many years may have an increased risk of getting cancer and kidney toxicity."⁴⁵

In January 2017, the Montana Department of Environmental Quality and the Town of Whitehall signed a consent order that the town would produce a plan within two months to address the uranium pollution.⁴⁶ Whitehall proposed a plan, which DEQ approved in June 2017, to reach compliance in one and a half years and to provide bottled water upon request in the meantime.⁴⁷ Montana DEQ has appended the plan to the January 2017 consent order, which makes it legally binding, and will be holding the town accountable to its compliance schedule to ensure the water supply of 1,100 Whitehall residents does not exceed safe levels of uranium by the deadline.⁴⁸

The DEQ supervises Whitehall's water supply, as well as hundreds of public water systems across the state, as part of Montana's implementation of the Safe Drinking Water Act, with EPA authorization,

oversight and funding assistance. In fiscal year 2017, the Montana Department of Environmental Quality received \$1.36 million from the EPA for help supervising public water systems.⁴⁹ As well as applying national clean drinking water standards, Montana has also developed standards that are adapted to pollution threats particular to Montana, setting maximum acceptable limits for metals like nickel, barium and silver, and for potentially radioactive material like strontium, to ensure Montanans have access to safe, clean drinking water.⁵⁰

The Trump administration's budget proposal for fiscal year 2018 cuts grants for state public water system supervision programs by 30 percent.⁵¹ These cuts will weaken the ability of the DEQ to protect Montana citizens from drinking water contamination, as the department did in Whitehall.

EPA Funding Supports Pollution Limits for the Bitterroot Watershed

The Bitterroot is the third-most heavily fished river in Montana, known for its stock of rainbow, brown and cutthroat trout.⁵² Angling interest in the Bitterroot has, in part, resulted from efforts to counteract historic water pollution issues, such as elevated levels of nitrogen, phosphorus, metals and sediment.⁵³

The Montana Department of Environmental Quality and the EPA have collaborated since 2003 to set limits for sediment, temperature, nitrogen and phosphorus in many streams across the Bitterroot watershed, for lead in the Bitterroot River, and for aluminum in Lick Creek.⁵⁴ The pollution limits, coupled with extensive restoration work, are beginning to yield benefits. Meadow Creek, a stream in the headwaters of the Bitterroot River that could not support aquatic life due to sediment pollution and damage caused by overgrazing, had so improved by 2016 that the state no longer classified it as impaired. It now offers healthy habitat for aquatic life.⁵⁵

Each year, Montana receives between \$2.2 million and \$2.5 million from the EPA to protect and restore

Montana's waterways, funding efforts to monitor waterways, administer pollution discharge permits, and develop new limits on how much pollution can be dumped into specific waterways.⁵⁶ But the Trump administration's budget proposal for fiscal year 2018 would slash the EPA grant program that enables this work by 30 percent, affecting the ability of states like Montana to limit pollution in waterways.⁵⁷

Impacts of EPA Budget Cuts

The Trump administration has proposed cutting funding for programs like those that have helped protect water quality in Montana. For example:

- The administration proposes to cut grants for state public water system supervision programs by 30 percent.⁵⁸
- The EPA program that supervises tribal water systems would lose 30 percent of its funding, as would grants for underground injection control, which are provided to the state of Montana and its tribes to administer permits and oversee injection well operation.⁵⁹
- Grant programs for pollution prevention, which received almost \$4.8 million in FY17, would also be eliminated.⁶⁰
- Programs to detect and prevent leaks from underground storage tanks of petroleum products and hazardous substances would be cut by half.⁶¹

EPA delegates implementation and enforcement of the Clean Water Act and the Safe Drinking Water Act to states. This gives Montana a greater voice in how those laws are applied in the state. To help with implementation of these federal laws, the Montana Department of Environmental Quality receives a quarter of its funding from the EPA.⁶² Slashing EPA support undermines DEQ's ability to address existing and emerging threats and to ensure residents of Montana have access to clean water in perpetuity.



The EPA helps fund the Montana Department of Environmental Quality's water pollution control program, which sets pollution limits to restore waterways like those in the Bitterroot River Watershed.

Less Accountability for Polluters

Clean water protection depends on limiting how much pollution industrial and municipal actors can produce and making sure that everyone is playing by the rules. Enforcing federal laws that protect clean water means keeping an eye on pollution levels, inspecting sites to check that polluters are abiding by the conditions of their pollution discharge permits, and enforcing those conditions when polluters fail to meet them. The EPA, the Montana Department of Environmental Quality and tribal governments work together to enforce clean water laws, prevent pollution from reaching dangerous levels, and keep communities and the environment safe from harm.

The EPA Enforced Cleanup of Silver Bow Creek in the Upper Clark Fork River

In the 1980s, Silver Bow Creek, the uppermost reach of the Clark Fork River, was so contaminated with

mining and smelting waste that 26 out of the creek's 30 miles had no fish.⁶³ Toxic pollution meant that no vegetation grew in the floodplain on either side of Silver Bow Creek.⁶⁴ Upstream, sulfuric acid in an abandoned open pit mine, the Berkeley Pit, was set to pollute the nearby aquifer by 2022 if left in place.⁶⁵ The pollution came from mining and ore processing activity in the Butte area that dumped more than 3 million cubic yards of raw mining and milling waste directly into Silver Bow Creek for almost a century.⁶⁶

In 1983, the EPA added the Silver Bow Creek/Butte Area Superfund site to its national priorities list for cleanup, and identified 26 different corporate and government entities as responsible for the cleanup and its cost.⁶⁷ The EPA named the Atlantic Richfield Company as the primary party, and reached a settlement with the company in 1999, whereby Atlantic Richfield agreed to pay \$215 million to the state, including \$80 million to clean up Silver Bow Creek.⁶⁸ In a separate 2002 consent decree with the state and

the EPA, Atlantic Richfield and other polluters agreed to pay an additional \$87 million to build a treatment plant to clean the acidic water from the contaminated Berkeley Pit and keep the nearby aquifer safe.⁶⁹ Though the plan will not result in closure of the Berkeley Pit as a Superfund site, it is the best choice among poor options.

Since then, the EPA has directed and overseen cleanup activities undertaken by Atlantic Richfield, removing contaminated soil from waste dumps, residential areas and rail yards; treating groundwater and stream banks and channels; capping a waste dump; installing infrastructure to address stormwater contamination; and building a treatment plant for the contaminated Berkeley Pit.⁷⁰

Thanks to EPA enforcement action, fish have returned to Silver Bow Creek, giving Butte residents the opportunity to fish for brook trout, rainbow trout, suckers and sculpin, as well as genetically pure westslope cutthroat trout from German Gulch.⁷¹

However, cleanup work still remains to be done. For example, an area along Slag Wall Canyon, made from bricks of smelting waste, is releasing more metals into the creek than previously thought.⁷² The EPA has pledged to continue monitoring water quality, a commitment that could be in jeopardy if the agency's funding is cut.

The Trump administration has proposed a budget that would slash the EPA's Superfund enforcement and cleanup budget, limiting the agency's ability to keep Montana residents and wildlife safe from contamination at the state's 17 Superfund sites.⁷³

Impacts of EPA Budget Cuts

The Trump administration proposes to shrink budgets for EPA enforcement by 19 percent and for compliance monitoring by 15 percent.⁷⁴ In addition, the proposed budget would slash 37 percent of the budget for Superfund enforcement, which holds polluters accountable for historic pollution.⁷⁵

The Trump administration's proposed budget cuts would leave the EPA with fewer resources to monitor polluters' compliance with water quality standards and to hold them accountable when they contaminate waterways and the land, as at the Superfund site at Silver Bow Creek.

Stalled Restoration of Polluted Waterways

After centuries of development and pollution, restoring Montana's waterways is key to ensuring that they will be able to continue to provide communities with safe drinking water and fishing opportunities. Restoration work can mean cleaning up the most polluted areas. It can also mean taking steps to restore the land and watershed to prevent pollution in the future. The EPA helps restore water quality in Montana by assisting landowners and state, regional and local groups to implement best management practices for better watershed protection.

EPA Funding Supports Restoration of the Blackfoot River

Although the classic novella *A River Runs Through It* was set on the Blackfoot River, a 1992 movie adaptation had to be filmed on the Gallatin River because the Blackfoot was too polluted.⁷⁶ In 1975, the failure of a dam released thousands of tons of toxic mine tailings into the river, causing trout populations to plummet and destroying habitat for miles downstream.⁷⁷ This added to the damage caused by decades of other mining activity, grazing, logging, irrigation and road runoff.⁷⁸

Local groups started by Blackfoot Valley landowners engaged state and federal agencies to begin restoration work on the river and its tributaries. Support from private landowners was crucial to accomplish watershed-scale restoration work that included rebuilding and reconnecting stream channels, replanting trees and bushes on streambanks, building

fences to keep livestock out of the water, removing culverts and other barriers to fish passage, upgrading irrigation equipment to withdraw less water, installing fish screens to keep fish out of irrigation ditches, and restoring wetlands.⁷⁹

Some of this restoration work was funded with more than \$1.2 million in grant money provided by the EPA to the Montana Department of Environmental Quality during the 2000s.⁸⁰ The DEQ in turn funded groups in the watershed that hired local residents and contractors.⁸¹ The projects that received funding in the Blackfoot watershed include:

- Efforts to control sediment and nutrient pollution on five tributaries of the Blackfoot River, and to develop a pollution control plan in conjunction with local landowners, anglers and others;⁸²
- Restoration of the banks and channels of Nevada, Brazil and Dick creeks, and reduction of sediment

pollution from roads into Liverpool and Park creeks;⁸³ and

- Monitoring of restoration projects to document water quality improvements.⁸⁴

The Blackfoot today is a naturally functioning, healthy river home to wild and native trout. Nearly 3,000 acres of wetlands have been restored, and the removal of barriers has opened up an additional 600 miles of streams to fish.⁸⁵ Fish populations have begun to rebound. For instance, cutthroat trout in the middle Blackfoot River have increased from less than one pound of trout per 1,000 feet of river in 1989 to 26 pounds per 1,000 feet in 2016.⁸⁶ Anglers spend 40,000 days every year fishing the Blackfoot and its tributaries.⁸⁷

The Trump administration's budget proposal zeroes out the state grant program that helped fund restoration of the Blackfoot watershed.

Photo: BLM via Flickr, CC BY 2.0

Extensive restoration work, funded in part by the EPA, has returned the Blackfoot to a naturally functioning and healthy river home to wild and native trout.





Bull trout are vulnerable to sediment pollution.

The EPA Collaborates with Montana Landowners to Restore Creeks in the Swan River Watershed from the Impacts of Logging

The Swan River watershed in northwestern Montana is home to bull trout, a threatened species that requires cold water, gravel without silt, and overhanging banks and vegetation for cover.⁸⁸ In the 1980s, high levels of sediment deposition in sections of Goat and Piper creeks due to timber harvest and runoff from logging roads affected bull trout habitat, eroding stream banks, degrading water quality, and limiting growth of aquatic plants.⁸⁹ The timber industry had built roads in the Swan River watershed to access and remove trees, and had removed trees close to creeks. Developers created further problems, building septic systems and failing to maintain roads. When stormwater washed over the roads and logged land, it carried sediment and nutrients into waterways such as Goat and Piper creeks.⁹⁰

Sediment pollution has a number of ill effects on bull trout. It can make it difficult for them to breathe and it can smother fish eggs or newly hatched fish by

limiting the flow of freshwater through gravel where eggs are laid.⁹¹ Sediment pollution also affects the health of the ecosystem, decreasing insect populations that feed fish that serve as prey for bull trout.⁹² In addition, sediment fills in the overhangs and other refuges that bull trout need.⁹³

In the 1990s and early 2000s, Montana DEQ used EPA funding to develop limits on sediment pollution in Goat and Piper creeks, which were finalized in 2004, and to grant \$409,000 to Swan Valley Connections (previously the Swan Ecosystem Center), a community-based nonprofit, to conduct restoration work in the Swan River watershed.⁹⁴ Swan Valley Connections, along with federal, state and local agencies and groups, partnered with local landowners to implement forestry best management practices to comply with the pollution limits.⁹⁵ Best management practices included establishing a buffer zone along Goat Creek and adding roadside runoff catchments to trap sediment before it reaches nearby waterways.⁹⁶ As a result, sediment pollution in Goat and Piper creeks decreased by almost a third and three-quarters respectively, meeting targets for better water clarity, and therefore better habitat for bull trout.⁹⁷ By 2006, Goat Creek and Lower Piper Creek were no longer impaired.⁹⁸ And in 2011, the state and federal government acquired the Plum Creek Timber Company's holdings in the Swan Valley, in one of the most significant land-conservation projects in state history, decreasing the intensity of logging activities in the valley.⁹⁹

To continue restoring the Swan Valley, the DEQ will be using EPA funding to remove old bridge abutments and will study additional best management practices to limit runoff from forest roads along Upper Piper Creek, which is still affected by sediment pollution, in partnership with the U.S. Forest Service.¹⁰⁰ That restoration work will be supported by a \$2 million grant that EPA awarded the Montana Department of Environmental Quality in July 2017 under a grant program that the Trump administration proposes to eliminate in fiscal year 2018.¹⁰¹

Impacts of EPA Budget Cuts

The Trump administration's proposed budget cuts would limit the EPA's ability to support the efforts of state, regional and local actors working to restore Montana's waterways. The Trump administration EPA budget would eliminate a key grant program that funds upstream protection to limit runoff pollution, such as the Swan Valley restoration.¹⁰² Based on the funding Montana received in fiscal year 2017, that could mean the loss of over \$2 million per year.¹⁰³ The Superfund cleanup budget, which helps to ensure cleanup of the most contaminated sites in Montana, particularly along the Clark Fork River, would shrink by nearly 30 percent.¹⁰⁴

In spite of hard-won successes in cleaning up some of Montana's most polluted sites, many of Montana's waterways remain polluted and in need of EPA funding to spark state and local cleanup efforts. Thousands of miles of the state's rivers and streams are too polluted for fishing, swimming or drinking, problems that can be addressed, in part, through restoration work.¹⁰⁵ Some sites remain severely contaminated – only one of Montana's Superfund sites has been removed from the EPA's list of most contaminated sites in the U.S., and the costly cleanup of the state's 17 Superfund sites continues.¹⁰⁶ Slashing EPA budgets will slow down cleanup and restoration of Montana's waterways.

Less Research and Education on Threats and Solutions

Emerging threats pose new challenges to restoring Montana's waterways and protecting its residents. Research generates knowledge and tools that help water agencies and treatment plant operators to understand the impacts of various threats to water and develop new strategies and tools to effectively safeguard this precious natural resource. Proposed budget cuts would eliminate important research programs and limit research grants that support

clean water in Montana for drinking, fishing and recreation.

EPA-Funded Research Helps Identify Drinking Water Quality Problems on the Crow Reservation

An EPA-funded research project has brought attention to poor drinking water quality in homes on the Crow Reservation. As part of a \$914,466 grant from the EPA to understand future threats to human health from water pollution, researchers at Little Big Horn College and Montana State University surveyed water quality in hundreds of drinking water wells on the reservation, finding that metal, nitrate and bacteria contamination levels exceeded EPA and Montana health standards in more than half of tested home wells. This contamination can have serious potential health impacts: for example, uranium, which is toxic to the kidneys and associated with cancer, fertility issues and liver damage, exceeded safe levels in 6 percent of wells tested in 2015.¹⁰⁷

As the research team increased awareness of water issues among tribal members, people began to ask to have their well water tested. The researchers began offering solutions to protect people with polluted water, such as providing water coolers that hold five-gallon jugs of bottled water and home filtration systems to reduce the exposure of community members to contaminants like uranium, arsenic, nitrate and fecal bacteria.¹⁰⁸

Thanks to the EPA grant, members of the Crow tribe have grown to better understand the implications of drinking water quality and health, and have gained tools to respond to threats. The Crow Tribe Water Resources Department is developing a new water supply and delivery system, ready in another decade, that will provide residents with cleaner water, drawn from the Bighorn River, than is currently available from groundwater wells.¹⁰⁹ The Trump administration's budget proposal would eliminate

the grant program that has funded this research project.¹¹⁰

Impacts of EPA Budget Cuts

The administration's budget proposal slashes the EPA's overall research and development budget by nearly half.¹¹¹ The Safe and Sustainable Water Resources research program would lose a third of its funding.¹¹² The key grant program under which the EPA supports university research programs for better environmental science and management, called "Extramural Science to Achieve Results," would not

receive any funding.¹¹³ Without this program, which has disbursed an average \$100 million a year since its inception, the research projects uncovering dangerous water conditions in hundreds of homes on the Crow Reservation would not have been funded.

Reducing research and education limits the capacity of the EPA and Montana to support scientific research programs adapted to Montana's needs. The administration's budget proposal jeopardizes water quality and health by delaying the development of innovative tools to preserve water quality and preparing for the future to ensure clean water for all.

The Health of Montana's Waterways Depends on a Strong EPA

Water quality in Montana has greatly improved in recent years. The EPA – along with state and local government, citizens, academics, and philanthropic and business partners – has been critical to this effort. The EPA has established and enforced limits on pollution, helped to restore waterways, and supported research and education about the threats to Montana's waterways and solutions that can return them to health.

The job is not done, however. Existing sources of pollution – from mining and farm runoff to industrial facilities and sewage treatment plants – continue to imperil water quality and human health, requiring continued vigilance and action. New threats and sources of pollution, meanwhile, may add to the region's water quality problems.

Now is not the time to hobble the essential work of protecting and restoring Montana's waterways. To build on the progress of recent decades and ensure that our waterways are safe for swimming, fishing

and other uses, funding for the EPA and the state and local efforts it supports should be increased, not cut. For example, aging drinking water and sewage infrastructure across the nation are in need of replacement, at a cost of \$600 billion over the next 20 years.¹¹⁴

Continued progress in cleaning up existing sources of pollution and addressing new sources of contamination requires increased funding for the EPA's clean water efforts. The agency needs resources to establish pollution limits that protect human health and to make sure that polluters abide by those pollution standards. The agency needs money to continue its critical role in supporting cleanup of past pollution and restoring damaged rivers and streams so that they can provide clean water. The EPA also needs funding to help it identify and respond to future threats to clean water. Ensuring that people who live, work and play in Montana have continued access to clean water requires full funding for the EPA.

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