

America's Most Endangered Rivers® 2015

The America's Most Endangered Rivers® report is one of the best-known and longest-lived annual reports in the environmental movement. Each year since 1984, grassroots river conservationists have teamed up with American Rivers to use the report to save their local rivers, consistently scoring policy successes that benefit these rivers and the communities through which they flow.

American Rivers reviews nominations for the *America's Most Endangered Rivers*® report from river groups and concerned citizens across the country. Rivers are selected based upon the following criteria:

For More Information

www.AmericanRivers.org/ EndangeredRivers

For Press Inquiries

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- A major decision (that the public can help influence) in the coming year on the proposed action
- The significance of the river to human and natural communities
- The magnitude of the threat to the river and associated communities, especially in light of a changing climate

The report highlights ten rivers whose fate will be decided in the coming year, and encourages decision-makers to do the right thing for the rivers and the communities they support.

The report is not a list of the nation's "worst" or most polluted rivers, but rather it highlights rivers confronted by critical decisions that will determine their future.

The report presents alternatives to proposals that would damage rivers, identifies those who make the crucial decisions, and points out opportunities for the public to take action on behalf of each listed river.



About American Rivers

American Rivers protects wild rivers, restores damaged rivers, and conserves clean water for people and nature. Since 1973, American Rivers has protected and restored more than 150,000 miles of rivers through advocacy efforts, on-theground projects, and an annual America's Most Endangered Rivers® campaign. Headquartered in Washington, DC, American Rivers has offices across the country and more than 200,000 members, supporters, and volunteers.

Rivers connect us to each other, nature, and future generations. Find your connections at <u>AmericanRivers.org</u>, <u>Facebook.com/AmericanRivers</u>, and <u>Twitter.com/AmericanRivers</u>.



Colorado River in the **Grand Canyon**

Arizona

Threat: Massive construction project, mining pollution, groundwater depletion

At Risk: An irreplaceable national treasure

The River

The mighty Colorado River flows 1,450 miles from its headwaters atop Poudre Pass in Rocky Mountain National Park to the Gulf of California in Mexico. Draining over 246,000 square miles, quenching the thirst of over 35 million people, and fueling a \$1.4 trillion dollar economy, the Colorado River is truly the lifeblood of the American Southwest.

Dominating a 277-mile stretch of the Colorado River in Northern Arizona, the Grand Canyon is one of the world's most iconic landscapes. A World Heritage Site and one of the Seven Natural Wonders of the World, the Grand Canyon awes and inspires nearly five million visitors per year with its grandeur and expanse. It is a sought-after destination for recreation and rejuvenation, and is considered a sacred landscape to more than ten Native American tribes who have called the region home for millennia.

The Grand Canyon is one of our greatest symbols of the values of wild nature. The canyon represents more than 1.7 billion years of geologic majesty and is home to wildlife including bighorn sheep and mountain lion, and fish such as the endangered humpback chub. Dozens of creeks, springs, and tributaries connect with the Colorado River in the Grand Canyon, including the Little Colorado, Kanab Creek, Havasu Creek, and Bright Angel Creek.

The Threats

The Colorado River in the Grand Canyon faces a battery of threats, each with a critical decision point this year:

Summary

Millions of Americans recognize the Grand Canyon as one of the most iconic landscapes on the planet. But this natural masterpiece of the Colorado River faces a battery of threats. A proposed industrial-scale construction project in the wild heart of the canyon, radioactive pollution from uranium mining, and a proposed expansion of groundwater pumping at Tusayan, all threaten the Grand Canyon's wild nature and unique experience that belongs to every American. Unless the Department of the Interior acts to stop these threats, one of our nation's greatest natural treasures will be scarred forever.



The Escalade project is a proposal to build a two million square foot development on the rim near the east end of the canyon that includes a tram to the bottom of the Grand Canyon at the confluence of the Colorado and Little Colorado rivers. The Escalade project would forever damage the canyon's remote, wild character. If the Escalade project moves forward, 10,000 people per day could crowd a pair of walkways along the edge of the river in the canyon. The riverside development includes a restaurant, gift shop, and restrooms that would irrevocably scar this national treasure. There are serious concerns about noise, pollution, and human waste. The confluence is a sacred site to the Navajo, Hopi, Zuni, Havasupai, and other tribes, and is one of the most picturesque and unique experiences in all of the Grand Canyon.



Photo: American Rivers

In addition to the urgent threat of the Escalade project, there are other attacks on the Colorado River and the Grand Canyon's health and wild nature. Active and inactive uranium mines on the north and south rims of the canyon threaten clean water. Current proposals exist to revive some of the inactive mines, and expand the exploration of currently active mines. The current moratorium on uranium mining around the Grand Canyon only applies to new mining claims. Nearly two decades of monitoring has documented radioactive contamination of a key Grand Canyon creek by an abandoned mine that ceased operations in 1969.

Finally, a foreign investment group is planning to expand the town of Tusayan, which lies just outside the south entrance to Grand Canyon National Park. The project includes a spa, dude ranch, hotels, and more than 2,200 homes – representing a 1,000 percent expansion of the current population. This expansion may require a substantial withdrawal of groundwater from



Photo: Jessie Thomas-Blate

the already-declining aquifer in an increasingly drought-stressed area of the country, and could negatively impact ecologically important seeps and springs within the Grand Canyon itself.

What Must Be Done

Secretary of the Interior Sally Jewell and the Obama Administration have a responsibility to all Americans to take action and use their existing authorities to protect the Colorado River in the Grand Canyon and its unique natural and recreational values from this battery of threats. Specifically, the Secretary must initiate a dialogue

focused on alternatives to the proposed Escalade project, which could provide viable and sustainable economic development opportunities for the Navajo Nation while protecting the Colorado River and National Park resources.

Additionally, the existing moratorium on mining should be made permanent and comprehensive, including a complete halt to all uranium mining around the canyon. Finally, expansion at Tusayan should not move forward until a comprehensive review

of local water resources, a determination that they are adequate to support the development without adverse impacts to the Colorado River and Grand Canyon National Park resources, and a plan is put into place to conserve and manage those resources sustainably.

How You Can Help

- Go to www.americanrivers.org/GrandCanyon and take action
- Retweet from @americanrivers on Twitter and use the hashtags #MER2015 and #GrandCanyon
- Share Grand Canyon posts on <u>Facebook</u>
- Find out more about the **Grand Canyon Trust**

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Columbia River

Washington, Oregon

<u>Threat</u>: Outdated dam operations

At Risk: Healthy runs of salmon and other fisheries

The River

The Columbia River Basin covers 258,000 square miles and includes parts of seven states and one Canadian province. In its 1200 mile course to the ocean, the river flows through four mountain ranges and drains more water to the Pacific Ocean than any other river in North or South America. It once produced the largest salmon runs on earth, with returns often exceeding 30 million salmon; today, only a fraction return to spawn. The river also provides drinking water to numerous communities along its course, and irrigates 600,000 acres of cropland.

Between the U.S. and Canada, the river's 19 hydroelectric dams provide about half the region's supply of electricity, in addition to providing flood control benefits. However, the dams have also played a major role in the decline and extirpation of numerous salmon and steelhead populations, including 13 stocks currently listed under the Endangered Species Act. Populations of Pacific lamprey and sturgeon have also been impacted, and water quality has declined as a result of the dams.

The Threat

Dam and reservoir operations have fundamentally changed the Columbia River's natural flows. Spring run-off is captured behind dams, thereby reducing flows and slowing the migration of young salmon headed out to sea, exposing them to predators in a series of slow-moving reservoirs. Reduced flows also harm the health of the

Summary

The Columbia River is the lifeblood of the Pacific Northwest's economy and environment. The river's dams provide more than half the region's electricity as well as flood control and irrigation, but they have also decimated the basin's salmon and steelhead runs. As the Columbia River Treaty is renegotiated, the U.S. Department of State must put the importance of a healthy ecosystem on an equal footing with the benefits of hydropower and flood control. We can achieve this balance by releasing more water for salmon when they need it and providing fish passage beyond currently impassable dams. Since the last Treaty was negotiated a little over 50 years ago, this is an once-in-alifetime opportunity to do right by one of the nation's most important rivers.



Columbia River estuary by shrinking the size of the river's freshwater plume— an area that hosts a variety of fish and bird species and accommodates the gradual adjustment of salmon to living in saltwater. Dams have also blocked salmon from thousands of miles in the upper Columbia River system, including tributaries such as the Spokane and Kettle rivers in Washington and numerous rivers in British Columbia.

Releasing more water from behind Canadian and American dams in the spring can help restore healthier flows for salmon and other species, even in the face of more winter precipitation coming as rain rather than snow, coupled with an earlier snowmelt from climate change. Combined with improved dam operations, floodplain and estuary restoration projects, and building fish passage at currently impassable dams, the future for the Columbia River's salmon, steelhead, and other species could be

surprisingly bright. Conversely, failing to prioritize ecosystem health on par with hydropower production and flood control under the Columbia River Treaty could condemn the river and its fish and wildlife to further decline.

What Must Be Done

Currently, the Columbia River Treaty has just two purposes: hydropower and flood control. It is time to bring the treaty into the 21st Century by adding an "ecosystem function" purpose. This purpose can be realized by: 1)



Grand Coulee Dam; Photo: Thomas O'Keefe

Releasing more water from reservoirs during the spring and summer to help young salmon safety complete their journey to sea; 2) Restoring floodplain and estuary habitat in the lower Columbia River for the benefit of fish and wildlife and to ensure flood safety; and 3) Working to reintroduce salmon and steelhead above currently impassable barriers such as Grand Coulee Dam.

To meet these ecosystem goals, the U.S. Department of State, which will negotiate any changes to the Columbia River Treaty, must declare its intention to include an "ecosystem function" purpose in the renewed Treaty. The "Regional Recommendation on the Future of the Columbia River Treaty after 2024" submitted by the U.S. Entity (the Administrator, Bonneville Power Administration and the Division Engineer, North Pacific Division, U.S. Army Corps of Engineers) to the State Department recommended including "ecosystem function" as a treaty purpose after consulting with 15 Columbia Basin tribes and 4 states,

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D.R. Michel Upper Columbia United Tribes (509) 954-7631 dr@ucut-nsn.org as well as electric utilities, conservationists, farmers, and other stakeholders. Implementing "ecosystem function" will require a basin-wide review of flood control operations in order to provide for higher flows while continuing to protect public safety and property.

In addition, President Obama should revise the current Executive Order that established the U.S. Entity to implement the treaty on behalf of the U.S., appointing an additional representative to represent ecosystem concerns and commit to appointing tribal representatives to the negotiating team to modernize the Treaty. The U.S. Department of State and Northwest state governments should push for investment in fish passage for salmon, steelhead, lamprey, and resident fish species at all dams where it is feasible.

- Go to www.americanrivers.org/Columbia and take action
- Retweet from @americanrivers on Twitter and use the hashtag #MER2015
- Share Columbia River posts on <u>Facebook</u>



Holston River

Tennessee

<u>Threat</u>: Toxic chemical pollution

At Risk: Drinking water supply, fish and wildlife, and recreational uses

Photo: Ben Collins

The River

The Holston River begins in the foothills of the Blue Ridge Mountains and flows for 274 miles through Virginia into Tennessee. The river ends at the confluence of the Holston and French Broad rivers to form the Tennessee River. It is home to 47 species of fish including smallmouth bass, brown trout, rainbow trout, redline darter, and bigeye chub.

The Holston River has played an important role in the history of East Tennessee from prehistoric times to today. In 1791, the Treaty of the Holston was signed between the United States and the Cherokee Indian Nation establishing that the Cherokees would be under the protection of the United States. Many Civil War battles were fought along the banks of the Holston, as the river had great strategic importance for commerce in the Tennessee Valley.

In the 1940's and 50's, the Tennessee Valley Authority built four dams on the Holston River to provide electricity and flood control. Today, the river is the most important source of drinking water for many communities that border the South Holston River in Tennessee, as well as a place for fishing and recreational use.

The Threat

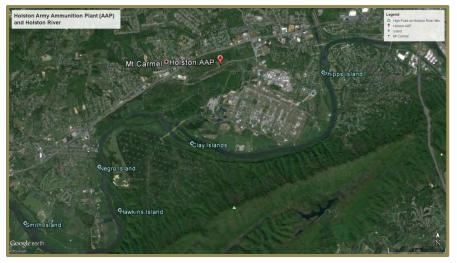
The Holston River is threatened by the release of a chemical explosive, RDX, from the Holston Army Ammunition Plant. RDX was developed by the U.S.

Army in World War II to bolster the explosive power of bombs and other military ordnance. The Holston Army

Summary

The Holston River is rich in history and heritage, and today provides drinking water for tens of thousands of Tennessee residents, as well as water for industry, livestock, and recreation. However, the river and its communities are threatened by an Army Ammunition Plant that has been contaminating water supplies with toxic chemical pollution for years. The U.S. Army and its **Holston Army Ammunition Plant** must immediately stop polluting the Holston River with harmful explosive chemicals.





Ammunition Plant is the only place in the U.S. where this highly explosive chemical is manufactured. RDX does not occur naturally in the environment, and has been found 143 miles downstream at the confluence of the Holston and French Broad rivers. According to the Environmental Protection Agency (EPA), RDX is a possible human carcinogen. EPA has established a RDX lifetime health advisory limit of 2 ug/L for drinking water and 0.61 ug/L for tap water screening. In March and April of 2014, RDX was found in all five drinking water samples taken by the First Utility District of Hawkins County; the

samples indicated RDX levels at more than double the EPA's 2 ug/L limit. The utility district provides drinking water from the Holston River for most of Hawkins County's 56,800 citizens.

What Must Be Done

The presence of RDX in ammunition plant discharges into the Holston River was discovered approximately 10 years ago. During the last decade, the Tennessee Department of Environment and Conservation (TDEC) has done little to stop the RDX discharges. In the past three years, the ammunition plant has violated its Clean Water Act permit limit for RDX approximately 822 times with exceedances from 130 percent to 843 percent.

On November 18, 2014, the Tennessee Clean Water Network (TCWN) filed a lawsuit to force the U.S. Army and the ammunition plant operator, BAE Systems, to comply with their Clean Water Act permits and to stop the RDX discharges into the Holston River. While this litigation will be resolved through the federal courts, it is important to develop a groundswell of support to force the U.S. Army to stop the continued pollution of the Holston River.

Furthermore, between 2007 and 2013, TDEC's water quality enforcement actions have fallen by approximately 75 percent from 204 actions in 2007 to 50 actions in 2013. TDEC must be held to task for their important role in the protection of drinking water



supplies, and the public must demand stronger enforcement actions in Tennessee to protect the state's waterways.

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Renée Hoyos Tennessee Clean Water Network (865) 522-7007 x100 renee@tcwn.org The U.S Army is supposed to protect Americans from threats, not put their lives at risk. It's time for the Department of Defense to take responsibility for its actions and clean up the mess it is making on the Holston River.

- Go to www.americanrivers.org/Holston and take action
- Retweet from @americanrivers on Twitter and use the hashtag #MER2015
- Share Holston River posts on <u>Facebook</u>



Photo: fisheyeguyphotography.com

Smith River

Montana

Threat: Copper mining

At Risk: Water quality, nationally renowned wild trout fishery

The River

The Smith River flows for 60 miles through a stunning limestone canyon between the Little Belt and Big Belt Mountains, emptying into the Missouri River just south of Great Falls. It is home to thriving populations of brown and rainbow trout, with some remnant populations of native westslope cutthroat trout in tributaries such as Tenderfoot Creek. Among the wildlife species that frequent the Smith River corridor are bald and golden eagles, osprey, black bear, moose, elk, and mule and whitetail deer.

Owing to its smooth flowing water and good road access at either end, the Smith is one of the few multi-day river trips in Montana that provides floaters of all ability levels with opportunities for backcountry solitude, superb fishing, and stellar camping. In fact, the float down the Smith River is so popular that it is Montana's only permitted river. In 2015, 8,096 people applied for just 1,175 float permits. Recreational fishing and floating generate an estimated \$4.5 million annually in revenue for outfitters and surrounding communities such as White Sulphur Springs.

The Threat

Tintina Resources, Inc. (a Vancouver, B.C.-based mining company controlled by an Australian mining corporation and New York hedge fund managers) is proposing to develop a huge underground copper mine on 12,000 acres of private land adjacent to Sheep Creek, a major headwater stream that produces half of the tributary-spawning trout in the Smith River drainage. The so-called Black Butte Copper Project would be located approximately 20 miles north of

Summary

The Smith River is one of the most cherished floating and fishing destinations in Montana. The river is home to a nationallyrenowned wild trout fishery, and provides prime habitat for dozens of fish and wildlife species. The river is threatened by a huge proposed copper mine in its headwaters that could seriously degrade water quality with acid mine drainage and toxic heavy metals. The State of Montana should not permit the copper mine unless it can be designed in a way that eliminates any risk to the river's water quality and habitat.

the community of White Sulphur Springs, an economically hard-pressed community that largely supports the construction of the mine because of the 200 jobs that boosters say it would create for the 11-year lifespan of the mine.



Tintina claims the mine site is home to the, "third highest-grade copper deposit in development in North America." However, removing that copper from the ground poses serious environmental risks. First, the copper lies in a massive sulfide-ore body, which, when exposed to air and water, can produce acid mine drainage. There is also the likelihood that the mine will leach toxic heavy metals such as copper into nearby surface waters; produce discharges of wastewater high in nitrates that result from the use of blasting compounds; and contaminate drinking water sources with arsenic. Finally, groundwater would have to be pumped from the mine, which could end up partially dewatering Sheep Creek or its tributaries, thus drying up trout habitat.



Brown trout; Photo: fisheyeguyphotography.com

Mining has left a toxic legacy in many of Montana's rivers for over a century. Among the rivers that have borne the brunt of historical mining impacts are the Big Blackfoot of *A River Runs Through It* fame and the Clark Fork, 120 miles of which is designated as the nation's largest Superfund site due to contamination by toxic heavy metals. The cost to clean up the Clark



Photo: Scott Bosse

Fork River alone is estimated at over \$1 billion and is expected to last 20 years. Modern mines have also taken their toll on local streams, and their legacy is found in publicly-funded multi-million dollar cleanups that are occurring, or must occur, at mines throughout Montana that have been shuttered in recent years, including: Zortman-Landusky near Malta, Beal Mountain near Anaconda, Kendall near Lewistown, Basin Creek south of Helena, and possibly the Troy Mine near the Kootenai River.

What Must Be Done

Tintina is expected to submit its mining plan to the Montana Department of Environmental Quality (DEQ) toward the end of 2015. That will trigger a permit review as well as an

Environmental Impact Analysis that could take at least two years to complete. Before the mine can be built, Tintina has to secure a state mining permit, state water quality discharge and stormwater permits, possibly a "310" permit under the Streambed and Streambank Preservation Act, and a federal Clean Water Act permit from the U.S. Army Corps of Engineers.

Governor Steve Bullock must send a clear signal to Tintina that for its Black Butte mine to win state approval, it must be designed using standards never before required of mines in Montana due to the industry's tradition of repeated failures. Any mine approved in the headwaters should ensure with 100 percent certainty that it can eliminate the possibility of drying up or polluting Sheep Creek and the Smith River with acid mine drainage, nitrates, or toxic heavy metals.

How You Can Help

- Go to www.americanrivers.org/Smith and take action
- Retweet from @americanrivers on Twitter and use the hashtag #MER2015
- Share Smith River posts on <u>Facebook</u>

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Photo: Tim Palmer

Edisto River

South Carolina

<u>Threat</u>: Excessive water withdrawals

At Risk: Water supply, water quality, fish and wildlife habitat, recreation

The River

The longest free-flowing blackwater river in the United States, the Edisto winds from spring-fed headwaters in the Sandhills of central South Carolina, through the heart of floodplain forests in the Coastal Plain, to the rich estuary of the Ashepoo/Combahee/Edisto (ACE) Basin. It is an intimate river along most of its length— a place where paddlers enjoy solitude and close-up views of diverse plants and wildlife. No dams block the Edisto's flow; migratory fish are free to run its entire 250 mile length, from ocean to headwaters.

In the heart of the ACE Basin, freshwater arteries sustain one of the most acclaimed natural areas found on the East Coast, where more than 130,000 acres of land have been protected through public/private partnerships. While the river's character changes along its path, there is one constant—the tannin-stained Edisto waters—the lifeblood of this unique region.

The Threat

This year's listing of the Edisto River follows the South Fork of the Edisto's appearance in the 2014 America's Most Endangered Rivers ® report. Excessive agricultural water withdrawals continue to be a major threat to the Edisto and other rivers across the state. While municipal and industrial water users are required to get withdrawal permits, South Carolina's surface water law does not require permits for agricultural water users—this means that the state cannot require reduced water use during drought periods to protect the river, water quality, small farmers, and downstream users.

Summary

The Edisto River is one of South Carolina's most popular rivers for paddling, fishing, and outdoor fun. It's also the state's most heavily used river for irrigation, and excessive agricultural water withdrawals are threatening water quality and the water supplies of other users. While the state's permitting process requires industrial and municipal water users to meet requirements to safeguard river health and clean water, large agribusinesses get a pass. The South Carolina House of Representatives must pass H.3564 this year to end this unfair exemption so that the Edisto, and all of the state's rivers, can continue to provide sustainable water supplies for all, while supporting river health and recreation.





Photo: Tim Palmer

The agricultural exemption from state permitting in the 2010 South Carolina Surface Water Withdrawal, Permitting, Use, and Reporting Act has turned out to be a boon for industrial-scale agribusiness – not traditional South Carolina farms. At the time, lawmakers were led to believe that the relaxed measures would help traditional South Carolina farmers. No one envisioned the agricultural exemption from permitting would be exploited by industrial-scale, out-of-state agribusinesses that would use enough water to supply a medium-sized city. However, that's what is happening, increasing uncertainty for downstream farmers and other water users, and putting the Edisto and many of the state's rivers at increased risk.

What Must Be Done

This year, a bipartisan group of cosponsors introduced H.3564 in the South Carolina legislature— a bill that will end the exemption of large agricultural water withdrawals from permitting. The bill will protect South Carolina farmers by allowing existing agricultural registrations to remain in effect, and it will require new large agricultural water users to receive withdrawal permits like all other users. H.3564 will also ensure that the public is informed of all new water withdrawal permit applications before a decision is made, that all new permitted water users must curtail water withdrawals during low flow periods so that minimum flows are protected to safeguard clean water and wildlife, and that all new large water users develop water supply contingency plans.



Photo: Tim Palmer

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Tom Sliker Edisto TV 803-422-7629 tsliker@sliker.com This commonsense law does more than protect our rivers and existing water users. It ensures that South Carolina can provide security for farms— both traditional and industrial-scale. While the state seeks to attract new agriculture, we must make sure it is done responsibly.

The South Carolina legislature must pass H.3564 to amend the state's surface water law to make it fair for all water uses—drinking water, industrial, and agricultural—and to protect the health and integrity of the state's rivers for future generations.

- Go to www.americanrivers.org/Edisto and take action
- Retweet from @americanrivers on Twitter and use the hashtag #MER2015
- Share Edisto River posts on Facebook
- Sign up for updates from SC Rivers Forever coalition at www.SCRiversForever.org



Chuitna River

Alaska

Threat: Coal mining

At Risk: Native culture, wild salmon, and clean

water

The River

The wild Chuitna River winds for 25 miles from the base of the Tordrillo Mountains to Cook Inlet. The river's pristine waters are the lifeblood of the region, emblematic of true Alaskan wilderness. In a world where most salmon runs have been depleted and destroyed, the Chuitna boasts abundant runs of all five species of wild Pacific salmon. These prolific salmon runs support a significant subsistence, recreational, and commercial fishery, and are an essential source of nourishment for humans and wildlife in this region.

The Chuitna is bordered by two communities: Tyonek, a Native community, and Beluga, a frontier outpost. These communities rely on the river's salmon, moose, and waterfowl populations for subsistence, and the average resident harvests roughly 200 pounds of fish and meat annually. Additionally, these communities are home to a number of commercial fishermen whose top-quality salmon are sold across the nation. Studies have demonstrated that the potential costs of the mine in the form of lost economic opportunity and environmental damage would exceed the potential benefits by a staggering rate of \$3 to \$6 in costs for every dollar of revenue generated.

The Threat

The Chuitna River is threatened by PacRim Coal's proposed Chuitna Mine. If approved, the project would carve a 300-foot deep pit through 13.7 miles of the Chuitna's headwater streams. It would be one of our nation's largest

Summary

The Chuitna River supports Alaskan Native communities, wild salmon, abundant wildlife including moose, bear, and wolf, and excellent opportunities for hunting, fishing, and other recreation. PacRim Coal's proposal to develop what would be Alaska's largest open-pit coal strip mine at the Chuitna River's headwaters poses an unacceptable threat to the economy and communities that rely on clean water and healthy salmon runs. Unless the U.S. **Army Corps of Engineers denies** the mine's permit, this pristine wild river and its communities will be irreparably damaged.



open-pit coal mines and would destroy 30 square miles of irreplaceable wild river habitat. The project would be the first in Alaska to mine directly through a wild salmon stream, setting a dangerous precedent that could endanger hundreds of other wild Alaskan rivers. Additionally, the project would irrevocably harm thousands of acres of wetlands, forests, and bogs that play an important role in maintaining the Chuitna River's water quality and serve as important habitat for bear, moose, upland birds, and waterfowl.

Adjacent areas not directly strip mined by PacRim would be inundated with 7 million gallons of mine waste every day. This waste would flow into the Chuitna River and subsequently the Cook Inlet, creating a toxic trail that would harm a wide-array of fish and other wildlife, including the endangered Beluga whale.

Making matters worse is PacRim's plan to construct a large export facility that would ship the Chuitna's low-grade coal exclusively to Asian markets. This infrastructure would include a two-mile long trestle into Cook Inlet, cutting off the natural migration patterns of salmon and Beluga whales. Of even greater concern, this infrastructure would enable PacRim and other companies to act on existing coal leases that are currently uneconomical due to shipping limitations, potentially opening up the entire 33 billion ton Susitna-Beluga coal field and decimating some of Alaska's most wild and pristine rivers.

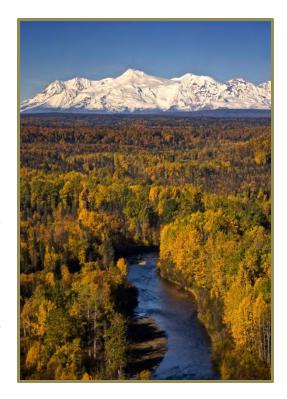


Photo: Damion Brook Kintz



What Must Be Done

The U.S. Army Corps of Engineers is expected to release a Draft Environmental Impact Statement in 2015 that will initiate a 30-90 day public comment period. This comment period provides a prime opportunity for Alaskans and citizens across the United States to express their concerns with the project and their desire to save the Chuitna River. The Environmental Protection Agency and the U.S. Army Corps of Engineers must deny any permit that would allow mining directly through the Chuitna River's salmon-bearing tributaries.

Photo: Dave McCoy

How You Can Help

- Go to <u>www.americanrivers.org/Chuitna</u> and take action
- Retweet from @americanrivers on Twitter and use the hashtag #MER2015
- Text the word "salmon" to 313131 to indicate your interest in helping save the Chuitna
- Share Chuitna River posts on Facebook

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Rogue/ Smith Rivers

Oregon and California

Threat: Strip mining

At Risk: Clean water, drinking water, wild salmon and steelhead runs, Wild and Scenic Rivers

The River

Illinois River; Photo: Northwest Rafting Co. www.nwrafting.com

Oregon's Wild and Scenic Rogue River is one of the most productive salmon and steelhead producers on the West Coast with an average of 100,000 fish returning each year. Its largest tributary, the Illinois River, is the wild salmon and steelhead refuge for the Rogue Basin and home to globally significant concentrations of rare plants.

The emerald-green Smith River is the only major undammed free-flowing river in California. In contrast to the proposed mining activity in the Oregon headwaters, the California portion of the river is protected, including from mining, as a part of the Smith River National Recreation Area that preserves 450 square miles of forested mountains, pristine botanical areas, remote wilderness landscapes, high-mountain lakes, and steep, rocky canyons. The river is a world-class steelhead river and provides drinking water for the majority of Del Norte County, California. The Rogue, Illinois, and Smith support an outstanding recreational economy, including hiking, rafting, and sportfishing.

Nickel strip mining is also proposed in the headwaters of Hunter Creek and the Pistol River, along the Wild Rivers Coast between the Rogue and Smith river watersheds. Hunter Creek and North Fork Pistol River are known for their strong native salmon and steelhead runs, plus designated and proposed Botanical Areas, and two BLM Areas of Critical Environmental Concern. As a result, flyfishers, boaters, and local communities prize this collection of rivers in southern Oregon and Northern California.

Summary

The Wild and Scenic Illinois Rogue (OR) and Smith (OR and CA) rivers are known for their healthy salmon runs, worldrenowned plant biodiversity, and outstanding recreation. However, proposed nickel mining in these rivers' headwaters threatens their unique values. Immediate closure of the area to mining is the most effective way to help prevent the development of nickel strip mines from turning the pristine headwaters of the highest concentration of wild rivers in the country into an industrial mining zone. The U.S. Forest Service, Bureau of Land Management, and Department of Interior must withdraw this area from mining immediately to protect this wild treasure.



The Threat

In the Illinois watershed at Rough and Ready Creek, a mining company has submitted a mining plan to the U.S. Forest Service (USFS). The plan includes mining lands recommended as Wilderness or Roadless Areas, constructing miles of roads through a pristine watershed and Botanical Areas, and construction of a smelter facility in an Area of Critical Environmental Concern.

Just over the ridge in the Smith River watershed, a foreignowned mining company has submitted a plan to conduct exploratory drilling at 59 sites along important tributaries, across



Rogue River Chinook salmon; Photo: Tim Palmer

approximately 3,000 acres of the South Kalmiopsis Roadless Area. The Bush Administration recommended a portion of this watershed as Wilderness.

The Environmental Protection Agency has identified metal mining as the largest toxic polluter in the U.S. Strip mining, road construction, and metal processing would devastate this fragile, precious wild area. If one mine starts operating, thousands of acres of wild watersheds could be developed on nearby federal public lands— impacting designated and eligible Wild and Scenic Rivers and turning a rare oasis of clean water, wild salmon, and rare plants into an industrial wasteland. USFS has already concluded that this type of mining would have drastic and irreversible impacts in Rough and Ready Creek, one of the tributary streams threatened by mining in the Rogue River watershed.

What Must Be Done

The only way to prevent these priceless headwaters areas and the rivers they feed from being polluted and destroyed is to protect them from mining through a federal mineral withdrawal. Fortunately, Senators Ron Wyden (OR) and Jeff Merkley (OR) and Rep. Peter DeFazio and Rep. Jared Huffman have called on the Administration to place a temporary ban or

withdrawal on mining. We need the agencies to immediately act on this long standing request to withdraw the headwaters of the Smith, Illinois, and Rogue rivers, as well as Pistol River and Hunter Creek, from mining. Delay only increases the likelihood of irreversible harm.

How You Can Help

- Go to www.americanrivers.org/RogueSmith and take action
- Retweet from @americanrivers on Twitter and use the hashtag #MER2015
- Share Rogue/Smith River posts on Facebook



Pistol River Photo: Ken Anderson

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St. Louis River

Minnesota

<u>Threat</u>: Copper-nickel sulfide mining

At Risk: Clean water and wildlife habitat

Photo: Lori Andresen

The River

The largest U.S. tributary to Lake Superior and the entire Great Lakes system, the St. Louis River is 194 miles long and drains 3,634 square miles of Minnesota's northern forests and wetlands. It begins in the Laurentian Uplands, where small streams divide in three directions towards Hudson Bay, Lake Superior, and the Mississippi River. This is a land that harbors timber wolves, moose, and Canada lynx, along with wood turtles, sturgeon, and 163 species of breeding birds.

The St. Louis watershed is a prolific source of wild rice, the "food that grows on water," which led the Ojibwe people to settle in the region. The river remains the primary reservation fishery for the Fond du Lac Band of Lake Superior Chippewa. The mainstem of the St. Louis River and several of its larger tributaries have been dammed for hydropower generation, disrupting connectivity and increasing mercury bioaccumulation in fish.

After the river leaves the reservation, it flows through the magnificent Jay Cooke State Park and into a rare freshwater estuary between the Twin Ports of Duluth, Minnesota, and Superior, Wisconsin. Historically, the estuary was heavily impacted by industry, resulting in its designation as a Great Lakes Area of Concern, and still hosts the busiest port on the Great Lakes. However, an investment of more than \$1 billion and a commitment to restoration and economic development by the City of Duluth has the lower St. Louis well on its way to recovery.

Summary

Minnesota's Arrowhead region is known for its pure and abundant waters, deep forests, expansive wetlands, and recreational opportunities. However, a proposed copper-nickel sulfide mine at the headwaters of the St. Louis River, the region's main artery, threatens drinking water, wildlife, and the treaty-protected hunting, fishing, and gathering rights of the Ojibwe people. It is critical that state and federal regulators deny permits for the mine plan because it does not sufficiently protect the St. Louis River and its communities.



The Threat

The St. Louis River is threatened by new copper-nickel sulfide mining in its headwaters that would destroy or degrade thousands of square miles of pristine forested wetlands and streams. The first of the new mining proposals, PolyMet Mining's NorthMet Project, would destroy 1,000 acres of wetlands, and indirectly impact thousands more wetland acres. It would also require a complex federal land exchange resulting in the turnover of more than 6,000 acres of biologically rich lands from the Superior National Forest and the St. Louis River watershed to mining companies.



Photo: Blue Lapis

The St. Louis River and its tributaries have already been adversely impacted by more than a century of iron mining, with the loss of thousands of acres of headwaters wetlands and streams. However, this new type of mining is likely to be more

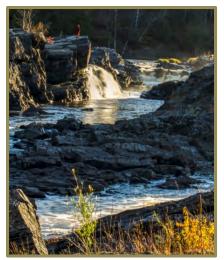


Photo: William Hurst

damaging to the environment because the copper and nickel are bound up in sulfidebearing rock, the mining of which commonly results in acid drainage and increases heavy metals and sulfates in downstream waters. Increased sulfate degrades wild rice stands and contributes to the methylation of mercury, which is already present in St. Louis River fish at levels that threaten public health. A 2013 study by the Minnesota Department of Health found that 1 in 10 infants on the North Shore of Lake Superior are born with unsafe levels of mercury in their blood, potentially impairing normal development.

A mining proponent called PolyMet "the snowplow" for the industry, clearing the way for many sulfide mines to follow. In addition to the cumulative effects of pollution and wetlands loss by an expansion of hard rock mining in the headwaters, the tailings basins and water treatment plants for PolyMet and other mines would need to function flawlessly for centuries. The long-term persistence of this threat multiplies the potential for ruptures of the tailings basin and mine pit from increasingly severe storm events

related to climate change— threatening the river, its wildlife, and its people for many generations to come.

What Must Be Done

In a public comment period for the PolyMet Mining Project and Land Exchange Supplemental Draft Environmental Impact Statement (EIS) last year, permitting agencies received 58,000 comments— almost all of them opposing the mine. The Minnesota Department of Natural Resources, U.S. Army Corps of Engineers, and U.S. Forest Service plan to release the Final EIS for the PolyMet Mine in Spring 2015, followed shortly by draft permits and a Forest Service decision on the proposed land exchange. The agencies must listen to the public and refuse to permit the new mine or allow the land exchange, because the mine would pollute the St. Louis River watershed and the land exchange does not protect the interests of the tribes or the environment.

How You Can Help

- Go to www.americanrivers.org/StLouis and take action
- Retweet from @americanrivers on Twitter and use the hashtag #MER2015
- Share St. Louis River posts on <u>Facebook</u>

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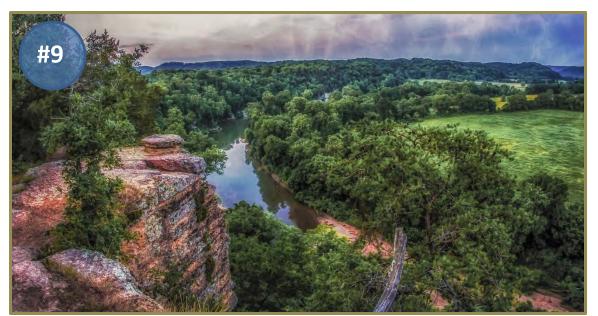


Photo: Tom Frundle

Harpeth River

Tennessee

Threat: Sewage pollution and water withdrawals

At Risk: Clean water, fish

The River

The Harpeth River flows 125 miles from its headwaters in Eagleville to its confluence with the Cumberland River. A portion of the Harpeth is designated a State Scenic River as it flows through the Nashville metro area, and a series of state, county, and city parks along the Harpeth connect natural, archaeological, and historic sites. Due to its natural beauty and proximity to a major urban area, countless paddlers, anglers, and other outdoor lovers enjoy the river every summer.

The Harpeth River and its tributaries are home to rich freshwater biodiversity, including more than 50 species of fish and 30 species of mussels. Several of these species are classified by Tennessee as rare and in need of management, and two mussel species are protected under the Endangered Species Act. The Harpeth also played a major role in the Battle of Franklin 150 years ago, a battle that determined the outcome of the Nashville Campaign, and ultimately the western theater of the Civil War.

The Threat

The Harpeth River flows through the heart of downtown Franklin, the 14th fastest growing city in the United States, and traverses Williamson County, one of the fastest growing counties in Tennessee. This rapid development has already caused harm to the river from adding treated sewage, increasing stormwater runoff, and withdrawing water. If not managed responsibly, it could cause irreparable damage to the river.

Summary

The Harpeth River is one of the few free-flowing rivers in Tennessee. It flows through one of the fastest growing regions in the country, but remains an oasis for local families, anglers, and paddlers. The river's waters, fish and wildlife, and recreation values are threatened by sewage and water treatment plant expansions. Unless state officials require state-of-the-art technology to improve sewage treatment, the river will be overwhelmed by treated sewage pollution and public health could be compromised.

Since the state of Tennessee first issued its required 303(d) list of impaired waters in 1999, the Harpeth has been listed because the river frequently fails to meet water quality standards for fish and aquatic life and recreational use during





Photo: Patty Shultz

periods of low summer flow. Nearly 60 percent of the entire length of the main river is impaired, along with 37percent of its more than 1000 miles of tributary streams.

The river's impairment is caused by dangerously low levels of dissolved oxygen driven by high concentrations of nutrients – particularly phosphorus – that fuel oxygen-hungry algal blooms that can lead to toxic conditions. Primary sources of nutrient pollution include treated sewage effluent and stormwater runoff. During summer months when the river experiences natural low flows, sewage effluent can dominate the river and significantly contribute to the total nutrient load downstream from the City of Franklin's sewage treatment plant. For example, on average in August 2014, downstream from the sewer plant, 32 percent of the river's total flow came from treated effluent that contained phosphorus levels 3.5 times higher than the river's levels just upstream, according to the city's own data.

The pollution problem is exacerbated by the City of Franklin's aging 2 million gallons per day drinking water plant that withdraws water from the river not far

upstream from its sewer plant. The city wants to replace its plant even though the Harpeth is too small to supply the city with its drinking water needs. The city's primary, and most reliable, source of drinking water is a substantial utility that produces water from the much larger Cumberland River. This utility provides three-fourths of the city's annual demand and up to 100 percent during the summer or when the city's plant is down. Meanwhile, the city withdraws up to 20 percent of the Harpeth's flow during low flow periods. According to the state, this is problematic for fish and aquatic life, and reduces the capacity of the river to handle the city's treated sewage discharges and other pollutants downstream.

What Must Be Done

This year, the City of Franklin will decide whether to build a new and larger drinking water plant. While the city has tried for more than a decade to expand its small, aging plant, economic analyses show that it is not cost-effective for ratepayers. The State of Tennessee is now reviewing the water withdrawal permit issued to the city in 2007. The state needs to tighten the withdrawal limits for the new permit in order to maintain the river flows needed to protect essential habitat and aquatic life.

Franklin leaders will also be deciding on a necessary expansion of the city's large sewage treatment plant, from its current capacity of 12 million gallons-a-day to 16 million gallons-a-day. In the new sewer permit under consideration, the State and the U.S. Environmental Protection Agency must ensure that state-of-the-art control technology for nutrient pollution is installed in order to reduce harm to the Harpeth and comply with water quality laws and regulations.



Photo: Megan E. Spainhour

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- Go to www.americanrivers.org/Harpeth and take action
- Retweet from @americanrivers and @Theharpethriver on Twitter and use the hashtag #MER2015
- Share Harpeth River posts on Facebook



Pearl River

Louisiana and Mississippi

Threat: New dam

At Risk: Healthy wetlands and wildlife habitat

Photo: Mississippi Museum of Natural Science

The River

The Pearl River ranks 4th in freshwater discharge among the rivers draining into the Gulf of Mexico. This river provides drinking water to hundreds of thousands of residents in Metropolitan Jackson, Mississippi. In addition, estuaries in Louisiana and Mississippi at the Pearl's mouth are highly influenced by the river's freshwater flows. Productive oyster reefs in the Mississippi Sound and in Louisiana's Biloxi marshes need the salinity moderation the river provides. The marshes and oyster reefs in these areas took a direct hit from Hurricane Katrina in 2005, sustaining considerable damage that was later compounded by the Deepwater Horizon oil spill in 2010. Oyster reef restoration projects near the mouth of the Pearl River are ongoing in both states.

The Pearl River is home to 110 fish species, including two federallythreatened species (Gulf sturgeon and the endemic ringed sawback turtle) and other species of special concern (pearl darter and frecklebelly madtom). This project would also impact floodplain forest bottomlands along the Pearl River in Jackson, including part of LeFleur's Bluff State Park, which is designated as an Important Bird Area by Audubon Mississippi.

The Threat

The Pearl River is threatened by a new dam that would create another impoundment on its main channel. The Ross Barnett Dam, built in 1963,

Summary

The Pearl River runs through Central Mississippi and supports vital oyster reefs and marsh habitat in the Mississippi Sound. Coastal wetlands and commercial fisheries depend on the Pearl River's flows. However, the river's health has been compromised by the Barnett Dam north of Jackson, Mississippi. Now, a new dam has been proposed for the Pearl that would cause additional harm to river health, wetlands, and fish and wildlife habitat. The U.S. **Army Corps of Engineers must** reject this unnecessary and ecologically harmful new dam.





Photo: Brett Whaley

created a 32,000 acre reservoir for drinking water and recreation north of Jackson, Mississippi. Operation of that dam has changed downstream reaches in two ways. First, banks are unstable, often collapse, and contribute more sediment than the lower river can move efficiently. Second, dam operation coupled with evaporation effects cause water deficits downstream in Louisiana's Honey Island Swamp and at the coast. Furthermore, water releases at the Barnett Dam during storms or hurricanes have, at times, contributed to coastal storm surges, exacerbating flooding along the lower Pearl River. Sea level rise on the coast, coupled with low flows, already cause saltwater intrusion in the lower basin's cypress swamps. Climate change will magnify these impacts.

This year, the Rankin-Hinds Pearl River Flood and Drainage Control District is sponsoring an Environmental Impact Statement (EIS) and feasibility study for a new dam, impounding a new reservoir 9 miles downstream of the existing Barnett Dam. This proposed artificial lake is a dredging project to widen, deepen, and straighten 7 miles of the river and place a low-head dam or weir at the downstream end. This project is being advertised as a flood control strategy to decrease flood elevation in

urban Jackson. While the flood control features of this lake design are unproven, areas immediately downstream of this new dam will likely feel the negative effects of faster flows and riverside habitat in a state park will be submerged. Ultimately, levees will need to be improved, and more bank collapse, sedimentation, erosion, and rapid evaporation are certain to follow. Further changes to the amount and timing of freshwater discharge threaten coastal fisheries, especially the oyster industry. The Pearl

River needs comprehensive restoration and natural flood protection strategies, not more outdated dam projects.

One Louisiana Parish and the Mississippi Commission on Marine Resources have passed resolutions in opposition to the project. Additionally, the Louisiana Coastal Protection and Restoration Agency and the Louisiana Wildlife and Fisheries Department are both on record outlining serious concerns about the project.



Photo: Brett Whaley

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What Must Be Done

The U.S. Army Corps of Engineers' Vicksburg District must reject the Environmental Impact Statement and feasibility study for this new dam and reservoir on the Pearl River. In addition, the Assistant Secretary of the Army for Civil Works in Washington, D.C., must not approve any flood control projects on the Pearl River that would have a significant adverse impact on the river and downstream and coastal communities.

- Go to www.americanrivers.org/Pearl and take action
- Retweet from @americanrivers on Twitter and use the hashtag #MER2015
- Share Pearl River posts on <u>Facebook</u>