AMERICA'S MOST ENDANGERED RIVERS® 2012



- 1 POTOMAC RIVER
- 2 GREEN RIVER
- 3 CHATTAHOOCHEE RIVER
- 4 MISSOURI RIVER
- 5 HOBACK RIVER

- 6 GRAND RIVER
- 7 SOUTH FORK SKYKOMISH RIVER
- **8 CRYSTAL RIVER**
- 9 COAL RIVER
- 10 KANSAS RIVER



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America's Most Endangered Rivers®

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 1986, 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:

- 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 is the leading organization working to protect and restore the nation's rivers and streams. Rivers connect us to each other, nature, and future generations. Since 1973, American Rivers has fought to preserve these connections, helping protect and restore more than 150,000 miles of rivers through advocacy efforts, on-the-ground projects, and the annual release of America's Most Endangered Rivers®.

Headquartered in Washington, D.C., American Rivers has offices across the country and more than 100,000 supporters, members, and volunteers nationwide. Visit www.facebook.com/americanrivers, and www.twitter.com/americanrivers.

#1 POTOMAC RIVER

MARYLAND, VIRGINIA, PENNSYLVANIA, WEST VIRGINIA, WASHINGTON D.C.

AT RISK: CLEAN WATER AND PUBLIC HEALTH



Summary

The Potomac is the 'nation's river,' rich in culture and history and the lifeblood of our nation's capital. The river provides drinking water to more than five million people and offers abundant opportunities for recreation. However, the Potomac is threatened by agricultural and urban pollution that will only get worse if Congress rolls back national clean water protections. If Congress puts polluters before people, our nation's river— and many other rivers nationwide— will become a threat to public health, unsafe for drinking water, wildlife, or recreation.



The River

The Potomac River offers a diversity of culture, history, and wildlife as it runs 380 miles from the mountains of West Virginia and the farmlands of Virginia, through our nation's capital to the Chesapeake Bay. Key tributaries include the Anacostia, Shenandoah, and Monocacy rivers. The river not only supplies drinking water, but provides critical habitat and opportunities for recreation, such as fishing and hiking. More than four million people visit the historic Chesapeake & Ohio Canal National Historic Park annually, with the raging falls of the Potomac Gorge as one of the park's biggest draws. From fly fishing shops to whitewater kayakers to commercial fishermen to marinas and restaurants, many stakeholders benefit from having access to clean river water.

The Threat

In 1965, President Lyndon B. Johnson called the Potomac "a national disgrace" because the river suffered from extensive pollution. Wetlands and streams were bulldozed, filled in, and destroyed. The river was overrun with algae and trash. The Clean Water Act of 1972 started the resurgence of the Potomac and rivers across the country. Thanks to the safeguards of the Clean Water Act, the Potomac is

significantly healthier than before and has become a magnet for recreation and an asset to nearby residents.

Despite these improvements, the health of the river still suffers from pollution from agricultural operations, urban runoff from streets and parking lots, and other contaminants in the water, such as pharmaceuticals. As the 40th



anniversary of the Clean Water Act approaches, we are in danger not only of rolling back progress already made, but further deteriorating the drinking water supply for millions of residents. As the second largest tributary to the Chesapeake Bay, maintaining exceptional water quality standards should be a high priority for state and federal agencies.

POTOMACRIVER For thirty years, the Clean Water Act was interpreted to protect all waters from headwater streams to mighty rivers. However, protections for these waters have been called into question by two Supreme Court decisions, leaving more than 5,000 public drinking water sources across the country vulnerable. If small stream and wetland protections are reversed, an estimated 10,000 miles of the Potomac River watershed will be in danger.

In addition, efforts in Congress to roll back safeguards under the Clean Water Act have been consistent and relentless. Without these fundamental protections, pollution in the Potomac will endanger drinking water, the health of fishermen and boaters, and fish and wildlife. A dirty river can also cause significant economic losses through beach closures, decreased property values, increased water treatment costs, and limits on commercial fisheries. If polluters and their allies in Congress have their way, these clean water protections will be limited for the Potomac River and all of our nation's waters.



What Must Be Done

PHOTO: MVIANTZEN

Congress must not pass legislation that weakens the Clean Water Act or prevents the Environmental Protection Agency and the U.S. Army Corps of Engineers from restoring protections for small streams and wetlands under the Act. The Administration must finalize guidance clarifying the scope of the Clean Water Act and issue a rule-making to ensure that all of our waters get the protections Americans expect and deserve. Our nation's leaders have a responsibility to safeguard our drinking water supplies by strengthening protections, not weakening them.

In addition, the Environmental Protection Agency must implement the Chesapeake Bay Total Maximum Daily Load (TMDL), a "pollution diet" for the Chesapeake Bay and its tributaries. Congress must continue to fund this critical work so that EPA can ensure its pollution reduction plan contains the highest protections for water quality and has adequate federal backstops to safeguard implementation for our nation's river and its tributaries.



PHOTO: MVJANTZEN

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How You Can Help

- Go to www.americanrivers.org/PotomacRiver and TAKE ACTION!
- Retweet from @americanrivers on Twitter and use the hashtags #MER2012 and #cleanwater
- Share Potomac River posts on our Facebook page and share our posts on yours
- Keep talking about the Potomac River to decision-makers and with your friends!

America's Most

#2 GREEN RIVER

WYOMING, UTAH, COLORADO

THREAT: WATER WITHDRAWALS

AT RISK: RECREATION OPPORTUNITIES

AND FISH AND WILDLIFE HABITAT



PHOTO: JUSTIN BAILIE, COURTESY OF O.A.R.S.

Summary

The Green River is the largest tributary of the Colorado River, and carves some of the most iconic river canyons in the U.S. Thousands of anglers fish its waters and thousands of rafters experience its majestic canyons each year, generating a robust rural economy across three states. However, a proposal to pump a massive volume of water out of the Green into a pipeline reaching over 500 miles across Wyoming to Colorado's Front Range threatens world-class recreation, rural economies, critical fish habitats, and the water supply for the lower Colorado River Basin. The Governors of Utah and Colorado must join Wyoming's Governor Mead in opposing the pipeline and standing up for more efficient, cost-effective water supply solutions.



PHOTO: KENT VERTREES, COURTESY OF AMERICAN WHITEWATER

The River

The beautiful Green River— one of the most remote rivers in the lower 48— traverses 730 miles across parts of Wyoming, Utah, and Colorado. Below Wyoming's Flaming Gorge Dam, the river carves Lodore Canyon in Dinosaur National Monument (Colorado), Desolation and Gray Canyons (Utah), and meanders through Canyonlands National Park before joining the mighty Colorado River. While much of the land in the Green River Basin is managed by the federal government, private lands are dominant within the river corridor. Several threatened or endangered native fish species thrive in the basin, including the Colorado pikeminnow, razorback sucker, and bonytail and humpback chub.

In the past, the economy of the valley was based largely on ranching and extractive industries. Recently, tourism has emerged as the dominant industry, with \$4.3 million in economic benefits from whitewater rafting alone. Below Flaming Gorge Dam, the river supports a world-class trout fishery, and anglers from all over the world come to the Green River to test their skills.

The Threat

Historically, Flaming Gorge Dam has been used to store water for mining, agriculture, and hydropower. Now, there are two separate proposals by Front Range water providers to build a 500-mile long "Flaming Gorge Pipeline" that will send water from the Green River and Flaming Gorge Reservoir in Wyoming to the Front Range of Colorado. Although one proposal for the pipeline project, masked as a hydropower project, was preliminarily



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rejected by the Federal Energy Regulatory Commission, the proponent of project remains vigorously committed to building the pipeline. Additionally, Front Range water providers with better access to resources are now positioning themselves to move the project forward.

The project could potentially divert more than 250,000 acre feet of water from the Green River annually—water that currently supports a robust recreation and tourism economy, rural agriculture, native species, and urban water use downstream. Estimates for completing the Flaming Gorge pipeline range between \$7 billion and \$9 billion (not including indirect or environmental costs)—an amount that could be the highest of any water project in Colorado's history. Additionally, if this project is completed, it would almost certainly use most, if not all, of Colorado's water allotment. This would severely restrict water development for agriculture and municipal use on Colorado's West Slope.

The impacts of this grave threat would be aggravated by other projects in the Green River Basin, including the proposed diversion of 53,000 acre-feet of water for a proposed nuclear power plant, and oil shale, tar sands, and natural gas development, all of which threaten the fragile desert ecosystem this river supports.

What Must Be Done

In the next year, the State of Colorado's Water Conservation Board (CWCB) will study the feasibility of this project, and allocate additional public funding to resolve potential issues that will interfere



PHOTO: JAMES KAISER, COURTESY OF O.A.R.S.

with a "Flaming Gorge Pipeline" going online. The State of Colorado's consideration and support of the project provides the biggest advancement of this project becoming a reality, and the greatest threat to the river's health.

Recent polls in Wyoming and Utah have revealed that this project is extremely unpopular among the public, yet Utah's Governor Herbert has not voiced a strong public opposition to the project. The Governor of Wyoming, Matt Mead, does not believe this project is a responsible use of taxpayer money. If Governor Herbert and Colorado Governor, John Hickenlooper, join Governor Mead it would make clear to Front Range water providers that this type of project is and will always be, unacceptable. Instead, the Governors should support smart water supply measures such as conservation, reuse, and agricultural and urban cooperative agreements to increase water supply in the basin.



PHOTO: JUSTIN BAILIE, COURTESY OF O.A.R.S.

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How You Can Help

- Go to www.americanrivers.org/GreenRiver and TAKE ACTION!
- Retweet from @americanrivers on Twitter and use the hashtags #MER2012 and #cleanwater
- Share Green River posts on our <u>Facebook</u> page and share our posts on yours
- Keep talking about the Green River to decision-makers and with your friends!

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#3 CHATTAHOOCHEE RIVER

GEORGIA

AT RISK: CLEAN WATER AND HEALTHY FISHERIES



PHOTO: ERICDEGE

Summary

The Chattahoochee River provides drinking water for millions in metro Atlanta, is one of America's best trout streams, and was recently designated as our country's first National Water Trail. However, a water war between Georgia, Alabama, and Florida has spurred proposals for costly new dams and reservoirs that would harm water quality, destroy recreation opportunities, and ruin wildlife habitat. The U.S. Army Corps of Engineers must deny permits for these reservoirs and state decision makers must embrace more cost effective solutions, like water efficiency, in order to ensure a reliable water supply and healthy river for generations to come.



The River

The Chattahoochee River provides drinking water to over 3.5 million people in metro Atlanta. Communities also rely on the river to dilute wastewater, irrigate crops, generate power, and provide fish and wildlife habitat and recreation opportunities. Although heavily-regulated and impacted by urban use, the Chattahoochee and its tributaries have retained unique natural features, including a robust wild, naturally reproducing, brown trout fishery. In fact, Trout Unlimited lists the river as one of America's 100 Best Trout Streams, and the America's Great Waters Coalition has declared it one of America's Great Waters.

PHOTO: STEVE HARWOOD Extending below Buford Dam for 48 miles, and recently designated America's first National Water Trail, is the Chattahoochee River National Recreation Area, servicing over three million visitors annually. With many species of fish, birds, amphibians, reptiles, and mammals, wildlife viewing and fishing opportunities in and along the Chattahoochee abound.

The Threat

In the last decade, the Chattahoochee basin has been challenged by rapid population growth and extreme droughts, while serving as ground-zero for the tri-state water war over allocation of the Apalachicola-Chattahoochee-Flint (ACF) basin. The river is threatened by two dams and reservoirs on Chattahoochee tributaries that are planned to fill two separate amenity lakes for new subdivision developments—Glades Reservoir (in the headwaters) and Bear Creek Reservoir (downstream of Atlanta). These reservoirs would collectively pull as much as 140 million gallons of water per day from the Chattahoochee system, reducing river flows critical to the trout fishery, while destroying nearly 131,000 feet of tributary streams. Following court rulings and recent multi-year periods of extreme drought, project proponents have repackaged these projects to justify them as water supply options.



These costly proposals are touted by some government and civic leaders as solutions to Georgia's water crisis, despite the fact that they are expensive and would require more than a decade to complete if permitted. This is a clear example of poor water planning benefiting private development at the expense of local taxpayers and the environment.

CHATTAHOOCHEE Building new large reservoirs to meet water supply need in the Southeast does not make sense. Periodically, the region suffers from drought, which is exacerbated by water evaporation from reservoirs. On average, nearly 5 million gallons of water per day will be evaporated from the system due to these projects. In addition, projections of future water demand are inflated and mitigation plans are woefully inadequate. Instead, decisionmakers should implement and fund conservation and efficiency measures to secure new water supplies at a fraction of the cost and minimal environmental impact.

What Must Be Done

The U.S. Army Corps of Engineers ("the Corps") must deny the Clean Water Act Section 404 permit applications for the Glades and Bear Creek Reservoirs. Currently, the Corps is reviewing both projects in coordination with Georgia's Environmental Protection Division, the U.S. Environmental Protection Agency, and the U.S. Fish and Wildlife Service. In July 2011, the Corps required the Glades Reservoir applicant (Hall County) to complete an Environmental Impact Statement (EIS) to further assess the impacts of the project on Lake Lanier and the watershed. Expected in the next year, the draft EIS will be subject to public review and comment.



PHOTO: JOE COOK

For the Bear Creek Reservoir, the Corps' Mobile District issued a letter noting the significant impacts the proposed reservoir may have on ACF Basin operations and recommended the Corps' Savannah District require an EIS for this project as well. The Savannah District should require an EIS, as opposed to the less stringent Environmental Assessment/Finding of No Significant Impact, for the Bear Creek project. The Corps' decision is expected within the next year.



PHOTO: UPPER CHATTAHOOCHEE RIVERKEEPER

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How You Can Help

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- Retweet from @americanrivers on Twitter and use the hashtags #MER2012 and #cleanwater
- Share Chattahoochee River posts on our Facebook page and share our posts on yours
- Keep talking about the Chattahoochee River to decision-makers and with your friends!

America's Most

#4 Missouri River

COLORADO, IOWA, KANSAS, MINNESOTA, MISSOURI, MONTANA, NEBRASKA, NORTH DAKOTA, SOUTH DAKOTA, AND WYOMING

THREAT: OUTDATED FLOOD MANAGEMENT

AT RISK: PUBLIC SAFETY



PHOTO: USACE

Summary

The Missouri is the nation's longest river, supplying drinking water, commerce, and recreation, and impacting the safety and well-being of millions. But the river and its communities suffer from outdated flood management, as evidenced by the massive flooding that ravaged communities in 2011. In order to improve public safety, decision-makers must prioritize using floodplains and wetlands to absorb and store flood waters, and Congress must fully fund the Missouri River Recovery Program and long term planning studies for the river.



The River

The nation's longest river, the Missouri flows for 2,300 miles and is considered the "Center of Life" for the Great Plains— serving as the main artery for exploration, food, trade, and transportation for thousands of years. Approximately one-fourth of all the agricultural land in the U.S. is found in the Missouri River watershed, which provides more than one-third of the country's wheat, flax, barley, and oats. The Missouri River has garnered the nickname the "Big Muddy"— inspired by the enormous loads of sediment moving through the river system to the Gulf of Mexico. However, the amount of sediment transported has diminished as dams, levees, and channelization increased over time.

PHOTO: PAUL LEPISTO

The Missouri River Basin supports 300 species of birds, 150 species of fish, and several types of mammals. Threatened and endangered species include the pallid sturgeon, Interior Least Tern, and Piping Plover. Restoring fish and wildlife populations will require flow modifications, protecting and restoring habitat, and adaptively managing the river system.

The Threat

Major floods have always been a fact of life along the Missouri. For more than 75 years, Congress has directed the U.S. Army Corps of Engineers to support multiple uses of flood control, navigation, and irrigation by impounding, channelizing, and dredging the river. As a result, the wide Missouri, with extensive floodplains and shallow areas, has been harnessed into a series of massive reservoirs on the upper river and a narrow, deep channel on the lower river. The channelization has actually made flood damages worse, putting communities at higher risk. Clean water, wildlife, recreation, and river health have also suffered heavy costs.



2012 America's Most Endangered Rivers® www.americanrivers.org 1101 14th Street NW, Suite 1400, Washington, DC 20005 (202) 347-7550 As flooding on the Missouri increases in frequency and severity with climate change, communities need better flood protection solutions. Levees and dams can no longer be the only line of defense. Restoration of the Missouri's floodplains and wetlands, which absorb and store floodwater, must play a critical role in the next century of flood management. Flood management of the Missouri should be redirected into a smarter, more natural, adaptive approach that will also benefit clean water and fish and wildlife habitat. Sound science and public involvement are key to achieving smarter, more adaptive river management that safeguards communities and the environment.

What Must Be Done

Congress and the Army Corps of Engineers have an opportunity to improve public safety and flood protection along the Missouri River. They can start by fully funding programs that would result in natural flood protection, such as the Missouri River Recovery Program (MRRP). They should also restore funding for long-term planning studies like the Missouri River Ecosystem Restoration Plan (MRERP) and Missouri River Authorized Purposes Study (MRAPS), which will help federal agencies gain insight from experts and the public into the current challenges facing the river, and potential strategies to manage the river in a more holistic way.



PHOTO: USACE

The MRRP is a partnership between the U.S. Army Corps of Engineers and the U.S. Fish and Wildlife Service to restore the Missouri River and its floodplains to benefit wildlife, restoration that should also be used to provide better flood management and protect communities from floods. The MRERP will build on these efforts to guide the Army Corps and other agencies on mitigation, restoration, and recovery efforts for the Missouri River over the next 30 to 50 years.

MRAPS is a Congressionally-authorized study to examine the appropriateness of directives issued to the Army Corps in the Flood Control Act of 1944. It will, for the first time, analyze the purposes for which the river is currently managed and determine if changes should be made. This is a critical study given the flooding and river use changes in recent years.



PHOTO: PAUL LEPISTO

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How You Can Help

- Go to www.americanrivers.org/MissouriRiver and TAKE ACTION!
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- Share Missouri River posts on our <u>Facebook</u> page and share our posts on yours
- Keep talking about the Missouri River to decision-makers and with your friends!

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#5 HOBACK RIVER

Wyoming

Summary

THREAT: NATURAL GAS DEVELOPMENT

AT RISK: CLEAN WATER AND WORLD-CLASS

FISH AND WILDLIFE



PHOTO: IIM STANFORD

The Hoback River is treasured for its sparkling clear water, thriving native trout fishery, and excellent paddling opportunities. Unfortunately, proposed natural gas development threatens the river and local residents with toxic pollution. To ensure the Hoback's clean water, air quality, scenery, and world-class fish and wildlife are not compromised, the leaseholder should agree to sell or donate its oil and gas leases to a conservation buyer.

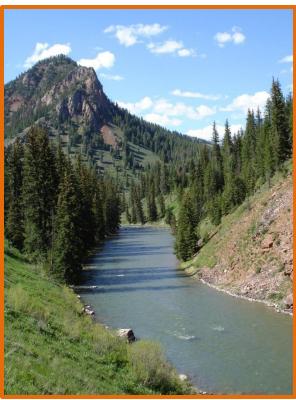


PHOTO: SCOTT BOSSE

The River

Flowing for 55 miles from the Wyoming Range to the Snake River, the Hoback River is extremely valuable as a pure drinking water source and contributor to the region's recreation-based economy. The river is treasured by local residents and tourists alike for its paddler-friendly rapids and superb fishing opportunities for native cutthroat trout. The mosaic of grassy meadows and forested slopes where gas drilling has been proposed serves as vital habitat for big game animals such as elk, mule deer, moose, and pronghorn antelope, making it a popular area for hunting. In 2009, Congress granted Wild and Scenic River status to the Hoback downstream of the proposed drilling site, legally prohibiting any activities that would degrade its water quality, fisheries, or other special values.

The Threat

Plains Exploration and Production (PXP), a Houston-based energy company, is seeking permission from the U.S. Forest Service to drill for natural gas near the headwaters of the Hoback River using the controversial process of hydraulic fracturing, commonly known as "fracking." The company wants to drill 136

wells from 17 well pads and build or upgrade 30 miles of roads.

The likely impacts of drilling in this area include pollution of surface and groundwater with toxic fracking fluids, sedimentation of streams from construction of roads and well pads, dewatering of streams, and displacement of wildlife, such as elk, mule deer, moose, and pronghorn antelope, which use this area as a calving ground and



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HOBACK RIVER

migratory corridor. The presence of vehicles, heavy machinery, massive diesel engines, dehydrators, compressor stations, and chemical trucks would transform a pastoral wildlife haven into an industrial zone. Many water wells across the Rocky Mountain West, including in Pavillion, Wyoming, are suspected to have been contaminated by natural gas drilling. Similar water pollution could occur near the Hoback headwaters.

In its draft environmental study released in December 2010, the Forest Service did not analyze any alternatives that required PXP to gather comprehensive baseline information on the area's surface and groundwater quality prior to development. Consequently, it would be difficult to assign legal responsibility if, in the future, pollution of surface and ground water supplies occurred. In addition, none of the alternatives the Forest Service analyzed complied with special leasing stipulations or the Bridger-Teton National Forest's existing forest plan with regard to road density standards and wildlife protections. Finally, the study failed to address the potential impacts of industrial-scale gas drilling on the Wild and Scenic status of the lower Hoback River.



PHOTO: SCOTT BOSSE

What Must Be Done

The only way to permanently eliminate the threat of gas drilling in the Hoback headwaters is for PXP to agree to sell or donate its oil and gas leases. Passage of the Wyoming Range Legacy Act in 2009 ensures this area of the Bridger-Teton National Forest could never again be leased for oil and gas drilling. Lease purchase and retirement is a solution that respects the financial interests of the company while simultaneously safeguarding the headwaters of the Wild and Scenic Hoback River.



PHOTO: FISHEYEGUYPHOTOGRAPHY.COM

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How You Can Help

- Go to <u>www.americanrivers.org/HobackRiver</u> and TAKE ACTION!
- Retweet from @americanrivers on Twitter and use the hashtags #MER2012 and #cleanwater
- Share Hoback River posts on our <u>Facebook</u> page and share our posts on yours
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America's Mored



THREAT: NATURAL GAS DEVELOPMENT

AT RISK: CLEAN WATER AND PUBLIC HEALTH



PHOTO: TOM GILL

A State Wild and Scenic River, the Grand is a haven for rare birds and other wildlife and boasts the best water quality of any stream flowing into Lake Erie. However, natural gas development threatens the river's clean water and public health. The State of Ohio must strengthen safeguards to ensure natural gas development and the disposal of wastewater does not harm the river, its clean water, and local communities.

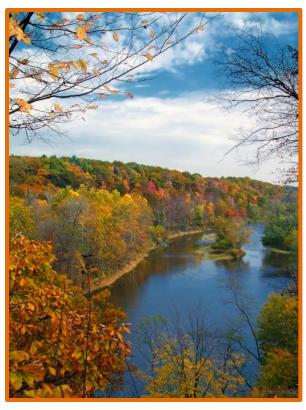


PHOTO: NICHOLAS TROILO

Summary

The River

In 1974, the Grand River became Ohio's second state-designated Wild and Scenic River. The Grand boasts the best water quality of any of the waters flowing into the Lake Erie Basin. According to the U.S. Geological Survey, the 103 mile long Grand River is the most biologically diverse river of its size in the Lake Erie-Lake St. Clair Basin. The Grand is home to abundant wildlife including river otter, snowshoe hare, wild turkey, and bald eagle, along with excellent populations of steelhead and smallmouth bass. Protected areas within the watershed include the Grand River State Wildlife Area, Mentor Marsh State Nature Preserve, and Headlands Dunes State Nature Preserve. Birding, paddling, and fishing are popular recreational activities along the river.

The Threat

Recently, natural gas companies have been rapidly buying up leases to develop Ohio's shale gas deposits. Shale gas is a source of natural gas that is extracted from thousands of feet underground using a process called hydraulic fracturing, or fracking. Natural gas development can cause significant harm, including deterioration of human health, water contamination, air contamination, sedimentation, impacts to livestock, and more.

Unfortunately, Ohio is in a position of not only developing and processing the natural gas itself, but it also has come to be a destination for contaminated fracking wastewater from other states, particularly Pennsylvania. State officials in Ohio recently acknowledged that earthquakes were caused by the underground disposal of fracking wastewater, which can contain harmful carcinogenic compounds.



Natural gas development in the Grand River Basin is just beginning. So far two permits for production wells have been issued less than 1,500 feet from a tributary of the Grand River. In addition, approximately 12 permits for fracking wastewater disposal wells have been approved in the Basin.

GRAND RIVER The history of oil and gas contamination in Ohio is alarming. At any point in time, at least one community in Ohio is monitoring a plume of contamination moving towards their water source, ultimately requiring remediation at a significant economic cost to the taxpayers of impacted communities. Often, the responsible company is long gone, leaving communities to fend for themselves. Many contaminated sites have used Superfund to help finance and recover the clean-up costs. However, contamination from oil and gas activities is not covered under Superfund and is exempted from most federal environmental regulations. Residents cannot afford to pay for new contamination in a pristine watershed such as the Grand River with either their paychecks or their health.



PHOTO: OHIO ENVIRONMENTAL COUNCIL

What Must Be Done

Similar to other states with recent surges in shale gas interest, regulators in Ohio have been updating regulations in an attempt to address the concerns of the public. However, the new regulations do not adequately address disposal of waste fluids in underground injection wells, the disclosure of chemicals used in hydraulic fracturing, or air and water quality monitoring around drilling sites.

The Ohio Department of Natural Resources and the Ohio General Assembly must step up and take responsibility for the health of the public by strengthening their natural gas regulations. In the absence of federal regulation, it is the responsibility of lawmakers and regulators in Ohio to ensure that the public is protected from the harmful impacts of natural gas development. Consequently, the state legislature must start by passing HB474: Injection Well Law Modernization, which will require the highest standards for groundwater monitoring, testing of injected chemicals, siting of injection wells, and general transparency for fracking wastewater disposal through underground injection wells.



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PHOTO: LASZLO ILYES

How You Can Help

- Go to www.americanrivers.org/GrandRiver and TAKE ACTION!
- Retweet from @americanrivers on Twitter and use the hashtags #MER2012 and #cleanwater
- Share Grand River posts on our <u>Facebook</u> page and share our posts on yours
- Keep talking about the Grand River to decision-makers and with your friends!

America's Most

#7 SOUTH FORK SKYKOMISH RIVER

Washington

Summary

THREAT: NEW DAM

AT RISK: HABITAT AND RECREATION



PHOTO: JEFF SMITH

The Skykomish is one of Washington's most popular rivers for fishing, paddling, and scenic beauty. However, a proposed hydropower dam would destroy the wild character of the river's South Fork, and reduce two spectacular waterfalls to a trickle. Decision-makers should abandon this damaging project and focus on better energy alternatives to ensure those needs are balanced with the need for healthy rivers and a strong outdoor recreation economy.



PHOTO: JEFF SMITH

The River

Plummeting nearly 70 miles in its run from Stevens Pass in the North Cascades to Puget Sound, the Skykomish (or Sky) is one of Washington State's most outstanding rivers for recreation, beauty, and wildlife. The South Fork Skykomish River in Washington State drains approximately 835 square miles, almost all of which provide outstanding whitewater recreation, angling and hiking opportunities, wildlife habitat, and economic benefits for the towns of Skykomish and Index.

The South Fork Sky is recognized for these values as a designated State Scenic Waterway, listed as a Northwest Power and Conservation Council Protected Area, and recommended for federal designation as a Wild and Scenic River for its remarkable scenic, recreational, fish, and wildlife values. Explorers of the surrounding area encounter wilderness and outstanding recreation on headwater tributaries such as the Tye and Foss Rivers and Deception Creek.

The Threat

The South Fork Skykomish River drops over a series of three waterfalls, each with one of the most dramatic backdrops in the nation, framing Mt. Index and the North Cascade Mountains. Two of these dramatic waterfalls, the 40 foot Canyon Falls and the 104 foot Sunset Falls would be reduced to a mere trickle by a hydropower dam proposal from the Snohomish Public Utility District (SnoPUD). This project would impact fish and wildlife habitat, water quality and quantity, recreation, and the aesthetic values of one of Washington's most impressive rivers.



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SKYKOMISK RIVER

The project would destroy the character of the community surrounding the waterfall by running an underground pipe below private residences and requiring the construction of a powerhouse, transmission lines, and other facilities that would impact local roads, air quality, and a community beach along the river.

Unfortunately, this is not the only proposed new hydropower dam in the watershed. Additional permit applications have been submitted for both Martin and Barclay Creeks (upstream), and recently a new dam was built downstream on Youngs Creek, a mainstem Skykomish tributary. This was the first new dam to be built in Washington State in the last 20 years.

What Must Be Done

On March 2, 2012, the Federal Energy Regulatory Commission issued a preliminary permit to SnoPUD, allowing them to begin formal site investigation for the new dam. The SnoPUD Commissioners must now decide how to proceed with the project. The Commissioners should forego formal site investigation and focus on more sustainable options.

We can get energy from hydropower responsibly, but it must be sited, operated, and mitigated in a way that protects the river. SnoPUD's



PHOTO: JEFF SMITH

proposal to dam and dewater the South Fork Skykomish — a protected river that has been recommended for Wild and Scenic designation — is an irresponsible endeavor from the start. The National Hydropower Association estimates that America could double its hydropower capacity without building a single new dam. The region must work to institute efficiency improvements, increase capacity at existing hydropower dams, and add turbines to non-powered dams. As a class, these types of projects are cheaper to build, easier to permit, and much less harmful to the environment than hydropower that involves new dam construction. This is a more responsible avenue to pursue in Washington State than the building of this new dam in the Skykomish River watershed.



PHOTO: THOMAS O'KEEFE

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How You Can Help

- Go to www.americanrivers.org/SkykomishRiver and TAKE ACTION!
- Retweet from @americanrivers on Twitter and use the hashtags #MER2012 and #cleanwater
- Share Skykomish River posts on our <u>Facebook</u> page and share our posts on yours
- Keep talking about the Skykomish River to decision-makers and with your friends!

America's Most

#8 CRYSTAL RIVER

Colorado

THREAT: DAMS AND WATER DIVERSIONS

AT RISK: FISH, WILDLIFE, AND RECREATION



Summary PHOTO: DELIA MALONE

The Crystal River provides essential habitat for fish and wildlife, beautiful vistas and recreation for visitors, and is one of the few remaining free-flowing streams in Colorado. However, new hydropower dams, reservoirs, and water diversions threaten to destroy the river's unique values. Local water districts should reject the dam proposals and support federal Wild and Scenic River designation for the Crystal River, while embracing more efficient and cost-effective water supply solutions.

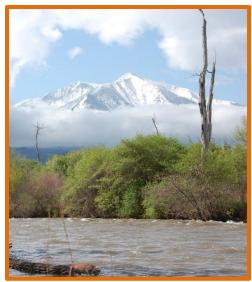


PHOTO: DELIA MALONE

The River

The Crystal River begins as snowmelt high in the Elk Mountains and flows for 40 miles through an extraordinarily scenic valley. A wild haven, to the east is the Maroon Bells Wilderness and to the west is the Ragged Mountain Wilderness.

The Crystal River provides drinking water to at least 7,000 people, delights fishermen, kayakers, and sightseers, and delivers water to ranchland irrigators. Historically, lead-zinc mining, marble quarrying, and coal mining occurred in the Crystal Valley. Now the river system is home to cutthroat trout, Bald Eagles, Lewis's Woodpeckers, and rare plant species such as the stream orchid (*Epipactis gigantea*). Because of these unique values, the U.S. Forest Service has found the Crystal River eligible for federal Wild and Scenic River designation.

The Threat

The Crystal River is threatened with a dam and 4,000 acre-foot reservoir between Redstone and Marble; a significant water diversion from Avalanche Creek, the largest tributary to the Crystal; and a hydropower dam and 5,000 acre-foot reservoir on Yank Creek, a tributary.

The proposed reservoirs are designed to fill during high river flows in the spring. However, high spring flows are essential to replenish groundwater, maintain bordering cottonwood forests, enrich river habitats with nutrients and sediments, distribute seeds, and structure river channels by redistributing gravel and cobbles and cleansing pools of excess sediment. In addition, a reservoir would flood the Placita wetland— an expansive wetland that provides breeding habitat for waterfowl, amphibians, and neotropical migratory birds, and calving habitat for elk.



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CRYSTAL RIVER

These proposed projects will substantially degrade the river and the surrounding area. Fish, wildlife, and habitat will be diminished and the scenic qualities of the river valley— along with recreation and related economic values—will be degraded.

What Must Be Done

The prospect of new dams on the Crystal River has been looming for more than five decades. This project is collectively known as the West Divide Project, which was initially designed to store water for agriculture. In the early 1980s, the associated farming communities secured reliable water from the Colorado River, and the project was no longer necessary.

In May 2011, the Colorado River Water Conservation District and the West Divide Water Conservancy District took a step in the right direction by abandoning the large Osgood Reservoir, and



substantially downsizing the Placita Reservoir, on the Crystal River. The remaining structures, primarily the Placita Reservoir, are apparently intended for storage, augmentation, and hydropower projects. The Districts emphasize enhancement of late season flows in the lowest reach of the Crystal River, and augmentation of water wells, as the primary purposes of the Placita Reservoir. The Crystal River is a relatively low volume river and cannot support these purposes. Therefore, it is illogical to build an expensive reservoir with negative impacts that greatly outweigh the benefits.



PHOTO: DELIA MALONE

A free-flowing Crystal River is more valuable as a recreational, economic, and natural resource for all Coloradoans. The districts have an opportunity, by completely abandoning all conditional water rights for the West Divide Project in the Crystal River drainage, to build goodwill with the public while ensuring that future generations can enjoy this freeflowing river for years to come. District support for river protection through promotion of a Wild and Scenic River designation would go far to show their dedication to water conservation.

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How You Can Help

- Go to www.americanrivers.org/CrystalRiver and TAKE ACTION!
- Retweet from @americanrivers on Twitter and use the hashtags #MER2012 and #cleanwater
- Share Crystal River posts on our Facebook page and share our posts on yours
- Keep talking about the Crystal River to decision-makers and with your friends!

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#9 COAL RIVER

WEST VIRGINIA

AT RISK: CLEAN WATER AND PUBLIC HEALTH



PHOTO: RANDOMMICHELLE

Summary

The Coal River supplies drinking water for local communities, supports fish and wildlife, and boasts a water trail for fishing, boating, and other recreation. However, the river is threatened by mountaintop removal coal mining, which has already buried, poisoned, and destroyed miles of streams in the basin. Congress must restore Clean Water Act protections to the Coal's headwater streams in order to prevent more destructive mining and permanently safeguard clean water and public health.



The River

Flowing for 88 miles, the Coal is West Virginia's second longest river. It has been prized for fishing, kayaking, canoeing, and is on the National Register of Historic Places. The river supports one of the world's most diverse temperate forests, provides habitat for many threatened species, and supplies drinking water for mountain communities.

Millions of dollars for river restoration have been spent to re-establish recreation, fishing, and other benefits of a healthy river. A favorite highlight is the Walhonde Water Trail, which supports boating and other recreation on the Coal River.

The Threat

The devastating practices of mountaintop removal mining and valley fills that bury and poison headwater streams pose a dire threat to the health of the Coal River and surrounding communities. Some of the largest strip mines in Appalachia exist in the Coal River basin. Approximately 20

percent of the river's watershed is permitted for coal mining, and one-third of that area has already been mined.

A 5,000 acre project has been proposed that would level Coal River Mountain, one of the watershed's last mostly intact ridges, and dump the resulting "spoil" into nearby streams. Over 100 miles of headwater streams have already been buried in the watershed, and over 50 additional miles are proposed.

The EPA recently published a peer-reviewed study confirming the pervasive damage that valley fills inflict upon water quality and river health downstream. Recent actions by the U.S. Supreme Court, the Bush Administration, and Congress have removed or jeopardized Clean Water Act protections for over 20 million wetland acres and an



estimated 60 percent of the stream miles on which American communities and wildlife depend, including the headwater streams that are the lifeblood of rivers in Appalachia.

COALRIVER Recent research shows elevated rates of cancer, birth defects, and other illness in areas with extensive mountain top removal mining. Nevertheless, a decision to veto one of the worst mining sites, Spruce No. 1,

was overturned by a court decision.

Current protections for headwater streams in the Coal River Basin need to be strengthened to protect people, clean water, and wildlife. Loss of protection for headwater streams would result in a free-for-all where dumping of toxic spoil waste into streams would occur with no Clean Water Act oversight, making the current situation much worse.

What Must Be Done

In 2011, the Obama Administration issued a 'proposed guidance' to begin restoring Clean Water Act protections to streams and wetlands vulnerable to pollution and destruction. The Administration must implement the guidance, but also begin a formal rulemaking to ensure permanent protections for headwater streams. The support of Congress will be essential to ensure that federal agencies have adequate resources to implement these protections.

Additionally, the U.S. Army Corps of Engineers and the Environmental Protection Agency must deny further permitting of valley fills, and appeal the recent court decision that reversed the veto of the harmful Spruce mine permit. Science shows that valley fills cause significant harm to river health, and there is no evidence that any current mitigation methods restore any stream function. If the protections afforded by the Clean Water Act guidance are not implemented, important valley fill victories in recent years, such as Spruce No. 1, will be negated.



PHOTO: VIVIAN STOCKMAN, FLIGHT COURTESY SOUTHWINGS

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How You Can Help

- Go to www.americanrivers.org/CoalRiver and TAKE ACTION!
- Retweet from @americanrivers on Twitter and use the hashtags #MER2012 and #cleanwater
- Share Coal River posts on our <u>Facebook</u> page and share our posts on yours
- Keep talking about the Coal River to decision-makers and with your friends!

#10 Kansas River

Kansas

Summary

AT RISK: PUBLIC HEALTH AND WILDLIFE HABITAT



PHOTO: PATRICK EMERSON

The Kansas River provides drinking water for 600,000 people and is the state's most popular river for canoeing, kayaking, and other recreation. However, the river is threatened by sand and gravel dredging, which would cause severe harm to clean water, wildlife, and recreation opportunities. The U.S. Army Corps of Engineers should complete a new Environmental Impact Study on dredging, deny all new permit and tonnage requests, and end dredging on the Kansas River by 2017.



The River

At over 171 miles long, the Kansas River (or "Kaw" to local residents) is the largest tributary of the Missouri River and is a critical drinking water supply source. The Kaw has become the state's most popular recreational river, with over nineteen access points and four more underway. Canoeing and kayaking revenue in Kansas is calculated at around \$3.7 million per year. The river and its tributaries are also home to fourteen threatened or endangered fish species. Additionally, the U.S. Department of the Interior has declared the Kansas River Water Trail as one of its Top 101 Conservation Projects.

The Kansas River is primarily used for irrigation, public drinking water, municipal wastewater, industrial discharges, cooling water for three coal-fired power plants, and a source of commercial sand and gravel. It also drains more than 53,000 square miles of prime commercial farmland, and suffers greatly from fertilizer and animal waste pollution.

The Threat

The Kansas River faces many threats, but sand and gravel dredging have some of the most intense impacts. Dredging widens and deepens the river channel, lowering the water level of the river and the water table. Dwindling access to water is a major threat to humans, animals, and plants, including agriculture, especially considering the looming concern of climate change.

River dredging causes many problems. Scientific studies show that when sand is removed from a prairie river like the Kaw, the river seeks to fill the holes by carving away soil from the riverbanks. This erosion damages valuable



KANSAS RIVER

farmland, wildlife habitat, and taxpayer-funded infrastructure like flood control structures, bridges, roads, and intake pipes for public water supplies. Dredging increases sedimentation, erosion, contamination, and pollution by churning up old industrial pollutants (like PCBs and heavy metals) that have settled to the river bottom. This is a public health hazard, kills mussels, and destroys habitat for other aquatic life. Dredging rigs also have dangerous underwater cables that create hazards for recreational boaters. These costs far outweigh any economic benefit to the dredging industry or the local economy, especially when affordable, high quality sand is easily available from off-river sources.

Five private dredging companies persistently cause damage to the Kaw. The U.S. Army Corps of Engineers ("the Corps") has continued to issue permits on the basis of an out-of-date Environmental Impact Statement last updated in 1991. Damages accumulate year after year, while the state only realizes a \$0.15 per ton royalty from dredged river sand. In the current proposals under review by the Corps, companies propose dredging 3.2 million tons of sand, which equates to a mere \$48,000 per year for the state. That revenue does not come close to covering the cost of remediating the impact on the river and local communities.



PHOTO: LAURA CALWELL

Other sand companies are already pursuing the reasonable and economic alternative of sand pit mining. Their competitive example shows that taking dredges off the Kaw will not increase the price of sand and gravel, and will not have negative impacts on jobs or the economy. Dredging is not worth the risk to other river users.

What Must Be Done

Currently, five dredging companies are applying for permits to increase dredging in the Kansas River by nearly 50%, from 2.2 million to 3.2 million tons. They also plan to move into three areas of the river previously closed due to "unacceptable degradation." The Corps must carry out a new Environmental Impact Statement before making any decisions on these permits. Furthermore, existing in-river dredging operations should, at most, be given a five-year non-renewable permit to conclude operations. The Corps should end dredging on the Kaw by 2017.



PHOTO: LAURA CALWELI

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How You Can Help

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