# Sensible Solutions

Balancing Hardrock Mining with Fish and Wildlife Resources in the West







CREDITS

Thank you to Will Patric for his diligence in interviewing local stakeholders and pulling together state specific case studies.

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For more information about this report or sources cited, contact Land Tawney, tawney@nwf.org National Wildlife Federation inspires Americans to protect wildlife for our children's future. Founded in 1936 by editorial cartoonist J.N. "Ding" Darling, the National Wildlife Federation (NWF) has emerged as a premiere grassroots conservation organization, leading an integrated network of four million members and supporters and 47 state-based affiliated organizations throughout the United States. Through a range of publications, grassroots networks, and professional staff, NWF unites Americans in their shared value of wildlife conservation.



Theodore Roosevelt Conservation Partnership is a coalition of leading hunting, fishing and conservation organizations, labor unions and individual grassroots partners working together to preserve the traditions of hunting and fishing by: (a.) expanding access to places to hunt and fish, (b.) conserving fish and wildlife and the habitats necessary to sustain them, and (c.) increasing funding for conservation and management.



Trout Unlimited's mission is to conserve, protect and restore North America's coldwater fisheries and their watersheds. TU accomplishes this mission on local, state and national levels with an extensive and dedicated volunteer network. TU's national office, just outside of Washington, D.C., and its regional offices employ professionals who testify before Congress, publish a quarterly magazine, intervene in federal legal proceedings, and work with the organization's 152,000 volunteers in 450 chapters nationwide to keep them active and involved in conservation issues. TU is a nationwide leader in abandoned mine cleanup.



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# EXECUTIVE SUMMARY





merica's cherished public lands – including irreplaceable natural resources such as fish, wildlife and drinking water – are struggling to cope with the far-reaching effects of more than a century of hardrock mining. Now, in a groundbreaking effort,

American sportsmen are uniting to conserve these resources by advocating for sensible reform of the 1872 General Mining Law, our country's most outdated and destructive legislation.

Sportsmen United for Sensible Mining (SUSM) represents millions of hunters and anglers, fish and wildlife professionals, and citizens who recreate on and enjoy our public lands. Sportsmen believe that a more sensible approach to hardrock mining in the West will allow for better management of our fish and wildlife resources. SUSM supports the following recommendations:

## End mining's priority status on public lands.

More than 50 percent of America's blue-ribbon trout streams and more than 80 percent of critical habitat for elk is found on public lands. In South Dakota, an attempt by citizens to prohibit surface metals mining and conserve fisheries in Spearfish Canyon was struck down by a federal judge. The reason? The 1872 Mining Law, which gives hardrock mining precedence over all other public land uses, including hunting and fishing.

## Recover a fair royalty from all minerals, present and future, taken from public lands and establish a fund for fish and wildlife habitat improvement projects associated with past mining.

Sportsmen believe in "pay for play." Fees from equipment and license sales help state officials conserve fish and wildlife resources through research and habitat management. Mining companies that benefit from use of public lands likewise should shoulder the costs of management through royalty payments to the federal treasury. These funds should be allocated to state fish and wildlife departments, conservation organizations and others for habitat improvement projects associated with mining. New Mexico's Red River, once a blue-ribbon trout stream, has been devastated by molybdenum mining. While the mine still is producing, the public must foot the bill for its cleanup, which has been prioritized by the EPA. Ensure that resource professionals have full discretion in the planning and permitting processes to conserve public lands where high fish, water and wildlife values exist.

Our nation's public lands harbor some of the most important fish and wildlife habitat and provide some of the finest hunting and angling opportunities in the country. In California, mercury from recreational suction dredgers on the Klamath River is endangering salmon populations – and land managers have limited



authority to curtail mining activities. Sportsmen believe that federal land managers need clear regulatory and legal authority to assure adequate management and reclamation of mining sites.

## Allow "Good Samaritans" reclamation incentives and common-sense liability relief.

Companies and nonprofits that have no connection to abandoned mine waste or interest in re-mining the area for minerals should be allowed to return the land to other valid uses, following reclamation of the land to the extent feasible. In places such as the American Fork in Utah, Trout Unlimited, Tiffany and Co. Foundation, and other "good Samaritans" helped to clean up abandoned mines – but more work remains to be done.

## Prohibit the patenting or sale of public lands under this law; keep public land in public hands.

In Wyoming, interest in gold and uranium could eliminate public access to some of the state's most productive biggame hunting grounds. America's hunters and anglers depend on sound management of public lands and waters to ensure the sustainability of fish and wildlife resources and open access to pursue sporting traditions. Unfortunately more than 3 million acres of our public lands – along with the extraordinary habitat they once provided – have been practically given away to mining companies for as little as \$2.50 per acre under the patenting provisions of the 1872 Mining Law.

Sportsmen United for Sensible Mining (SUSM), a coalition of organizations and individual grassroots partners spearheaded by the National Wildlife Federation, the Theodore Roosevelt Conservation Partnership and Trout Unlimited, formed to preserve America's legacy of hunting and fishing through sensible mining practices. This effort to address the need for mining reform includes rank and file sportsmen to policy specialists at the national level.

Now is the time to implement reform of the 1872 Mining Law – reform that will allow harmonious integration of state and federal wildlife habitat and population objectives in permit operating plans and conserve fish and wildlife resources on America's public lands.

# INTRODUCTION

ublic lands are integral to America's hunting and fishing heritage. The thrill of a cutthroat trout rising to a dry fly cast on a sparkling Western river. The sight of a bull elk emerging from a stand of aspen on a frosty high-country morning. The tug of a sockeye bending a rod. A flight of pintails circling an autumn marsh. Our public lands are synonymous with scenes like this, with the best of hunting and angling.

More than half of the nation's blue-ribbon trout streams flow across public land. Public land provides most of the critical habitat supporting elk. Many of the spawning grounds for salmon are found on public land. This is primarily Western land, the majority managed by the U.S. Forest Service and the Bureau of Land Management (BLM). And almost all the land overseen by those two agencies, some 460 million acres, is open for hunters and anglers and other outdoor enthusiasts to enjoy.

Public lands are also open to mining, and the pursuit of hardrock minerals has taken a profound environmental toll. Dating back to 19th-century Western gold and silver rushes, an estimated 500,000 abandoned mines are on the landscape. Contaminated water flows from the adits, portals, pits, tailings and waste piles of many of those sites. Acid drainage – created when sulfide-based rock is dug up and exposed to air or water – is particularly harmful. In addition to their toxicity to fish and other aquatic life, acids release grazing also impact places we hunt and fish, but those activities are regulated. In contrast, mining of hardrock minerals, including gold, silver, copper and uranium, is governed by the antiquated General Mining Law of 1872. Former Interior Secretary Stewart Udall said this 136-year-old statute "permits more damage to our environment, more desecration of our public lands, than any other law this nation has ever enacted."

Passed in part to encourage frontier development and settlement, the Mining Law decrees that "all valuable mineral deposits in lands belonging to the United States ... shall be free and open to exploration and purchase, and the land in which they are found to occupation and purchase." Thus, in contrast to public-lands logging, where timber is purchased from the government, or oil and gas or coal extraction, which necessitates a royalty payment, or livestock grazing, for which a fee applies, hardrock minerals are open for the taking. Anyone can stake a claim on BLM and Forest Service land, except for designated wilderness and national parks and monuments, and hold it indefinitely for a \$125 annual fee.

A meaningful levy on public-lands mineral extraction could help federal agencies initiate abandoned mine cleanup and stream restoration. But the mining industry contends that royalties would make domestic mining unprofitable, even though much hardrock mining occurs on private land, where royalties are always negotiated.

# Let's work together to guarantee that mining on public lands is modernized to the benefit of fish, wildlife and water resources. America's rich public-lands sporting traditions demand nothing less.

heavy metals into waterways. According to the Environmental Protection Agency, 40 percent of Western headwaters – most on public land – are contaminated by mine pollution. Put another way, using U.S. Bureau of Mines' figures, an estimated 12,000 miles of streams and 180,000 acres of lakes and reservoirs have been impacted by mining. The price tag for cleaning up abandoned mines has been estimated between \$32 and \$72 billion.

Mining, of course, is not the only activity that impacts our our public lands. Logging, oil and gas development, and After staking claims, mining interests can acquire full ownership of federal lands for small fees through the Mining Law's patenting provision, which has transferred an area the size of Connecticut from public domain to private hands. Patented land has resulted in private inholdings on BLM and national forest lands in areas that have nothing to do with mining but that cut off public access and fragment habitat. Although Congress has passed a patenting moratorium in recent years, the moratoriums must be renewed annually, and the patenting provision remains law. While various environmental regulations apply to hardrock mining, no federal statutory provisions specific to mining and no reclamation standards exist under the 1872 Mining Law. The EPA has rated the hardrock mining industry as the largest source of pollution in the United States.

The Mining Law makes hardrock mining the highest and best use of our public lands. Thus, as federal stewards, the Forest Service and the Bureau of Land Management are handcuffed when it comes to decisions regarding new mine proposals. Agencies can require measures to reduce resource damages and ensure that mining projects comply with legal standards. But, unlike any other resource use – timber, grazing, energy projects, developed recreation – they cannot weigh the benefits of a proposal against its potential impacts to wildlife, fisheries, water and air quality, recreational opportunities, scenery, and other public land values. Simply put, hardrock mining takes precedence over all other uses on public land.

America's hardrock mining legacy presents a problem of historic proportions for our public lands. But far from being strictly historic, it is very much an ongoing and growing issue. Mining activity tends to come in waves, and the current wave is bigger than ever.

Two factors are fueling the latest boom. One is the price of metals. As of February 2008, the price of gold was at an alltime record high of \$927 an ounce, more than three times its price in 2001. The second factor is technology. Gone is the iconic Western image of the lone prospector with mule, pick and pan. Instead, multinational companies harness gigantic earth-moving equipment and the latest chemical processes. Modern gold mining entails digging, crushing and soaking earth with cyanide to extract specks of gold by the ounce. This gives mining companies the ability to profitably mine low-grade gold deposits.

From Arizona to Alaska, hardrock mining exploration is on the rise. Since 2003 mining claims on Western public lands have increased by 80 percent. Recent calculations show 376,493 active mining claims covering approximately 9.3 million acres of federal land. At a minimum, sportsmen should anticipate increased exploration activity, new roads, drilling, truck traffic and posted signs. While only a fraction of claims are likely to become full-fledged mines, the extent of mining operations underway bears note.





Anyone who cherishes our public lands, in particular the hunting and fishing opportunities they offer, has a stake in our nation's approach to mining legislation. As efforts to reform the Mining Law come to a head, the sportsmen's voice will be crucial.

Let's work together to guarantee that mining on public lands is modernized to the benefit of fish, wildlife and water resources. America's rich public-lands sporting traditions demand nothing less.

> Chris Wood, Trout Unlimited

Jim Lyon, National Wildlife Federation

Tom St. Hilaire, Theodore Roosevelt Conservation Partnership

# MONTANA

# Blackfoot River

A *River Runs Through It* by Norman Maclean, a must for every angler's bookshelf, pays homage to the Blackfoot River, which flows 132 winding miles across western Montana, joining the Clark Fork near Missoula. When filmmakers came to turn the classic book into a movie, they had to shoot scenes along other rivers due to environmental damage to the Blackfoot. Mining was a major source of the damage.

The Mike Horse Mine dates to the late 1800s. Its location on the Blackfoot's headwaters east of the town of Lincoln enabled its degradation of the river's entire reach. The mine had a number of owners and expansions into the 1970s, yielding gold, silver, copper, lead and zinc, along with great quantities of acid-generating tailings and waste rock.

In 1975 the tailings impoundment blew out. A surge of toxic mud flushed down the Blackfoot, killing all aquatic life for 10 miles downstream. Residue of that incident still contaminates the Blackfoot. The mine's owner, ASARCO, rebuilt the impoundment dam with dry tailings, and in the mid 1990s, agreed to undertake voluntary cleanup of the Mike Horse mess, thereby escaping legal action. Then it declared bankruptcy.

Downstream, stretches of the Blackfoot have seen intensive restoration work, including substantial, sustained efforts by Trout Unlimited volunteers, paying off with cleaner water, healthier banks and gradually increasing trout numbers. Montana conservationists and sportsmen joined ranks to oppose a massive cyanide-leach gold mine proposed for the



"Sensible mining reform gets us one step closer to recovering funds to help restore fish and wildlife habitat affected by mining practices. America is ready for common-sense reforms to this archaic law."

Bruce Farling, Executive Director, Montana Council, Trout Unlimited

Blackfoot's lush river valley several miles below the Mike Horse. A statewide voter initiative in 1998 outlawed cyanide leaching in Montana as too environmentally destructive. Montanans could hardly be more protective of their beloved Blackfoot. Fishing guide Paul Roos spoke for many when he said, "That river means as much to me as any nonhuman thing can."

Nevertheless, mineral exploration along the Blackfoot is on the rise as metal values climb. At the headwaters, there's grave concern that history may repeat itself. The Mike Horse Mine's rebuilt 400-foot-long dam is eroding at its base, seeping toxins into the Blackfoot. Left alone, the dam will blow. Without a liable mining company, the public will have to foot the bill for a daunting remediation challenge – removing and securing 2 million cubic yards of tailings – to assure that trout, including west slope cutthroat and bull trout, once again run through the fabled Blackfoot.







Idaho's Hecla Mine is situated near the Salmon River and the Frank Church-River of No Return Wilderness Area, the largest block of wilderness in the contiguous United States. Jordan Creek flows from the mine site immediately into the Yankee Fork, which in turn flows about seven miles to the Salmon River. Hecla Mining Company opened this mine in 1994, heralding it as "state of the art." From the start the operation was plagued by problems, including cyanide leaks and spills and a landslide that buried 100 yards of Jordan Creek, federally designated as critical salmon spawning habitat. After just three years the mine closed, but not before 515 acres of national forest were mined.

During the past decade, Hecla's 500-million-gallon tailings impoundment has leaked, further degrading Jordan Creek with cyanide levels harmful to fish and other aquatic life and threatening to expose more than 4 million tons of heavy metals. Fearing a disastrous blowout, Hecla and the U.S. Forest Service determined that the best course of "reclamation" was to pipe tailings from the faulty impoundment into the nearby Yankee Fork drainage of the Salmon River.



Pam Smolczynski, Trout Unlimited Restoration Coordinator

Since then, the Yankee Fork has become what's technically known as a "mixing zone," although some disgruntled fishermen call it a "sacrifice zone." Dams lower down the Columbia River watershed have drastically affected Salmon River fisheries. Some people believe that such impacts offer an even more compelling reason to safeguard river health. Charlie Ray, a lifelong salmon and steelhead fisherman and former river guide, doesn't mince words about mining's menace to the river he loves. "The tailings impoundments for the Thompson Creek and Hecla Mines are time bombs. When they give way, that's the end of the Salmon River's steelhead and salmon fishery." His ominous words give new meaning to "River of No Return."

"I've been fishing on the Yankee Fork for many years and want to make sure salmon are here for future generations. When Idaho's families care for the resource, the fish return."

# NEVADA Montana Mountains

North of Winnemucca, cradled by the Quinn and Kings rivers, the Montana Mountains rise prominently above the Black Rock Desert, sharply contrasting that stark landscape with rolling sage, open meadows, and aspen. Really more of a plateau, the Montana range offers some of the best sage grouse habitat in the state and is a popular destination for hunters. It is also an area that, until recently, saw little mining activity.

Now the Montana range is "ringed with mining claims," says Willie Molini, Field Representative for Theodore Roosevelt Conservation Partnership. He fears that, "If the mining claims prove up, the impact to sage grouse and hunting could be severe." Sage grouse are in decline around the West, making Nevada's Montana Mountain bird population all the more significant. As Molini reflected in a recent Nevada newspaper editorial, "Under the 1872 Mining Law, mining is



automatically the highest priority for public land, trumping clean water, wildlife habitat, or other resources that may prove valuable to more people over the long haul."

"The Mining Law of 1872 directs mining on the public lands in the West. That law was enacted the same year that Mark Twain published 'Roughing It,' his famous account of a stagecoach ride across frontier Nevada. A lot has changed since then and it's time that the Mining Law of 1872 is modernized as well."



Willie Molini, Field Representative for Theodore Roosevelt Conservation Partnership



## Great Salt Lake

UTAH

The Great Salt Lake and its marshes east of Nevada are a duck hunting mecca. The area is important to millions of waterfowl and shorebirds and draws more than 20,000 hunters annually. It's a safe bet that the last thing on their minds is gold mining.

In 2005 the state of Utah issued an advisory warning against consuming cinnamon teals, goldeneyes and shovelers from the Great Salt Lake vicinity. U.S. Geological Survey data revealed mercury concentrations in the lake as much as 100 times higher than normal. Samples of waterfowl and their food sources likewise

showed extremely high mercury levels. A neurotoxin linked to brain damage, birth defects and cancer, mercury becomes progressively more concentrated up the food chain.

Jack Ray, Vice President of Utah Waterfowl Association



"To see our rich hunting tradition and even richer natural resource progressively ... contaminated by the toxic waste of thoughtless enterprises is heartbreaking to me and to thousands of waterfowlers."

Where the mercury in the Great Salt Lake comes from is unclear. Power plant emissions can be a source, and winds can carry mercury particles great distances. However, a tremendous amount of mercury is emitted in Nevada, upwind of the Great Salt Lake. According to the EPA, northern Nevada's mines release more than 4,600 pounds of mercury each year.

Jack Ray is vice president of the Utah Waterfowl Association and a passionate voice for the Great Salt Lake and its duck hunters. He fears that the extent of the mercury threat is only beginning to be understood. "To see our rich hunting tradition and even richer natural resource progressively ... contaminated by the toxic waste of thoughtless enterprises is heartbreaking to me and to thousands of waterfowlers. We worry greatly about what we eat now, but we also worry that our children and grandchildren are losing the right to wade into the marshes, into the heart of a fall migration, to feel the sweep of countless flocks and to be nourished, body and soul, by the lake."



Cyanide process gold operations have reaped riches for the mining industry in Nevada, but not so in Colorado, though the technology certainly made its mark. In 1986 Galactic Resources opened the Summitville Mine in the San Juan Mountains near the Continental Divide, an alpine setting poorly equipped to handle such an operation. With steep terrain, cold winters, copious snowfall and geology ripe for acid generation



at the headwaters of the Alamosa River, there were plenty of reasons for officials to say no to this ill-advised project, but saying no is not an option under the 1872 Mining Law.

"The Summitville disaster in Colorado is the perfect example of the need for a fund dedicated solely to fish and wildlife habitat restoration associated with past mining. So much damage has already been done, and the cost for cleanup is a staggering, ongoing nightmare. A dedicated fund will go a long way to restoring the damage of the past."



Problems developed rapidly at the Summitville Mine. Unable to handle the high volume of water yielded by spring snow melt, the operation allowed acidic waters to flow unchecked. Later, the leaching facility leaked cyanide into a nearby stream. Canadian-owned Galactic knew this toxic teakettle was about to overflow. As the price of gold dropped, the company abandoned the site and declared bankruptcy. The \$7.2 million bond it posted hardly scratched the surface of remediation, and taxpayers have been paying to stabilize the site ever since.

Damage to the Alamosa River was severe. Acid-laced runoff eradicated 17 miles of the river's aquatic life, with fish kills documented 20 miles downstream. Local resident Ignacio Rodriguez recalled taking his grandson fishing and finding the Alamosa running red. "The fish were all belly up. Rainbow trout and browns – all dead. It was sickening."

The EPA took over the Summitville site in 1992. Cleanup – containing the cyanide soup and halting heavy metals leaching into the Alamosa – now is tagged at \$200 million, or about what Galactic profited before abandoning the site.

Part of Summitville's cleanup challenge fell to Colorado. Initially, officials proposed downgrading their remediation target for the upper Alamosa from Class I, sustaining a fishery, to Class II, a waterway without fish. The suggestion that the Alamosa never had supported native fish outraged residents of the San Luis Valley. Responding to the state's claim, a citizens' group collected testimonials from locals who had caught trout in the Alamosa, including a photo of a priest showing off his catch. The state backed down. Full remediation would proceed, but today Summitville Mine reclamation is far from complete. As for on-site water treatment and securing continued funding? That's a challenge that will be with us, EPA officials say, in perpetuity.

Lew Carpenter, National Wildlife Federation





In 1966 the water quality of northern New Mexico's Red River was rated "good to excellent" by the U.S. Department of Health, Education and Welfare. Despite several decades of underground mining in the area, the Red River, renowned as a blue-ribbon trout fishery, still ran clear through the Carson National Forest.

In 1994 the lower eight miles of the Red River were declared "biologically dead" by the state Water Quality Control Commission. As Freshwater Fishing Hall of Fame guide and fishing book author Taylor Streit reflected, "The lower Red River and its confluence with the Rio

Grande had big resident rainbow trout. Toxic seepage and dumping from mining has been devastating to that storied stretch of river."

Kent Salazar, New Mexico Wildlife Federation



"The 1872 Mining Law offers little or no protection to the environment, gives away publicly owned minerals and sells public land at 1872 prices. It is time to replace it with a sensible mining law that protects fish and wildlife."

Large-scale molybdenum mining came to Questa, a community on the Red River, in 1965 when Molycorp, a subsidiary of Chevron, initiated open pit operations. Mining reverted back to underground operations in 1983, leaving the pit and 360 million tons of acid-generating waste rock excavated from it piled next to Questa and the Red River like an open, uncovered wound. The acids released heavy metals, draining over or percolating through waste rock into both surface and groundwater. This water in turn contaminated Questa drinking wells before entering the Red River. (In addition, a nine-mile pipeline running adjacent to and just feet from the Red River to transport slurry to the mine's tailings impoundment has ruptured more than 80 times.

Though the Molycorp Mine is still producing, it was placed on the National Priorities cleanup list by the EPA in 2000. The Red River's prized rainbows are gone, but if awards were being handed out for cleanup challenges, Molycorp would get a blue ribbon.

# OREGON Upper Illinois River

Hardrock mining does not have to be large scale to have significant and widespread impacts on fisheries and fishing. A case in point is the rivers and streams of the Siskiyou National Forest in southwest Oregon, where, with the high price of gold, more modern-day prospectors are flocking to the hobby of recreational mining.

Picks, shovels and gold pans have been traded in for suction dredges – contraptions that are sort of vacuum cleaners mounted on pontoon rafts. Along with water, gravel from river bottoms is sucked up into a sluice box that lets water and gravel pass back into the river but retains gold particles. If that sounds



hardly recreational, it is far simpler and a lot less expensive than developing an open pit gold mine. In 2004, about 2,000 people were registered to operate suction dredges in Oregon. The Siskiyou's Illinois River, renowned for wild beauty and biodiversity, is a particular hotspot.

"I hope that one day every grandchild has the opportunity to enjoy fishing our wild rivers. Fishing and the river environment that goes with it shape our communities' identities. We must insure we have regulations to protect our water resources and money to clean up the messes left behind by mining operations."

Unfortunately, the sections of river that draw gold seekers – pristine meandering runs with gentle gradients and fine gravel bottoms – also tend to be the best habitat for coho and chinook salmon and steelhead. Anglers seeking these rewards instead find eroded stream banks, excavated gravel beds, increased water turbidity, sediment plumes, reduced vegetative cover, and litter after dredgers have passed through. As for fish, a Forest Service survey found "dramatically fewer sites where salmon successfully spawn" in streams where dredging occurs compared to where it hasn't. Specifically, beds are disrupted or smothered with silt.

According to Forest Service officials, little can be done in the name of protecting fish. Miners who intend to clear riparian vegetation or excavate riverbanks are supposed to file a plan with the agency. Otherwise, they can operate with little federal oversight. As one Forest Service staffer put it, "With the regulations and the mining laws the way they are, if what they propose is reasonable, essentially we have to find a way to approve it." For steelhead fisherman Richard Nawa, "It's preposterous that we don't allow loggers within 300 feet of streams with fisheries, yet we let suction dredging trash some of Oregon's best salmon and steelhead spawning waters."

David G. Pitts, Northwest Steelheaders





# CALIFORNIA Mid-Klamath River

It has been said that gold mining made California. That's a matter of perspective, but it certainly changed California, particularly for the Karuk Tribe, whose home is the Klamath River country in the northern part of the state. With the Karuk's culture intimately tied to Klamath salmon and steelhead fisheries, the influx of recreational suction dredgers to their homeland is stirring up controversy, along with gravel and silt and something more insidious.

Stirred-up river bottoms can destroy redds. The suctioning also stirs up mercury. Whether airborne or in water, mercury is highly toxic, bad for fish and people who eat them. The mercury in Klamath waters originated from 19th-century placer and hydraulic mining.

Matt Little, National Wildlife Federation "The gold rush helped make California what it is today and continues to have consequences for the state. It makes good sense to recover a royalty from mining companies to help clean up decades of mining impacts that continue to affect our coldwater fisheries."

An astounding amount of this mercury ended up in California watersheds. A 2005 California Water Boards study estimated that California gold rush miners used 6,600 tons of it, about half of which was lost into the environment. Over time the mercury, which is very heavy, has become at least partially bound up in sediment and, as such, less toxic to aquatic life. In places where frontier mining was particularly intensive, mercury in sediment may be more concentrated – what researchers call "hot spots." The Water Boards study found that, following a suction dredge test, mercury concentration in suspended sediment was "an order of magnitude higher than the minimum amount California classifies as a hazardous waste."

A New 49ers mining club holds 70 miles of mining claims along the mid-Klamath River and its tributaries in the Klamath National Forest. The club has 1,200 members who pay a fee to try their luck at dredging on those claims. Given that Klamath salmon are already suffering from dams and agricultural water allocations, the Karuk Tribe feels stronger regulatory oversight is needed, especially with the mercury problem.

# ARIZONA South Rim, Grand Canyon

"Ask anyone in the know about the best place to hunt elk in Arizona, and the answer is always going to be the same: Management Unit 9. The wait to draw a tag for Unit 9 is now 16 years, but that's no surprise. Some of the largest trophy elk in the world come from Management Unit 9." So says Ron Pittman of the Rocky Mountain Elk Foundation's Arizona office. Pittman is justifiably proud of his organization's efforts to help this herd of up to a thousand elk. It has spent a half million dollars in its "water for wildlife" habitat improvement project.



"The rapid increase in uranium mining claims has Arizona sportsmen on alert. Mining has its place on public lands, but there are just some places mining should not take place due to the adverse impacts to fish and wildlife."

Chris Denham, Arizona Wildlife Federation



The uranium boom in the Southwest has extended to the south rim of the Grand Canyon. In 2007 more than 1,000 uranium claims were staked in the Tusayan Ranger District. The Tusayan District has a particularly high concentration of claims because, though the geology for uranium is favorable over a much larger area, uranium mining is banned on the Navajo Nation, bordering the district to the east, and on the Havasupai Reservation to the west. Both reservations suffer a tragic legacy of radiation-induced cancer from Cold War period mining on their lands.

In January 2008 the Kaibab National Forest approved test drilling by an international uranium mining company called VANE Minerals. Test drilling will be as deep as 2,000 feet. If it proves lucrative, the prospect of deep "in situ" leaching, with chemicals injected into groundwater to dissolve uranium, which is then pumped to the surface, raises serious concerns about groundwater contamination based on industry track records elsewhere. A VANE drill-test site is visible from one of the Elk Foundation "water for wildlife" projects.

So Management Unit 9, renowned for world-class elk hunting and the focus of a major effort by sportsmen to confront water shortages and maintain prime habitat, is now in the crosshairs of the uranium mining industry. The prospect of roads, trucks, drill rigs, fencing, on-site housing, more people, and the possible permanent damage to an aquifer that is already hurting is worrisome to hunters. Pittman says, "We're watching and monitoring this real close."





# WASHINGTON Okanogan Highlands & Sanpoil River

In the 1880s, gold was discovered on northeast Washington's Colville Reservation, which was established the same year the General Mining Law was passed, 1872. The Colville Tribes were pressured to cede that land, which they did with the agreement that "tribal hunting and fishing rights throughout the ceded lands ... shall not be taken away or in any way abridged."

In 1991 Battle Mountain Gold proposed a large open-pit, cyanide-leach gold mine on Buckhorn Mountain, located in Okanogan National Forest

near the village of Chesaw. Community groups and conservationists opposed gutting the mountain and putting surface and groundwater at risk. The Colville Tribes echoed that opposition and raised the additional objection that the mine – on their ceded land – would harm their guaranteed hunting and fishing rights.

The Buckhorn area of the Okanogan Highlands is popular with hunters, including tribe members, seeking mule deer, whitetails and elk. It is also an important wildlife corridor that would be imperiled by mining. Buckhorn is headwaters for the Kettle River, which traces the eastern border of the reservation.

# "The tailings impoundment is perched right on the bank of the Sanpoil River, and the Sanpoil flows through the heart of our reservation."

Don Hurst, Colville Tribes Environmental Trust Department



## \_\_\_\_\_

Hardrock mine operators need water rights, and that has proved problematic for the mine proposed on Buckhorn Mountain. Current claim owner Kinross Gold wants to develop an underground mine on Buckhorn. Rather than processing ore on site, Kinross intends to truck the ore 60 miles to the town of Republic, just north of the Colville Reservation. The plan was approved by the Forest Service in 2007, but it is being challenged.

The Colvilles view the situation with hard irony. "We opposed aspects of a proposal 30 miles from our reservation. Now they decide to bring the worst aspect of it right to our doorstep," said Don Hurst of the tribes' Environmental Trust Department. "The tailings impoundment is perched right on the bank of the Sanpoil River, and the Sanpoil flows through the heart of our reservation."

The Sanpoil, which joins the Columbia River at Lake Roosevelt, offers some of eastern Washington's best fishing for kokanee salmon and red band and cutthroat trout. "The Sanpoil has beautiful canyons, good pools and riffles, and produces nice fish," said fly-fisherman Tim Coleman, of Republic. He agrees with the Colville Tribes that the new Kinross plan isn't environmentally friendly. "Actually, I'd say it's more like a double whammy." From hunting and fishing perspectives, at least, that seems like the case.

# SOUTH DAKOTA Spearfish Canyon

Gold mining in South Dakota's Black Hills dates to the Custer expedition of 1874. The lure of gold drew thousands of prospectors and miners to the frontier town of Deadwood. For a century, numerous mines dotted the Hills, including one extensive mine operated by Homestake.

In the 1980s the nature of Black Hills gold mining changed when four open-pit, cyanide-leach mines began operating in Lawrence County. Homestake also started open-pit mining in the town of Lead. The cumulative impacts of the mines on hunting and fishing in the Black Hills are difficult to quantify, but a few incidents related to water quality from the 1990s are telling.



"Public lands harbor important fish and wildlife habitat, including blue-ribbon trout streams and places for antelope, sage grouse and mule deer. I believe that hardrock mining should be done sensibly, in a way that protects these species and their habitats, so that future sportsmen will have quality hunting and fishing experiences to share with their children."

In 1992 the *Rapid City Journal* reported that acidic runoff from the Richmond Hill gold mine tainted a small stream that feeds into the popular Squaw Creek. A few months later, the news-paper issued a bleak update: "Biologist Tom Chapman of the state Game, Fish and Parks Department tested a 2,500 meter stretch of Squaw Creek just below the mine. ... He estimates there were 10,000 fewer brook trout in that stretch of Squaw Creek than there should have been." In 1994, heavy rains flooded the mine's containment facility. "The slow recovery of aquatic life in Squaw Creek from contamination at the Richmond Hill Mine was almost wiped out by a storm-related acid spill," the *Journal* reported. Similar disasters plagued the Gilt Edge and Wharf mines, including leaks and spills that resulted in bird and fish die offs.

Even with Lawrence County's long mining tradition, its citizens had enough. In 1996, they passed an initiative declaring 48,000 acres around Spearfish Canyon off limits to surface metal mining, in part to save Spearfish Creek's trout and conserve nationally ranked fisheries. In 1997, however, a federal judge struck down the ban due to the 1872 Mining Law. In 1998 the Black Hills saw another fish disaster.

A drop in gold prices achieved, at least temporarily, what the attempted ban could not. Today only the Wharf Mine is still producing gold. The others are in various states of "remediation" and "reclamation." Gilt Edge, following bankruptcy, is a Superfund site.

Besides leading the Spearfish mining ban effort, Dick Fort of Lead has fished Spearfish Creek for years. "It's not the prime trout fishing it used to be, but it's still pretty good, and Squaw and Annie Creeks have now come back." However, with the price of bullion at a record high, bets are off that the Black Hills gold mining reprieve, or the reprieve for its fish, will last.

Tony Dean, Tony Dean Outdoors, Inc.







"Most people don't realize it, but Wyoming's best hunting is in the northeast part of the state. The west side - Yellowstone, the Tetons gets the publicity, but half of all the whitetail deer harvested come from the corner around the Black Hills. In fact a fifth of all deer, mule and whitetail, come from northeast Wyoming and a third of all pronghorn. The Black Hills has a burgeoning elk herd, and the hunt is so popular it's almost impossible to draw a tag. There is also good sharp-tail, sage grouse and turkey hunting."

Joe Sandrini, wildlife biologist with the Wyoming Fish and Game Department, offered that robust review. He credited "a good mix

of habitat types," including sagebrush, short grass prairie, ponderosa pine and deciduous forest, as responsible for the abundant wildlife. He was less enthusiastic about coalbed methane development to the west in Johnson and Campbell counties and gas and coal activity to the south, but "So far we've been spared that."

Daly Edmunds, Wyoming Wildlife Federation



"Hunters, and all the public, need to get more engaged to ensure that mining is balanced with needs of wildlife."

However, renewed interest in uranium is not confined to the Southwest. Exploration is focused on the south end of the Black Hills and in western South Dakota and Wyoming. Dreams of gold are stirring on national forest land in the Black Hills, as well. Sandrini finds the possible consequences worrisome. He ticked off the usual list – roads, power lines, fences, traffic, habitat fragmentation, increased human pressures and disturbances – that go with uranium mining. "When mining comes in, fences go up. Access is a huge issue, because we don't have that much public land in eastern Wyoming," he said.

Uranium would be mined via the "in situ" leaching process, where chemicals are injected into the ground to dissolve uranium. This is especially worrisome in northeast Wyoming due to the presence of naturally occurring selenium and arsenic, which would be extracted with the uranium. Both are toxic to wildlife.

Daly Edmunds of the Wyoming Wildlife Federation points out that any new uranium or gold development in this area must be considered cumulatively with all the energy development around the region. She confirmed that sportsmen are starting to understand the need to speak up for places they care about. "Hunters, and all the public, need to get more engaged to ensure that mining is balanced with needs of wildlife."

# <u>ALASKA</u>

## Berners Bay

Berners Bay in southeast Alaska represents the best of the state's unblemished splendor. Sandy beaches and estuaries are lined with old-growth Sitka spruce and hemlock. In this primeval forest, wildlife – bear, moose, wolves, mountain goats, eagles, whales, seals, sea lions – are framed by snow-capped mountains. Though only 45 miles from Juneau, Berners Bay is roadless and wild and yet easily accessed by boats fishing for coho and sockeye salmon in one of the most spectacular settings imaginable.



In the 1980s, Coeur d'Alene Mines Corp. developed plans for a gold mine on Tongass National Forest land on the northwest shore of Berners Bay. The so-called Kensington Mine would encompass a road and a port terminal. Most significantly, Coeur d'Alene's proposal included dumping a projected 4.5 million tons of tailings waste into Slate Lake, an action that would render the lake lifeless until restoration could occur.

"We have an explosion of mining activity going on in Alaska in places like Berners Bay. We need to make sure that we have solid laws that protect these special places and the fish and wildlife they harbor. Even more important, we have to have the ability to say 'no' if the mine would put these resources at risk."

Although the Clean Water Act prohibits dumping mine wastes into public waters, the Army Corps of Engineers approved Coeur d'Alene's application for an exception. Several conservation organizations filed a lawsuit challenging this decision even as mine construction began. They noted that Coeur d'Alene had filed a conventional dry-land tailings disposal plan for Kensington that had been previously approved. The dry tailings would be more stable and less threatening to the bay in the event of an impoundment failure. Coeur d'Alene dropped this plan, however, due to unfavorable economics.

In spring 2007 the court ruled against Coeur d'Alene and called on it to formulate another tailings disposal plan. The company appealed, but in November the court upheld its decision.

In January 2008 Coeur d'Alene submitted a new permit application to the Tongass National Forest to develop a dry "paste" tailings facility for its operation. The road plans have been tabled, and the port facility will be developed outside Berners Bay. Trout Unlimited's Tim Bristol says halting the road plan is particularly significant as the road would have crossed productive coho and sockeye streams. "With more limited access, hunters have to work harder to get into this country, and it's still amazing hunting." Tim Bristol, Trout Unlimited



# CONCLUSION

ining has adversely impacted fish and wildlife habitat and our opportunities to hunt and fish for more than 136 years. Past, present and future mining operations continue to threaten the outdoor heritage passed down to us from those sportsmen conservation leaders who came before us. The legacy of abandoned mines can be seen all across the West. The fabled Blackfoot River in Montana was nearly lost when more than a century's worth of toxic mining waste breached the Mike Horse Dam.

Mining companies have become much more responsible in this century but still adversely impact fish and wildlife habitat. Take the examples of mercury-laden duck populations in the Great Salt Lake in Utah, suction dredging on the Upper Illinois River in Oregon, and fish kills on Spearfish Creek in South Dakota, and it is apparent that mining still has drastic effects on fish and wildlife populations.



With hardrock mineral prices at all-time highs, mining claims on public lands have increased dramatically. Local hunters and anglers worry about the consequences of uranium mining in Arizona near the Grand Canyon, gold mining in the Okanogan Highlands of Washington, and a gold mine on the edge of Berners Bay in Alaska.

Mining is an appropriate use of public lands. Sensible reform of the 1872 Mining Law will ensure that our outdoor hunting and fishing heritage will continue to be enjoyed by future generations. Sensible reform should include the following provisions:

- Recover a fair royalty from all minerals taken from public lands and establish an abandoned mine cleanup fund that includes fish and wildlife habitat restoration

- End mining's priority status on public lands

- Give discretion to public land managers to permit mining where appropriate

- Allow "Good Samaritans" reclamation incentives and common-sense liability relief

- Prohibit the patenting or sale of public lands under this law to keep public land in public hands

National Wildlife Federation, Trout Unlimited and Theodore Roosevelt Conservation Partnership, along with hundreds of other sportsmen's organizations across the country, call on Congress to update the antiquated 1872 Mining Law.

# SPORTSMEN SUPPORT SENSIBLE REFORM OF THE 1872 MINING LAW

### NATIONAL ORGANIZATIONS

Campfire Club of America Dallas Safari Club International Game Fish Association International Hunter Education Association Mustad & Son (USA), Inc. National Wildlife Federation Pope and Young Club Top Brass **Trout Unlimited** 

### STATE ORGANIZATIONS

#### ARIZONA

Arizona Conservation Partnership Arizona Council - Trout Unlimited Arizona Wildlife Federation Arizona Wildlife Foundation

CALIFORNIA California Council – Trout Unlimited Izaak Walton League of America – California Division South Coast Chapter – Trout Unlimited

COLORADO Cherry Creek Anglers – Trout Unlimited Chapter #474 Collegiate Peak Anglers Chapter -Trout Unlimited Colorado Backcountry Hunters and Anglers Colorado Council – Trout Unlimited Colorado Wildlife Federation Colorado Wildlife Society Denver Chapter of Trout Unlimited (Wild Trout) Ferdinand Hayden Chapter – Trout Unlimited Five Rivers Chapter - Trout Unlimited San Luis Chapter of Trout Unlimited Sisters on the Fly FLORIDA

The Florida Wildlife Federation

GEORGIA Georgia Council – Trout Unlimited Gold Rush Chapter – Trout Unlimited Oconee River Chapter – Trout Unlimited

#### **IDAHO**

Ada County Fish & Game League Backcountry Horsemen Blackfoot River Bowmen Bonner County Sportsmen Deer Hunters of Idaho Foundation for North American Wild Sheep Greater Yellowstone Coalition Hemingway Chapter – Trout Unlimited

Idaho B.A.S.S. Federation Idaho B.A.S.S. Federation Nation Idaho Backcountry Hunters and Anglers

Idaho Conservation Officers Association

Idaho Council – Trout Unlimited Idaho Falconers Association Idaho Houndsmen Association Idaho Mule Deer Foundation Idaho Rifle & Pistol Association Idaho Sportsmen's Caucus Advisory Council Idaho State Bow Hunters

Idaho Steelhead and Salmon Unlimited Idaho Traditional Bow Hunters

Idaho Trappers Association Magic Valley Fly Fishers National Wild Turkey Federation North Idaho Tree Hound Association Pheasants Forever Rocky Mountain Elk Foundation Safari Club International - Idaho Chapter Safari Club International - Treasure Valley Chapter Snake River Cutthroats South East Idaho Fly Fishers South East Idaho Mule Deer Foundation

ILLINOIS Illinois Council – Trout Unlimited

KANSAS Kansas Wildlife Federation

LOUISIANA Bayou State Bowhunters Association Iberia Rod & Gun Club Jefferson Rod & Gun Club Louisiana Wildlife Federation

MAINE Maine Council – Trout Unlimited

MASSACHUSETTS Environmental League of Massachusetts

MINNESOTA Minnesota Conservation Federation Minnesota Deer Hunters Association

MISSOURI Conservation Federation of Missouri

MONTANA Anaconda Sportsmen's Club Big Blackfoot Chapter - Trout Unlimited Billing's Rod & Gun Club Bitter Root Chapter - Trout Unlimited Dawson County Rod & Gun Club Flathead Valley Chapter – Trout Unlimited Flathead Wildlife, Inc. George Grant Chapter – Trout Unlimited Great Falls Archery Club Helena Hunters and Anglers Hellgate Hunters and Anglers Joe Brooks Chapter – Trout Unlimited Kottenai Valley Trout Club Libby Rod and Gun Club Madison Gallatin Chapter – Trout Unlimited Montana Backcountry Hunters and

Anglers Montana Council – Trout Unlimited Montana River Action Network Montana Wildlife Federation Public Lands & Water Access

Association Russell County Sportsmen Snowy Mountain Chapter – Trout Unlimited

Skyline Sportsmen's Association Triple-M-Outfitters West Slope Chapter – Trout Unlimited

NEBRASKA Nebraska Wildlife Federation

NEVADA Elko County Conservation Association Nevada Bighorns Unlimited Nevada Council - Trout Unlimited Nevada Waterfowl Association Nevada Wildlife Federation The Carson Valley Chukar Club The Coalition for Nevada's Wildlife The Fraternity of Desert Bighorn The Ormsby Sportsmen's Association Truckee River Flyfishers

NEW HAMPSHIRE New Hampshire Council – Trout Unlimited

NEW JERSEY New Jersey Council – Trout Unlimited New Jersey State Federation of Sportsmen's Clubs

NEW MEXICO Albuquerque Wildlife Federation Brittany Club Dona Ana County Associated Sportsmen **Ducks Unlimited** Fisheries Society Foundation for North American Wild Sheep – New Mexico Chapter German Shorthair Club Las Cruces Chapter Turkey Federation Mesilla Valley Fly Fishers Mule Deer Foundation New Mexico Council - Trout Unlimited New Mexico Shooting Sports Association New Mexico Sportsmen, Inc. New Mexico Trout New Mexico Wildlife Federation Organ Mountain Bowmen Picacho Gun Club Quail Unlimited Rocky Mountain Elk Foundation Southwest Consolidated Sportsmen Truchas Chapter – Trout Unlimited Wild Turkey Sportsmen Association Wildlife Society - New Mexico

Chapter

### NEW YORK

Environmental Advocates of New York New York Council – Trout Unlimited New York State Conservation

Council Sportsmen's Club of Northern

Westchester, Inc.

NORTH CAROLINA Headwaters, Ltd. North Carolina Council – Trout Unlimited North Carolina Wildlife Federation

### NORTH DAKOTA

Barnes County Wildlife Club Bottineau County Wildlife Club Kindred Wildlife Club Lewis and Clark Sportsmen's Club North Dakota Wildlife Federation Red River Area Sportsmen's Club Stutsman County Wildlife Federation Tewaukon Rod & Gun Club

#### OHIO

Columbiana County Federation of Conservation Clubs Emerald – Necklace Chapter – Trout Unlimited Ohio Council – Trout Unlimited Ohio Sportsmen

OKLAHOMA

Indian Nations Council of Oklahoma – Trout Unlimited

#### OREGON

The Association of Northwest Steelheaders Central Oregon Fly Fishers Clackamas Chapter – Trout Unlimited Elliot Chapter – Trout Unlimited McKenzie Flyfishers McKenzie – Upper Willamette Chapter Trout Unlimited Native Fish Society Northwest Guides and Anglers Association Northwest Sportfishing Industry Association Ochoco Chapter – Trout Unlimited Oregon Backcountry Hunters and Änglers Oregon Council - Trout Unlimited Oregon Division - Izaak Walton League of America Oregon Trout Tualatin Valley Chapter - Trout Unlimited PENNSYLVANIA Arrowhead Chapter – Trout Unlimited Caldwell Creek Chapter - Trout Unlimited Hokendauqua Chapter – Trout Unlimited Iron Furnace Chapter – Trout Unlimited Pennsylvania Council – Trout Unlimited Stanley Cooper Sr. Chapter – Trout

Unlimited

#### **RHODE ISLAND**

The Environmental Council of Rhode Island

#### SOUTH DAKOTA

High Plains Wildlife Association South Dakota Wildlife Federation Sportsmen's Club of Brown County Tony Dean Outdoors, Inc.

#### TENNESSEE Tennessee Council – Trout Unlimited

UTAH Utah Waterfowl Association

#### Utah Watertowi Association Utah Wildlife Federation

#### WASHINGTON

Bellevue-Issaquah Chapter – Trout Unlimited Elliot Bay Chapter – Trout Unlimited Icicle Outfitters & Guides, Inc. Inland NW Hunting and Fishing Conservation Coalition Northshore Chapter – Trout Unlimited Rainshadow Chapter – Trout Unlimited Seattle Chapter - Izaak Walton League of America Washington Backcountry Hunters and Anglers Washington Council – Federation of Fly Fishers Washington Council – Trout Unlimited Washington Wildlife Federation

### WEST VIRGINIA

West Virginia Council – Trout Unlimited

#### WISCONSIN

Aldo Leopold Chapter – Trout Unlimited Almond Rod and Gun Club American Wild Turkey Hunting Dog Association Antigo Chapter – Trout Unlimited Ashland County Ashland/Bayfield County Sportsmen Association Conservation Clubs -Trempealeau County Augusta Area Sportmen's Club Badger Dachshund Club, Inc. Badger Fishermen's League Bangor Rod & Gun Club Beaver Dam Conservationists, Inc. Berlin Conservation Club Big 4+ Sportsman Club Bloomer Rod & Gun Club Boscobel Sportsmen's Club Brown County Conservation Alliance Brule River Sportsmen's Club Butte Des Morts Conservation Club Calumet County Conservation Alliance Carter Creek Sportsmen's Club Cataract Sportsman Club Central St. Croix Rod & Gun Club Central Wisconsin Gun Collectors Association, Inc Central Wisconsin Shoot to Retrieve Central Wisconsin Sportsmen's Club Challenge the Outdoors, Inc. Chippewa Rod & Gun Club Chippewa Valley Outdoor Resource Álliance Columbia County Sporting Alliance (Pardeeville) Columbia County Sporting Alliance (Portage)

Columbus Sportsman's Association, Inc. Coon Valley Conservation Club, Inc. Crystal Lake Sportsmen's Club, Inc. Dane County Conservation League Daniel Boone Conservation League, Inc.

De Pere Sportsman's Club Delton Sportmen Club Doctari Longlines Door County Fish Farm & Game Club Door County Rod & Gun Club Dousman Gun Club Dunn County Fish & Game Association Eau Claire Rod & Gun Club Farmers & Sportsmen's Club Fin 'N' Feather Sportsmen's Club Flambeau Area Sportman Club Florence County Forestry & Parks Department Forest County Association of Lakes, Inc. Forest County Walleye Association Fort Atkinson Wisconservation Club Friends of MacKenzie Center Friend of the Brule River & Forest Globe Conservation Club Great Lakes Sport Fishermen Ozaukee Chapter Green Bay Chapter – Trout Unlimited Green Bay Duck Hunters Association Green Bay Great Lakes Sport Fishermen Grellton Conservation Club Hayward Rod & Gun Club Hope Rod and Gun Club, Inc. Horicon Marsh Sportsmen's Club (Mayville Gun Club) Horicon Rod and Gun Club, Inc. Hudson Rod and Gun Club Jefferson Sportsmen's Club Kiel Fish and Game, Inc. Koenig's Conservation Club Lake Poygan Sportsmen's Club Lakeshore Fishing Club Lakeview Rod and Gun Club Little Wolf River Houndsmen's Club Madison Area Dachshund Club Manitowoc County Fish & Game Protective Association Manitowoc County Coon Hunters Millston-Knapp Sportsmen's Club Milwaukee Police Officers Conservation/Sportsman Club Milwaukee Casting Club Monches Fish & Game Club Mosinee Sportsmen's Alliance Northeast Wisconsin Great Lakes Sport Fishermen Nekossa Conservation League North Bristol Sportsman's Oakland Conservation Club Oconomowoc Sportsman's Club, Inc. Oconto County Sportsman's Alliance Ocooch Creeks Chapter - Trout Unlimited Osseo Rod and Gun Club Outagamie Conservation Club Outdoor, Inc. Conservation Club Padus Nicolet Gun Club Pewaukee Lake Sportsmen Club Prairie du Chien Rod and Gun Club Racine County Conservation League, Inc. Racine County Line Rifle Club, Inc.

Richfield Sportsmen's Club Rio Conservation Club Southern Clark County Sportsman's Club Southern Milwaukee 1400 Fishing & Hunting Club

Sauk Trail Conservation Club Shadows on the Wolf, Inc. Shawano Gun Club, Inc. Sheboygan Area Great Lakes Sport Fishermen Sheboygan County Conservation Association Sheboygan Rifle & Pistol Club, Inc. Shoto Conservation Club Slinger Sportsman Club Smerke's Sportsmen's Club Sparta Rod & Gun Club Stan Pils Sportsman's League, Inc. Star Prairie Fish & Game Association Sturgeon for Tomorrow N Chapter Sugar River Coon Hunters Association Suscha-Fale Sportsmen's Club Town of Boulder Junction Shooting Range Trempealeau Sportsman's Club Triangle Sportsmen's Club Tri-County Sportswomen's Club Twin City Rod & Gun Club Walleyes for Tomorrow, Inc. Watershed Watchers Watertown Conservation Club Waukesha County Conservation Alliance West Bend Barton Sportsman Club Wild Ones Natural Landscapers, Ltd. Wilderness Sportsmen's Club, Inc. Wildlife Society – Wisconsin Chapter Willow Acres, Inc. Wilton Rod & Gun Club Wings Over Wisconsin Winnebago Conservation Club Winnebagoland Conservation Alliance Wisconsin Association of Beagle Clubs (#100) Wisconsin Association of Field Trial Clubs Wisconsin Association of Sporting Dog Club Wisconsin Bow Hunters Association Wisconsin Coon Hunters Association Wisconsin Council of Sportfishing Organization Wisconsin Council – Trout Unlimited Wisconsin Deer Hunters Association Wisconsin Deer Hunters, Inc. Wisconsin Federation of Great Lake Sport Fishing Clubs Wisconsin House Outdoorsmen Club Wisconsin Hunter Education Instructor Association Wisconsin Muzzle Loading Association, Inc. Wisconsin Rifle and Pistol Association Wisconsin Sharp-tailed Grouse Society Wisconsin Taxidermist Association Wisconsin Trappers Association, Inc. Wisconsin Waterfowl Association, Inc. Wisconsin Wildlife Federation Yahara Fishing Club

### WYOMING

Wyoming Backcountry Hunters and Anglers Wyoming Council – Trout Unlimited

Wyoming Wildlife Federation



www.sensiblemining.org