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RESTORING THE “SHINING WATERS:” MILLTOWN, MONTANA AND THE
HISTORY OF SUPERFUND IMPLEMENTATION

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Dissertation

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Abstract: Restoring the "Shining Waters:" Milltown, Montana and the History of Superfund Implementation

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This dissertation is a case study of a dam removal and river restoration within the nation's largest Superfund site. In 1981, the U.S. Environmental Protection Agency included Milltown Reservoir on its first list of Superfund sites. Superfund law capped two decades of the federal government's most aggressive environmental legislation. While tracking the national story of Superfund law, my story provides a local view of how individuals, organizations, and agencies shaped the Superfund process. After the EPA designated Milltown a national Superfund site, the environment itself, persistent work within the channels of public policy, and federally-mediated compromise helped restore some shine to Milltown's waters.

Milltown is representational, rather than unique. Human health concerns, which were the primary purpose of Superfund, garnered Milltown designation. Arsenic contaminated the groundwater in a residential community. Groundwater contamination has been the most consistent and worrisome risk throughout the history of designating Superfund sites, while arsenic tops the list of contaminants reported at those sites. Nearly a century of upstream mining caused Milltown's problem. Mining sites cost more and occur more frequently than any other Superfund cleanups. Two major corporations were responsible for funding cleanup at Milltown, whereas nearly half of all Superfund sites have two to ten responsible parties. Thus, Milltown is exceptionally representative of Superfund's history.

Using extensive archival research, government documents, oral histories, newspaper accounts and personal observation, I have written a dissertation that explores how Milltown provoked major changes in Superfund implementation and late-20th century environmentalism. The final remedy at Milltown removed an average-sized dam and restored a section of the Clark Fork River. The process increased the importance of public input in Superfund and its emphasis on restoring environments. That shift coincided with a turn toward repairing degraded landscapes by both grassroots and national environmental groups. Milltown helped foster the growth of a corporate, restoration industry. And, it helped define restoration, while pushing restorative efforts beyond the confines of its Superfund boundaries.

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Introduction

The notes of a single observer, even in a limited district, describing accurately its features, civil, natural and social, are of more interest, and often of more value, than the grander view and broader generalizations of history.

-Anonymous epigraph to Bela Hubbard *Memorials of a Half-Century* (1887)

The more a site feels like a place, the more fervently it is so cherished, the greater the potential concern at its violation or even the possibility of violation.

Lawrence Buell *Writing for an Endangered World*

In 1980, the population of Milltown, Montana, was not enough to warrant a listing on the U.S. census, not even in combination with the nearby communities of Bonner and West Riverside. Most of the economic activity in those towns revolved around a plywood factory located on the banks of the Blackfoot River, just upstream from its confluence with the Clark Fork. The heyday of milling in western Montana, and hence local population, had declined since the first decades of the century. That highpoint, three-quarters of a century earlier had included the building of a modest hydroelectric dam that impounded the waters of the rivers' confluence to produce power for the local mills, businesses, and some residents. Since 1908, the Milltown Dam and Reservoir had been fixtures of the community.

All the way across the continent, Congress passed and President Jimmy Carter signed the Comprehensive Emergency Response, Compensation, and Liability Act (CERCLA) in 1980. Better known as Superfund because of the \$1.6 billion cleanup trust fund the law established by taxing chemical and petroleum industries, it was meant to help identify and clean up the nation's worst toxic waste sites. Within a year of its

passage, Superfund's first National Priority List of such sites included Milltown. By 1983, the small western Montana community joined a few hundred other places as the country's first federally designated Superfund sites. Milltown would eventually become the tail end of the largest such site in America, encompassing roughly 120 miles of the Clark Fork River watershed.

Superfund capped two decades of the nation's most vigorous environmental lawmaking. Precipitated by highly publicized environmental emergencies at places like Love Canal, New York, and Valley of the Drums (think oil barrels, rather than percussion instruments), Kentucky, the law aimed to stop, contain, and potentially clean up the dumping of toxic wastes by industries. Its namesake fund came from a tax on corporate dollars and a fundamental stipulation of the law was that the "polluter pays." Where the Environmental Protection Agency, which oversaw the law's implementation, could connect a viable responsible party to a contaminated site, that party would have to pay for its remediation.

What happened at Milltown in the course of thirty years from its designation as a Superfund site to river restoration efforts at the site demonstrates some of the essential ways that Superfund has changed through its implementation. The final remedy at Milltown was to remove a very average-sized dam and restore a section of the Clark Fork River, western Montana's largest headwaters of the Columbia. After the EPA designated Milltown a national Superfund site, the environment itself, individual's persistent work within the channels of public policy, public comment, federally mediated compromise, corporate funding, a fish, and a Hollywood movie all shaped the Superfund process at Milltown. That process helped increase the importance of public input in Superfund, as

well as the EPA's increasing attention to restoring environments. At the same time, environmental groups, such as those involved at Milltown, also began focusing more on restoration of damaged environments. While Superfund cleanup at Milltown did push the law and environmental advocacy in new directions, many things about how it all happened were not exactly exceptional.

Dams are found everywhere in America. In her book *Watershed: The Undamming of America*, Elizabeth Grossman pointed out that the Army Corps of Engineers could give only a rough count of "over 75,000 dams" on the country's waterways. While she summarized significant dam removal efforts in the late 20th century, Grossman saw those endeavors as the beginning of restoring "approximately 600,000 miles of what were free-flowing rivers." Most of those river miles have lain stagnant for many years as the dams that impede them have persisted for decades and, in many cases, for centuries. In other words, most people live near a dam at least something like the one at Milltown, Montana.¹

As a Superfund site, Milltown is almost typical; it had many of the significant features found at the "tens of thousands of hazardous waste sites" the EPA has located in the United States since passage of CERCLA. Concern over the site began because of human health concerns, which was the primary purpose of the original Superfund bill and continues to be a basis of site investigations and designations. At Milltown, arsenic contaminated groundwater, and "25% of all Superfund sites have arsenic as the top contaminant," according to a statistical analysis of the law. Groundwater contamination

¹ Elizabeth Grossman, *Watershed: The Undamming of America*, (New York: Counterpoint, 2002), 3.

has been the most consistent and worrisome risk throughout the history of designating Superfund sites.

Nearly a century of upstream mining caused Milltown's problem. Mining sites cost more and occur more frequently than any other type of Superfund cleanup. Two major, industrial corporations were responsible for funding cleanup at Milltown. Nationally, nearly half of all Superfund sites have two to ten responsible parties. And, like Milltown, most sites that make the EPA's National Priority List are located in a rural-urban interface. The dam and reservoir's location in a cluster of small communities just upriver from one of Montana's largest cities and just downstream from expanses of relative wilderness made it representational within Superfund history. But that location also gave the site some exceptional qualities that played into the law's implementation.²

Milltown, Montana, developed as a timber-mining town at the confluence of two western rivers that are headwater streams of the great river of the West, the Columbia. Both the Blackfoot and the Clark Fork gather from the melting snows and cold springs of the Continental Divide. The Blackfoot's icy waters form near a place where a small mine's thermometer once registered the lowest temperature in the continental U.S. at 69.7 degrees below zero. Norman Maclean, who grew up fishing and working in the woods of

² <http://www.epa.gov/superfund/index.htm>. Katherine D. Walker, March Sadowitz, and John D. Graham, "Confronting Superfund Mythology: The Case of Risk Assessment and Management," in *Analyzing Superfund: Economics, Science, and Law*, ed. Richard L. Revesz et al. (Washington, DC: Resources for the Future, 1995), 40-41. Katherine N. Probst, "Evaluating the Impact of Alternative Superfund Financing Schemes," in *Analyzing Superfund*, 148-149. Jack Lewis, "Superfund, RCRA, and UST: The Clean-up Threesome," *EPA Journal*, 17(1991): 10. Katherine N. Probst, Don Fullerton, Robert E. Litan, and Paul R. Portney, *Footing the Bill for Superfund Cleanups*, (Washington, DC: The Brookings Institute and Resources for the Future, 1995).

the Blackfoot drainage, wrote of this river in *A River Runs Through It* that “It runs straight and hard.” The river’s upper two-thirds owes its swift flow, rocky bed, and steep, forested hillsides to the work of glaciers. Over the course of thousands of years, ice-age glaciers in modern-day Washington created a reservoir that extended into the Blackfoot Valley. Dozens of times those ice dams burst and unleashed the largest floods ever recorded on earth. The violence of those floods carved the Blackfoot’s narrow lower third. So, lacking expansive floodplains and valley bottoms, the Blackfoot was a place of passage and short-term habitation to the first people who lived in the region. After millennium of use as an Indian route from the more temperate, open environments of western Montana to the bison-rich Northern Plains, the Blackfoot valley became prime timber country to the area’s first American industrialists. By 1908, the tens of thousands of logs the river floated from mountain camps to the sawmills of Bonner and Milltown, Montana, backed up behind a new reservoir where the Blackfoot joins the Clark Fork.³

The Clark Fork River arises on the flanks of the Continental Divide south of the Blackfoot. Unlike the Blackfoot, its water rushes off the mountainsides into streams that meander through broad valleys, a trait that earned the river’s uppermost stretch the name Silver Bow Creek because of its long, looping course and its clarity. Similarly, Warm Springs Creek, the river’s second major feeder stream, got its name because of the relatively warm water it contributes to Clark Fork. The Clark Fork winds its way toward its meeting with the “hard and straight” running Blackfoot through 120 miles of willow

³ Norman Maclean, *A River Runs Through It*, (New York: Simon & Schuster, Inc., 1976), 13. William Farr, “Going to Buffalo: Indian hunting migrations across the Rocky Mountains, Part 1, Making Meat and Taking Robes & Part 2, Civilian Permits, Army Escorts,” *Montana: The Magazine of Western History*, 53(Winter 2003): 2-21 and 54(Spring 2004): 26-43. Richard Manning, *One Round River: The Curse of Gold and the Fight for the Big Blackfoot*, (New York: Henry Holt and Company, Inc., 1997).

and cottonwood bottomland that gives way to winter-hardy grasses on most of the valley floor. Or at least it once did.

The Blackfoot's timber industry grew up because of the state's mining boom. When the Milltown Dam was completed in 1908, it began supplying the power to mill millions of board feet of timber a year. Trees cut and floated down the Blackfoot River helped build railroad tracks along the Clark Fork so the timber could reach the mines of Butte, Montana, supporting shafts and adits, as well as fueling smelters. The mountainsides that birth the Clark Fork are the work of massive igneous (volcanic) uplifting that formed a massive layer of granite embedded with minerals such as gold, silver, and copper. When prospectors first began digging for riches in the area, however, they were also dredging up other, associated metals, like cadmium, mercury, lead, and arsenic. By the turn of the 20th century, the discovery of massive copper veins in Butte prompted industrialization and consolidation of the area's mining. Company miners extracted tons of metal-filled ore out of the ground every day. Butte-born journalist Edwin Dobbs reported in *Harper's Magazine* that "From the late 1800s through the first third of this [20th] century, the so-called Mining City yielded about 13.25 billion pounds of copper, which was a...sixth of the world supply...Overall, the Hill has produced about 20 billion pounds of copper."⁴ Whereas that copper rode the nation's first transcontinental railroad – the Northern Pacific (NPRR) – along its path to helping electrify the country, then became valuable ammunition in both world wars, the unwanted

⁴ Edwin Dobbs, "Pennies from Hell," *Harper's Magazine*, October 1996, 40.

slag, filled with toxic minerals, found its way into the Clark Fork through drifting, dumping, and flooding.⁵

In 1908, area residents celebrated the completion of Clark's Dam. Built by Butte mining magnate William A. Clark at the confluence of the Blackfoot and Clark Fork Rivers, the dam was meant to power sawmills and a trolley, as well as electrify the growing city of Missoula, seven miles downstream. With far bigger banking and mining investments to oversee, Clark never bothered to visit his new dam. The locals who praised its contribution to western Montana's economy, soon saw its benefits nearly washed away. The same year the Milltown Dam was completed, a record flood swept down the Clark Fork. Water that measured five-times the average spring runoff bore millions of tons of mining waste downriver. The flood smothered the riversides with a mix of heavy metals. What didn't wash up on the banks, the Milltown Dam trapped. From there, the waste metals from Butte percolated into the surrounding groundwater. Along with massive amounts of raw mining waste, Butte also lost a small power dam in that flood. Seven miles downstream of the Milltown Dam, Missoula, Montana, lost all its bridges over the Clark Fork in 1908, but celebrated the dam as saving the city from far more damage. Within a century Missoula, however, would be celebrating the removal of the Milltown Dam, which people had come to see as a threat rather than a savior.

Like Milltown, Missoula's growth was linked to Butte's. In 1883, when workers completed the NPRR by driving a proverbial "golden spike" into a wooden tie in central

⁵ Michael P. Malone, Richard B. Roeder, and William L. Lang, *Montana: A History of Two Centuries*, revised edition, (Seattle: University of Washington Press, 1976). Michael Malone, *The Battle for Butte: Mining and Politics on the Northern Frontier, 1864-1906*, (Helena: Montana Historical Society Press, 1981). David Stiller, *Wounding the West: Montana, Mining, and the Environment*, (Lincoln: University of Nebraska Press, 2000).

Montana, they quickened the link between western natural resources, like timber and precious minerals, and eastern markets. But, not every tree, ingot of metal, or dollar rode the rails east. Along with industry, many urban centers developed in the West.

Missoula began as a center of trade. Remembering a large valley where three rivers – the modern-day Bitterroot, Blackfoot, and Clark Fork –converged, a pair of railroad surveyors-turned-entrepreneurs returned to that valley in 1860. C.P. Higgins and Frank Worden opened a market and called their settlement Hellgate Village. The name referred to the narrow defile out of which the Clark Fork spilled into the valley, long known as a place where Plains Indians such as the Blackfeet raided western tribes like the Salish for their horses. Intertribal battles littered the dark canyon with the bones of fallen mounts and riders alike. Because of Hellgate Village’s location at the hub of trade routes that people had been using for millennia, and because of its relatively mild climate, it prospered and grew. Within two decades the town included flour and sawmills. Bakeries, a brewery, fruit orchards, and an increasing complement of merchants and residents soon followed. Many of the things made or traded in Missoula were sold upriver in Butte. Before the end of the century, Montana had its first university in Missoula. The city’s new name was an abbreviation (or, more likely, a mispronunciation) of the Salish word *Il-mis-eul-etsch-em*, which meant “Shining Waters.” The name referred to a Salish story about how Coyote once threw the ashes of some beautiful women into the valley’s river, bringing the deceased back to life as a

riverside Aspen grove and making the river that watered the trees – eventually named the Clark Fork after explorer William Clark – glisten.⁶

By the time the EPA designated Milltown a Superfund site, the Clark Fork had lost much of its shine. While industrial logging and mining were the culprits above the Milltown Dam, Missoula was hardly isolated from that history or the river's contamination. Power from the Milltown Dam electrified the city, lighting businesses and providing it with trolley service. By 1909, a year after the dam's building, two transcontinental rail lines hemmed in the Clark Fork for much of its course through western Montana. In downtown Missoula, the NPRR paralleled the river's north side and the new Chicago, Milwaukee, St. Paul and Pacific Railroad flanked its south banks. As Missoula bloomed into the "Garden City," a nickname it borrowed from Chicago, it also emulated that midwestern metropolis by becoming one of the largest mercantile centers in the Northern Rocky Mountain West. With the expansion of trade, services, and population in Missoula, from a university to major medical facilities, to moderately-sized manufacturing businesses and a military fort that became a WWII internment camp, the Clark Fork River carried an increasing burden of sewage and trash. Residents ripped its banks through town with boulders and the occasional wrecked automobile. Like most

⁶ George F. Weisel, "Ten Animal Myths of the Flathead Indians," *Anthropology and Sociology Papers*, 18(1959): 9; Ella E. Clark, *Indian Legends from the Northern Rockies*, (Norman, OK.: The University of Oklahoma Press, 1966), 61-136; and Salish-Pend d'Oreille Culture Committee and Elders Cultural Advisory Council, Confederated Salish and Kootenai Tribes, *The Salish people and the Lewis and Clark Expedition*, (Lincoln: University of Nebraska Press, 2005).

everywhere in industrial America, people saw the Clark Fork as a natural asset because of its ability to carry off waste.⁷

When it came to implementing Superfund at Milltown, modern Missoula turned out to be up to the challenge. Historians of the American West have argued that an influx of fairly wealthy people seeking picturesque real estate, natural playgrounds, and a thriving service economy in moderate-sized western cities, like Missoula, have driven the rise in environmental advocacy in such places. In *Imagining the Big Open*, Liza Nicholas, Elaine M. Bapis, and Thomas J. Harvey compiled essays reflecting that sort of demographic shift and its influences. In his book *Bobos in Paradise*, *New York Times* columnist David Brooks dubbed thirty-somethings, who had come to Missoula, Bozeman, Boulder, Colorado, and “half of the towns in northern California, Oregon, and Washington State” in the late 20th century, Bourgeois Bohemians, or Bobos. The new wealthy class, or modern Bourgeoisie, had taken on liberal leanings left over from the Beats and mid-century counter-culture, argued Brooks. Failing himself to find bliss along the banks of the Blackfoot River, Brooks explained the Bobo attraction to such places as superficial, as fashion, as a way for people with expendable income to flaunt their environmental, as well as other liberal, values without really challenging the capitalist system that allowed them to do so. If Brooks was right about the influx of

⁷ Shirley Coon, “The Economic Development of Missoula, Montana” (MA thesis, University of Chicago, 1926); Ruth Boydston Scott, *Missoula: Trading Post to Metropolis*, (Missoula, MT: R. Scott, 1997); Malone, Roeder, and Lang, *Montana: A History of Two Centuries*.

Bobos to Missoula, then they turned out to be willing to challenge the system with respect to Milltown Dam.⁸

On the surface, Missoula certainly fits the description of a Bobo paradise. The old downtown sports plenty of art galleries and home furnishing vendors. Businesspeople, along with the city's wealth of university and medical employees, favor fleece and hiking boots, or river sandals, depending on the season, over dry-cleaned ensembles. Fundraisers for the town's glut of non-profit organizations draw sit-down dinner crowds of generous donors. Auctions at such functions often include art and cases of wine. But those are not the only dynamics underlying the environmental advocacy in Missoula that drove the Superfund cleanup at Milltown. And they are not wholly new dynamics.

Missoula has always been home to educated, middle, and upper-class residents who take on social activism readily. Shortly after the town's founding, its proverbial fathers – mostly small-time entrepreneurs – convened a few weeks of vigilante justice that resulted in a handful of hangings to keep the place safe from a growing criminal element and safe for the town's growing business interests. The town lobbied to get the state's first university, which it designed on land south of the Clark Fork donated by a local businessman. Missoula's Jeanette Rankin became the first woman elected to the U.S. Congress in 1916 and the only federal legislator to vote against the country's entry into both world wars. When Montana rewrote its state constitution in 1972, its guarantee to state citizens of a "clean and healthful environment," as well as other provisions, made

⁸ Liza Nicholas, Elaine M. Bapis, and Thomas J. Harvey, eds. *Nature, Identity, and Play in the New West*, (Salt Lake City, UT: University of Utah Press, 2003). David Brooks, *Bobos in Paradise: The New Upper Class and How They Got There*, (New York: Simon & Schuster, 2000), 104.

that constitution one of the most progressive in the nation. Representatives at the Constitutional Convention from Missoula helped spearhead that effort. As home to more than 1200 nonprofit organizations and a population of fewer than 70,000 in the early 21st century, Missoula is routinely considered one of the foremost places in the country for tax exempt, social organizations. Social activism had a long history in Missoula; environmentalism was an extension of that tradition.⁹

Missoula's role in pushing the Superfund implementation in nearby Milltown was not the product of a radically new western demographic. It was environmentally-concerned citizens who came to Missoula (often to attend the university), stayed because of their love of the place and their attraction to the environment, who became committed to working for conservation organizations, local government, the university, and small businesses. It was the Confederated Salish and Kootenai Tribes that used their 150-year-old treaty rights to participate in an environmental issue that drew broad public interest. It was of people who cared about the local environment because of their direct contact with it through recreation, study, work, and everyday endeavors, who engaged with the future of the dam. The median income in Missoula does not make it a wealthy city; a standing joke about the laughably low wages in Missoula compared to elsewhere is that they're due to the "mountain tax." Most people sacrifice income to live in Missoula. And not everyone in town is either a devoted or armchair environmentalist. Trucks with anti-wolf restoration bumper stickers vie in popularity with Subarus sporting save-your-

⁹ "Make it Missoula," last modified April 1, 2012, <http://www.makeitmissoula.com/community/non-profits/>. Jo Rainbolt, *Missoula Valley History*, (Dallas: Curtis Media Corp., 1991). Montana Constitutional Convention, *Montana Constitutional Convention, 1971-1972*, (Helena, MT: Montana Legislature, 1979-1982); Bicentennial Committee Bonner School, *A Grassroots Tribute: The Story of Bonner, Montana* (Missoula MT: Gateway Press, 1976).

favorite-environmental-thing slogans. And, the place has two Wal-Marts, plenty of fast food, and, like most of America, a majority of eligible citizens who don't vote or participate in civic matters.

That said, Missoula has a core of residents who value its outdoor opportunities and who act routinely to protect, and in the case of Milltown, restore them. As surely as spring brings buds to the maple trees and lilac shrubs lining many of the valley's residential neighborhoods, cars bloom bright-colored kayaks on their roof racks and trucks sprout trailers bearing rubber rafts. Missoula's citizens frequently and overwhelmingly approve ballot measures to maintain or increase the city's more than 3000 acres of open space. In 1980, the year Congress passed Superfund, Missoulians approved a half million-dollar open space bond; within 15 years, voters upped their contribution to that cause to \$5 million. Forming the north flank of the Clark Fork River between Missoula and Milltown, 1465-acre Mount Jumbo cost taxpayers \$2 million to conserve. Similar hillsides, large wooded tracks of land, and accessible peaks surround the city and offer hundreds of miles of trails to the people who have paid to keep them intact and accessible. The state's 1985 stream access law allows the public to use any river or stream for recreation within its ordinary high-water mark, regardless of land ownership adjacent to the waterway. Local businesses sport logos with native fish, mountain vistas, river runs, and other such place-based images. "Moose Drool," "Trout Slayer," and "Dancing Trout" are three of the best selling beers brewed in Missoula. Those are just a few snapshots of the values people in Missoula brought to the Milltown

Dam Superfund process. And those values helped push the process toward dam removal and river restoration. Columnist David Brooks should have looked a little harder.¹⁰

That push represents one of the most significant trends in American environmentalism. In a 2007, the journal *Environmental History* published an essay by Jenny Price in which she charted the history of American environmentalism from its roots in preservation efforts to its dispersion into a myriad of competing issues and interests in the last quarter of the 20th century. Yet, in “Remaking American Environmentalism: On the Banks of the L.A. River,” Price offered river restoration as the new “icon” around which 21st century environmentalism might rally. Describing public efforts to restore the Los Angeles River into a free-flowing body of water within a 50-mile greenway from its former tomb of concrete, she provided a profile of the kinds of efforts taking shape across the country, albeit in smaller ways. Restoration efforts like L.A.’s and Milltown’s are, according to Price, part of “an eco-frenzy without precedent.” In his 2012 book *Recovering a Lost River: Removing Dams, Rewilding Salmon, and Revitalizing Communities* Steven Hawley argues that that frenzy should extend to the removal of four dams on the Snake River that are much larger than Milltown was. As the push to remove dams and restore rivers mounts, it joins a broader restorative strain in 21st century American environmentalism. What is happening on the L.A. River complements what is going on across the West with the reintroduction of wolves to places like Montana, cutthroat trout, bull trout, and salmon recovery efforts in numerous watersheds, as well as the designation of new prairie preserves. The EPA has edged Superfund

¹⁰ “Missoula’s Open Space Program,” last modified April 2, 2012, <http://www.ci.missoula.mt.us/DocumentView.aspx?DID=650>; <http://www.ci.missoula.mt.us/index.aspx?NID=185>.

implementation in the way of restoration because of Milltown and its place in a much bigger context of restoring American environments. As a Superfund site, Milltown was representational of that national context, but its location upriver from Missoula led to exceptional outcomes for both Milltown and Superfund law.¹¹

Other than a few evaluations of Superfund statistics, most of the historical literature on the law focuses on its creation. That analysis has successfully shown the vigor of national environmentalism and federal legislating of environmental regulation during the 1970s that included the Clean Air Act and the establishment of the EPA in 1970, the Endangered Species Act in 1973, and the Safe Water Drinking Act the following year. In the case of NEPA and ESA, historians have also paid attention to how some of that legislation has changed through implementation. The Endangered Species Act, for example, has enabled the protection of a far wider variety of species than its creators perhaps intended, as well as providing a legal tool for preserving ecosystems rather than just individual members of them. Studying the implementation of Superfund at Milltown provides the opportunity to see how major provisions of the law shaped environmental cleanup and vice versa. The process at Milltown altered the Superfund law, increasing the importance and impact of public participation, as well as pushing toxic cleanup towards the broader goal of ecosystem restoration. Milltown's Superfund history offers an opportunity to analyze the workings of environmental law where "the

¹¹ Jenny Price, "Remaking American Environmentalism: On the Banks of the L.A. River," *Environmental History*, 13(July 2008): 539. Steven Hawley, *Recovering a Lost River: Removing Dams, Rewilding Salmon, Revitalizing Communities*, (Boston: Beacon Press, 2012). Flores, *The Natural West*. Also see: Dave Forman, *Rewilding North America: A Vision for Conservation in the 21st Century*, (Washington, D.C.: Island Press, 2004); Christopher McGrory Klyza and Bill McKibbin, eds., *Wilderness Comes Home: Rewilding the Northeast*, (Middlebury: University Press of New England 2001).

rubber hits the road,” as a regional EPA administrator once described its local implementation.¹²

The proverbial rubber that hit Milltown’s road included Superfund’s essential provisions and some of its most important revisions. In my chapter one, Superfund’s mandate to identify the nation’s worst toxic messes came about at Milltown not because the EPA scoured the country for contaminated environments, but through local residents pressing local government to do routine water quality tests. The work of local university scientists contributed, as did the advocacy of a range of citizens at the local and state level. This chapter documents the law’s purpose in attending to human health issues more than environmental health during its early years. It also shows how Superfund went beyond regulating contemporary toxic waste with its focus on historic sources of industrial pollution. Chapter two charts the ways that designating a single Superfund site at Milltown led to a much broader recognition of the whole Clark Fork watershed as an environment abused by the area’s legacy of industrial natural resource extraction. Part of that shift resulted from the thorough environmental study that Superfund demands as a step toward determining how to remove or contain contamination. In addition, this chapter demonstrates the ways that the river helped determine remediation at Milltown.

¹²Shannon Petersen, *Acting for Endangered Species: The Statutory Ark*, (Lawrence, KS: University of Kansas, 2002); Lindstrom, Matthew J., and Zachary A. Smith, *The National Environmental Policy Act: Judicial Misconstruction, Legislative Indifference, and Executive Neglect*, (College Station: Texas A&M University Press, 2001); Richard L. Revesz and Richard B. Steward, *Analyzing Superfund: Economics, Science, and Law*, (Washington, DC: Resources for the Future, 1995). U.S.EPA, Region VIII, “Citizens’ Superfund Workshop,” 5/5/1990, in U.S. Environmental Protection Agency, Montana Office, *Milltown Administrative State Site Records*, reel 241 Government Documents, Mansfield Library, University of Montana.

Whereas chapter two traces how the problems at Milltown alerted people to watershed-wide issues, the following chapter goes in the opposite direction as the focus of both locals and the EPA narrowed onto the Milltown Dam. One of Superfund's most important provisions requires the designation of liable parties responsible for environmental cleanup costs. When this happened at Milltown, both the corporation liable for in-stream contaminants and the owner of the Milltown dam garnered liability designation. Along with denying responsibility, the dam's owner infused the Superfund process with its first major controversy over relicensing the impoundment. In the context of liability issues, the local community made its first impact on Superfund law by convincing the EPA to include greater public participation in the process. This episode foisted the *dam* into the Superfund decisions at Milltown and exemplified the heart of EPA authority over environmental cleanup - liability.

No major modern environmental story is complete without a lawsuit. Chapter four introduces the most important legal suit in the Milltown story, whereby the state sued the largest liable party for damages to natural resources. As the largest suit of its kind in Superfund and state history, this action was one key to linking Superfund cleanup, or remediation of contamination, to ecosystem restoration. In addition to exploring the actions of state agencies, this portion of the story in *Restoring the "Shining Water"* features a growing awareness by the public of the past and potential value of their watershed.

Chapter five reiterates the importance of the environment in stories of how people manage it. Herein the Superfund process at Milltown demonstrates how a spring ice flood impacted Superfund implementation. Along with restorative efforts on the

Blackfoot River, Robert Redford's production of the film *A River Runs Through It*, and the importance of the bull trout as a threatened species, the flood expanded the scope of what needed to be cleaned up at Milltown, as well as the purpose of doing so. While human health remained a vital impetus to Superfund, endangered species and ecosystem health became more prominent issues driving remediation decisions at Milltown. The public attention to these events helped drive that decision finally toward the possibility of actually removing the century-old dam.

A bumper sticker bearing the phrase "Remove the Dam, Restore the River" promoted an advertising campaign by the grassroots environmental group associated most closely with the Milltown Superfund process. Chapter six tells the story of how that campaign, and the flood of public input that followed, swayed the EPA to pursue cleanup remedies that included tearing down a dam. This episode demonstrates how Milltown changed the way the EPA handled public input at Superfund sites and the weight the agency gave that input. At the same time, the campaign helped push Superfund from being about containing or removing toxic wastes to restoring broken environments.

Restoring the "Shining Waters" ends with an account of some of the key differences between remediation, Superfund's original purpose, and restoration, its new direction. Chapter seven features one of the most unique restoration projects that evolved out of the Superfund project at Milltown. That project shows how restoration extended far beyond the boundaries of the original toxic site and encompassed both ecosystem and cultural renewal. This entire history features analysis of the major economic considerations surrounding Superfund, from its tax on industrial corporations and their liability for cleaning up the environment, to debates over Congressional renewal and

expansion of the bill. Chapter seven addresses the ways that Superfund has helped foster a growth in the environmental restoration industry, as well as boosted local economies by helping turn places associated with waste into spaces for outdoor recreation. Along with restoration, Milltown became a model for the ways the EPA is beginning to use Superfund to redevelop local economies, rather than just cordon off or carry away the contamination that plagues them.

What happened at Milltown between the discovery of arsenic in a few dozen people's drinking water in 1980, the removal of Milltown Dam in 2008, and the ongoing restoration work at the site, provides a chance to rethink the implementation of federal environmental law. That sort of place-based inspection reveals instances of individuals and collective public participation altering federal law through its legislative amendment and its practical application. For example, the outpouring of support for dam removal and river restoration as a solution at Milltown led to that decision, pushed the EPA to consider public input earlier in its decision making process, and added weight to such input within the agency.

Many dams had been demolished in the U.S. before Milltown. But none of them had come down as part of a Superfund site. The final decision for Milltown demonstrates Superfund's evolution from a law aimed at responding quickly to contain and remove (if possible) large sources of contamination affecting human health, to a pedantic process where remediation is a first step toward restoring portions of whole ecosystems, and redeveloping less destructive economic opportunities in their vicinity.

In the more than three decades since Superfund became law, environmentalists, politicians, administrators, and the public have often had cause to criticize it as less than super. If its history as seen through the story of Milltown seems an oddly positive contrast to critiques of the law's sluggishness or ineffectiveness, that is partly because people involved in the process at Milltown made it positive and remember it as such. As with any story about environmental issues, there were controversies. People who committed entire careers to the process found it tedious at times. But it was a process that worked. Having worked in the Missoula river conservation community throughout the entire Milltown Superfund process, Trout Unlimited director Bruce Farling admitted that the EPA's decision to force two "very powerful corporations" to fund a dam removal and river cleanup project costing them hundreds of millions of dollars was "really, really big." Mostly, it "tells other communities what the possibilities are," he believed. With our wealth of environmental histories about degradation and failure, it's worth having a few, like Milltown's, which provide models of relative success.¹³

¹³ Bruce Farling Interview, OH428-04, Archives & Special Collections, Maureen and Mike Mansfield Library, The University of Montana-Missoula.

*Arsenic in Old Places:
Milltown's Path to Superfund Designation*

Expect poison from the standing water.

William Blake

(1) Whenever (A) any hazardous substance is released or there is a substantial threat of such a release into the environment, or (B) there is a release or substantial threat of release into the environment of any pollutant or contaminant which may present an imminent and substantial danger to the public health or welfare, the President is authorized to act

Comprehensive Environmental Response,
Compensation, and Liability Act (Superfund),
Section 9604

William Woessner and Johnnie Moore rented a chain saw for twenty-five bucks. Then the two junior professors at the University of Montana recruited some graduate students and drove to the Milltown Reservoir a few miles up the Clark Fork River from Missoula. As Woessner remembered it, the saw's fourteen-inch blade failed to cut deep enough into the ice, so they took turns bashing at the frozen surface with an iron bar. Once through, they plunged a grab sampler – reminiscent of a hinged pair of hand-sized excavator buckets – down the hole, scooped a load of reservoir-bottom muck, hoisted it up, sealed it in a plastic bag, and labeled it. Skiing across the groaning surface of the reservoir with their sled of gear in tow, they sawed and bashed and retrieved samples of its silt-covered bottom from four locations. As they went, wind-whipped flurries of snow erased their tracks, and the work kept them warm only so long.

“What in the heck have you guys been doing with this thing,” the man at the tool rental shop asked when they returned the saw with its chain encased in ice.

Woessner and Moore explained that they taught in the university's Geosciences Department and that collecting sediment samples from under the frozen reservoir brought them and their gang of graduate students out on that February afternoon in 1982. They were following a hunch that somehow the sediments were the source of the arsenic recently discovered in Milltown's community water wells. Little did they know that the twenty-five dollars the department afforded their mission would be the first of hundreds of millions of dollars to flood into solving the problems long-hidden under Milltown's reservoir.¹⁴

Residents of Milltown knew their water had problems. For years they had watched the black stains on their sinks, tubs, and toilet bowls grow darker. Clothes laundered at home turned rust-red. Cars and houses took on a faint, yellowish hue when people washed them. Some grew accustomed to the metallic taste of their tap water without ever growing oblivious to the displeasure. Others had given up drinking the stuff by the time health department officials took samples in 1981, after Milltown resident Uuno Hill called the department and asked someone to come out and test his water, "because it smelled bad."¹⁵

¹⁴William Woessner OH 428-01, Archives & Special Collections, Maureen and Mike Mansfield Library, The University of Montana-Missoula. William W. Woessner and Marin A. Popoff, "Hydrogeologic Survey of Milltown, Montana and Vicinity," (paper written for the Department of Geology, University of Montana, Missoula, MT., June 15, 1982). Johnnie Moore and William Woessner, October 3, 1982, letter to the Missoula City-County Health Department, in collection at MCCHD. Sherry Devlin, "History's troubles," *Missoulian*, January 27, 2002, A1.

¹⁵Leo and Theola Dufresne, OH 419-06, Archives & Special Collections, Maureen and Mike Mansfield Library, The University of Montana-Missoula. "Safe water finally flows in Milltown," *Missoulian*, May 10, 1985, and Kevin Miller, "Arsenic probe is stepped up; warning issued," *Missoulian*, December 16, 1981, 1; David Roach, "Contamination

Water testing was supposed to be a standard procedure by then. Montana's implementation of the Safe Drinking Water Act (SDWA) in 1974 mandated that such tests occur every three years. The Missoula City-County Health Department had tested the Milltown well that served Hill prior to 1981, but only for basic sanitation, not for its chemical properties. When the state laboratory found that the sample taken in May of that year contained levels of arsenic far exceeding federal standards, health department officials returned to Milltown and took seven more samples.¹⁶

Yet the results of those samples remained undisclosed. Ten days before Christmas, reporter Kevin Miller first broke the news that both state and local health department officials had been sitting on news of arsenic-laced water from Milltown wells for months. An anonymous informant told Miller about the results from the spring inspection. The state lab in Montana, run by the Department of Health and Environmental Sciences, did not analyze the seven additional samples until August, due to what the department's director called "a personnel problem." The state lab then delayed informing the state or city health agencies about elevated levels of arsenic for another month. Adding to this pattern of delays, health officers at both the city and state level decided to keep the results from the public until they better understood the problem. "I hate to tell people, 'Hey, you've got arsenic in your water and that's all we know,'"

leaves residents perplexed," *Missoulian* December 16, 1981, 9. Also see, Johnnie N. Moore and William W. Woessner, "Arsenic Contamination in the Water Supply of Milltown, Montana," in *Arsenic in Ground Water: Geochemistry and Occurrence*, ed. Alan H. Welch et al., (Norwell, MA: Kluwer Academic Publishers, 2003), 331.

¹⁶ Personal communication with Peter Neilsen, Missoula City-County Health Department, October 14, 2009, notes in author's possession.

said state environmental health officer Joe Aldegarie in defense of his department's decision to withhold their findings.¹⁷

In the days following Miller's December news story, details about the state's mishandling of the inspection and the contamination itself became clearer. Aldegarie apologized for the delays and hinted at a shake-up in management of the state's lab. He and Missoula health officials turned their attention to Milltown's water. Four of the seven Milltown water samples registered up to 370 micrograms per liter ($\mu\text{g}/\text{L}$) of arsenic, which is roughly equal to the sweet content of a gallon of pure water with one and a half *grains* of sugar added to it.¹⁸ When the SDWA became federal policy in 1974, the Environmental Protection Agency deemed $50\mu\text{g}/\text{L}$ the temporary "maximum tolerance level" for arsenic, pending more conclusive research about its effects on human health. By 1981 the EPA was considering lowering the standard to $10\mu\text{g}/\text{L}$. Meanwhile, Milltown's wells were registering seven times the federal limit of $50\mu\text{g}/\text{L}$. How those levels of arsenic-contaminated water might affect the people drinking it remained, as Aldegarie implied, poorly understood.

Poor understanding bred caution, and more than a little confusion. The day after the first story about arsenic in Milltown water appeared, local health officials delivered letters to the thirty-three residences connected to the four contaminated wells, recommending that people quit drinking or cooking with the water in their homes. That day's local paper reported that research correlated skin cancer with significantly lower

¹⁷ Kevin Miller, "Arsenic found in Milltown water supplies," *Missoulian*, December 15, 1981, 1; Miller and Roach, *Missoulian* December 16, 1981.

¹⁸ One gram equals 1,000,000 μg , and roughly about 1000 grains of sugar. Therefore, 370 μg of sugar equal .37 grains. One gallon equals 3.78 liters. So, 370 $\mu\text{g}/\text{L}$, or .37grains/L of sugar equals 1.4grains/gallon.

levels of arsenic than were present in the Milltown case. In contrast, the same paper also noted that a city-county health official recognized studies showing that it takes much higher levels of arsenic than Milltown water contained to cause acute health problems. A day later another round of letters strengthened the warning about not consuming water from contaminated wells. In a follow-up news story, Aldegarie called the second letter, “a stronger statement because we can’t take any chances.” Local health officials warned that the levels of arsenic in Milltown water posed, “long-range health hazards for residents.” By day three of the story’s unfolding, the newspaper’s editorial page struck a more fearful tone in reporting that arsenic is, “pretty deadly stuff.” In addition to eating away at internal organs, the paper warned about nerve damage, skin cancer, and a host of symptoms such as, “vomiting, diarrhea, muscle pain, headache, weak pulse and, to cap the climax, coma and death.” But, they concluded, since levels of arsenic in Milltown were lower than those known to induce such problems, “there seems to be no reason for panic.” That said, a week after the story got out, follow-up well tests produced a water sample that was ten times the federal limit on arsenic. Missoula health officials announced plans to test Milltown residence’s hair and fingernails for long-term arsenic accumulation beginning the first of the New Year, 1982. Even with limited and sometimes conflicting information about arsenic at hand, health officials were erring on the side of caution. In the public perception, precise measurements and conflicting research on arsenic mattered less than arsenic’s infamy. Arsenic had become synonymous with toxicity. And, the EPA hinted at getting involved at Milltown.¹⁹

¹⁹ Ibid *Missoulian*, December 16; David Roach, “Officials test more wells,” *Missoulian*, December 17, 1981, 9; *Missoulian* editorial, “Arsenic episode revealed failings,” *Missoulian*, December 13, 1981, 6; Miller, “Quantity and toxicity of arsenic in Milltown

At first, it seemed that locals were taking the bleak news in stride. Referring to the possible danger of drinking her water, one woman said, “My hair seems to be getting darker instead of whiter, so I don’t know.”²⁰ Joking aside, Milltown residents began grappling with the problem of finding safe drinking water, and they were not alone. Besides attracting the local university’s scientific community, the issue caused local politicians to take up the cause, as did state and federal officials. As the political sphere of involvement grew, Milltown gradually became a national, toxic landmark. This process increasingly challenged local perceptions and resources. For the first time, Milltown residents had to come to terms with the idea that their environment, the place where they worked and their children played was contaminated and potentially deadly.

Just as Milltown residents were aware of their daily, domestic exposure to less than perfect water, they understood their industrial surroundings. For almost a century, the local lumber mills had embedded Milltown in the nexus of natural resource extraction that characterized the West. Rail traffic had stopped in Milltown since the completion of the Northern Pacific’s transcontinental route in 1883. Throughout most of the twentieth century, the world’s most productive copper mines operated about 100 miles upriver from Milltown in Butte. For the decade prior to the arsenic discovery, Milltown was home to the region’s largest plywood mill. People intuited that the water contamination stemmed from this industrial heritage, but they were unaware of the extent or the exact source of the problem. Solving those mysteries would take years.

top previous levels,” *Missoulian*, December 22, 1981, 1; Miller, “Hair, fingernails tests planned in arsenic-contamination probe,” *Missoulian*, December 23, 1981, 9. Jose M. Azcue and Jerome O. Nriagu, “Arsenic: Historical Perspectives,” in *Arsenic in the Environment: Part I: Cycline and Characterization*, edited by Jerome O. Nriagu, (New York: John Wiley & Sons, Inc., 1994).

²⁰ Ibid, *Missoulian*, December 16-18, 1981.

And the solution would soon put Milltown on the Environmental Protection Agency's National Priority List (NPL). In fact, by 1983 arsenic contamination of a few dozen Milltown wells earned the town's reservoir a place on the federal government's first NPL and its subsequent designation of one of the first Superfund sites in America. What began as a local need for uncontaminated water became a national project to restore a major western watershed. The earliest advocates for what became the nation's largest Superfund site were not environmental groups but local residents acting on intimate health concerns and awareness of their surrounding's industrial past.

With the number of Superfund sites growing every year, it is worth thinking about how Milltown's designation evolved at the local level. The story of Superfund designation at Milltown offers some unique perspectives on ways in which the law has played out. First, this local, western story challenges the ways historians have portrayed contaminated places. Congress passed the Comprehensive Environmental Response, Compensation and Liability Act in 1980 in response to a social justice movement led by Lois Gibbs and the Love Canal Homeowner's Association in New York. Yet the image of a community battling to redress their unwitting exposure to toxic contamination by a malevolent corporation that Love Canal exemplified does not fit Milltown. The contamination at Milltown was certainly due to a combination of the legacy of industrial extraction methods and natural systems. Superfund designation was less a fight than the outgrowth of a functioning municipal regulatory system (water sampling), public comment and concern working in the usual avenues of participatory government, and cooperation between the local, state, federal government, the public, and private business.

Second, when trying to explain the ways in which people understand their environments, historians have given more attention to historical antecedents, such as Christianity and European aesthetics, than they have to seemingly more mundane and personal things like work, play, or bodily fear, all of which informed people's perception of place during the Superfund process at Milltown. Finally, Superfund at Milltown came about in the absence of any organized environmentalism such as the established, national groups or radical fringe – the personality split of environmentalism in the 1980s. Environmentalism, even in its local, cooperative, and practical guise, only appeared in Milltown after the Superfund designation. In the beginning the situation unfolded mostly via routine governance and the actions of individuals within the community and within the agencies involved.²¹

Two rivers meet just below Milltown. Yet for most of the town's history the union of rivers was hidden.

In Milltown the engine of industry was a dam built in 1907 to impound the confluence of the Blackfoot and Clark Fork Rivers. One of the many new hydroelectric dams being built in the new century, it powered the region's largest lumber mills, including the Western Lumber Company (owned by the dam's builder, mining magnate William A. Clark) as well as the Blackfoot Milling Company (owned by the Anaconda Company) in the town of Bonner less than a mile east of Milltown. The dam's generators

²¹ Thomas R. Wellock, *Preserving the Nation: The Conservation and Environmental Movements, 1870-2000*, (Wheeling, IL.: Harlan Davidson, Inc., 2007); Samuel P. Hays, *Beauty, Health, and Permanence: Environmental Politics in the United States, 1955-1985*, (Cambridge: Cambridge University Press, 1987); Lois Marie Gibbs, *Love Canal: and the Birth of the Environmental Health Movement*, (Washington, DC.: Island Press, 2011).

also powered one streetcar that ran between Milltown and Missoula, seven miles downstream, and another that travelled up and down the Bitterroot Valley, south of Missoula. Electricity from the dam lit Missoula's main streets and well-to-do homes and businesses.

In addition to electrifying the region, the dam and the milling that it powered brought people to Milltown. Most of the people who came to Milltown were young men in search of work. By then, the Anaconda Company owned the mill, and because of its mining and smelting operations the lumber industry was booming, as it had been for decades. Milltown lumber supported the ever-growing labyrinth of mines beneath Butte. Milltown lumber fueled the smelters that melted metal, especially copper, out of Butte ore. With Milltown lumber, railroad crews tied the tracks that connected the forests to the mills, the mills to the mines, the mines to the smelters, the smelters to wire manufacturers, and the manufacturers to retailers. Builders used Milltown lumber to construct homes and businesses in Montana and, increasingly, wired them with Butte copper. In 1920, when the three Dufresne brothers moved to Milltown to work in the mills, the Anaconda Company had more than doubled the previous year's production and the value of their lumber nearly equaled all other manufacturing in the county.²²

Those who came for jobs were following a westward movement of the lumber industry. Many French-Canadians and Norwegians left logged-out areas of New Brunswick and the Great Lakes for the prospect of work in western Montana's robust timber industry. Finns and Swedes tended to make their way to western Montana as first generation immigrants who had lost their farm and timberland, or artisanal businesses, as

²² Shirley Coon, "The Economic Development of Missoula, Montana," (Ph.D. dissertation, University of Chicago, 1926), Table XVIII and XXVII.

industrialization and industrial-scale agriculture marched north and eastward across Europe. Swedes tended to come as bachelors, the Norwegians and Finns as families that organized readily around social activities like saunas and church going. For a few years before the establishment of the post office, in 1912, Milltown went by the name Finntown. By the time the Dufresnes arrived, WWI had dampened immigration. For the increasingly stable population in Milltown at that time, wages and work were good. Like many others, the Dufresne brothers used the opportunity to start families.²³

Leo Dufresne was born in Milltown in 1923. He grew up in his parents' company house and became accustomed to the ethnically distinct bars and neighborhoods that defined the town. The summer after finishing high school, Leo started working at the mill. At that time, the company rented the modest clapboard houses around town for about twenty dollars a month. Even after Leo retired from millwork the company subsidized his rent. After Champion Lumber bought the mill from Anaconda in 1972, the company supplied workers with firewood for the winter. With the abatement of most labor issues following the world wars, Leo Dufresne, like most of his fellow millworkers, appreciated his employer and the lifestyle working in Milltown afforded. He especially

²³ Dufresne, OH 419-06. Mildred Miller Dufresne, OH 140-29, Archives & Special Collections, Maureen and Mike Mansfield Library, The University of Montana-Missoula. "Church decorated for Christmas," "Norwegian heritage picnic," Photoboard #127 and #128, Jack L. Demmons / Bonner School Photographs. Archives & Special Collections, Mansfield Library, University of Montana-Missoula <http://www.lib.umt.edu/digital/demmons>. Bicentennial Committee Bonner School, *A Grass Roots Tribute: The Story of Bonner, Montana*, (Missoula, MT: Gateway Printing and Litho, 1976). For general interpretation on immigration see: John Bodnar, *The Transplanted: A History of Immigrants in Urban America*, (Bloomington: Indiana University Press, 1985). Also, American Social History Project, *Who Built America?: Working People and the Nation's Economy, Politics, Culture, and Society, Volume Two: From the Gilded Age to the Present*, (New York: Pantheon Books, 1992).

enjoyed watching his sons grow up in the same, seemingly wholesome, environment he had.

Summers, Leo Dufresne's three boys swam in the Milltown reservoir or in a favorite eddy on the Blackfoot or Clark Fork Rivers that fed it, just as their father had in his youth. When the reservoir, which they commonly referred to as "the river," or "the lake," froze during the area's long winters, they ice-skated. Autumn and spring offered the possibility of watching migrating trumpeter swans take respite in the calm water of the reservoir. Although those big white birds were too rare to hunt legally, ducks abounded and provided many families a taste of autumn's bounty. And except for during the height of spring floods, young boys like the Dufresnes could, and did, fish all year round.²⁴

Depending on the season, the Milltown Dam drew fishermen for different reasons. "In the fall, when they were spawning," Dufresne recalled, "they'd come up against the dam and everybody'd go down there and catch whitefish because they'd all be up against the dam." The northern reach of the Sapphire Mountains that forms the southern edge of the Clark Fork's valley at Milltown blocks sunlight from shining directly on the river and reservoir during the winter. So, the boys sat in the warmth of the powerhouse and dropped lines from its windows into the reservoir below when the dam's

²⁴ Dufresne, OH 419-06. For similar stories of growing up in Milltown see the full collection of oral histories by Minnie Smith and Caitlin DeSilvey, OH 419-01-08. Also, Patrick Thibodeau, OH 419-23/24, Archives & Special Collections, Maureen and Mike Mansfield Library, The University of Montana-Missoula. Also see: "Blackfoot River near the Chaffey homestead," "Skating on the frozen reservoir below Milltown," "Sailboat on Milltown Dam reservoir" "Clark Fork River swimming hole," "Hazel Beadle at the swimming hole," "On the Blackfoot River," and "Orvo and Ellen Elo on the bank of the Blackfoot" Photoboard #44, 51, 116, 166, and 199, in Jack L. Demmons / Bonner School Photographs.

operator or engineer was kind enough to let them in from winter's cold. Many locals preferred catching the northern pike that populated the warmer, slower water in the reservoir compared to the trout inhabiting the cooler, swifter currents of the Clark Fork and Blackfoot Rivers. They enjoyed the pike's mild, oilier flesh to the rivers' various trout species. Mill engineer John Price's son, along with his two cousins, once caught enough pike in just a few summer days to fill the family freezer. When his dad found the freezer full of roughly a hundred fish he told the boys they had to quit fishing until they ate all they had already caught. The boys soon convinced Mrs. Price to fry their entire catch. They invited all the kids in town over for a fish fry and were back out fishing the next day.²⁵

The harmony of living and working in Milltown did not blind people to its industrial character. People enjoyed the local environment, but they clearly knew that it was not native or natural. With generations of mill workers and lumbermen in their family histories, Milltown residents understood that the dam and reservoir were the foundation of a working environment upon which they depended. In addition to the enjoyment that environment provided, it came with some annoyances. Even after the community drilled a few wells in the 1940s to service residences, some men hauled five gallon buckets of water home from the mill at the end of their workday because the mill's well water tasted better and ran clearer than the community well. Many of those men remembered seeing their parents walking between home and the company well with a

²⁵ Dufresne OH 419-06, and John Price OH 419-07. For other documents on fishing, see: "Four fishermen display their catch," and "Ice fishing on the Blackfoot River," Photoboard #75, 195, in Jack L. Demmons / Bonner School Photographs.

yoke supporting buckets of water intended for laundering and bathing balanced on their shoulders. So, too, the local river water was not always pristine.

A short walk separates the two rivers that filled the reservoir and the clear appearance of the Blackfoot often contrasted sharply with the plumes of reddish-brown water that coursed down the Clark Fork River. Watching those plumes, Milltown residents understood the connection. How could they not? Wood products from their mills went upstream to Butte and Anaconda; industrial run-off returned along with the water that powered those mills. The rivers suffered local customs as well. Some Milltown residents dumped their garbage and old junk off a local bridge into the Clark Fork. But no one saw even those instances of water pollution as poison. No one suspected the full extent to which the area's industrial legacy was affecting the environment.²⁶

Arsenic contamination in Milltown wells hit the TV news immediately following the local paper's story in December 1981. After watching a report about the contamination, William Woessner dialed the Missoula City-County Health Department. Eager to get involved, Woessner introduced himself as a first-year professor at the University of Montana in Missoula with a background in hydrogeology. As a student of how water moves through the earth, he had published a few reports on relationships between groundwater and mining in the West. Health department officials were happy to

²⁶ Thibodeau, OH 140-23/24; Dufresne, OH 140-29; Arthur Lehti, OH 140-30, Archives & Special Collections, Maureen and Mike Mansfield Library, The University of Montana-Missoula. Bicentennial Committee Bonner School, *A Grass Roots Tribute*, 52.

enlist him in figuring out what was going on in Milltown. As he had hoped, Woessner soon found himself tracking down the source of the arsenic in Milltown wells.

Some Milltown residents pointed to local sources of the contamination such as an old dump, the local plywood mill, the railroad tracks, or even the local habit of tossing everything from trash and old appliances to abandoned cars into the river. Woessner investigated the possibilities. The construction of Interstate-90 through town in the 1960s necessitated moving a makeshift dump. Construction crews used dirt and gravel from below the old dump for fill beneath some of the interstate footings near the reservoir. Woessner figured that since locals used the dump for household trash, it probably did not contain much, if any, arsenic. Some speculated that the town's plywood mill was the source of the arsenic. When the Anaconda Company liquidated its mills in 1972 in an attempt to keep its American mining operations afloat, US Plywood bought the Milltown operations and transformed them into one of the country's largest plywood manufacturers. Hundreds of Milltown residents, who found jobs with the new wood products company after Anaconda laid them off, pointed to their new employer's practice of dumping wood treatment chemicals along the banks of the Blackfoot River just before it reached the reservoir. Again, Woessner discounted that theory when he consulted mill records and found no historic use of arsenic at the site.

In the early reports that spurred Woessner's interest, state environmental health officer Joe Aldegarie speculated that "arsenic may have seeped into groundwater from the sludge behind the Milltown Dam on the Clark Fork River."²⁷ Local opinion offered the same culprit. Many residents pointed at those reddish-brown plumes coloring the

²⁷ Miller, *Missoulian*, December 15, 1981.

Clark Fork. It was no secret that the Anaconda Company produced tons of arsenic and other heavy metals for most of the twentieth century as byproducts of the country's largest copper mining and smelting operation sitting at the headwaters of the Clark Fork River. Those byproducts had nowhere to go but with the flow of the river, and that flow slowed at Milltown. In addition, a graduate student in the university's Environmental Studies program found exceptionally high levels of copper, zinc, iron, and manganese in the reservoir's sediment during her investigation of river-borne heavy metals in 1975. Although she did not test for it, Woessner understood that arsenic often occurs with other heavy metals and is moves with them in the process of mining, milling, and smelting copper. Woessner felt confident he was closing in on the culprit. So he recruited his colleague, Johnnie Moore, rented the chain saw and headed to the frozen reservoir.²⁸

For lack of further funding, it took a while before the professors and their diehard students got their initial sediment samples tested. When they did, the high levels of arsenic in the samples increased the suspicion that Milltown reservoir was the source

²⁸ Dennis Pleasant, OH-419-04, Archives & Special Collections, Maureen and Mike Mansfield Library, The University of Montana-Missoula. Woessner OH 428-01. William W. Woessner and Marin A. Popoff, "Hydrogeologic Survey of Milltown, Montana and Vicinity," Department of Geology, University of Montana, Missoula, MT., June 15, 1982. Letter from Johnnie Moore and William Woessner to Missoula City-County Health Department, October 3, 1982 (original copy at MCCHD). Also see: Sherry Devlin, "History's troubles," *Missoulian*, January 27, 2002, 1. William W. Woessner and Johnnie N. Moore, "Final Report: Arsenic Source and Water Supply Remedial Action Study, Milltown, Montana," Department of Geology, University of Montana, Missoula, Montana, July 31, 1984. Bailey, Ann K., "Concentration of Heavy Metals in the Sediments of a Hydroelectric Impoundment," (MS thesis, University of Montana, 1976). Another survey conducted by Associate Professor Jerry Bromenshenk in the Environmental Studies Department at the University of Montana found arsenic levels far exceeding those in Milltown in soil and vegetation samples taken from "denuded areas along the Clark Fork River" above the reservoir. Bromenshenk believed that that arsenic, like Milltown's contamination, was from upriver mining and smelting. Letter from Jerry Bromenshenk to Ms. Elaine Bild, Director of Environmental Health, Missoula City-County Health Department, November 17, 1982.

of toxins contaminating the local ground water. But how could arsenic in the reservoir's sediments get into the aquifer that supplied Milltown's well water?²⁹

Like mountain-fed rivers across the West, the Clark Fork reaches its peak flow in the spring. As days grow longer and temperatures rise, some of the year's mountain snowpack melts and courses downward. Rivers rise. As surface water wanes with warmer days and drier hillsides, river levels drop. Yet in an unseen movement of water, some of the mountain precipitation continues to feed the river by seeping downward and following ancient, water-carved paths through the earth. Lots of this groundwater eventually reaches alluvial aquifers. These water-bearing strata are made up of old riverbeds, so they are most often adjacent to, and slightly *above* newer riverbeds. Because of their position and porosity, groundwater from alluvial aquifers usually leaks into the nearby surface water, often a river. This movement of groundwater to river characterizes most of the Clark Fork. At Milltown something unusual happens.

Woessner discovered that around Milltown, especially under the reservoir, surface water fed the groundwater. About a mile above the dam, the Clark Fork River ceased falling its average ten feet per mile, and bloated into the long, narrow, relatively shallow reservoir. Ten or twelve thousand years before the construction of Milltown Dam, another dam had drowned the area under nearly 1000 feet of water. Glacial Lake Missoula filled upwards of forty times, over as many or more millennia, as glaciers

²⁹Woessner OH 428-01. Letter from Johnnie Moore and William Woessner to Missoula City-County Health Department, October 3, 1982 (original copy at MCCHD). Also see: Devlin, "History's troubles." William W. Woessner and Johnnie N. Moore, "Final Report: Arsenic Source and Water Supply Remedial Action Study, Milltown, Montana," Department of Geology, University of Montana, Missoula, Montana, July 31, 1984.

flowed south, damming the ancient Clark Fork River in modern-day Idaho. These ice dams backed up massive amounts of water. Each time, the weight of all that water and the effects of warming weather broke the ice dam, and unleashed the greatest floods recorded on earth's surface. Those floods poured into the Pacific, reshaping many miles of sea floor with a mix of earth, water, ice and the last blast of an unbelievably turbulent force that had just carved the Columbia River basin hundreds of feet deep in places. Closer to the original ice dams, the floods gouged a moon-like surface into eastern Washington known as the scablands. The ice-encrusted waters of the glacial lakes terraced the hillsides around Missoula and Milltown with their abandoned shorelines. And where the Clark Fork's valley pinches into a narrow canyon around Milltown, those epic floods dropped a load of rocks in their wake. These, "high-energy fluvial and catastrophic glacial-flood deposits" left a layer of boulders, sand, and silt up to 10 meters thick in the stretch of valley around Milltown. The same narrow stretch of canyon that collected all that earthen debris became an ideal spot to build a dam. So, Milltown Reservoir sat atop that ancient layer of rubble, which acted like a very leaky platform.³⁰

In addition to figuring out that there was an anomalous, downward gradient from the reservoir to the groundwater below, the University of Montana geologists gathered sediment samples and drilled wells in an attempt to quantify the amount of arsenic in the reservoir and assess its quality as a means of linking it to the contaminated wells. They mapped a wedge of sediments that thickened from half a meter three kilometers upstream from the dam, to nearly eight meters at the dam site. The team's calculations showed that through all that sediment the reservoir discharged more than a million cubic feet of water

³⁰ Moore and Woessner, "Arsenic Contamination in the Water Supply of Milltown, Montana," 334.

per day into the adjacent groundwater system or about a dozen Olympic-sized swimming pools worth of water. They suspected that as water surged through the contaminated Milltown sediments into the groundwater it carried arsenic. Woessner soon had a chance to voice his suspicions.

This time, the Missoula City-County Health Department called Woessner. They wanted to know just how much arsenic-laced sediment the reservoir contained. Sitting in his office on a Sunday, Woessner reached up to an aerial photo of the Milltown reservoir and used his thumb to estimate the reservoir's area. He then mentally-multiplied the area by what he thought was the average depth of the sediments, roughly four feet. His "back of the envelope calculation" of 1800 tons was "a lot of arsenic" spread throughout a potential volume of about 4.4 million tons of reservoir sediment. With all that arsenic sitting above the Milltown aquifer it was hard for Woessner to suppose there could be any other explanation for the contamination. Yet, no one had proved that the arsenic in the wells and in the reservoir were of the same form, and hence connected. And at the time, the UM team lacked the funding to pursue such proof. For that, Woessner blamed national politics.³¹

Back in 1980, when the US Congress established the Comprehensive Environmental Response, Compensation, & Liability Act, commonly known as Superfund, the act mandated that the EPA, "locate, investigate, and clean up the worst

³¹ Woessner OH 428-01. William W. Woessner and Marin A. Popoff, "Hydrogeologic Survey of Milltown, Montana and Vicinity," Department of Geology, University of Montana, Missoula, MT., June 15, 1982. Woessner, William W., Johnnie N. Moore, Carolyn Johns, Marin A. Popoff, Leslie C. Sartor, and Mary Lou Sullivan, "Final Report: Arsenic Source and Water Supply Remedial Action Study, Milltown, Montana," Department of Geology, University of Montana, Missoula, MT, July 31, 1984.

sites nationwide.”³² Since the dawn of nuclear testing and the exposure of widespread pesticide use as human health threats, Americans had become increasingly concerned about pervasive industrial pollution and the toxins it introduced into their daily lives. The overwhelming bipartisan support for passage of the Clean Water Act in 1972, including a swift and sweeping Congressional override of Nixon’s effort to veto the bill, passage of the SDWA two years later, and Superfund in 1980 demonstrated how the general concern over industrial pollution and environmental toxins had polarized around water more than any other aspect of the environment.³³ Yet, the incoming Reagan administration staunchly opposed implementing Superfund, which required the federal government to spend money on environmental remediation or pursue lawsuits against corporations responsible for polluted areas. Woessner had received a small amount of federal funding for his team’s groundwater investigation at Milltown. But as part of Reagan’s agenda the administration identified itself with a state’s rights stance, a free-market mindset, and a thinly veiled anti-environmental soul. That agenda pushed the EPA to avoid litigation and seek to cooperate with responsible corporate parties to alleviate environmental problems in conjunction with states’ wishes. At Milltown, since there was no definitive source of the problem, much less a legally responsible party, this simply meant no more EPA funding.³⁴ Nonetheless, a few months after his conversation with the Missoula

³² <http://www.epa.gov/superfund/about.htm>

³³ Studies of public perceptions in the early 1990s showed that the overwhelming majority of people saw “water pollution and toxic waste sites” (77 and 72% respectively) as the most serious threats to the environment. Robert W. Adler, Jessica C. Landman, Diane M. Cameron, *The Clean Water Act 20 Years Later*, (Washington DC: Island Press, 1993), 2, 11. Also see, Hays, *Beauty, Health, and Permanence*; and Hal K. Rothman, *The Greening of a Nation: Environmentalism in the United States Since 1945*, (Orlando: Harcourt, Brace and Company, 1998).

³⁴ Woessner OH 428-01. Hays, *Beauty, Health, and Permanence*, 198-206.

health department's director, Woessner heard that the EPA had included Milltown reservoir as part of its inaugural designation of the nation's most toxic places. The agency cited Woessner and Moore's initial conclusions in its decision.³⁵

Getting a commitment from the EPA took more than Woessner's thumb on a map indicating that there was probably lots of arsenic around Milltown. While he was figuring out the science of the problem, others had begun responding in different ways. Local pressure did as much for the cause as did the mounting evidence.

Milltown residents organized a water users association in the spring of 1982. Already bearing the cost of hauling clean water to their homes, residents wrote \$20 checks to set up the new association, hire a lawyer, and begin the task of finding a new source of water, a task estimated to cost between \$40,000 and \$100,000. In the coming months, Champion International Corporation, owners of the local sawmill and the housing affected by the poisoned wells, volunteered to pay the new water users association's legal fees. The company also loaned the water users group a truck to haul uncontaminated water to their homes twice a week. A year after the water users association formed, the company gave the group the twelve acres of land on which the company houses with contaminated water stood. Outright ownership of that land and those homes would allow individuals or the group to apply for bank loans to help finance a new water supply or make much needed home improvements. Buoyed by the news of

³⁵ Environmental Protection Agency, "Documentation Records for Hazardous Ranking System, June 28, 1982," in U.S. Environmental Protection Agency, Montana Office, *Milltown Administrative State Site Confidential Records*, reel 144, Government Documents, Mansfield Library, University of Montana. Woessner OH 428-01. Moore and Woessner, "Arsenic Contamination in the Water Supply of Milltown, Montana," 329-350.

the \$120,000 gift of land, the association's president, Melody Fuch, had no problem with the deal's caveat that mineral rights still belonged to the Anaconda Mining Co. "They can dig for all the arsenic they want," she gibed.³⁶

Fuch and others welcomed additional forms of help. Montana Peoples' Action, a social and environmental advocacy group, organized a letter writing campaign aimed at getting Milltown on the EPA's National Priority List for Superfund. Others showed concern about corporate liability for the arsenic seeping under Milltown. Bob Ream, a professor of wildlife management in the UM School of Forestry and the Democratic candidate for the state House seat covering the Missoula and Milltown voting districts publically pressured the Atlantic Richfield Company (ARCO), owners of all the upstream mining operations formerly run by Anaconda, to pay for a thorough study of the problem. With local and state pressure rising, along with mounting scientific evidence at hand, the EPA moved Milltown up its priority list.³⁷

Of course the environmental realities at Milltown helped its chances of making the NPL. The Superfund law's Hazardous Ranking System scored sites based on their "probability of release," "nature of material that might be released," and "potential

³⁶"Land given to Milltown association," *Missoulian*, May 20, 1983, 9.

³⁷ Letter from Edward Zuleger, Missoula City-County Health Department to Elaine Bild, in collection at Missoula City-County Health Department, Missoula, Montana. "Minutes of Milltown Water Users Association, May 12, 1982," in U.S. Environmental Protection Agency, Montana Office, *Milltown Administrative State Site Confidential Records*, reel 144, Government Documents, University of Montana. Edwin Bender, "Contamination;" "Group gears up to solve water problem;" "Champion helps Milltown group trying to solve water problem," *Missoulian*, May 8, 14, 28, 1982, 13, 14, and 5. Steve Woodruff, "Arsenic found in sediment at Milltown Dam," "Milltown contamination moved up on EPA list," *Missoulian*, October 3, 26, 1982, 1 and 1. *Missoulian*, "Candidate wants Arco to fund study of arsenic" and "Land given to Milltown association," October 5, 1982, May 20, 1983, 9 and 9. "Action Line," *Montana Peoples' Action newsletter*, August, 1983.

targets.” Milltown rated high on all three variables. Toxins were already being released into wells via groundwater, which accounts for the maximum risk pathway in Superfund evaluation. The main culprit at Milltown, arsenic, tops the Superfund list of risky contaminants. And Superfund was designed to prioritize protection of people’s health, which was the primary “target” at Milltown. With those variables Milltown easily ascended the rankings.³⁸

Being higher on the priority list made Milltown more likely to receive federal assistance. As decreed by Superfund legislation, that assistance would amount to 90% of all expenditures on the site, if the state paid the complement. The EPA’s representatives in Helena, the state capital, had not released the new rankings. That did not stop one of Montana’s U.S. Senators, Democrat John Melcher, from prematurely announcing that the higher ranking “qualifies Milltown to be considered for EPA Superfund.” Melcher was not alone in celebrating.

Missoula health officials lauded Milltown’s rising rank among the nation’s top toxic places because it carried the possibility of federal money and because it meant the vision of Milltown’s problem had shifted. EPA agent Jim Dunn described how the agency broadened the scope of the problem at Milltown, garnering it a higher rankings, when “instead of saying the groundwater was contaminated, we looked at the

³⁸ U.S.EPA, Region VIII, “Citizens’ Superfund Workshop,” 5/5/1990, in U.S. Environmental Protection Agency, Montana Office, *Milltown Administrative State Site Records*, reel 241 Government Documents, Mansfield Library, University of Montana. Katherine D. Walker, March Sadowitz, and John D. Graham, “Confronting Superfund Mythology: The Case of Risk Assessment and Management,” in *Analyzing Superfund: Economics, Science, and Law*, ed. Richard L. Revesz et al. (Washington, DC: Resources for the Future, 1995).

contamination as a symptom of another problem.” Missoula’s newspaper cheered the change in perspective and acknowledged that it thought the other problems were the reservoir, the river, and its historical upstream use. In 1982, a year after Milltown’s contaminated wells first made news, the EPA designated the site one of 418 official candidates for clean-up efforts based on human health concerns. The head of the Milltown Homeowners Association called the announcement, “a nice little early Christmas present.”³⁹

Of course, there was nothing in that holiday gift so far, except for a federal promise to begin considering remedies. In another example of how Superfund progressed through the usual workings of government and public policy that gift began to fill. As the New Year approached and a new session of the State Legislature convened, there was a flurry of local and state efforts directed at moving the Milltown Superfund site forward. Montana governor Ted Schwinden assigned a staff member to investigate the issue, as well as recommend solutions and sources of funding. Montana Senator Max Baucus (D) wrote to the EPA’s regional administrator requesting the “assistance” that Superfund would provide for Milltown residents. Efforts by Missoula’s newspaper leaned in the same direction when, between Christmas and the first days of 1983, an editorial urged locals to write to the EPA encouraging the agency to include Milltown in their final cut. The editorial warned Missoulians of the bigger worry they might face if the arsenic-saturated sediments in Milltown washed into the Missoula aquifer.

³⁹Steve Woodruff, “Milltown contamination moved up on EPA list” *Missoulian*, October 26, 1982, 1. Missoulian editorial, “Ticklers: Hope improves for Milltown,” *Missoulian*, November 7, 1982, 6.

Many downstream residents were already aware of the potential problem the dam's sediments posed. Since the late 1970s people from Missoula protested periodic drawdowns of the reservoir because the practice killed fish. At the time no one understood that arsenic was part of the sediment contamination, but people advocating stricter regulation of drawdowns knew that toxic, heavy metals were part of the problem. A "reader comment" submitted early in the New Year warned of a similar potential disaster. With the discovery of arsenic, the dam and reservoir suddenly became a toxic time bomb to people outside the immediately contaminated area and the EPA appeared to be the community's best bet at disarmament.⁴⁰

People were beginning to frame the problem as bigger than just drinking water for thirty-three Milltown residences. Yet many of the letters sent to the EPA kept the attention on the urgency of the local problem. One fifth-grader captured the essence of the letters' emphasis on the most vulnerable victims of the contamination when he wrote: "There are many old people and children. Please help them." Similarly, a Milltown mother offered the anecdote that when she mixed her well water into her baby's bottle "it

⁴⁰ Steve Woodruff, "Milltown arsenic on EPA list for cleanup," *Missoulian*, December 21, 1982, 1. *Missoulian* editorial, "No substitute for a stitch in time," December 27, 1982, 6. Reader comment, "Help Milltown with pollution," *Missoulian*, February 11, 1983, 4. Letter from Ted Schwinden to Missoula Board of County Commissioners, EPA, Department of Health and Environmental Sciences, and Department of Natural Resources and Conservation (copy in possession of author). Letter from Max Baucus to Steve Durham, November 17, 1982 (copy in possession of author). Letter from Missoula Board of County Commissioners to Russel H. Wyer, January 12, 1983 (copy in possession of author). For information on reservoir drawdowns, see: Personal communication with Peter Neilsen, Missoula City-County Health Department, October 14, 2009, notes in author's possession; Letters opposed to Montana Power Company's drawdowns, in U.S. Environmental Protection Agency, Montana Office, *Milltown Administrative State Site Confidential Records*, reel 465, Government Documents, University of Montana; also, Sherry Devlin, "Plan to flush Milltown lake gets cool reception," *Missoulian*, January 24, 1981, 1. Mike McNally, "Lawsuit over drawdown," *Missoulian*, January 19, 1982, 12.

curdled the milk.” Senator Melcher used the word “families” a dozen times in two pages of his letter to the EPA. The intimate nature of the contamination, literally entering people’s homes and bodies, filled those letters.

Ironically, the actual effects arsenic contamination had on Milltown residents remained virtually unaccounted. Montana Public Interest Research Group (MontPIRG), a statewide advocacy group for public interests, conducted its own health study of people living in the homes connected to the contaminated wells. They found that residents reported high incidents of respiratory and skin problems, both of which medical studies correlate with chronic arsenic exposure. News sources never reported the MontPIRG study, nor did health officials or the EPA ever follow up on it, or, as MontPIRG recommended, conduct a more thorough investigation. Rather, involvement in the issue was spreading far beyond the confines of Milltown, just as people were beginning to see the problem as stretching far upriver and into the area’s deeper industrial history, as well as into the future of downstream populations. The language of intimate effects combined with far-reaching possibilities motivated people, especially those outside Milltown, to seek federal help and money.⁴¹

In the end, EPA funding hinged on the state. Even if the EPA put Milltown on their final NPL, they could not deliver any funding to the Milltown project until Montana approved a similar appropriation. State authority was needed to trigger federal participation. The Montana State Legislature, in the midst of their biennial, ninety-day session, began pushing a “mini-Superfund” bill sponsored by Bob Ream, who had

⁴¹ Lisa Fleischer, “Health Study of Milltown, Montana,” (Missoula, MT.: MontPIRG, 1983); and letters to the EPA in U.S. Environmental Protection Agency, Montana Office, *Milltown Administrative Records*, reel 144, Government Documents, Mansfield Library, University of Montana.

defeated his Republican rival, a Milltown resident. EPA's director of Montana operations reminded Montanans that his agency had moved Milltown into the top 200 of the country's potential Superfund sites. He signaled that Milltown would probably make the final list, especially if the state had already committed its matching funds calculated at \$220,000. Montana People's Action helped Milltown residents promote the bill allocating those funds. Such efforts paid off in a near unanimous decision. Upon signing the "mini-Superfund" bill, Governor Ted Schwinden pronounced that the appropriation law "sends a message to the federal government that we are serious about protecting our citizens from the consequences of hazardous waste." When Schwinden said "hazardous waste" he was concluding that the arsenic came from Milltown's industrial heritage. If there was still any uncertainty in the scientific community as to where the arsenic came from, there was no such doubt in popular perceptions.⁴²

With the state's checkbook at the ready, the EPA committed to Milltown. In May 1983, before the spring floods swelling the Clark Fork and Blackfoot Rivers abated, the state and the EPA hammered out an agreement that included money for a thorough study of the problem and the search for a permanent source of clean water in Milltown. By July the EPA awarded \$570,000 to the project. Finally, Milltown seemed to be on the path to some answers and solutions.⁴³

⁴² *Missoulian*, "Milltown contamination more urgent, official says," "Bill signed to provide cleanup funds," March 9 and 29, 1983, 1 and 11. House Bill 200, 48th Legislature, 1983, (copy in possession of author).

⁴³ *Missoulian*, "Milltown cleanup pact near," May 3, 1983, 13. Steve Woodruff, "EPA frees \$570,000 for Milltown aid," *Missoulian*, July 2, 1983, 1. Also NPL Site Narrative for Milltown Reservoir Sediments: <http://www.epa.gov/superfund/sites/nplsnl/n0800445.pdf>

Getting to this point had taken a long time. Two years had elapsed from the time the Missoula City-County Health Department sampled Milltown's water until the EPA and the state committed funds to the arsenic-contaminated environment. In that time, local and state agencies delayed informing the public of the test results. Once they did, information on the extent of the problem and the true health concerns remained murky. Lack of funding hampered the scientific community. And conservative aspects of federal Superfund legislation hampered the federal government from getting involved until the state committed to the project. Meanwhile, Milltown residents took on much of the burden of looking after their own health and creating whatever temporary solutions they could. They also watched as perceptions of their local environment changed as it entered a new spotlight. Where they once saw a familiar and much-loved environment that held the stories of many generations, now the image of a poisoned place emerged. The water, in which many Milltown children swam, like their parents and grandparents before them, grew ominous and took on the specter of being one of the nation's most fouled environments. And fouling it was one of history's most infamous poisons. In Milltown, the discovery of arsenic contamination altered the character of an old place and set the community on a path of even greater change.⁴⁴

While the EPA's designation of Milltown as a Superfund site both condemned it and offered it hope, it would also begin the process of revealing the great ghost of western history. As many Milltown residents intuited, the very economy that built their world had a darker, potentially deadly side that the water surrounding them had quietly carried. Since the Safe Drinking Water Act of 1974, the EPA's efforts to address the

⁴⁴ Michael S. Gorby, "Arsenic in Human Medicine," *Arsenic in the Environment: Part II: Human Health and Ecosystem Effects*, (New York: John Wiley & Sons, Inc., 1994).

problem of toxins in America's water supply aimed at stopping industrial sources of harmful chemical compounds and heavy metals from ever entering the water. With Superfund designation at Milltown, the EPA committed itself to remedying not just on-going and future sources of industrial water contamination, but to redressing the past as well. All of which hinged, initially, on human health concerns – a new understanding of the river system as a toxic environment that carried a century's worth of industrial mining waste into the intimate spaces of people's homes and bodies. Rather than through fighting, Milltown received Superfund designation through a fairly cooperative effort that included local grade-schoolers through the ranks of federal agencies. Clean drinking water was on its way. But tainted tap water was to become just the beginning, the proverbial headwaters initiating a much bigger stream of change, as it were. In the wake of Superfund designation at Milltown, the focus would soon broaden and the participants multiply.⁴⁵

⁴⁵ For EPA's efforts regarding toxic contamination of water through the 1970s, see: Hays, *Beauty, Health, and Permanence*, 198-206.

*Floods of Change:
From Tainted Wells to Threatened Watershed*

Much of the frontier is river, and rivers are meant to bring men together, not to keep them apart.

J.B. Jackson, *Landscape in Sight: Looking at America*

In addition to any other action taken by a State or local government, when the President determines that there may be an imminent and substantial endangerment to the public health or welfare or the environment because of an actual or threatened release of a hazardous substance from a facility...he may issu(e) such orders as may be necessary to protect public health and welfare and the environment.

Comprehensive Environmental Response,
Compensation, and Liability Act (Superfund),
Section 9606(a)

The discovery of arsenic in Milltown's wells began when a local resident complained to the health department about the quality of his drinking water. University of Montana scientists identified the millions of cubic feet of sediment accumulated behind the Milltown Dam as the source of that arsenic. Public concern, supported by Montana politicians, led the EPA to designate the Milltown Reservoir as one of the nation's first Superfund sites. But it was not locals, state or federal officials, or even the dam's corporate owners who instigated the next major change in store for the Milltown Dam. It was the river.

May is usually a pivotal month for the Clark Fork watershed. It is the wettest month. And it is the first month in which the air temperature remains above freezing for more than half its days. As rain falls and snow melts, western Montana rivers swell. In

May, the Clark Fork River more than doubles its flow along its upper stretches, including where it passes through Milltown. Those are the averages, anyway.¹

In 1986, spring high water came early for much of the Clark Fork basin. Unseasonably warm temperatures in late February meant that rain, rather than snow, fell for days. Seven miles downstream from Milltown in Missoula, the local newspaper blamed the early season flood conditions on, “Sunday’s three-tenths of an inch of rainfall and Monday’s halter-top temperatures.” Rain and melting snow coursed across frozen ground, clogged sewer drains with un-raked autumn leaves and a winter’s worth of debris, and flooded streets throughout town. One morning’s front-page story featured a photo of a man standing in knee-deep water while he tried to unclog a street drain with a shovel.²

As residents of Missoula mopped flooded basements, stacked sandbags, avoided flooded streets, and generally marveled at the ponds in their neighborhoods, the Clark Fork River grew. On Monday, February 24th, the river rose from two to six feet through Missoula, which was well below the area’s flood stage of eleven feet. But because it was such an early-season flood those extra four feet of river carried lots of ice. As that ice floated into Milltown reservoir it piled up behind the old wooden dam.

¹ <http://www.climate-zone.com/climate/united-states/montana/missoula/>;
<http://www.wrh.noaa.gov/mso/climfacts.php>;
http://waterdata.usgs.gov/mt/nwis/monthly/?referred_module=sw&site_no=12340500&por_12340500_2=66181,00060,2,1929-03,2010-09&site_no=12340500&por_12340500_23=66181,00065,23,2004-10,2010-09&format=html_table&date_format=YYYY-MM-DD&rdb_compression=file&submitted_form=parameter_selection_list

² John Stromnes and Larry Howell, “High Water: Warm weather poses problems for Missoulians,” *Missoulian*, 2/25/1986, 1-2.

By Tuesday, ice floes smashed through the top of the Milltown Dam, sending an eight-foot wall of water and wooden debris over its face. While “the river rose noticeably after the noon collapse, floating miniature icebergs and huge sodden logs through Missoula,” according to newspaper accounts, spokesmen for the dam’s owner – Montana Power Company (MPC) – and state Fish, Wildlife, and Parks (FWP) officials remained unworried about downstream flooding. What worried watchers was the dam’s safety and the toxic sediment contained behind it. FWP biologists began testing the river for heavy metals immediately following the dam breach.³

After nearly two decades of managing the dam’s operations, Emmett “Smitty” Smith had shepherded the aging structure through plenty of seasonal high water events. But never had one threatened to wash out the entire dam. As the ice and logs pounded against the mostly wooden dam, Smith chose what he regarded as “a beating rather than getting killed.” He closed all the dam’s gates so that the reservoir would rise and float the threatening debris over the dam, rather than smash through it. Smith’s choice to sacrifice most of the wooden gates and spillway, which the ice and log jams pummeled as they careened over the dam’s face, probably saved the dam. Afterward he said of his own decision, “If we hadn’t done that...we’d have lost the whole dam. It would have taken it right down to bedrock.” While Smith’s experience wagered injury over annihilation, the flood-damaged dam set in motion a more pressing debate about the structure’s future, one that would ultimately take it “right down to bedrock.”⁴

³ Michael Moore, “Missoula mops up,” *Missoulian*, 2/26/1986, 1-2.

⁴ Steve Woodruff, “Dam, suckers survive,” *Missoulian*, 4/5/1986, 9.

The condition of the Milltown Dam after 1983, especially following the rather minor flood of 1986, altered discussions about the long-term fate of the Milltown Reservoir. Newly formed environmental groups, state and federal officials, and the dam's owners had to confront the growing perception of the Milltown Reservoir as part of a river-wide pollution problem. Concern about the toxic sediment behind the dam expanded from being about local drinking water contamination to threatening the health of the entire downstream river basin. Focus on human health widened into river health. That expansion of concern, which mounted following the 1986 flood, also fit into a coalescing number of studies aimed at quantifying the health of the upper Clark Fork River. Local and state research efforts dovetailed with the ongoing Superfund study of the river, even as the fate of Superfund itself hung in the balance of Congressional debate. Milltown weighed in on that balance, making its first mark on Superfund legislation.

Furthermore, most studies and attention began to target fish, especially wild trout, as the indicator of overall river health. Public and governmental acknowledgement of basin-wide pollution problems also prompted the possibility of designating the entire upper Clark Fork River as a series of Superfund sites. The floodwaters that catalyzed these changes regarding the Milltown Superfund site were not the first to affect the dam, nor would they be the last. Nevertheless, the water that poured over the dam in late winter of 1986 forced local environmental groups and citizens, as well as state, federal, and company agents, to tackle the issue of what to do with the aging structure because of the downstream threat it posed.

The 1986 flood was no great anomaly. Just five years earlier a seasonally predictable May deluge damaged the dam's spillway; less than a decade prior to that, ice floes riding floodwaters dinged the structure. By the 1970s and '80s, the dam's age made it susceptible to the river's force, yet the worst damage sustained by the dam had occurred just six months after its completion.⁵

Building the Milltown Dam had meant reshaping the Clark Fork River. When work began in the fall of 1905, the Clark-Montana Realty Company, owned by copper-mining magnate and Montana Senator William Andrews Clark, had more than a hundred men on its payroll, along with 28 teams of horses excavating what was then known as the Hell Gate, or sometimes, the Missoula River. The men, mostly recent Scandinavian immigrants, along with French-Canadians and Slavs, dug diversion ditches so that they could scour the river bottom of sediment, rocks, and "large boulders" in an effort to strike bedrock for the dam's footings. To locals it seemed like a massive undertaking. Although contemporary newspaper accounts touted it as a large, expensive, modern marvel, it was actually a fairly modest project for its time. Bigger dams had long since existed.⁶

At nearly 400 feet in length and 274 feet thick, a dam built outside of Cairo, Egypt around 3000 B.C. would have dwarfed Clark's dam in sheer girth. While the Sadd

⁵ Peter Nielsen, "Milltown Dam History: Chronology Compiled by Missoula City-County Health Department," December 3, 2001, digital copy in author's possession.

⁶ Letters from Jerry Rourke to A.H. Wethey, Oct. 10 and 12, 1905, Feb. 5, 10, 1906, MC 268, Montana Power Company Predecessor Company Records, 1880-1947, Box 23/Folder 1, Montana Historical Society Archives, Helena, MT. "Excavation of Channel," Nov. 5, 1905, MC 268, Montana Power Company Predecessor Company Records, 1880-1947, Box 24/Folder 2, Montana Historical Society Archives, Helena, MT. Kennedy, Charles, OH 266; and Karkanen, Hazel, OH 392, "Montanans at Work Oral History Project," Montana Historical Society Archives, Helen, MT.

el-Kafara dam was an anomaly of antiquity, by the late-19th century dam construction was entering its heyday around the world. So was the science of dam building.

By the late 1800s, especially in the U.S., experience and empiricism gave way to theoretical models and a rigorous study of hydrology. Experimental dam design and construction included sloped rather than vertical faces, thinner, curved structures, and wood or rock being replaced by cement and steel. Large arched dams made of reinforced steel were proving their effectiveness in places like the San Bernardino Mountains of California where the Bear Valley dam stood by 1884.

The most important advancement was the use of water-turbines in dams to produce hydroelectric energy. Engineers favored the rapid fall and narrow canyons of rivers in the mountainous regions of the American West for the building of hydropower dams. By 1893 the Colorado River outside Austin, Texas, boasted a 65-foot high, 1300-foot long masonry dam that generated 15,000 horsepower. Although a 1900 flood destroyed that dam, others of equal size and capacity were impounding western rivers as the new century opened and Clark's project in western Montana got under way.⁷

So when boosters made claims about the Clark Dam's largeness, they were ignoring, or ignorant of, reality. In a five-year period surrounding the dam's inception and completion, *Engineering News-Record*, the nation's leading publication on the development of everything from rivets to railroads, failed to mention Clark's dam at all. Such journals favored stories about truly large or modern dams. Measuring about 220 feet long and 40 feet high, the dam on the Clark Fork was quite average. Rather than

⁷ Norman Smith, *A History of Dams*, (London: The Chaucer Press, 1971). Also see, Daniel W. Mead, *Water Power Engineering: The Theory, Investigation and Development of Water Powers*, (New York: McGraw-Hill Books Co., 1920).

being a modern exception, the Clark's Dam represented a fading generation of construction technology, albeit one that lacked the perils of experimentation. In many respects, it represented the tens of thousands of dams erected across American waterways before the turn-of-the-century. And its power capacity, while an emblem of newness, was modest. In sum, Clark's project was common and conservative. Yet, the construction methods and materials employed by the engineers of Clark's Dam, while not cutting-edge, were critical to the structure's future.⁸

In profile, the finished dam looked like a squat pyramid set atop a low, rectangular base. The water face, or upstream side of the pyramid, sloped at about 30 degrees and was covered in rock, or "riprap." The air, or downstream face sloped slightly steeper until just before reaching the base, where its angle softened, like a long run-out on a child's slide. Small, outhouse-sized compartments made of 10" x 10" wooden timbers called "cribs" composed the matrix of the whole thing. Men filled each compartment with rock and gravel hauled from the river excavation project, as well as from some blasting of the canyon walls on either side of the dam meant to create flat side abutments. The name for this type of "crib and rock" construction came from its interior design and the materials. The tightly fitted timbers, which swelled when wet, the rock, gravel, and "non-porous earthfill," as well as a few sections of concrete poured on the upstream face, combined to make the dam watertight. All the rock within the cribs, the "massive durable riprap" piled along the up- and downstream side of the base, and the sloping upstream face – meant to direct the force of the reservoir water down on the dam as much

⁸ For more examples of the size, capacity, and number of dams being built in the U.S. in the early 20th century, see: *Engineering News-Record*, 52-62 (1904-1909).

as it pushed downstream – counter-balanced the wood’s floatation, or what engineers called “uplift.”⁹

Of his many tasks, engineer Jerry Rourke was particularly intent on designing a structure that could withstand “30000 Sec. ft.,” of the river’s flow. “The biggest record I have seen was only 24000 Sec. ft.,” he wrote in regard to his design choice. The dam would soon see much bigger water than Rourke anticipated. By the time it did, Rourke had quit.¹⁰

Whereas high water interfered with the pace of construction in Rourke’s first year as dam engineer, in the second year floodwaters threatened the structure itself. By the spring of 1907, Rourke’s replacement, George Slack, was overseeing both the construction of the brick powerhouse and making repairs to parts of the crib and rock dam that winter ice floes and spring flooding had damaged. Slack blamed his predecessor’s efforts, or lack thereof for the repairs he oversaw. “The leaks in the concrete wall are due to quality of workmanship,” Slack criticized. His evidence that men not materials were at fault included the contention that “the cement used was the ‘Atlas’ brand, one of the best grades on the market.” By the following year, with the

⁹ “Drawing ‘B’” Mss 240, Montana Power Company Papers, Series IV, DCb-1, Archives & Special Collections, Maureen and Mike Mansfield Library, The University of Montana-Missoula.

¹⁰ Letters from Jerry Rourke to A.H. Wethey, Oct. 10 and 12, 1905, Feb. 5, 10, 1906, MC 268, Montana Power Company Predecessor Company Records, 1880-1947, Box 23/Folder 1, Montana Historical Society Archives, Helena, MT. “Excavation of Channel,” Nov. 5, 1905, MC 268, Montana Power Company Predecessor Company Records, 1880-1947, Box 24/Folder 2, Montana Historical Society Archives, Helena, MT. Kennedy, Charles, OH 266; and Karkanen, Hazel, OH 392, “Montanans at Work Oral History Project,” Montana Historical Society Archives, Helen, MT. “Sec. ft.” referred to a river’s rate of flow, more commonly given in “cfs” or cubic feet per second.

reconstruction work behind him, Slack showed unbound confidence in the retooled dam.¹¹

The dam's builders had built more than what they thought was a sturdy river impoundment. They intended for the structure to serve several functions. Clark's Dam was emblematic of a new wave of hydroelectric projects in the US but it did more than produce horsepower. In addition to taking over construction of the powerhouse, George Slack spent the winter of 1907 trying to buy riverfront property, especially land adjacent to the soon-to-be reservoir. Given that it was the Clark-Montana Realty Company building the dam, the purpose of buying land along the river in the vicinity of the dam made sense. The engineer was prospecting on future population growth in the area and, hence, booming local land market. In considering a new lease agreement for property near the reservoir, Slack assessed that the ranch was "much more valuable this year than last on account of the close proximity of the pond and its possibilities as a pleasure resort."¹²

The company was not the only one to see the new dam as a harbinger of growth and economic opportunity. At least one landowner in the area drew up plans for a new town site. Another individual began searching for the best spot to open a saloon.

Revealing both his Progressive era attitude about working class alcohol consumption and

¹¹ Letters from Slack to Wethey, May 26, June 30, Sept. 2, Oct. 15, 17, Nov. 6, 1907, MC 268, Montana Power Company Predecessor Company Records, 1880-1947, Box 23/Folder 2, Montana Historical Society Archives, Helena, MT.

¹² Letter from Rourke to Wethey, Dec. 28, March 28, April 14, May 15, June 28-July 12, 1906, MC 268, Montana Power Company Predecessor Company Records, 1880-1947, Box 23/Folder 1, Montana Historical Society Archives, Helena, MT. Letters from Slack to Wethey, "George Slack, engineer Clark Dam, Feb. 19, 1908, May 1907-June 1908" MC 268, Montana Power Company Predecessor Company Records, 1880-1947, Box 23/Folder 2, Montana Historical Society Archives, Helena, MT.

one of Clark's primary intentions in building a power-producing dam, Slack thought the saloon idea, "would not be very desirable in case you should build a saw mill here."

A new sawmill was Clark's goal for the dam's power. Soon after the company fired up its turbines in early 1908, Slack launched the next stage of the project. He located ground for a new sawmill that would be close to its power source, as well as its artery of commerce, the Northern Pacific Railroad line. Tapping the river's power to enable industrial extraction of natural resources also entailed controlling life beyond the river. In particular, Slack engineered a spatial organization around the dam and new mill site. About this plan he inquired of his supervisors, "Are you going to have the people move their houses so as to fit the new lay-out of lots according to the drawings I sent you last summer? The arrangement is very irregular at present." Similarly, Slack sent his boss recommendations for the best location for a "pleasure resort or park." The dam was not only to control the river, but to become the first piece in a new company town, which eschewed "irregular," vernacular development for "arrangement."¹³

Nonetheless, actual electrical power, rather than the abstract power to control space, was the primary purpose of the dam. On January 9, 1908, testing two of the facility's six turbines marked the first ceremony celebrating of the dam's completion. *The Daily Missoulian* praised the dam as, "one of the most substantial ever erected for power purposes" and delighted in its output as, "the first electricity generated at the new power house flashed over the wires at 3:14 o'clock...and for a period of several minutes the big plant was brilliantly illuminated." Celebrants in western Montana seemed to

¹³ Letters from Slack to Wethey, April 6, 20, May 6, 1908, MC 268, Montana Power Company Predecessor Company Records, 1880-1947, Box 23/Folder 2, Montana Historical Society Archives, Helena, MT.

think they had their own Times Square or White City. The newspaper regaled in the details of the dam's powerhouse, which contained six turbines capable of generating 5000 horsepower when fully operational, which the paper reported, "will be sufficient to supply the needs of the western portion of the state for many years to come." Once the dam's full power supply was connected to the existing power plant, located nearby, it would more than double its capacity, which was already enough to electrify the local mills and every business and residence in Missoula into the near future.

Those present at the ceremony had growth in mind when they contemplated this new power. When A.H. Wethey, superintendent of Clark's enterprises in Montana, acknowledged that the dam's final price tag of nearly \$400,000 was, "nearly twice as much as we first anticipated," he showed no signs of regret about the expenditures. "No expense was spared," reported *The Daily Missoulian* which gave an account of the tremendous quantity of resources used in erecting the dam, including, "two million feet of timber...5,000 barrels of cement," and too many thousands of tons of rock and granite to count. All of which was then backing up over a mile and a half of the Clark Fork River and almost half as much of the Big Blackfoot to depths of up to 27 feet just behind the new dam. All that water, held back by all that material, meant power, power for the future. Wethey imaged that the dam would, "furnish power for local manufactories which are bound to locate in this section of the state," because, "there seems to be no limit to the wonderful possibilities that can be accomplished with this great power."

Since the inception of the dam, Wethey and Clark's company had at least one possibility in mind.¹⁴

When the dam was still in the speculative stage, the first purpose of its power already seemed to be a new electric streetcar business. As early as 1904, the manager of the Missoula Light and Water Company (MLWC) was fielding letters about a prospective "Clark Damm (sic)" and a "street railway in Missoula" that it might power. By the time the prospect of a dam became a reality and construction started in September 13, 1905, Clark was in the process of acquiring the MLWC for \$900,000. The deal meant Clark would provide power and water for nearly all public and private enterprises in and around Missoula, which already included manufacturers of beer, milled grain, and lumber. Diversifying his investments, including ownership of mines, banks, and public works, had been Clark's business strategy from his first entrepreneurial adventures in the Montana gold camps of the 1860s and '70s.¹⁵

Harnessing the river's power to help fuel the growth of what would become one of the largest mercantile centers in the northern Rockies meant altering that river. Just as the first step in constructing Clark's Dam was excavating the river bottom, each step

¹⁴ "Power Plant at Bonner Tested," *The Daily Missoulian*, 1/10/1908; For similar accounts also see: "Big Dam Near Bonner Is Finally Completed," *The Anaconda Standard*, 1/10/1908; "To Test Big Plant This Morning" and "New Dam At Bonner is Flooded," *The Daily Missoulian*, 1/7/1908 and 1/9/1908.

¹⁵ Letter to Charles A. Vail from McLeod, Mss 581, Missoula Water Company Records, Series II, Box 1, V.26, "Financial Correspondence, 1901-1906," K. Ross Toole Archives, University of Montana, Missoula, MT. Letters to McLeod from Wethey, Mss 001, Charles Herbert McLeod, Series I: Correspondence, 1885-1947, K. Ross Toole Archives, University of Montana, Missoula, MT. "Work Soon to Begin On The Dam," *The Daily Missoulian*, 9/15/1905. On Clark's entrepreneurial background see: Mangam, William Daniel, *Biography of W. A. Clark and His Tarnished Family*, (Butte, MT: Old Butte Publishing, 2007); and Glasscock, C.B., *The War of the Copper Kings: Greed, power, and politics: the billion-dollar battle for Butte, Montana, the richest hill on earth*, (Helena, MT.: Riverbend Publishing, 2002).

entailed some change in the environment. Obtaining construction materials meant cutting trees from the mountainsides that descended into the Big Blackfoot and Clark Fork drainages. Men blasted, picked, shoveled, and hauled rock and granite from the river bottom, nearby quarries, and the Hell Gate Canyon walls, which they dynamited to create flat abutments between which the dam would nestle. Far less local pathways of natural resource extraction brought cement and steel to western Montana, including manufacturers in Milwaukee, WI, Dayton, OH, and Chicago, IL –from which Missoula borrowed its nickname, the Garden City, as well as its ambition to become a center of manufacturing, mercantilism, and trade. Closing the dam’s gates drowned the confluence of rivers, as well as 600 acres of riparian habitat, agricultural lands, and low-lying timber. The alterations to the surrounding hillsides and river basin certainly affected the rivers’ natural flood cycles, but those alterations did not abate the cycles. Blocking up the river to produce power also meant battling its natural flood regime. That battle began almost as soon as the dam’s flood gates closed.¹⁶

At the dam’s public unveiling in January, 1908, Slack crowed that, “the dam will be in such condition that the highest waters ever known in this vicinity will not affect it in the least.” He would soon be eating spring crow.¹⁷

In March, the dam handled its first major bout of big water. Slack reported ice, “logs, trees, and drift wood slowly going over the dam,” without causing any damage or

¹⁶ Letter from Rourke to Wethey, April 24, May 10, Aug. 22, Sept. 13, 1906, MC 268, Montana Power Company Predecessor Company Records, 1880-1947, Box 23/Folder 1, Montana Historical Society Archives, Helena, MT. Letter from Slack to Wethey, Jan. 23, 26, May 11, 1908, MC 268, Montana Power Company Predecessor Company Records, 1880-1947, Box 23/Folder 2, Montana Historical Society Archives, Helena, MT.

¹⁷ “Power Plant At Bonner Tested,” *The Daily Missoulian*, Jan. 10, 1908.

disruption to its power production.¹⁸ May tested the dam more seriously. With heavy rain in the valleys and snow falling in the mountains, western Montana's rivers rose. Showing his first signs of worry, Slack made daily examinations of the structure, reporting on the rising height of the water pounding down the spillway and eventually cresting the dam itself. The last day of the month, he recorded that, "water rose so rapidly yesterday that we had to take down the flashboards at the south end of the dam...At present the water is five feet and three inches on the crest, and still rising." The engineer set a team of men to dumping rock around the dam's edges for extra bracing. Men also dropped a few sticks of dynamite in the river below the dam to clear out a growing tangle of debris.¹⁹

As the wall of water washing over the dam's crest swelled to eight feet, it carried away a pier attached to the powerhouse, which was filling with river water. Slack continued to have men throw as much rock as they could haul at the problem. Still, the rain outpaced the men.

It rained more in May 1908 than any month recorded in the state weather bureau's 28-year history. By the sixth of June, rain had fallen in the Missoula Valley for 33 days in a row. Across the state, rivers ran higher than anyone had ever seen. Raging water demolished nearly every bridge and roadway within the floodplains from Butte to Missoula. Even small streams, such as the Rattlesnake Creek in Missoula, swelled to the

¹⁸ Letter from Slack to Wethey, March 20, April 27, 1908, MC 268, Montana Power Company Predecessor Company Records, 1880-1947, Box 23/Folder 2, Montana Historical Society Archives, Helena, MT.

¹⁹ Letter from Slack to Wethey, May 22, 28, 31, 1908, MC 268, Montana Power Company Predecessor Company Records, 1880-1947, Box 23/Folder 2, Montana Historical Society Archives, Helena, MT.

point of ripping two-story houses off their foundations and floating them downstream, taking out trees, bridges, and other homes along the way, until the massive flotsam dumped into the debris- and mud-filled Clark Fork River or lurched up into tangled piles above the banks. As the water rose and wrecked havoc, people living near waterways moved to higher ground. Businesses shut down as the focus of whole towns and cities along the Clark Fork became flood watching.²⁰

Because most transportation and communication routes in western Montana, including the tracks of the Northern Pacific Railroad, followed low-lying valleys the floodwaters stranded people. A summary of the damage along the length of the Clark Fork River told the story of waters sweeping away wagon bridges, floating houses off their foundations, washing out railroad beds, snapping telegraph and telephone poles, breaching dams, and driving people to ever higher ground.²¹

Most news stories recognized Missoula as having, “suffered the worst of a great calamity,” since the collapse of its bridges splined the town in two. Yet even as people congregated to marvel at the river’s load of trees, dead livestock, rooftops, outhouses, and barges of splintered lumber, and to gaze across the muddy torrent at homes, businesses, family, or friends who they had no hope of reaching, they worried most about unseen happenings upriver.²²

²⁰ “Rainfall During May Was Greatest In Years,” “Rain Holds Reins and Reigns,” and “History of the Greatest Disaster That Missoula Has Yet Suffered,” *Northwest Tribune* (Stevensville, MT), 6/5/1908, 6/12/1908, and 6/19/1908; “Residents in Missoula Are Swept Down River,” *The Anaconda Standard*, 6/7/1908; “Rain the Heaviest in Years,” *The Daily Missoulian*, 6/6/1908.

²¹ “Great Damage Is Wrought By The Flood Waters In Western Part of Montana,” *The Daily Missoulian*, 6/6/1908.

²² “History of the Greatest Disaster That Missoula Has Yet Suffered,” *Northwest Tribune* (Stevensville, MT), 6/19/1908; “Great Damage Is Wrought By The Flood Waters In

On June fifth a telegram reached Missoula carrying the news that flooding had washed out a power-producing dam on the upper Clark Fork, just below Butte, leaving that city in temporary darkness. Speculation that the brand new Clark Dam was in danger of bursting rose along with the river. Even as the rains subsided and the sun made its first appearance in more than a month, the fate of that structure gripped downstream residents. At one o'clock in the morning, June sixth, the river crested. Nearly 13 feet of water flowed over the dam's spillway. As Missoula residents contemplated a rupture in the dam, their fear reached "the highest pitch of excitement and alarm, and the whole city has been in a state of unrest unparalleled in its history for any cause," according to the local newspaper. Those fears included a forty-foot tall wall of water carrying millions of feet of timber careening toward the city if the dam gave way.²³

As quickly as it had mounted, fear of a dam failure subsided. Despite the damage the flood had already done, joy spread when word came from upstream that the dam "had passed the crisis of its test by flood." Observers praised the dam's strength. One man who walked the seven miles upstream from Missoula said of the structure, "(T)here is no more danger of the power dam going out than there is of the mountains washing down the river." Even though he could not see the dam for all the water rushing over its entire length, he observed "not a particle of a sign of weakness in the structure...I never saw anything stand up better than that dam." While the dam withstood floodwaters of

Western Part of Montana," "Long Journey In The Mud," "Houses Borne Away," *The Daily Missoulian*, 6/6/1908, 6/7/1908.

²³ "Flood Situation In State Reaches A Serious Stage," "Great Damage Is Wrought By The Flood Waters In Western Part of Montana," "Section of Higgins Avenue Bridge Collapses," "City in State of Alarm," *The Daily Missoulian*, 6/5/1908, 6/6/1908, 6/7/1908.

roughly 48,000 cubic feet per second during the height of the flood (nearly twice the high water its engineers had anticipated), it did not emerge unscathed.²⁴

Two days after the river crested the dam got a more thorough inspection. One engineer reported that the powerhouse had sustained minor damage. Turbulence created by floodwater pouring over the dam and down the spillway had eroded its foundation. Through the following summer and into the fall, W.A. Clark's company rebuilt substantial portions of the dam.²⁵

As the dam aged through most of the twentieth century it needed regular patching. Water leaked through the structure and seeped under it. With increasing regularity the Clark-Montana Realty Company, later the Montana Power Company (MPC) – after it bought the dam in 1929 – filled cracks and plugged seepage by lowering the reservoir and pouring more concrete into the problem areas. In March 1933 the MPC hired a diver to inspect concrete patches the company had applied three years earlier, as well as assess the dam's overall stability from a fisheye view. Diver W.W. Blaine found, “a hole of some considerable size...in the soft natural rock bottom about 10ft. in diameter and from 3 to 4 ft. in depth.” According to the company, such degradation was common and “not

²⁴ “Crisis Now Passed At Bonner,” “Firm As A Mountain Is the Dam,” *The Daily Missoulian*, 6/7/1908.

²⁵ “Dam Is Solid As A Rock,” *The Daily Missoulian*, 6/8/1908. Letters from Rourke to Wethey, Feb. 10, 16 1906, MC 268, Montana Power Company Predecessor Company Records, 1880-1947, Box 23/Folder 1, Montana Historical Society Archives, Helena, MT. Letter from M. Gerry to W.A. Clark, March 20, 1906, MC 268, Montana Power Company Predecessor Company Records, 1880-1947, Box 23/Folder 1, Montana Historical Society Archives, Helena, MT.

considered important.”²⁶ In the early 1970s, a thorough safety inspection of the dam reported eroding concrete patches and significant undercutting that “could ultimately lead to partial failure of the dam.” Plus, decades of water eddying at the dam’s toe had scoured the structure’s foundation, which the inspectors warned could “seriously jeopardize the stability and safety of (the) structure.” Yet, MPC continued to patch its aging dam.²⁷

After the discovery of arsenic in 1981 led to its Superfund designation, the structure’s problems garnered much greater concern. When leaks sprang through the dam in the fall of 1983, environmental groups, state agencies, and the dam’s owners began to take the situation more seriously. Members of the West Slope Chapter of Trout Unlimited voiced worries about both the leaks and the drawdown of the reservoir necessary to fix those leaks, which flushed toxic sediment downstream. Fisheries biologists for the state FWP agreed. Both groups committed to monitoring downstream water quality and fish kills if a drawdown was necessary. They also began expressing interest in more than simply patching the dam. Trout Unlimited President Ray Prill suggested that it was “time people looked at the dam and came up with some long-term solutions. We don’t want them (MPC) to put a Band-Aid on it.” His suggestion resonated with river watchers at all levels.

²⁶ “Memorandum of Inspection and Investigation of Undercut Repairs to the Missoula-Bonner Dam, Made During the Summer and Fall of 1930,” Mss 240, Montana Power Company Papers, Series VII and Series XXXVII, Box 1, Folder 6, K. Ross Toole Archives, University of Montana.

²⁷ Nielsen, “Milltown Dam History: Chronology Compiled by Missoula City-County Health Dept.,” December 3, 2001, unpublished document, copy in possession of the author.

Soon after the news of the leaks became public in 1983, the Federal Energy Regulatory Commission (FERC) ordered MPC to lower the reservoir and address the dam's problems. Before the end of the year MPC lowered the reservoir more than seven feet without any significant downstream water quality issues and began contemplating its options. The attention this incident garnered, compared to a long history of drawdowns and dam repairs, made it clear that Milltown Dam and the toxic sediment it withheld was becoming an issue of river-wide health.²⁸

Lowering the reservoir and fixing a few leaks in a dam known to hold back enough toxic sediment to warrant Superfund designation prompted the Montana Power Company to consider the structure's long-term future, much like Prill had advised. During the middle of November, 1983, as the company undertook emergency repairs, an MPC spokesman admitted, "the cost of maintenance and abandonment is being studied over the long haul." The company's manager of hydro engineering promised that by the New Year MPC would finish assessing what it would do with the dam, which suddenly seemed to include "abandonment." While the company did little to define what abandonment meant, MPC spokesmen confirmed that the toxic material behind the dam was crucial to their decision-making process.²⁹

The concern about the state's first Superfund site spread both up- and downstream. Just as FWP and environmental groups tried to safeguard fishery health

²⁸ Steve Woodruff, "Leaks in Milltown Dam concern power company," *Missoulian*, 10/25/1983, 9. "Lower pond, check dam, federal agency tells MPC," *Missoulian*, 10/27/1983, 10. "Milltown reservoir lowered," *Missoulian*, 11/15/1983, 9.

²⁹ Steve Woodruff, "MPA weighs fate of dam: Options include abandoning Milltown structure," *Missoulian*, 11/18/83, 9.

below the dam, they began trying to ensure the same above it. While the worry downstream was the release of toxic metals from the reservoir, above the dam groups focused on flushing the river of its industrial legacy and restoring a viable fishery. FWP agent Larry Peterman said of the river's first 120 miles: "Twenty years ago there was nothing living in the upper Clark Fork. As late as 12 years ago, the upper Clark Fork was a dead stream from periodic spills of pollutants. Today, the Clark Fork is a reclaimed stream." Contrasting the river's barren past with its promising present was part of Peterman's strategy to support his agency's efforts to ensure minimum flows in many of the river's most important tributary streams, as well as the main waterway. It was also an acknowledgement that the same heavy metals that polluted Milltown sediments lined pockets of floodplain from Butte to the reservoir.³⁰

As attention radiated up- and downstream of Milltown, "study" became the buzzword for the Clark Fork. In a 1984 Leap Year Day article the *Missoulian* reported that Montana's US Representative Pat Williams, a Missoula resident, "joined congressmen from Idaho and Washington...in calling for an Environmental Protection Agency study of pollution" in the river. While the request stemmed from a controversy over a Missoula-area pulp mill discharging its waste into the river, its intent was to address the health of the whole river. As Williams recognized, "(T)here exists no baseline of information or a long-term plan for future use and protection of this vital resource." Williams's concern was in concert with state agencies, public opinion, and, to a degree, potential polluters. The attention to the Clark Fork as a whole watershed, as opposed to isolated problems, such as fighting a single dam or source point of pollution,

³⁰ "Minimum flows sought for Clark Fork River," *Missoulian*, 11/23/1983, 9.

was an early example of a soon-to-be national trend of communities supporting river wide study and advocacy.³¹

Within a month of Congressman Williams's initial efforts to get the EPA involved in a river-wide study, the state Health Department launched a two-year study of water quality on the Clark Fork. The study area covered nearly 225 river miles with Milltown Reservoir right in the middle. According to a spokesman for the Montana Environmental Information Center, the state's foremost environmental watchdog since its founding in the mid-1970s, the Health Department study, much like Rep. Williams efforts at the federal level, happened because "hundreds of people in Idaho and Montana took the time to get involved." Steve Pilcher, the chief of the department's water quality office, also acknowledged that the study resulted from "strong" and "outraged" public reaction over pollution and the river's overall health. "It is good news, indeed, that we have a government in Montana that does listen to its people," applauded the *Missoulian*.

Public outcry provoked the study but the public was not going to be alone in paying for it. Unlike many environmental pollution problems, like at Love Canal, where public outcry led to acrimonious battles of opinion that often divided communities along racial or socioeconomic lines, those at Milltown benefitted from a Superfund process that encouraged public input and interagency cooperation.³²

³¹ Steve Woodruff, "Congressmen call on EPA to study Clark Fork River," *Missoulian*, 2/29/1984, 11. Tim Palmer, *Endangered Rivers and the Conservation Movement*, (Lanham, MD.: Rowman & Littlefield, 2004 edition).

³² Elizabeth D. Blum, *Love Canal Revisited: Race, Class, and Gender in Environmental Activism*, (Lawrence: University of Kansas Press, 2008).

While it was public pressure, touched off by the leaky dam, that instigated river wide study, the funding came from both public and private sources. The Health Department estimated that monitoring thirty stations along the river, including highly suspect areas such as reservoirs and mill sites, for “chemical, physical and biological water-quality variables,” would cost \$100,000 a year. Pilcher hoped that Williams’s call for EPA support would include funds to match those of the state and an undefined contribution from local industries.

By May, 1984, as predictable spring runoff swelled the Clark Fork, Montana’s governor, Ted Schwinden, stood near the river’s headwaters in Butte and announced that the Anaconda Minerals Co. had given him a \$50,000 check to be followed by another \$150,000 over the next three years to help fund research on the Clark Fork. The governor acknowledged that the money’s purpose of coordinating the Health Department’s study with that of the EPA’s was appropriate, “because past Anaconda actions have impacted the Clark Fork drainage.” With Anaconda’s contribution – meant to coordinate river studies – public opinion, state and federal agencies, as well as industry had coalesced around the issue of river health, an issue that included everything from sewage to pulp mill pollution, but emanated out of the toxic legacy of mining epitomized by the Milltown Superfund site. That is, the Milltown Superfund site was becoming part of a more thorough concern about river health.³³

Dealing with the river’s past had become the principle problem for its future. Phrases like “future use” and “future protection” sprang up in the public conversation

³³ Steve Shirley, “River study set,” *Missoulian*, 3/8/1984, 1; Missoulian State Bureau, “New image?,” *Missoulian*, 3/10/1984, 5; Tom Brown, “Government responded well with river study,” *Missoulian*, 3/12/1984, 4; Cathy Kradolfer, “Clark Fork study set: State, industry join on detailed basin look,” *Missoulian*, 5/1/1984, 1.

about the river.³⁴ Considering the river's long-term health hardly erased its past. In 1984, during the first summer of the new study, FWP officials found thousands of dead fish floating in stretches of the Clark Fork above Milltown. Eventually they identified the "mystery pollutant" as "tailings loaded with copper and other metals" that a severe thunderstorm washed from old mine wastes and into the river.³⁵

Although human health prompted worries about water at Milltown and along the Clark Fork, fish came to be the centerpiece of many new studies. As biologists saw themselves "beginning in the attempt to rescue the pollution-plagued river," according to ongoing newspaper stories, they focused most of their attention on "gathering information on the river's trout populations." Of particular interest were "rainbow, cutthroat, brown and Dolly Varden trout – species prized by sportsmen." Working at night with electroshock devices, biologists stunned these sport fish as they moved into shallow water to feed. Stunned trout helped them "determine the number of fish in the river, their growth rates, species mix, age and other characteristics," such as how much they were suffering from heavy metals and other sorts of pollution.³⁶

Environmental groups and the public in general also saw fish health as the foremost indicator of river health. Because people shifted their concern to fish, worry over the Milltown Superfund site literally moved up and down the Clark Fork from the

³⁴ Ibid.

³⁵ Bob Anez, "More than 1,000 Clark Fork fish killed," *Missoulian*, 8/4/1984, 11; Butte (AP), "Clark Fork fish kill blamed on high levels of copper," *Missoulian*, 8/9/1984, 12.

³⁶ Steve Woodruff, "Biologists say river study is only a first step," *Missoulian*, 10/31/1984, 9.

toxic epicenter of the dam and reservoir. The issue of fish would eventually become a crucial turning point in the fate of the dam and Superfund site.³⁷

Finally, a year after repairing leaks in the dam and announcing that it was questioning the structure's fate, MPC surprised river watchers with its vision. In mid-December 1984, the company "disclosed an \$11.45 million plan to upgrade its badly deteriorated Milltown Dam on the Clark Fork River near Missoula." The company submitted a request to the Public Service Commission, which regulates energy rates in the state, to increase its electricity rates as a means of paying for the repairs. That is, the company wanted public electricity consumers to pay for a refurbished dam. In its preliminary report to the Federal Energy Regulatory Commission (FERC), MPC claimed that the proposed project was the only way to prevent the dam from collapsing. The proposed repairs would include "replacing the existing powerhouse and turbines" thus, "increasing the dam's generating capacity to 4.3 megawatts from the current capacity of 3.4 megawatts," as well as replacing much of the dam's wood structure with concrete. The company used the growing perception of the dam as a threat to river wide health, a proverbial toxic time bomb, to scare the public into funding its repair work. Even though Robert Periman, MPC's hydro engineer, admitted that the dam "is nearing the end of its useful life" and that "it eventually could fail, could wash out," he rejected the idea of dismantling the dam at a slightly higher cost, which the company could not easily pass on to consumers.³⁸

³⁷ Gordon Gregory, "Watchers: Clark Fork poor habitat," *Missoulian*, 9/17/84, 7.

³⁸ Steve Woodruff, "MPC to fix Milltown Dam," *Missoulian*, 12/12/1984, 1.

Others following the fate of the river seemed to agree. The regional fisheries manager for Montana's FWP thought that "upgrading the dam appears to be the most environmentally sound course of action because it would disturb the silt the least." Leaving the toxic mess in place appeared safer than trying to remove it at the time.³⁹ The local newspaper cheered the plan as a short-term risk with long-term gains in safety. An editorial on the MPC plan saw the risks as "worth taking if, after reconstruction, the dam will not have to be lowered so often for repairs."⁴⁰

Even with initial support from state agencies and the public, MPC still actually had to draft a comprehensive plan for FERC approval, which took nearly six months. When the company submitted its plan to FERC and released the two and a half inch thick document to the public in June 1985, it reflected both widespread concern about the dam's toxic burden and MPC's financial concerns. The reasoning behind the dam upgrades was to "prevent the release of heavy-metal-contaminated silt in the reservoir behind the dam." The means to pay for the \$11.5 million proposal were to "raise Montana Power's electricity rates by about \$2 million annually." To mend the dam, MPC proposed building a concrete wall on the upstream side of the dam and to replace the timber cribs with a concrete shell, all meant to stop the recurrent water damage the dam had suffered. Mechanical gates would replace wooden flashboards, so that lowering and raising the reservoir level would disturb the toxic sediment less. To go along with

³⁹ Ibid.

⁴⁰ Sam Reynolds, "Good news about the Milltown Dam," *Missoulian*, 12/16/1984, 4.

rate hikes the company also wanted to make the dam more productive by installing new turbines that would generate roughly 25% more power.⁴¹

Not everyone embraced MPC's plan. In Missoula, the recently formed Clark Fork Coalition (CFC) held public meetings to inform local citizens and to gage their opinions. In fact, the CFC, which would become the foremost environmental group concerned with the dam's future, arose in response to MPC's proposal to rebuild the Milltown Dam. Or more specifically, the CFC formed over concern about the "high levels of heavy metals" that made the dam and reservoir a federal Superfund site. As a coalition spokeswoman predicted, "the Milltown Dam project will become one of the major issues affecting the river during the next year."⁴²

By mid-summer, with the MPC plan still in the hands of FERC, residents launched an effort to begin caring for the river on a community level. Like individuals and communities were doing all over the country, Clark Fork residents created their own opportunities to remedy environmental damage. The same people that supported Superfund also supported more expedient and tangible ways of cleaning up the places they lived. The "Greater Riverfront Project," the first effort of a recently initiated forum called "Good Work Missoula" organized roughly 50 volunteers one July morning along the banks of the Clark Fork in downtown Missoula. The volunteers pulled noxious weeds, "hailed ashore the rusted pipes and cables lying halfway in the water" and generally, "tugged, trimmed, picked up and carried the junk" that marred the river and marked it as a historical dumping ground. One newspaper account celebrated the

⁴¹ Steve Woodruff, "MPC plan for dam would cost \$11.5 million," *Missoulian*, 6/15/1985, 7.

⁴² Steve Woodruff, "Clark Fork Coalition meeting to focus on MPC's Milltown dam," *Missoulian*, 1/8/1985, 7.

diversity and cohesion of the volunteers by noting that they, “were a fair reflection of the community at large. There were children and retired people, mill workers and shopkeepers, a doctor here, a lawyer over there; there were unemployed people; there were a few who were a little crosswise to the law at the moment, and there was a judge. It was kind of hard to tell one from the other; they were all sweaty.”⁴³ After wading in the water and helping fellow community members retrieve such items as an old toilet bowl, iron rails, and a set of rusty bedsprings, event coordinator and future mayor Daniel Kemmis recognized that “there’s no end to it.” The Clark Fork was bringing people together but needed far more help than the volunteers could offer in a single day.⁴⁴

Locals did their best, while some began courting more federal support. With Superfund sites already located along the Clark Fork’s headwaters on Silver Bow Creek near Butte, Warm Springs Creek where it flows past the old Anaconda smelter, and, of course, Milltown, the Clark Fork Coalition was in the midst of trying to get the entire upper river deemed a Superfund site. In June, the citizen’s group pressed the head of the EPA’s Superfund program, William N. Hedeman Jr., about such an expansion. “He said he would in fact support that,” said CFC spokeswoman Kathy Hadley. She called the possibility “a real victory for the coalition.” But this “victory” hinged in part on the ongoing studies of the river.

Rather than duplicate local, university, and state study efforts, the EPA would launch an expanded Clark Fork Superfund study only if the coordinated local study showed widespread toxic contamination. This federal response came as a direct result of

⁴³ Daniel Kemmis, “Riverfront efforts: Good work, Missoula!,” reader comment in *Missoulian*, 8/7/1985, 8.

⁴⁴ Patricia Sullivan, “Working on a ‘chain gang’: Volunteers sweat to clean Clark Fork’s south bank,” *Missoulian*, 7/22/1985, 1.

the CFC's initiative, as well as what one EPA official called the complaint of many citizens "that heavy-metals contamination in the river between Deer Lodge and Milltown was being neglected." If those complaints proved valid through extant studies, the EPA appeared ready to connect the dots between Butte, Anaconda, and Milltown, making the whole upper Clark Fork a Superfund site.⁴⁵ Within a month that likelihood increased when US Senator Max Baucus of Montana announced that a nominee to be the new assistant chief of the EPA supported the river-long Superfund designation as part of the overall expansion of Superfund itself.⁴⁶

The Superfund law was set to expire on October 1, 1985, but as a *Missoulian* editorial pointed out, both houses of Congress were "considering bills to extend and enlarge the program." Superfund renewal was national news. As early as February, 1985, a *New York Times* article revealed that Lee M. Thomas, the new head of the EPA, supported the Reagan administration's five year extension of the Superfund law, which would have limited its use to "hazardous waste problems and emergency spills," while eliminating its application to "mining and pesticide residues or contaminated drinking water." In line with his conservative agenda, Reagan also wished to pass more of the financial burden of waste cleanup program to states. Congress, the public, environmental organizations, states, and even many corporations assailed this attempt to reduce the

⁴⁵ Steve Woodruff, "EPA considers Clark Fork as possible Superfund site," *Missoulian*, 6/20/1985, 1.

⁴⁶ Editorial, "Welcome news flows for the Clark Fork," *Missoulian*, 7/31/1985, 6.

scope of Superfund. Accordingly, Congress passed a temporary extension of the law, while various bills to expand it bounced between legislative houses.⁴⁷

In a political climate that forecast cutting federal expenditures, de-regulating industry, and weakening environmental laws, optimism about expanding Superfund looked like a ray of hope for environmentalists, especially those along the Clark Fork. Whereas the original Superfund law (CERCLA) established a \$1.6 billion trust fund over five years for “cleaning up abandoned or uncontrolled hazardous waste sites,”⁴⁸ the new proposals in Congress would reestablish the fund for another five years with an infusion of between \$7.5 and \$10 billion. New versions of the law shifted more financial burden to industries beside the chemical industry, which paid nearly 90% of the original fund through taxation. Proposals to expand the tax base for Superfund to more industries, including manufacturers, thus lessening the burden on those corporations singled out by the original legislation, drew support from industry. *The New York Times* quoted a spokesman for the Chemical Manufacturers Association as saying: “A larger Superfund demands as a matter of economics and equity to be broadened.” Even with some corporate support the threat of a Reagan veto loomed. So, Superfund was not easily or quickly settled.⁴⁹

By the beginning of 1986, the EPA began warning Congress, the President, and the public that it would have to shut down its toxic waste cleanup within months, if no new bill passed soon. The agency warned of the loss of “1500 employees working on

⁴⁷ Jonathan Friendly, “President Asks 5-Year Extension of Toxic Waste Cleanup Program,” *The New York Times*, February 23, 1985, 6.

⁴⁸ <http://www.epa.gov/superfund/policy/cercla.htm>

⁴⁹ Gary Klott, “Superfund Tax Stirs Debate,” *New York Times*, 10/26/85, 36; editorial, “Tough Superfund bill should be passed,” *Missoulian*, 7/25/1985, 11.

the toxic waste program, or more than 10 percent of the agency's staff." As importantly, any further delay would stall or scuttle existing cleanup work, including studies and planning, such as was happening up and down the Clark Fork River. As one EPA agency put it: "In many places we will have to put up a chain link fence and walk away." A possible halt to one of the nation's most recognizable environmental laws contrasted with the bipartisan support its renewal had.⁵⁰

Even the political infighting between party rivals in Congress amounted to how to pay for expanding Superfund, rather than whether or not to do so. As a *Times* editorial phrased it, Superfund debate in Congress was "Locked in a Lovefest," wherein "the House and Senate are competing to be the more generous benefactor." By September, 1986, after a series of temporary extensions of Superfund, EPA head Lee Thomas had shifted his support away from the Reagan reductions and toward congressional expansion of Superfund. He redoubled his warning about a virtual shutdown of his agency if that expansion failed to happen soon. At the same time, both houses of Congress had agreed on nearly every detail of a new bill, save the money raising. The House favored simply increasing the tax rates from the original law on oil and chemical companies, whereas the Senate favored a broader industrial tax base. An opposing argument in Congress held that only corporations directly linked to designated toxic waste sites should pay. Either way, it seemed that Superfund, at the very least, was not on the proverbial chopping block.⁵¹

⁵⁰ Philip Shabecoff, "Lack of Money Might Halt Toxic Cleanup Soon, U.S. Officials Say," *Special to The New York Times*, 1/26/86, 17.

⁵¹ States News Service, "'Infighting' Is Said To Delay Superfund," *New York Times*, 6/22/86, 4; *New York Times*, "The Superfund: Locked in a Lovefest," 7/19/86, 26;

Superfund had not always been so secure in its short life. Just a few years earlier, as leaks in the Milltown Dam spurred conversation about its future, the future of the EPA and one of its signature programs – Superfund – came under question because of a different sort of leaks. Working at a new job as the director of environmental health for the Missoula City-County Health Department, Elaine Bild helped Milltown qualify for Superfund status by making sure all the proper paperwork made it into the proper EPA mailboxes. “I knew how the law worked,” she recalled. She knew that such human agency and individual effort mattered in a bureaucratic process that included reams of official documents and forms because she entered Missoula government as an escape from her position as a project manager for EPA’s Superfund program. Bild had left Superfund and Washington, DC, because of the corruption the agency suffered during the first years of the Reagan administration.

Bild remembered “the election year of 1980 brought dramatic changes for the worse.” After Reagan appointed Anne Gorsuch as his new EPA director, corruption and disorganization within the agency brought it under national scrutiny. The policies and actions that Gorsuch, whom EPA employees called “Queen Anne,” supported “were viewed as a reflection of Reagan’s own policies.” According to Bild and subsequent Congressional investigations, those policies and actions included withholding agency studies and information about pollution and environmental problems, government contracts for environmental work going to private companies based on “who knew whom,” ignoring EPA scientists and reports in favor of industry consultants, and general disorganization. Bild remembered EPA employees fed up with the situation “were

Shabecoff, “Head of Agency Warns Congress On Toxic Waste Cleanup Projects,” *Special to The New York Times*, 9/24/86, A29.

leaking so much information to Congress...that (the) chairman of the House Energy and Commerce Committee placed cardboard boxes outside his office where the flood of documents could be deposited.” “Queen Anne” Gorsuch resigned in 1983 after serving for two years as the EPA’s first female administrator. While Reagan was unable to weaken the EPA or its mandates, such as Superfund, through Gorsuch’s leadership, her years at the agency gained it disfavor in the public eye, as well as with Congress.⁵²

With Gorsuch gone and the controversy surrounding her tenure marring the Reagan administration’s environmental record lessened, Superfund began to carry out its original mandate. The EPA included Milltown on its first list of 406 Superfund sites in 1983. The number of sites on the list nearly doubled by 1985, as Congressional debate about the future of Superfund focused on expansion and greater funding.⁵³

During the summer of 1985, Milltown made its first mark on Superfund legislation. Long before the debate over Superfund funding was finished, US Senator Max Baucus from Montana, who was on the Senate committee charged with re-authorizing Superfund, tried to amend how the program worked. To the dismay of Montana environmental groups familiar with the state’s mining past and the environmental damage it wrought, Baucus attempted “to exempt mining sites from the Superfund cleanup law,” according to news reports.⁵⁴ The Senator defended his move by professing, “I am concerned that the current hazard ranking system may not accurately

⁵² Steve Woodruff, “Life at EPA ‘was very chaotic,’” *Missoulian*, 3/24/1983, 1. Also see, Hays, *Beauty, Health, and Permanence*, 491-526; Norman J. Vig and Michael E. Kraft, *Environmental Policy in the 1980s: Reagan’s New Agenda*, (Washington, DC.: Congressional Quarterly Inc., 1984).

⁵³ <http://www.epa.gov/superfund/sites/npl/frlist.htm>

⁵⁴ Tom Cook of Missoulian State Bureau, “Toxic waste: Superfund bill draws criticism,” *Missoulian*, 12/6/1985, 13.

assess the relative degree of risk to human health and the environment posed by sites and facilities subject to review.” Baucus claimed that his amendment would help classify types of hazardous wastes. Opponents, such as the Montana Environmental Information Center (MEIC), charged that the amendment would downgrade mining wastes in the Superfund ranking system because those wastes tend to include a variety of chemicals and elements and are often dispersed over large areas or throughout waterways. As an MEIC spokesman claimed, the EPA “would much rather deal with tidy little barrels of hazardous waste that they can pick up and bury.” Testifying to the Senate, Baucus maintained that abandoned mining sites “could be listed on the NPL if they present a genuine and substantial risk, but certain safeguards would be put in place...and that higher priority sites are listed first.” MEIC’s past experience at Milltown and along the upper Clark Fork, as well as their concern for plenty of other contemporary and abandoned mining sites in the state, informed their opposition to the Baucus amendment.⁵⁵

Other western states that shared Montana’s mining history opposed Baucus’s attempts to change the way the Superfund program classified wastes. New Mexico governor Toney Anaya condemned the purpose of the change, which he summarized as making it “difficult, if not impossible, for mining sites to qualify for cleanup using Superfund monies.” Similarly, Colorado’s governor Richard Lamm said “no class of industrial processes should be immune from the safeguards embodied by the Superfund

⁵⁵ Max Baucus in Environment and Natural Resources Policy Division, *A Legislative History of the Superfund Amendment and Reauthorization Act of 1986 (Public Law 99-499)*, (Washington, DC.: US Government Printing Press, 1990), V.2, 1068-1071. Tom Cook of Missoulian State Bureau, “Activists bemoan Superfund measure,” *Missoulian*, 10/25/1985, 12.

legislation.” Both governors wrote to their Montana colleague, Ted Schwinden, hoping he would persuade Baucus to recant his amendment.⁵⁶ Just before year’s end, Schwinden suggested that Baucus abandon his amendment for the time being. In the final product, Congress struck language singling out mining sites in favor of a more general amendment that defined wastes more clearly and emphasized the “quantity, toxicity, and concentrations of hazardous constituents,” rather than quantity alone.⁵⁷ Those familiar with Milltown, including Schwinden, helped retain a broad Superfund mandate by opposing Baucus’s efforts to curtail the legislation.

As the debate over Superfund progressed, Baucus moved with the tide of expanding Superfund, including a broadened tax base. As a key member of the Senate Environment and Public Works Committee, Baucus summarized his reasoning for a broader tax base to fund a Superfund renewal bill in a special *Congressional Digest* report on “The Superfund Controversy” by writing, “Everyone contributed to the problem, and therefore, everyone should contribute to cleaning up the problem.” That included mining. He went on to confirm that Superfund was an accounting for America’s industrial past, which justified making current industry pay, quipping that “past waste management practices allowed us to manufacture goods for less than the true cost of

⁵⁶ Tom Cook of Missoulian State Bureau, “Two governors assail Superfund cleanup bill,” *Missoulian*, 11/3/1985, 18.

⁵⁷ Environment and Natural Resource Policy Division, *A Legislative History of the Superfund Amendment and Reauthorization Act of 1986*, V.1; or see CERCLA section 9625, [http://frwebgate.access.gpo.gov/cgi-bin/usc.cgi?ACTION=RETRIEVE&FILE=\\$\\$xa\\$\\$busc42.pt2.wais&start=16031330&SIZE=4725&TYPE=TEXT](http://frwebgate.access.gpo.gov/cgi-bin/usc.cgi?ACTION=RETRIEVE&FILE=$$xa$$busc42.pt2.wais&start=16031330&SIZE=4725&TYPE=TEXT)

production.” Superfund renewal would allow collection of those historic debts, of which Montana had many.⁵⁸

By the summer of 1985, the Montana governor’s Clark Fork River Basin Project, charged with participating in the on-going river studies, was making predictions about the waterway’s fate. Recognizing that the Clark Fork, like most western watersheds, had hosted “more than a century of mining, timber, agricultural and municipal discharge,” Ken Knudson, the head of the study, declared that the river was incapable of cleaning itself up in any appreciable timeframe. Therefore, river cleanup was the responsibility of its longtime users. The first hurdle for the Clark Fork, according to Knudson, was to get people to see the river as something other than an industrial sacrifice zone. “For so long not only did people take their streams for granted, but they considered the Clark Fork Basin a lost cause because of the complexity and magnitude of the problem,” said Knudson. So, along with studying the specifics of how polluted the river was, the first step toward the river’s future was creating a new vision of it. With people flocking to the riverbanks to help haul trash out of its waters, to the coordination of local, state, and federal studies, both of those initial steps seemed to be taking place. In July, 1985, President Reagan’s nominee to be the new assistant administrator overseeing Superfund announced that he supported providing Superfund money to study the entire Clark Fork basin, which could lead to more Superfund designations along the river.⁵⁹

⁵⁸ Max Baucus in “Superfund Controversy,” *Congressional Digest*, (June-July 1986): 172.

⁵⁹ Tom Cook, “Experts optimistic about Clark Fork,” *Missoulian*, 6/12/1985, 18. John Stromnes, “EPA ready to widen study of Clark Fork,” *Missoulian*, 7/25/1985, 1.

As a river-wide focus coalesced along the Clark Fork, Milltown once again took center stage. The late February flood of 1986 that carried a heavy burden of ice down the Blackfoot and Clark Fork Rivers and broke wooden gates along the top of the Milltown Dam returned the discussion of the river's future to its central Superfund site. As flooding subsided, MPC lowered the Milltown reservoir nearly seven feet, shut off the dam's turbines, and hosted officials from FERC to begin assessing damage to the dam. The flood had busted 50 of 67 wooden gates and smashed a "living-room-sized" hole "in the apron on the downstream side of the dam" where water crested the broken gates and pounded down its face. An MPC spokesman warned: "We don't think it will wash out immediately...But left unattended, something could happen in the future." The employee speculated that the flood damage might prompt FERC to hasten its approval of the company's \$11.5 million proposal to rebuild the dam. Whatever the status of its long-term re-construction plans, MPC proposed immediately repairing the downstream apron, which covered and protected the dam's rock and timber crib foundation. A busted dam could spill the estimated seven million cubic yards of toxic sediment into the entire fishery below Milltown, including the more populous Missoula from where the CFC and most of the environmental concern stemmed.⁶⁰

While MPC considered its options to restore the dam, the flood-damaged structure amplified the conversation about the river's future. A month after the flood and with another, more seasonal surge of spring high water expected soon, Governor Schwinden attended the Clark Fork Coalition's annual meeting in Missoula to address the river's future. Acknowledging that some industrial use of the state's resources would continue,

⁶⁰ Steve Woodruff, "Flooding eases; dam faces repairs," and "Flood damage to Milltown Dam forces MPC to plan repairs," *Missoulian*, 2/27/1986, 9 and 2/28/1986, 1.

the governor also emphasized “there is an overwhelming desire among Montanans to preserve a place worth living in.” Crediting the CFC with arousing most of the concern surrounding the Milltown Dam and the upper river, he claimed that cleaning them up was “among the most exciting and worthwhile possibilities of my governorship.” He emphasized the need for the ongoing research to quantify the river’s problems. The newspaper article devoted to the gathering made the first public reference to “restoring” the river. Schwinden promised the state’s continued support in that effort, while maintaining “a spirit of shared responsibility is essential if we are to successfully tackle the river’s very complex problems and the issues that are related to the recovery of the river system.” Looking both backward and forward at the cleanup project he finished with the platitude that: “As we approach our Centennial, we can feel proud that in Montana’s second century, the Clark Fork will gradually be restored to what a river should be: A source of life and, just as important, a source of inspiration to those whose lives it touches.” The head of the governor’s river study reiterated the forward-looking nature of restoration by urging members of the CFC to lay plans for the river’s future.⁶¹

The most immediate of those plans centered on MPC. A month after the February flood, the company warned that “potential loss of life or property” should induce the FERC to “accelerate” the review process for its \$11.5 million renovation plan. While state officials and the Clark Fork Coalition shared the worry about the dam’s failure, they were less inclined to accept a hasty decision on its fate. The post-flood turning point for the dam’s future came to a head over the company’s desire for quick approval of its plan versus state and local opposition to such expedience. The governor’s Clark Fork River

⁶¹ Steve Woodruff, “Schwinden: Clark Fork cleanup should progress,” *Missoulian*, 3/23/1986, 1.

Project and the CFC both warned FERC that they would “formally intervene...in an effort to force a full public review of the reconstruction project.” CFC spokesman Peter Nielsen took the long-view of the circumstance saying, “we’re talking about what we’ll be living with for 50 years...Let’s make the right decision.”⁶²

While spring runoff never swelled enough to cause further damage to the dam, the issue of what to do with the dam remained. In what seemed like a break from local environmental groups, the state Department of Health and Environmental Sciences (DHES) proposed suspending state water-quality standards so as to allow MPC to repair the dam without regard to the amount of sediment washed downstream in the process. The DHES move was meant to help MPC gain approval for dam renovations by FERC, which required that any such work would not violate state water-quality laws. Knowing that work on the dam would likely do so, DHES simply offered to curtail such laws. State fisheries biologists, the CFC, and the Montana Environmental Information Center pounced on such a suspension of state environmental regulations and threatened that a full environmental impact statement be required for any dam rebuilding project.⁶³

By the first of May, FERC seemed to ameliorate the debate. Acknowledging state and local concern, the agency announced that it might grant MPC permission to repair the dam’s damaged spillway during the coming summer, but hold its \$11.5 million proposal to rebuild the entire dam until federal regulators had sufficient time to study the problem of potential toxic releases from the dam more thoroughly. This new two-part process would also allow the completion of the Superfund study before any decision was made.

⁶² Steve Woodruff, “Montana Power warns of dam danger,” *Missoulian*, 3/26/1986, 1.

⁶³ Steve Woodruff, “Conditions attached to dam reconstruction,” *Missoulian*, 4/12/1986, 9.

The CFC's Peter Nielsen called FERC's phased review "good news." The local newspaper, the state, and even the MPC echoed Nielsen's evaluation.

FERC approved the spillway repairs within a month, leaving in place Montana's water-quality laws and requiring MPC to monitor water-quality throughout its work.⁶⁴ The approval required MPC to take all possible precautions against spilling toxic sediment downstream. More importantly it left the possibility of rebuilding the entire dam in question.

Throughout the dam's history, leaks and floods eroded, dinged, and damaged the dam. Following the discovery of arsenic in Milltown wells, the threat the river posed to the aging dam expanded the concern about the toxic sediment it impounded. The flood of 1986 brought the issue of the Milltown Superfund site being a river-wide worry to a head. The expanded space of concern coincided with an expansion of people involved in the issue, including new, local environmental groups, the state, as well as the dam's corporate owners and federal agencies. While these groups and individuals agreed to immediate repairs of the damaged dam, they also began serious debate over the structure's long-term future.

⁶⁴ Steve Woodruff, "Milltown Dam plans may alter: MPC may receive OK for only part of proposal for rebuilding structure," *Missoulian*, 5/2/1986, 11. Missoulian editorial, "Let's keep the river 'Naturally Inviting,'" *Missoulian*, 5/9/1986, 6. Larry Howell, "Milltown Dam work receives conditional OK," *Missoulian*, 6/17/1986, 11. Missoulian editorial, "Go-ahead at the Milltown Dam," *Missoulian*, 6/22/1986, 4.

Placing the Blame: Liability at Milltown and the New Superfund

Before the flood of 1986, the contaminated reservoir garnered most of the attention at Milltown. The flood shifted worry to the poor condition of the Milltown Dam and what its failure would unleash on the river. At the same time, the Superfund process heightened focus on the impoundment. After solving the initial problem of contaminated drinking water and identifying the source of toxic wastes, Superfund protocol called for the identification of potentially responsible parties (PRPs) and the drafting of a feasibility study (FS). The heart of the FS is a list of possible long-term solutions, or “remedial actions,” for the problem, which came to include dealing with the dam. As a faulty stopper in the river, the dam was suddenly as big a problem as the water it held.

When the Clark Fork’s flow dwindled to its yearly low in mid-August of 1986, contract workers for the Montana Power Company began repairing the Milltown Dam’s flood-damaged spillway. Because of the reservoir’s status as a Superfund site, the Federal Energy Regulatory Commission (FERC) granted MPC quick approval for structural repairs to the dam. Since there was an “emergency,” FERC, as well as Montana’s state environmental agencies and local environmental groups, favored patching the dam as soon as possible, even at the risk of releasing some toxic sediment from the reservoir into the river. Failing to act posed the bigger risk of a complete dam failure.

While the MPC contractors working on the dam expected to finish repair work within a year, or before the spring run-off of 1987, the company also hired water quality monitors to analyze how construction impacted the river. MPC's permit required both the timeframe and the monitoring because, as FERC wrote in its assessment, "the potential for discharging large amounts of toxic-laden sediment downstream of the spillway during construction...is great." The local newspaper warned that the dam "was an environmental disaster waiting to be unleashed." Those worries took shape around MPC's reconstruction of their dam. As that work progressed, many of those same observers, particularly members of local environmental watchdogs, the Clark Fork Coalition, praised MPC and its contractors for avoiding disaster. Throughout the \$2.3 million project, water quality monitors detected only "minor increases in metals" well below permitted limits.¹

Success in remodeling the dam, or what the MPC imagined as "Phase I," prompted the company to speculate on when it might begin "Phase II," the centerpiece of which was an upgraded powerhouse. But that speculation soon ran into reality.

In particular, the dam owners faced mounting opposition from environmentalists. As a graduate student in the University of Montana's Environmental Studies Department, Peter Nielsen got interested in a lawsuit by the National Wildlife Federation and Trout Unlimited against MPC's plan to draw down the Milltown reservoir at a pace and to a level that the plaintiffs claimed would harm fish and aquatic life. Before the discovery of

¹ Federal Energy Regulatory Commission, "Environmental Assessment: Milltown Hydroelectric Project," *Missoulian*, 6/30/1986, 11. Theresa Johnson, "Redoing a dam," *Missoulian*, 8/12/1986, 11. Michael Moore, "Dam work flowing smoothly," *Missoulian*, 9/19/1986, 13. Opinion, "Menace to river still caged," *Missoulian*, 9/23/1986, 4. Michael Moore, "Ready for runoff," 3/27/1987, *Missoulian*, 1.

arsenic and other heavy metals in those sediments, Nielsen followed the lawsuit and joined protests supporting it with a focus on the quantity of sediment that rapid drawdowns sent downriver. An injunction stopped MPC from proceeding with their plans; the experience also changed Nielsen's career path. He stuck around Missoula after graduate school by making a living as a whitewater rafting guide. Then in 1985 he helped organize and guide a whitewater outing to raise money for the people organizing the Clark Fork Coalition.

By January, 1986, Nielsen was the new Clark Fork Coalition's first permanent executive director. The group envisioned itself as an environmental organization working for the good of their namesake watershed. As such, the Coalition was on the leading edge of a wave of new, locally-grown conservation groups across the U.S. focusing on whole river systems. Like others in the burgeoning watershed movement, Nielsen emphasized science. He and fellow coalition members also courted business. In a letter to the Army Corps of Engineers about MPC's Phase II plans, Nielsen described his group as "an alliance of 53 businesses and organizations." Business support was part of the coalition's goal of being a community-wide organization, rather than an issue-based grassroots group. Businesses joined because it gave them pro-environmental credibility, (presumably) a small tax deduction for their support, and because many local business owners were outdoor enthusiasts, much like Nielsen had been. In 1988 an *EPA Journal* article on the relationship between commercial interests and public environmental opinion stated that "(f)or business to maintain its profitability, influence, and freedom, it must be sensitive to the concerns of the public – not just in terms of the price and quality of the goods it produces but also in terms of public approval of its social

and political influence.” Support for groups like the Clark Fork Coalition were visible, local avenues by which a business could reveal “its social and political influence.”²

One of the CFC’s largest business supporters was the Montana Power Company. Yet, as the Milltown Superfund site became the group’s most prominent concern, it strained the Coalition’s relationship with the dam’s owners. Moreover, it was around that strain that the CFC thrust itself into the public eye.

As the dam gained attention at Milltown, so did the issue of who was responsible for cleaning up the toxic mess. EPA authority and local advocacy combined to push MPC toward becoming part of the long-term solution at Milltown and put the emphasis on what to do with the dam, rather than just how to clean up the contaminated sediments behind it. Where MPC saw fixing the dam’s spillway as the first of two steps in improving its asset, the Superfund law deemed it an emergency response, similar to providing Milltown residents with a new, safe drinking water system. While MPC wanted to move on to further improvements, the EPA, state agencies, and environmentalists began pursuing the next phase of the Superfund process – establishing liability and investigating permanent remedies.

At the same time that the EPA was enforcing its authority over corporate responsibility for cleaning up the environment, the federal agency watched the fate of one of its signature programs – Superfund – go from hanging in the balance between Congressional support and executive veto, to expanding far beyond its original mandate

² Personal communication with Peter Nielsen via email, 9/8/2011, in author’s possession. Letter from Peter Nielsen (CFC) to US Army Corps of Engineers, 9/29/1987, in U.S. Environmental Protection Agency, Montana Office, *Milltown Administrative State Site Records*, reel 150, Government Documents, Mansfield Library, University of Montana. Kent Gilbreath, “Industry’s Environmental Attitudes,” *EPA Journal*, (July/August, 1988): 19. Palmer, *Endangered Rivers and the Conservation Movement*.

and budget. Although this was happening far from the impounded waters of the Clark Fork, the situation at the Milltown Dam and reservoir continued to alter how the public participated in the Superfund process. All the while, the Superfund *process* began reaping benefits for the contaminated river, long before any official remedial actions happened.

In addition, the Superfund's trajectory at Milltown, as well as at the national level, support scholarship showing that despite the anti-environmental rhetoric of the Reagan-era, it was during the 1980s that most of the significant, federal environmental laws passed in the 1960s and '70s underwent their first significant implementation. In the case of Superfund, Congress strengthened the law. On the other hand, environmental historians have tended to see great polarity around environmental issues and laws during this decade, where a close look at a place like Milltown provides an example of how the federal and state agencies, environmental groups, the public in general, and, at times, major corporations embarked on a path of compromise. And, Superfund law encouraged, even mandated, such compromise.³

These results at Milltown confirm some arguments about national environmental history in the 1980s. Historians, such as Samuel P. Hays, have portrayed this decade as when support for the nation's largest ten environmental groups boomed and the "Big Ten" became major lobbying organizations based in Washington, D.C. As Hays and others have argued, those changes resulted from a combination of widespread, long-term national support for environmental issues inflamed by Reagan-era anti-environmentalism.

³ See: Rothman, *The Greening of a Nation*; Kirkpatrick Sale, *The Green Revolution: The American Environmental Movement, 1962-1992*, (New York: Hill and Wang, 1993); Wellock, *Preserving the Nation*.

When the executive branch did its best to cut environmentalists out of national politics, their popular support increased. So too, a window of opportunity opened for local, grassroots groups. But it was at that local level that Hays's assertion that "(e)nvIRONMENTALISTS were rejected as legitimate participants in the give-and-take of public affairs" makes less sense. When participation in public affairs is reduced to large environmental groups and top administrators of the EPA, those groups may have experienced rejection. Viewing the happenings at a place like Milltown, leads to a different conclusion. Hays argued that environmentalists found "the administrative apparatus of the state closed to their influence." As this western Montana Superfund story makes clear, the Clark Fork Coalition worked closely with the EPA. And the agency, the authority of which resided at the regional, if not local level, courted the participation of local environmentalists and the public. That is, Milltown illustrates how local environmental groups may well have filled gaps that larger organizations deemphasized, but did so largely in concert with federal and state agencies. Superfund abetted environmentalists' participation in public affairs. And groups like CFC did so because of their long-term commitment to community needs, including a host of real, local environmental issues, not as a reaction to national politics or a single environmental problem.⁴

Finally, the idea that the Reagan administration provoked a transfer of power from the federal government to the states, especially in environmental regulation, fails to reflect how Superfund was working. Really, when and if the state gained authority it was alongside a strengthened and better-funded federal government (EPA in this case). The

⁴ Hays, *Beauty, Health, and Permanence*, 491, 505.

EPA drew on and encouraged state authority. There wasn't a finite pie of power over which the state and the federal government fought for greater portions. Rather all involved parties, from the federal government to individual citizens, gained new authority or expanded roles in cleaning up the environment through a mostly cooperative process.

One thing that historians have seen clearly is the motivation people brought to environmental issues. As Hays observed "the expression of environmental aspiration was infused with a sense of place. People thought of environmental quality in terms of where they lived or worked or engaged in recreation." That was undoubtedly true at Milltown, although the parameters of the place in question were shifting.⁵

As early as the initial designation of the reservoir as a Superfund site in 1983, the EPA foresaw having to deal with the dam. At the time, the agency already viewed the dam as a "source-control," a tool for dealing with the toxins it trapped. MPC's maintenance and operation of its dam mattered. In the fall of 1984, the EPA stamped its authority on the matter in a letter to the MPC, stating that the company must communicate "any changes in the dam structure or operation" to the EPA and to the state's Department of Health and Environmental Sciences. More pointedly, the EPA threatened MPC with clauses in the Superfund law that could result in the company becoming a responsible party to cleaning up the site, if its actions released toxic sediments from the dam. EPA Region VIII director John Wardell wielded a financial stick. If the EPA designated the dam owners as a potentially responsible party, the company would have to pay an agency-determined portion of future cleanup work. If the

⁵ Hays, *Beauty*, 529.

company refused its responsibility and the EPA had to foot the initial bill, the federal government could sue the company for up to three times the cost the EPA spent on cleanup efforts.⁶

The power company began informing the EPA of its plans. MPC's pre-flood engineering evaluation for rehabbing the dam included renovating the powerhouse to increase its power production. The company planned to make repairs and upgrades at the same time. They also prioritized minimizing long- and short-term environmental impacts, such as allowing toxic sediment to wash downstream. As part of that effort, MPC considered excavating contaminated sediment exposed by lowering and rerouting the reservoir during construction.⁷

After the flood of 1986 damaged the dam, plans changed. By the end of March, the EPA and all of Montana's environmental agencies – Department of Health and Environmental Sciences (DHES), Dept. of Natural Resources and Conservation (DNRC), Fish, Wildlife, and Parks (FWP), and the Clark Fork Coalition (CFC) – petitioned FERC to intervene in the dam reconstruction licensing process. The EPA paved the way for this

⁶ Letter from John F. Wardell to Frank Pickett, November 29, 1984, in U.S. Environmental Protection Agency, Montana Office, *Milltown Administrative State Site Records*, reel 169, Government Documents, Mansfield Library, University of Montana. For specifics on Superfund law, see Section 104, 106, and 107 of CERCLA. <http://www.epa.gov/compliance/cleanup/superfund/orders.html>

⁷ Letter from Michael E. Zimmerman to Vic R. Anderson, December 10, 1984; "Summary: MPC Milltown Hydroelectric Project Engineering Evaluation," MPC; "Water Resources Impacts Resulting from Proposed Rehabilitation of the Milltown Hydroelectric Project," MPC, May 3, 1985; all in U.S. Environmental Protection Agency, Montana Office, *Milltown Administrative State Site Records*, reel 169, Government Documents, Mansfield Library, University of Montana.

intervention using Superfund law. The law empowered the agency to enter any legal proceedings that might involve the release of hazardous wastes from a Superfund site.⁸

Each agency had specific reasons for intervening. In general, the state agencies wanted to safeguard human health (especially the downstream Missoula aquifer that was the drinking supply for much of the city) and the river's natural resources against releases of heavy metals. The EPA added to those concerns its future decisions regarding the Superfund site. The CFC insisted on "adequate public review and intergovernmental cooperation," an independent, on-site monitor to assess downstream water quality during construction, and the implementation of an MPC-funded fish mitigation program. All the interveners favored FERC dividing the company's proposal into two phases: fixing the busted and near failing spillway, and upgrading the powerhouse.⁹

In a late spring news release, the DHES announced that they, along with the EPA, had approved a FERC "emergency" order to allow MPC to repair the dam's spillway. But, the state and federal agencies pushed FERC to disallow the power company's plans to upgrade the powerhouse and generating capacity at the same time. Phase I could and should proceed immediately. Phase II would have to wait. The justification was that the EPA's study of how to deal with the contaminated reservoir (the feasibility study) was due out within a year and one of the possible Superfund alternatives was complete dam

⁸ "United State of America Before the Federal Energy Regulatory Commission," Project No. 2543, March 27, 1986; Letter from Stan Bradshaw (MDFWP), to Kenneth F. Plumb (FERC), March 28, 1986; "Comments and Recommendations: Submitted by the MDNRC as a supplement to paragraph B of its intervention of the Milltown Dam Amendment," April 6, 1986; "Comments of the Clark Fork Coalition to the Federal Energy Regulatory Commission," May 19, 1986; all in U.S. Environmental Protection Agency, Montana Office, *Milltown Administrative State Site Records*, reels 148, 150, and 169, Government Documents, Mansfield Library, University of Montana.

⁹ Ibid

removal. If the EPA included dismantling, or at least altering the dam as part of the solution to remediating the reservoir, MPC's improvements would be a waste. The EPA and state environmental agency were unsure about whether the power company could sue for lost investment. What both agencies knew for sure was that the more repair and upgrade work the company undertook on the dam, the more likely its efforts would result in releases of contaminated sediments into the river.¹⁰

That wasn't the only problem the EPA faced at the time. In fact, much bigger changes loomed over the agency.

The original Superfund legislation, passed by Congress in 1980, expired in 1985. A temporary measure kept the program funded through mid-summer 1986. Just as the EPA began dangling Superfund laws over MPC, the agency was in jeopardy of having the program's funding and authority run out. Along with the hundreds of Superfund sites around the country, Milltown faced abandonment by the federal government.

By October 1986, a Superfund Reauthorization bill was in front of President Ronald Reagan and his advisors were recommending he veto it. Upon entering office, Reagan's administration tried and failed to undermine the original Superfund mandate. Now the President faced a Congressional bill that increased the program's funding fivefold to \$8.5 billion over a new five-year period, which was down considerably from

¹⁰ Letter from John F. Wardell to Robert J. Labrie, MPC Senior Vice President, 3/5/1986; Montana Department of Health and Environmental Sciences, News Release, 5/30/1986; "EPA Comments Following Review of MPC's FERC Application," undated; letter from Richard Hunt to Labrie, 6/16/1986; all in U.S. Environmental Protection Agency, Montana Office, *Milltown Administrative State Site Records*, reel 169, Government Documents, Mansfield Library, University of Montana.

some of the earlier iterations of the bill. Many in Congress had acknowledged studies by the EPA that showed it would take \$22.7 billion to clean the country's 786 top priority Superfund sites, to say nothing of the nearly 20,000 places the agency forecast as needing designation. The Congressional Office of Technology Assessment estimate for the same work topped out at \$100 billion. The bill that quintupled the Superfund budget would come from taxing a much broader base of industries than the original legislation. Both heavier taxes on corporations and public spending on the environment defied Reagan's stated economic principles. Yet, he faced strong support for the bill in Congress (even Conservatives recognized how conservative the new fund was), among EPA administrators, national environmental groups, as well as the Chemical Manufacturers Association and other industries (that realized how much steeper the bill could be). Everyone, except the executive, saw Superfund as a way to deal with publicly recognized environmental disasters that was more efficient and cost effective than leaving the matter to government agencies or, conversely, private business alone.

On October 17, 1986, Reagan signed the Superfund Amendments and Reauthorization Act, or SARA. For all the anti-environmental rhetoric and efforts that characterized Reagan's first few years in office, strengthening one of the nation's seminal environmental laws made seemingly little impression on the president at the time. In 1983 when EPA Administrator Anne Gorsuch faced corruption charges in Congress, Reagan defended her in his diary against "a lynch mob" media that "thinks it smells blood." He dubbed Congressional Democrats investigating EPA misdoings as "some zany on the hill." A year later, he privately accused environmentalists of "declared war" on him at the beginning of his first term and being "arrogant and unreasonable" in

general. Yet, Reagan recalled nothing about signing SARA in his diary, instead commenting that he had “forgotten how really good” the 1942 film *Kings Row*, which helped him rise to acting fame, was. Although Reagan took little note of the new law, some of its amendments began to play out at Milltown.¹¹

Even with its budget increase, the EPA began designating potentially responsible parties (PRPs) at Milltown. As the title implies, a PRP is any individual or corporation that might be liable for cleaning up a Superfund site. At Milltown the agency singled out the Atlantic Richfield Company (ARCO), Champion International Corporation, and the Montana Power Company. Each PRP had a different link to liability.

The EPA named the Atlantic Richfield Company as PRP number one because of its connection to the upper Clark Fork River’s industrial history. At the headwaters of that river the city of Butte, Montana grew from a cluster of gold mining shacks in the 1870s, to being one of the West’s largest industrial mining centers, producing 43% of the nation’s copper by the time Montana became a state in 1889. The vertically and horizontally integrated mining industry dominating Butte included huge ore smelting works in nearby Anaconda, named for the company that between 1900 and 1910 consolidated ownership of most of the Butte mining, smelting, and refining works. According to the EPA, “as a result of one or more mergers, restructurings, transfers of assets, continuation of business activities, or other corporate actions, ARCO is the

¹¹ Jane L. Bloom, “Superfund: The Next Five Years,” *Environment*, V.27, No.4, (May 1985). Butte, MT. (AP), “Knell sounds for Superfund sites’ cleanup,” *Missoulian*, 6/4/1986, 31. Opinion, “Superfund veto risky for Montanans,” *Missoulian*, 10/15/1986, 6. Also see: Revesz and Steward, eds., *Analyzing Superfund*, and Vig and Kraft, eds., *Environmental Policy in the 1980s: Reagan’s New Agenda*. Ronald Reagan, *The Reagan Diaries*, ed. Douglas Brinkley, (New York: HarperCollins Publishers, 2007), 131-132, 252-253, 445.

successor-in-interest to, and has assumed the liabilities incurred by Anaconda.”

Companies or individuals inherited liability.¹²

From the late 1800s through the early 20th century, mine owners from individual placer miners to the Anaconda conglomerate built a chain of extraction that spanned much of Montana. Trees cut from western Montana and milled in places like Milltown made their way to Butte, underlying railroad tracks and supporting mineshafts. The first industrial smelting operations consisted of huge beds of whole trees laid out over hundreds of square meters. Miners piled raw ore on these open roasting pits, set them on fire, and let them burn for days, weeks, and sometimes months. The long, slow, burning within these heaps melted valuable metals out the ore. Workers then further refined the metal through more controlled melting (and burning of massive amounts of wood). Finally, they poured the refined metal – mostly copper – into molds and loaded it on trains headed for manufacturing facilities that spun the copper into wire. The commodity chain continued until copper wire found its way into homes and businesses across America, including Milltown, where the electricity from the local dam pulsed through that same metal conduit.

But commodities weren't the only things to come full circle to Milltown. Heap roasting ore in Butte left behind massive piles of “mine tailings,” valueless rock, including a cocktail of heavy metals. The roasting process also filled the skies with smoke so thick that people sometimes carried lanterns at midday to guide themselves down the city's busy streets. After local women's clubs won a series of court battles that

¹² EPA, “Administrative Order of Consent: Milltown Reservoir Sediments Site, in U.S. Environmental Protection Agency, Montana Office, *Milltown Administrative State Site Records*, reel 241, Government Documents, Mansfield Library, University of Montana.

shut down the practice of heap roasting in Butte because the acrid, sulfurous smoke killed their flower and vegetable gardens, mine owners moved their smelting operations into the nearby Deer Lodge Valley. In the valley, ranchers took up the fight against the smoke that corroded the lungs of their cows and horses, killing many of the beasts within a year of exposure. Unable to stop the smelting, ranchers turned to the federal government. By 1905 the federal government's US Forest Service had placed its Region 1 office in nearby Missoula. One of the Service's first tasks was to enforce smoke abatement measures on the mine and smelter owners in order to protect the surrounding National Forests from the killing effects of the black plumes.¹³

Even as residents fought to move and then regulate smelter smoke, that fine particulate matter fell to the ground. Rain and time acting on gravity's mandate washed it into the surface water along with the water-soluble heavy metals in the mountains of tailings that defined portions of the landscape around the smelting works of Butte and Anaconda. In Butte, toxic metals flowed into Silver Bow Creek, the headwaters of the upper Clark Fork River. Smoke that rose and settled in the Deer Lodge Valley did so into Warm Springs Creek, the river's next major tributary. What was killing roses and tomatoes in Butte, as well as livestock and conifer forests around Deer Lodge, began decimating the river.¹⁴

¹³ For Butte and Anaconda mining and smelting history, see: Donald MacMillan, *Smoke Wars: Anaconda Copper, Montana Air Pollution, and the Courts, 1890-1920*, (Helena, MT.: Montana Historical Society Press, 2000); Stiller, *Wounding the West*; Malone, Roeder, and Lang, *Montana: A History of Two Centuries*; Michael Punke, *Fire and Brimstone: The North Butte Mining Disaster of 1917*, (New York: Hyperion, 2006).

¹⁴ Carolyn Johns and Johnnie Moore, "Heavy Metals in Bottom Sediments of Clark Fork River Reservoirs," report to EPA, 7/11/1985; Johnnie Moore, "Source of Metal Contamination in Milltown Reservoir, Montana," report to EPA, 9/1985, in Environmental Protection Agency, Montana Office, *Milltown Administrative State Site*

When ARCO purchased Anaconda assets in 1977, including the smelting properties that defined the Deer Lodge Valley, the Clark Fork River floodplain from Silver Bow Creek to Milltown was defined by stretches of barren stream bank, called “slickens,” as much as it was by native willows and cottonwoods. The Milltown reservoir alone contained nearly 2000 tons of arsenic, equal weight in lead, as well as tens of thousands of tons of slightly less poisonous metals such as manganese, zinc, and copper that had escaped extraction. The river washed a large portion of those metals down to the dam during the flood of 1908. Shortly thereafter, the new dam’s engineer was already worrying about the accumulation of copper in the turbines and other equipment. In 1977 there was no Superfund law and people knew few of the details about the extent of contamination in the Clark Fork, so ARCO had little reason to consider their environmental liability.

Superfund law made liability for such messes transferable. Companies bought liability along with their acquisition of assets. The law allowed the EPA to designate corporations, government agencies, or individuals without “showing of fault or negligence on the part of a defendant.” Accidents counted. The law was “retroactive and progressive.” Toxic messes made long before or after passage of Superfund fell under its purview. Time did not matter. And liability was “joint and several,” meaning that any defendant responsible for some portion of the waste problem could be responsible for all the problem, unless it proved that the pollution was “divisible.” The new Superfund law strengthened all of these clauses, making elusive responsible parties, less so. The law’s

Records, reels 601, 146, Government Documents, Mansfield Library, University of Montana. Letters from George Slack to A.H. Wethey, 1908, MC 268, Montana Power Company Predecessor Company Records, 1880-1947, Box 23/Folder 2, Montana Historical Society Archives, Helena, MT.

supporters realized that, as at Milltown, toxic pollution often hid behind a proprietary web stretching back through a century of American industrialization. Even ARCO recognized its responsibility under these laws and was a willing PRP from the outset.¹⁵

For its part Champion International Corporation denied any responsibility connected to the Superfund site. A company spokesman characterized his employer as “an innocent owner of a minute portion of the property below the high water mark of the reservoir.” In addition, he explained to the EPA that while Champion had “generated” none of the offending toxins, it voluntarily helped Milltown residents acquire a new water system and had contributed to Superfund cleanup efforts elsewhere, when the company “was properly identified” as a PRP. That, according to Champion, did not include Milltown.¹⁶

The Montana Power Company’s connection to the contamination was an exception. The company had bought the dam in 1929. MPC never produced or transported any of the reservoir’s offending toxins. But, according to the Superfund Amendment and Reauthorization Act, intentions didn’t matter as much as results. Beginning with the construction of the dam in 1906, the structure had caught and accumulated heavy metal-laden sediments, especially during the flood of 1908. The dam, by creating the reservoir, was responsible for the conditions that conveyed those heavy metals into the surrounding groundwater and from there into people’s homes. Maintenance of the dam included flushing sediments downstream. Plus, MPC actually

¹⁵ Revesz and Steward, eds., *Analyzing Superfund*, 3-6; <http://www.epa.gov/superfund/policy/sara.htm>. EPA, *Milltown Reservoir Sediments Operable Unit: Record of Decision*, 2-7, 12/2004.

¹⁶ Letter from Benjamin S. Bilus to Stephen H Foster, Esquire, 7/28/1986, in Environmental Protection Agency, Montana Office, *Milltown Administrative State Site Records*, reel 144, Government Documents, Mansfield Library, University of Montana.

owned portions of the land on which the reservoir pooled; hence the company was liable for the sediments thereon. Yet, MPC denied its liability. Early in the Superfund process at Milltown, that denial had legs. SARA's general provisions about liability seemed to implicate MPC, but a single anomaly let the company off the hook. In a single, short paragraph buried in section 118(g) SARA absolved the Milltown Dam's owners and only that dam's owners of liability for the toxins behind the structure. That exception was the work of Montana's Senator Max Baucus who helped craft the SARA bill. But it was a short-lived exception that Congress struck from Superfund law before the EPA made its final decision at Milltown.¹⁷

Even as the EPA designated PRPs at Milltown, the agency began more immediate forms of enforcement. In particular, the Superfund law encouraged the EPA to draw on state support. In that effort, the EPA assigned ARCO the responsibility of evaluating the state's legal power to implement what Superfund terms "institutional controls," or "legal mechanisms to regulate land use and access to prevent exposure to hazardous substances." This included laws such as zoning restrictions or water regulations, which the EPA preferred states handle. But as the federal agency confided to Montana's director of DHES, Superfund implementation had taught the EPA "that many States and localities lack adequate authority, resources, or commitment to make institutional controls a viable component of remedial actions." Superfund encouraged the EPA to help states define, fund, and embrace their role in carrying out institutional controls. The

¹⁷ EPA, "Initial Site Evaluation," Summer 1988; EPA, "Administrative Order on Consent," 2/14/1990; EPA, "Chain-of-Title for the Milltown Reservoir," in Environmental Protection Agency, Montana Office, *Milltown Administrative State Site Records*, reel 148, 241, and 144, Government Documents, Mansfield Library, University of Montana. Environmental and Natural Resources Policy Division, *A Legislative History of the Superfund Amendments and Reauthorization Act of*, V.1, 45.

EPA saw state aid as part of a “temporary remedy,” one that the state could put in place quickly while the permanent remedies of the Superfund process played out. Increasing state involvement in the Superfund program was one part of SARA that seemed to reinforce the Reagan administration rhetoric of shifting regulatory power toward states. In truth, the situation at Milltown demonstrated that the EPA sought quick and efficient enforcement of the Superfund law by working *with* the state, rather than shifting power from the federal to the state level.¹⁸

State agencies, of course, had already participated in the Superfund process at Milltown and continued to do so. Most of that participation continued to concern MPC’s licensing process, first as the dam owner’s petitioned to carry out Phase II rehabilitation work, then as they applied for special extensions for simply operating the facility.

The company’s hopes of refurbishing the dam’s powerhouse and increasing its power output faltered due to the reservoir’s Superfund status and its potential responsibility. All of the state agencies involved (DHES, DNRC, and FWP) ultimately opposed the improvements, as did the Clark Fork Coalition and the EPA. In the short term, they all worried that further work on the dam risked flushing contaminated sediments downstream. And since they did not consider Phase II an “emergency,” they wished to avoid that risk. In the meantime, they all agreed that since MPC was a PRP (albeit unwillingly) and since the FS, which might determine the dam’s ultimate fate, was due out within a year, the dam owners should hold off on doing any more work to the structure. What no one suspected at the time was that the dam would become the

¹⁸ Letter from the EPA to John Drynan, director MDHES, 8/27/1986, Environmental Protection Agency, Montana Office, *Milltown Administrative State Site Records*, reel 148, Government Documents, Mansfield Library, University of Montana.
<http://www.epa.gov/superfund/policy/sara.htm>

centerpiece of cleanup efforts and that the FS would take much longer to produce than expected.¹⁹

The Montana Power Company tried to counter criticisms of its plan. The company emphasized how Phase II did, in fact, include structural upgrades that would make the dam safer and less likely to discharge its toxic holdings. Engineers blamed any such releases during Phase I on “natural events,” rather than construction. At one point MPC’s VP of engineering wrote that, “changes in water quality are often brought about by natural occurrences (sic) and are independent of pond level,” as if the tons of heavy metal piled behind the dam had no bearing on the matter, or occurred naturally. As far as the environmental impacts of these occurrences, whether natural or not, the company claimed that a century of upstream mining had damaged the river so profoundly that what happened with the dam was all but negligible. Using fish as an example, an MPC report claimed that: “We do not agree with the conclusion that the presence of the dam significantly reduces the recruitment of young fish to downstream areas.” The assertion that the whole river was a wreck because of historic mining, and that the dam was of no consequence, was meant to imply that MPC had little or no responsibility under Superfund. All the while, the company seemed to be trying to diminish the magnitude of the problem by referring to the site as the “pond” rather than the much bigger sounding “reservoir,” which was in standard use at Milltown. Again, that may have been another subtle attempt to escape PRP status.

¹⁹ Letter from James W. Flynn (FWP) to Kenneth Plumb (FERC), 2/24/1987; Letters from EPA to FERC, 3/24/1986, 5/23/1986, 2/10/1987, 3/17/1987; Letter from CFC to FERC, 3/25/1987, all in Environmental Protection Agency, Montana Office, *Milltown Administrative State Site Records*, reels 169 and 150 Government Documents, Mansfield Library, University of Montana.

The one portion of the Phase II plan that eventually roused the most local opposition was MPC's choice of where to dump toxic sediments. During Phase I "emergency" repairs, the company dredged sediments and dumped them, along with old, possibly contaminated, dam materials in what was supposed to be a temporary disposal site near the reservoir. That disposal site became another point of contention in the debate over the second phase. In the fall of 1987, John Wardell informed FERC that MPC's disposal site "appears to be located within a floodplain and wetland." At a place where water contamination earned Superfund designation, that was not good. As Montana's EPA director, Wardell laid out the hazards of dumping even more sediment there, if FERC permitted further dam rehab. The site had no liner to prevent the movement of contaminants back into the surface or groundwater, nor was the site safeguarded against floodwaters, and the disposal site's placement in a floodplain or wetland exposed many of the sediment's fairly inert metals to the air (or oxygenated water), which could, according to Wardell, increase their "toxicity and mobility." Wardell reminded FERC that since this was happening in a Superfund site, the EPA had ultimate authority, especially since the issue concerned a PRP possibly spreading more contaminants. Facing identical concerns voiced by the Clark Fork Coalition, MPC began adjusting its plans.²⁰

In October 1987, representatives from all the concerned parties convened for a "Milltown Dam Rehab Meeting." In spite of all the initial opposition, FERC and MPC

²⁰ Letter from Wardell (EPA) to Plumb (FERC), 9/11/1987; letter from Wardell to Morton (US Army Corps of Engineers), 9/11/1987; letter from Nielsen (CFC) to US Army Corps of Engineers, 9/29/1987; letter from Nielsen (CFC) to Plumb (FERC), 10/8/1987; all in Environmental Protection Agency, Montana Office, *Milltown Administrative State Site Records*, reel 150, Government Documents, Mansfield Library, University of Montana.

seemed to make a clear case that the old dam needed further repairs for safety reasons, which did not constitute an emergency, but were urgent, nonetheless. Since the EPA officials admitted that a feasibility study was “no nearer being finished now than we were a year ago” and might not be complete until “mid-1989,” that urgency would only increase. Everyone agreed that the Phase I disposal site was chosen for its proximity and practicality during emergency repairs and would not be suitable for further disposal. The meeting ended with the EPA warning the company that if repairs progressed and the FS eventually scuttled those repairs, there was no guarantee that the MPC would receive any compensation.²¹

The one projection that the MPC got right was its rebuttal to stalling Phase II because of the EPA’s FS. The FS was suffering delays and the company found it unfair that its rehab permit should remain on hold indefinitely. And, had FERC simply put the Phase II permit on hold until finalization of the FS, the rehab work would have sat in limbo for another decade.²²

In 1987, the EPA delayed the FS by deciding to focus on cleaning upriver sites first before making a final decision about more work at Milltown. With Milltown’s FS essentially on the slow track, MPC pushed even harder for its proposed rehab work, making use of what the Clark Fork Coalition called in its fall newsletter, *Currents*, “the same old scare tactics about instability of the dam.” The coalition was particularly upset about MPC’s desire to forego an on-site monitor and to continue using a wetlands

²¹ EPA Memorandum, “Milltown Dam Rehab Meeting,” 10/20/1987, in Environmental Protection Agency, Montana Office, *Milltown Administrative State Site Records*, reel 150, Government Documents, Mansfield Library, University of Montana.

²² Letter from G. Howard Van Noy (MPC) to Kenneth Plumb (FERC), 6/4/1987, in Environmental Protection Agency, Montana Office, *Milltown Administrative State Site Records*, reel 148, Government Documents, Mansfield Library, University of Montana.

disposal site for sediment storage. All non-corporate parties opposed those choices, too. The EPA, which had the final say, looked unlikely to support such measures as part of the dam fix. Nonetheless, the CFC appealed to the company's sense of environmental responsibility, ending its commentary with the assertion that, "it's time for MPC to prove that they are worthy of an environmentally responsible reputation." During a meeting that included the EPA, FERC, state agencies, and the CFC, agency and local pressure finally won out. In the winter edition of *Currents*, the CFC revealed that MPC had acquiesced to the demands for a safer, though more costly, disposal site, one about six miles upstream and well out of the river's floodplain. In a demonstration of its power through "institutional controls," the state continued to insist that MPC meet water quality standards throughout the proposed project, which would likely force the company to treat river water passing through the construction site. The CFC, directed by Peter Nielsen, had been involved at Milltown since the beginning of its Superfund designation. But it was only in the late 1980s, during the debates that put the dam at the forefront of the cleanup process that the coalition became *the* most important and publically recognized local voice in those debates. It did so while enjoying the support of local citizens and businesses. Just as it courted diverse support, the coalition spread its attention over a variety of issues connected to its namesake watershed. Thus, it diverged from the image of traditional grassroots environmental groups.²³

²³ Clark Fork Coalition, "Milltown Rebuild Back on the Drawing Board," and "Milltown Dam Rebuild Sparks Renewed Interest," in *Currents*, October and December, 1987; Meeting notes, "Milltown Dam Rehab Phase II," 11/12/1987; letter from EPA to MPC, 11/17/1987; EPA memorandum, "Milltown Dam Rehabilitation Meeting, 11/18/1987; letter from MPC to MDFWP, 11/19/1987, in Environmental Protection Agency, Montana Office, *Milltown Administrative State Site Records*, reel 150, 148, 148, 148, Government Documents, Mansfield Library, University of Montana;

The Clark Fork Coalition's influence was clear by the spring of 1988. In March, the *Missoulian* announced that FERC had approved of dam improvements "to protect safety, but the company cannot install an additional megawatt." Power upgrades would have to wait until after the EPA reached a decision on cleanup. MPC also faced all the issues and requirements that the CFC had argued for: an on-site monitor would be present during all construction, water quality standards would remain in place, and a new off-site disposal area would replace the wetlands dump. The local newspaper's editorial called the decision "a remarkable result," crediting "compromise" for diffusing "a heated environmental controversy." But that compromise soon began to unravel.²⁴

Soon after the FERC ruling, MPC appealed its new permit. In its appeal the company asked for FERC to extend its operating license for the Milltown dam, set to expire in 1993, until 2015, as well as a guarantee that it would be able to increase its power generation before the original expiration date. According to Peter Nielsen, the appeal also sought to weaken language about an around-the-clock monitor and water quality standards during construction. As the new appeal sat, MPC moved ahead with actual work. By mid-summer it was drawing down the reservoir by a foot per day, a much slower pace than usual, as required by its permit to protect against flushing toxins downstream. The reservoir would be drained and ready for construction by July 18 according to dam engineers.²⁵

²⁴ Dick Manning, "FERC paves way for rebuilding of Milltown Dam," *Missoulian*, 3/3/1988, 9. *Missoulian* Editorial, "A reasonable decision," *Missoulian*, 3/7/1988, 4.

²⁵ Dick Manning, "MPC appeals Milltown Dam order," *Missoulian*, 3/17/1988, 9. Manning, "MPC drains Milltown reservoir for project," *Missoulian*, 7/11/1988, 8.

One reason that the details of the dam rehab garnered so much meticulous attention locally was that concern for clean river water was in the news. As MPC was appealing to weaken the restrictions in its permit, the city of Missoula was trying to get its water supply system designated as a “sole source aquifer.” That federal designation signified that the municipality obtained nearly all its potable water from a single groundwater system. And under the federal Safe Drinking Water Act, sole source aquifers qualify for “an elevated level of protection.” That protection included a restriction on federal dollars going to any project that might contaminate a sole source aquifer, including money spent on Superfund sites. So, if the city’s bid succeeded, it would force the EPA to enforce the strictest measures against releases of heavy metals upstream of Missoula. At the same time, the city was working to clean its own water resources. Working with the CFC, the city requested a stricter pollution control permit from the state Department of Water Quality. The new permit increased water monitoring, stricter sewage treatment standards, and, most importantly, set Missoula on the path to follow a strong national trend of banning phosphate detergents. Nielsen’s CFC helped both measures succeed.²⁶

Locals concerned with their water saw the city’s arterial river, the Clark Fork, run unseasonably dirty looking in mid-July 1988. The cause was MPC’s rehab project. After receiving its final FERC permit on July 8, the company then had to hire a contractor and obtain state building permits, which delayed the start of construction even as the reservoir

²⁶ Record of telephone communication, Jim Duncan to Ken Wallace (EPA), 7/5/1988; attachment to phone log (EPA), “Significance of Sole Source Aquifer Designation,” in Environmental Protection Agency, Montana Office, *Milltown Administrative State Site Records*, reel 169, Government Documents, Mansfield Library, University of Montana; *Missoulian* Editorial, “Cleaner Clark Fork on Tap,” *Missoulian*, 7/19/1988, 4.

sat empty. The first phase of work was the building of a temporary dam, or cofferdam, above the permanent and problematic structure to prevent the sort of sediment scouring and flushing that was causing the river to run dark and ominous according to the CFC. Company officials and, eventually, state water quality monitors, assured the public that the sediment-darkened river posed no human health risk. At the same time, state fisheries biologist worried that the sediment could affect the downstream trout population by killing insects on which they fed. Whether bugs, fish, or people were at risk, the CFC and the EPA began taking independent water samples below the dam.²⁷

MPC's contractors commenced the \$13 million project by building the cofferdam just before the end of July, which helped clear the river's water. That did not stop the CFC from filing a formal complaint with the EPA about "a potential for continued release of hazardous substances from the Milltown reservoir." The complaint mustered evidence correlating the dam drawdown and delay with the sediment flows and requested EPA assistance with analyzing the coalition's independently-gathered water and sediment samples. Arguing that it should not "be the responsibility of a citizens group to pay for lab analysis when hazardous substances have been released from an NPL site," the Coalition sought to draw on the continuous and cooperative relationship the local environmental group had developed with the federal agency through the Superfund process.²⁸

²⁷ Dick Manning, "Project delay darkens Clark Fork," *Missoulian*, 7/22/1988, 1. Manning, "Spill poses no human risk," *Missoulian*, 7/26/88, 7. Manning, "Milltown work begins," *Missoulian*, 7/29/1988, 10.

²⁸ Letter from CFC to EPA, 8/1/1988, in Environmental Protection Agency, Montana Office, *Milltown Administrative State Site Records*, reel 144, Government Documents, Mansfield Library, University of Montana

But good relationships with the federal government did not trump regulations. The EPA had Montana's DHES respond to the CFC, explaining that since the federal agency had already empowered the state agency to sample and analyze river water from the same sites during the same times that the coalition sampled the river, the environmentalists' efforts were both redundant and unauthorized within the EPA budget and plan. However, the DHES hinted that the samples had greater value than just figuring out how much damage the one-time sediment flush did to the river. The EPA planned to include the information in its ongoing efforts to write a FS, which might include "drawdown of the reservoir and/or dam retirement" as permanent solutions for Milltown. The letter also revealed that of the three PRPs the EPA had designated that spring, ARCO was the only one that had "responded positively" and "expressed an interest in taking the lead at Milltown." That lead-taking included sharing the responsibility of producing a FS.²⁹

As agreeable to its role of responsible party as ARCO seemed to be, MPC remained problematic. As the EPA expedited the lab results from samples of downstream river water, the agency also requested that the dam's owners speed up their construction schedule. Hurrying up construction, the EPA reasoned, would diminish the likelihood of subsequent sediment flushing and, hence, the likelihood of having to extend Superfund designation below the dam. MPC continued to balk at the notion that substantial toxins had flowed below the dam during their initial drawdown. And, a

²⁹ Letter from Phil Herzog (MTDHES) to Phil Tourangeau (CFC), 8/10/1988, in Environmental Protection Agency, Montana Office, *Milltown Administrative State Site Records*, reel 144, Government Documents, Mansfield Library, University of Montana

company spokesman rebuffed the EPA request, saying that the company's work schedule was set, due to its dependency on the availability of construction materials.³⁰

MPC's actions caused discord. In the fall, Larry Thompson, a manager for the Montana Power Company, and Peter Nielsen published side-by-side opinion pieces in Montana newspapers. Whereas CFC's newsletters tended to distill the bureaucratic process and the science affecting the river, these editorials were the first public appeals for people to take sides at Milltown. They also demonstrated the ongoing contests over what science prevailed and whose interests the Superfund process served at Milltown.

Writing from his office in Butte, Thompson lauded his company's efforts to prevent toxins from moving downstream during construction, blamed any delays on the federally-mandated permitting process (and interventions therein), and mustered the results from its own data collection to make that case that MPC caused no significant damage to the river. He even hinted that the dam had saved the lower river from all the upstream mining wastes and should be seen as an environmental safeguard, rather than a hazard. Thompson ended with a sneaky jab at the CFC that "despite publicity-seeking claims, every test to date has shown Montana Power to be in compliance with exacting water-quality standards." Thompson tried to portray his employers as a responsible community partner.³¹

In contrast to Thompson's defensive language and propensity to detailed dates and deadlines, Nielsen appealed to a more specific group of river users. He mixed colloquialisms, like calling MPC and the state Water Quality Bureau's assessment that no

³⁰ Dick Manning, "EPA wants Milltown work hastened," *Missoulian*, 8/17/1988, 9.

³¹ Larry Thompson, "Power company's actions supported by test data," *Missoulian*, 9/9/1988, 7.

substantial toxic sediments washed downstream during construction “bad science, extremely misleading and pure baloney.” He rendered the technical details of water testing into lay descriptions, such as, “technicians threw water fleas into the samples, then concluded after 48 hours that because the organisms didn’t die, the sediments were not harmful.” After detailing other inadequacies of the state’s tests (as opposed to those the CFC took and the state and EPA rejected using), Nielsen called the delays, which caused the sediment flushing, deliberate on the part of MPC to force FERC into agreeing to its request for a more lenient construction permit. In other words, the CFC claimed that MPC essentially polluted the river as a tactic to get its license extended until 2015. Whereas Thompson made frequent rhetorical use of the pronoun “we” to refer to both his company and his – hopefully agreeable – audience, Nielsen attempted to represent a much more specific, local audience. Throughout, Nielsen aligned the Coalition’s concerns with those of “fishermen, recreationists and residents of river communities.” While confirming his organization’s efforts and successes including corporate support in environmental issues, Nielsen ended his editorial by reporting that he was going to ask his “governing board to terminate MPC’s membership.”³²

The pointedly critical language in those letters marked the first real confrontation over the Milltown Superfund site. Disagreements of that sort would ebb and flow during the next decade as the decision about what to do with the dam and reservoir underwent its own changes, including three feasibility studies. Yet the resulting decisions revealed a level of cooperation belied by intermittent disagreements. That decision demonstrated the power the Clark Fork Coalition’s threat to smear MPC’s environmental image held.

³² Peter Nielsen, “Montana Power betrayed trust to help protect river,” *Missoulian*, 9/9/1988, 7.

During the summer of 1988, as MPC wrangled with the environmental community and various agencies, the company also continued to deny its role as a responsible party. From a funding standpoint, that meant that the EPA would have to enforce a “fund lead” liability scheme. This meant that the federal agency would pay up front for any expenditure at the Superfund site and then try to extract reimbursement from PRPs later, through negotiations or adjudication. If the EPA ended up in court with a PRP, Superfund law entitled the government to charge the defendants up to three times the amount of the Superfund bill the agency incurred. That method of funding cleanup work characterized Superfund’s earliest efforts, which were terribly inefficient. What was happening at Milltown represented a changing liability scheme.

After Congress passed the SARA amendments in 1986, the EPA began pursuing an “enforcement lead” strategy at Superfund sites. Even though the new legislation more than quintupled federal funding for cleaning up the nation’s worst toxic messes, the EPA began using its authority to force PRPs to fund cleanup work from its first stages through its completion. Studies showed that assigning corporate responsibility early on eliminated or reduced court time, reduced the cost and time of actual cleanup, as well as keeping the Superfund in the black.

Reducing costs at cleanup sites was particularly important where mining waste was the source of contamination. Mining sites tended to cost more than twice as much to clean up as any other type of site. At Milltown, no one knew what the final bill would be in 1988, but since the EPA first named its PRPs, ARCO, in contrast to MPC, had accepted its responsibility. By doing so, the company participated in the EPA’s transition

toward “enforcement lead” cleanups. Ultimately, ARCO bore the lion’s share of the cleanup costs and responsibilities. But for the first few years following the flood of 1986, most of the public attention and inter-organizational tensions involved MPC. Even in the EPA’s 1988 “Initial Site Evaluation,” the agency scarcely mentioned ARCO, whereas it detailed the ongoing permit negotiations between MPC and FERC.³³

By the fall of 1988, the Montana Power Company faced further setbacks in its efforts to relicense its dam and in its public perception. Initially, the dam owners and the CFC made attempts to mend their relationship over the issue of fish. The environmental group helped broker a deal between the company and the state in which MPC would contribute \$50,000 to study the fishery downstream of its dam aimed “to boost the river’s fish population.” In exchange, the coalition and the state agreed to support MPC’s bid to extend the dam’s license to 2015. In January 1989, FERC squashed that deal in its surprise decision to disallow an immediate extension of the dam license. The decision came as a result of the EPA’s continued insistence that the pending FS, which could determine the dam’s fate, took priority over the company’s license. That would not be the end of the relicensing story, but never again would the company apply for a long-term license. Instead, “complete removal of the dam,” the last possible remedial action (cleanup choice) buried in the EPA’s “Initial Site Evaluation’s” would incrementally come to the fore, with the Coalition leading the way.³⁴

³³ Revesz and Steward, eds., *Analyzing Superfund*, 3-6, chapter 6, “Evaluating the Impact of Alternative Superfund Financing Schemes.” EPA, “Initial Site Evaluation,” 1988, in Environmental Protection Agency, Montana Office, *Milltown Administrative State Site Records*, reel 148, Government Documents, Mansfield Library, University of Montana.

³⁴ Dick Manning, “MPC, state make deal,” *Missoulian*, 10/20/1988, 11. Manning, “FERC refuses to extend license for Milltown Dam,” *Missoulian*, 1/10/1989, 1.

At the same time that MPC lost its license bid due to concerns about the long-term future of toxins in the river, local residents began to attack the company's disposal of toxic sediments on land. As part of the Phase II permit agreement, the dam owners agreed to build an "upland disposal" site upriver from the dam and well out of the floodplain. All of the parties involved in the permit negotiations consented to that plan. But, the five families that lived within a few thousand feet of the new disposal area weren't part of the planning party. In a letter to MPC's vice president, those residents expressed their anger at being left out of the process, as well as about specific health hazard concerns the site posed to their families. They complained of being "subjected to large volumes of dust for at least three weeks, twenty four hours a day." That dust, they worried, contained toxic metals from the reservoir. Even after the dust settled, the residents faced the economic loss of living next to a hazardous waste disposal site that was temporary, but had no specified timetable for removal. Their list of financial losses included "property devaluation, loss of development potential and inability to obtain loans due to proximity of the dump." Their initial letter ended by lamenting that the disposal site infringed on the natural beauty that drew them to their current, and now sullied, homes.³⁵

Two months later, when an EPA project manager responded to the homeowners' concerns, he failed to address the point that the Superfund process had left out of its decision making the most locally-situated residents. Rather, he reaffirmed that the site was probably temporary, pending the final Milltown cleanup plan, which he incorrectly

³⁵ Letter from Land Owners (Schmaus, Mee, and Morcross) to MPC, 9/8/1988, in Environmental Protection Agency, Montana Office, *Milltown Administrative State Site Records*, reel 144, Government Documents, Mansfield Library, University of Montana.

assumed “will be made within the next couple of years.” Mostly he tried to assuage worry by summarizing the safety of the temporary site, constructed under EPA “guidance.” Unsatisfied, the residents penned a more thorough letter reiterating their initial concerns, then detailing specific problems with the disposal site that they observed during its construction and filling. These problems included possibly defective or compromised plastic lining in the disposal pit and sloppy handling of hazardous materials. The group closed this time with a battery of questions about responsibility for the site’s construction and monitoring, as well as the demand that the EPA deem it temporary regardless of the long-term solution to the rest of the Milltown reservoir. This second letter forced more than a courteous response.³⁶

Whereas local residents famously had taken two EPA agents hostage during the conflict over hazardous waste at Love Canal, which had resulted in the passage of the original Superfund legislation, it only took two letters from local homeowners to force a thorough EPA response at Milltown. Between the Love Canal story in the late 1970s and one of the largest Superfund projects in the country a decade later, the federal agency had learned to respond much more quickly to homeowners’ questions, demands, and fears. In fact, as Milltown illustrates, Superfund made public participation a fundamental part of federal environmental cleanups. That transformation only really happened with the renewal of Superfund in 1986, not with the 1980 bill. Touting the new law’s major changes in the *New York Times*, U.S. Representative James Florio, who wrote the original Superfund law, put increased public participation at the top of that list. Whereas

³⁶ Letter from Ken Wallace (EPA) to Tina Schmaus and Gaynelle Mee, 11/8/1988; letter from Schmaus and Mee to EPA, 11/18/1988, in Environmental Protection Agency, Montana Office, *Milltown Administrative State Site Records*, reel 144, Government Documents, Mansfield Library, University of Montana.

previously Superfund obligated the EPA to inform citizens of its decisions, the new law, in Florio's words, gave people "the right to be involved in the decisions." That is, Superfund provided the means to institutionalize the most grassroots environmentalism. Specifically, the EPA required FERC to address residents' concerns and, more importantly, forced MPC to review and respond to "the numerous allegations that the Bonner Junction residents" made. MPC's sixteen-page response countered every concern presented by the homeowners with data about the company's construction materials and methods. But that didn't let the company off the hook.³⁷

The issue hit the newspapers when, nearly a year later, MPC applied for yet another short extension of its license to operate the dam. The Bonner Junction residents threatened to derail that process if the company didn't meet some of their demands regarding the upland disposal site. With the backing of the Clark Fork Coalition, the state, the EPA, and, eventually, FERC, residents got MPC to agree to building tree-lined earth berms to shield their homes from the disposal site. The dam owners also had to commit \$50,000 to study the improvement of fish habitat in the river. This episode in the Milltown story illustrated how Superfund cleanup remained about mitigating immediate or temporary hazardous wastes in the course of finding permanent solutions.³⁸

³⁷ Letter from FERC to MPC, 12/7/1988; letter from MPC to FERC, 12/27/1988; letter from Mae to FERC, 3/29/1989, in Environmental Protection Agency, Montana Office, *Milltown Administrative State Site Records*, reel 148, 148, 603, Government Documents, Mansfield Library, University of Montana. James J. Florio, "Public Role in Toxic Cleanup," *New York Times*, 3/15/1987, 707.

³⁸ Dick Manning, "The matter of Milltown Dam," *Missoulian*, 6/1/1989, 1. Manning, "MPC resolves grievances at Bonner," *Missoulian*, 7/11/1989, 1. Letter from FERC to Mee, 6/28/1989, in Environmental Protection Agency, Montana Office, *Milltown Administrative State Site Records*, reel 148, Government Documents, Mansfield Library, University of Montana.

While MPC came under fire for its temporary disposal site, a permanent fix for the Milltown site crept forward. By the summer of 1988, the reservoir's major responsible party, ARCO, had agreed to its PRP status in general and had begun participating in the process of completing a feasibility study. ARCO's consent was the ideal scenario intended by the recently-revamped Superfund legislation. This "enforcement lead" option, in which the responsible party pays for work under EPA direction, saved time and money. ARCO also proved an ideal PRP because the company did not lack the latter. The company's first quarter report for 1989 indicated a net income of \$704 million, which was up more than 75% from the previous year. On top of those gains, ARCO set aside \$345 million, part of which was "for future environmental expenses." As one of America's top ten largest energy companies (mostly oil and gas), ARCO had the deep pockets that the Superfund law aimed to pick in order to pay for historic environmental degradation. That was especially important as Superfund neared its tenth birthday. Some of the strongest criticism about Superfund targeted the program's inability both to oversee timely cleanups and to make polluters pay. As an Associated Press story in 1989 pointed out, a recent Rand Institute study reported that of the 1175 Superfund sites on the NPL, the EPA had declared only 34 fully cleaned in nearly a decade. Furthermore, corporate polluters had "paid less than a tenth of the cost" that Superfund had incurred in that time period. With similar critiques of Superfund failures appearing regularly in the national press, laying responsibility on solvent and culpable companies like ARCO was important; making that responsibility stick even more so.³⁹

³⁹ Letter from Robert Dent (ARCO) to Ken Wallace (EPA), 6/17/1988; ARCO, "1989

Perhaps ironically, ARCO's deep pockets had little to do with their holdings in the Clark Fork River basin. When the company bought the Anaconda Company in 1977 it was part of a plan to diversify and grow. ARCO had recently expanded its oil drilling in Alaska and internationally, as well as increasing its refining and marketing capacity in the US. The company owned 21% of the Alaska Pipeline, which at a final price tag of \$10 billion was the most expensive private construction project in US history when it first transported oil pumped from the continent's largest oil field in Prudhoe Bay, AK, in 1977. Executives hoped that the company could add copper mining to its portfolio with the acquisition of Butte mines and the smelter works located in Anaconda, Montana. Under the leadership of CEO Robert O. Anderson, ARCO grew its oil business, but the Anaconda mining purchase proved a financial burden. By the time the EPA designated Milltown one of its first Superfund sites in 1983, ARCO had abandoned all mining operations in Montana due to slumping copper prices and inexperience in the business. By 1986, new chief executive, Lodwick M. Cook, began to pare the company's less profitable holdings. The strategy of concentrating on high profit operations worked, with the major exception of ARCO's Montana properties. Superfund liability made it virtually impossible for the company to sell its shuttered mining and smelting operations, with the exception of some of Butte's open pit mines. Montana entrepreneur Dennis Washington

First Quarter Report;" in Environmental Protection Agency, Montana Office, *Milltown Administrative State Site Records*, reel 144 and 241, Government Documents, Mansfield Library, University of Montana. Philip Shabecoff, "Toxic Cleanup Plan Moves Slowly Amid Criticism From Two Fronts," *New York Times*, 1/10/1988, 20. William K. Stevens, "Saga of a Waste Cleanup: 12 Years and Counting," *New York Times*, 10/28/1988, A16. AP, "Toxic Site Cleanup Reported Lagging," *New York Times*, 9/10/1989, 32. Thomas S. Clavin, "Toxic-Site Cleanups Inching Along," *New York Times*, 12/16/1990, L118. Barnaby J. Feder, "In the Clutches of the Superfund Mess," *New York Times*, 6/16/1991, F1.

bought a few such pits for \$18 million in 1985. He negotiated the purchase so that ARCO retained liability and within a decade and a half would turn nearly \$1 billion in profit from the deal. Meanwhile, ARCO had to deal with the mess.⁴⁰

In addition to putting responsible parties in charge of Superfund work, SARA encouraged more state participation in the process. In the case of Milltown, the state's Department of Health and Environmental Sciences took the lead in providing both ARCO and MPC with a "Scoping Document," which outlined a work plan for completing the FS. That may have increased the advisory role of the state agency but true enforcement still fell to the EPA. And enforcement was still in order since MPC continued to deny its designation as a PRP. The dam owners consented to attend meetings, but they claimed, only because the Superfund process would likely affect their structure, not because they had any financial obligation. Even when the EPA served MPC an "Administrative Order of Consent" that outlined its responsibility, the company refused to sign it. In turn, the EPA politely informed the recalcitrant company of the exact due date for signing and acknowledging their responsibility, as well as the schedule of work thereafter. In a November, 1989, meeting, the EPA finally threatened MPC, asserting "its preference was for a negotiated consent order," although "if negotiations failed, other options were available to it." Those other options included a penalty of up to \$25,000 per day if the company continued to deny EPA orders, or issuing a "unilateral order" to MPC for up to three times the costs the EPA incurred doing work it deemed the company's

⁴⁰ <http://www.fundinguniverse.com/company-histories/atlantic-richfield-company-company-history.html>. Edwin Dobbs, "Pennies from Hell," *Harper's Magazine*, October, 1996.

responsibility. Either way, the Superfund authority amounted to a big financial stick wrought in the new Superfund law.⁴¹

During this same period, as the EPA encouraged state involvement, the agency decentralized its own authority. The 1986 SARA bill still contained clauses from the original Superfund law that vested authority in the US President. In reality, after the passage of SARA, authority moved in the direction of the EPA regions. On most cleanup decisions, the president deferred to the EPA Administrator, who, in turn, extended similar deference to the Director of each EPA Region. Similarly, more money went to regional offices following the passage of the new bill. Five years after Reagan signed SARA, the EPA was allocating forty-three percent of its budget to regional offices, up from just fifteen percent when the original Superfund law took effect. Through these delegations Superfund oversight became more local. That was especially true for states, like Montana, that had a sub-regional headquarters. For Milltown that meant that the real seat of EPA power was the Region VIII office in Denver and the state office in Helena.⁴²

⁴¹ Letters from DHES to ARCO and MPC, 1/9/1989; DHES, “Milltown Reservoir Sediments CERCLA Site: Work Plan Scoping Document,” 1/9/1989; letter from EPA to ARCO and MPC, 1/13/1989; letter from Howard Van Noy (MPC) to Ken Wallace (EPA), 1/31/1989, letter from Van Hoy (MPC) to Wardell (EPA), 10/10/1989; letter from EPA to MPC, 10/13/1989; EPA, “Summary of First Negotiation Session Milltown Reservoir Sediments Site Order on Consent for Feasibility Study Completion,” 10/31/1989, in Environmental Protection Agency, Montana Office, *Milltown Administrative State Site Records*, reel 144, 148, 144, 144, 241, 241, 241, Government Documents, Mansfield Library, University of Montana.

<http://www.epa.gov/compliance/cleanup/superfund/comply.html>

⁴² EPA, “Administrative Order on Consent, Milltown Reservoir Sediments Site,” 2/14/1990, in Environmental Protection Agency, Montana Office, *Milltown Administrative State Site Records*, reel 241, Government Documents, Mansfield Library, University of Montana. For specifics of decentralization of EPA authority, also see Exec. Order No. 12,580, EPA Delegation No. 14-14-C, and EPA Region 8 Delegation No. 14-14-C. Ross Ettlin, “Facts to Reflect On,” *EPA Journal*, (Sept/Oct. 1990): 29.

Even as the EPA tried to shift the financial burden of a Superfund site to PRPs, the agency had to grapple with its older model of paying for actions out of the public coffers and collecting from corporations later. It wasn't until mid-1989 that the EPA took ARCO to court in an effort to recover some of the \$6.3 million the agency had spent in its emergency responses at Milltown. This was different than suing the company. Rather, Superfund legislation allowed for "Judicial Consent Decrees" wherein a court supervised the reimbursement by PRPs to the EPA for work already done. It was still a consensual contract. And it was a formality, rather than a legal battle with ARCO, since the company continued to agree to all of its responsibilities at Milltown.⁴³

As the EPA shifted from its older pay-first-collect-later model toward its newer mandate to enforce work, the agency also began implementing ways to include more public participation, some of which originated with Milltown. During the summer of 1989, the EPA began holding meetings with a "Citizen's Advisory Group." The point of these meetings was to gather input from the public, as well as keep people informed of what was happening at Milltown. The citizen's groups and the meetings were not original. Superfund included a provision that allowed such groups to apply for grant money to help affected communities organize, distribute, and collect information. Through its meetings, the EPA helped the Milltown group apply for three quarters of a million dollars for those purposes. What was unique and formative about the Milltown group was its request to observe "the upcoming negotiations with PRPs." Although the

⁴³ EPA press release, 6/23/1989; letter from ARCO to Wardell (EPA), 11/29/1989; EPA, "Administrative Order on Consent, Milltown Reservoir Sediments Site," 2/14/1990 in Environmental Protection Agency, Montana Office, *Milltown Administrative State Site Records*, reel 241, 241, 241, Government Documents, Mansfield Library, University of Montana. <http://www.epa.gov/compliance/cleanup/superfund/neg-type.html#aas>

EPA denied local citizens that right, the agency did begin releasing summaries of all its dealings with PRPs to the public, through the advisory group. The decision to do so was, according to the EPA, “innovative” and marked the opening of a process that “used to be secretive.” Similarly, the EPA’s regional project manager endorsed additional, innovative ways that his agency would include the public in the Superfund process. In a letter to the Clark Fork Coalition, Ken Wallace wrote, “EPA is committed to doing its endangerment assessment work in a public forum – something that EPA has not done before.” Allowing the public to observe and comment on the agency’s efforts to identify all the hazards posed by the Milltown Superfund site included designating a special Endangerment Assessment Committee. Wallace committed the EPA to funding the committee and “paid advertisements in the paper” in the hopes of attracting public input. His hope was that “full public involvement will become a routine part of the remainder of site work.” This change marked one more way in which Milltown increased the importance and impact of public participation in national cleanups. Or as Wallace noted, “the manner in which we plan on conducting the endangerment assessment for this site potentially signals a shift in policy toward much greater public participation in Superfund.”⁴⁴

Once again, when it came to public participation, Milltown would reshape the way the process worked. And that reshaping would take far longer than the anticipated two-year time period. In early 1990, the EPA wrote a press release encouraging the public to comment on ARCO’s work plan for a feasibility study. The study was

⁴⁴ EPA minutes, “Citizen’s Advisory Group at Milltown Superfund Site,” 7/24/1989; letter from Ken Wallace (EPA) to Phil Tourangeau (CFC), 9/21/1989, in Environmental Protection Agency, Montana Office, *Milltown Administrative State Site Records*, reel 465, 241, Government Documents, Mansfield Library, University of Montana.

supposed to be a two-year endeavor at the end of which the EPA would again solicit public comment on the cleanup options that were the centerpiece of any FS. The EPA considered the public's thoughts on the list of solutions the most important part of the process.⁴⁵

Anticipating the two-year wait, MPC filed a request with FERC for a six-year license extension. Foregoing a full relicensing, the company demanded no repayment by the EPA if the Superfund solution at Milltown reservoir impacted the dam. In fact, in the permit request, MPC recognized that the reservoir's designation had "elevated Milltown's status from an ordinary dam to an extraordinary dam." The company also used the opportunity to take a subtle jab at the federal law that kept thwarting its efforts, writing that: "From amending its license, to reconstructing the dam, and finally, and perhaps most tellingly, to relicensing, MPC, state and federal agencies and the public have discovered the pervasive influence of CERCLA." Without acknowledging its own responsibility for the site or the FS, MPC argued that even if ARCO and EPA finished the FS within two years (by 1992), the company's license would be on the verge of expiration and it would not have time to renew it. Thus, it was reasonable to give the company a short-term extension, which would run from 1993-1999, by which time the FS should have been completed and a solution at Milltown underway. Of those possible solutions, MPC mentioned the complete removal of its dam. If that were to happen, it claimed, a short-term license made perfect sense.

⁴⁵ EPA press release, 2/8/1990, in Environmental Protection Agency, Montana Office, *Milltown Administrative State Site Records*, reel 241, Government Documents, Mansfield Library, University of Montana.

In some ways, it appeared that MPC was acting with remarkable prescience. No one at the time was advocating or seriously considering dam removal, yet the dam's owners were hedging that bet. This new arrangement met with more approval than almost anything MPC had done since the issue of their dam repairs and licensing arose.⁴⁶

In its approval of the six-year extension, the Clark Fork Coalition summarized the ways in which MPC had met nearly every one of its demands, even if the company hadn't yet consented to being a PRP. MPC had addressed Bonner residents' concerns about its upland disposal site. It had signed a contract with Montana's Department of Fish, Wildlife and Parks to begin studying fish mitigation possibilities at the dam. And the company's application included a clause acknowledging the Superfund cleanup might affect the way it operated the dam, for which MPC would take responsibility. FERC granted the extension by early 1990, citing all of those reasons. The extension put off MPC's need to apply for a new license until 1994 since FERC required a five-year lead time for full license renewals. It appeared that the Superfund timeline and MPC's machinations over its dam had finally aligned. But that alliance wouldn't last long. Delays in completing the feasibility study, followed by an unprecedented treble rewriting of the FS, meant that more than another decade would elapse before the involved parties came to a consensus over a permanent solution to the Milltown site.⁴⁷

⁴⁶ MPC to FERC, "Application of the Montana Power Company for Amendment of License to Extend the Date for Termination of the License," 4/10/89, in Environmental Protection Agency, Montana Office, *Milltown Administrative State Site Records*, reel 148, Government Documents, Mansfield Library, University of Montana.

⁴⁷ Letter from Peter Nielsen (CFC) to FERC, 7/7/1989; FERC, "Order Extending Term of License," 2/28/1990; FERC, "Application of the Montana Power Company for Amendment of License to Extend the Date for Termination of the License," 3/14/1994 in Environmental Protection Agency, Montana Office, *Milltown Administrative State Site*

The longer-than-expected timeline for finding a permanent fix to a major portion of the nation's largest Superfund complex had two significant benefits, both of which came into view during MPC's early relicensing struggles. First, the methodical nature of coordinating multiple government agencies and provisions within Superfund combined to provide the time and mechanisms for ever-greater public participation. As the EPA and ARCO deliberated over the FS and the dam owners crept through the permit process, local residents learned more and more about what was happening in and to their major watershed. Through press releases, newsletters, public meetings, and letter writing (most of which the EPA and Clark Fork Coalition promoted, if not funded) citizens digested the basics of the Superfund process, they kept abreast of early cleanup work, and had (or created) opportunities to voice their opinions. In cases like the wetland, then upland disposal sites that MPC used, what people opined altered what the company did with its toxic wastes.

In addition, the environment benefitted for the ever-lengthening Superfund process. Public inputs also led the way to this second result. While Milltown inched toward a long-term cleanup plan, the Clark Fork River experienced incremental improvements. As awareness of the fouled river grew, the city of Missoula banned harmful detergents and upgraded its sewage treatment plant. MPC's license extensions increasingly included provisions for mitigating effects of the dam's operation on fish and wildlife. The company had to slow and more closely monitor its drawdowns. It funded fish passage studies, as well as wetland development projects to make up for its disposal

Records, reel 150, 465, 684, Government Documents, Mansfield Library, University of Montana.

site gaffes. In these ways, Superfund's mandate to cleanup places laid to waste by major industry bore proverbial fruit, such as a cleaner river, long before even a list of possible remedies emerged. That is, the process of being a Superfund site improved Milltown, even as the final product remained unclear.

What did become clear was that the Milltown Dam was going to be a major part of fixing the toxic reservoir, even if the dam's owners persisted in denying their liability. Indeed, MPC may well have been the first to take seriously the idea of removing the dam, although it would eventually oppose that option just as it objected to its financial responsibility during the early going. Almost as ironically, ARCO, the company that most readily accepted its liability at the outset and embraced the chance to study and write the initial feasibility study, would end up fighting the eventual solution therein. But before all that came to pass, floodwaters would once again alter the process at Milltown by threatening to destroy the dam, which raised public concern and participation. Figuring out a final solution at Milltown took another decade, another flood, and a fish, among other things. All of these, time, water, and wildlife made people look ever harder at the dam.

Seeing the river as resource: Suing for damages

This is our one chance in history to bring this area back from a century of pollution.

Montana Rep. Mike Kadas, D-Missoula on House Bill 305 to continue funding the state's lawsuit against ARCO (1995).

Shortly after the designation of Milltown as a Superfund site in 1983, George Ochenski went snorkeling down a stretch of the upper Clark Fork River. Ochenski's outing was certainly an anomaly among popular, or even conceivable, uses of the river. It was less so in the context of the man's life. As a sponsored mountain climber, Ochenski had participated in the first ascent of the "west face of Alaska's Mount Hayes"; he had taught himself the art of cobbling mountaineering boots in an age of mass production; and he lived in a marginally restored cabin in a rather remote Montana ghost town. Yet Ochenski was no hermit from society. A free-lance journalist and autodidactic environmental scientist, he also worked for the Montana Environmental Information Center during its campaign to help get Milltown on the EPA's National Priority List in the early 1980s. Having published stories about the history of the industrial mining and smelting that had made a wreck of the Clark Fork River and warning people of the perils of ignoring that wreck, when Ochenski donned mask, snorkel, fins, wetsuit, kneepads, and "a fanny pack holding three cans of beer," he knew what he was getting into.

In addition to knowing the river's history, Ochenski had river snorkeling experience. Ochenski had run a number of Rocky Mountain rivers, including a thirty-eight mile pass down the Salmon River in Idaho and a run of the whitewater-filled section of Montana's Madison River "famous for biting kayaks in half." Reflecting on

the pummeling he took during that latter venture, Ochenski admitted he may have made “a miscalculation.” Snorkeling the flat water of the upper Clark Fork held a far different purpose for Ochenski. He hoped to see what lived in the river, rather than simply try to live through the experience himself.

After hearing about the Montana River Snorkelers Association and its membership of one, nature writer David Quammen decided to join Ochenski on one of his obscure outings. The article Quammen wrote for *Outside* magazine was certainly the most attention Ochenski’s solo endeavors had ever gained. The article allowed a fraction more people to gain a fish eye’s view of western Montana’s largest and deadest river. Still, snorkeling the Clark Fork touched few people’s lives. Few people actually saw, as Quammen marveled, how “the rocks of the stream bed were largely cemented together with silt, leaving no habitat.” Few looked in vain for a single fish or aquatic insect. Yet what the pair of snorkelers saw, or failed to see, would eventually help change the course of Superfund action along the Clark Fork.

While Ochenski’s method of seeing the river was rare, many other people began to consider the overall health of the Clark Fork. Superfund required no one to stick his or her face directly into the river, but it did carry the requisite of research. Just as Ochenski turned his masked eyes directly on the ecological well being, or poor being, of the river, others took on the task of looking at that same damaged ecology through other lenses.¹

¹ David Quammen, “Alias, Benowitz Shoe Repair: Heavy metal, high water, and a man in a neoprene suit,” *Outside*, December, 1983; George Ochenski, “Curing the Clark Fork: Poisons from a century of mining have given Montana its own Love Canal,” in U.S. Environmental Protection Agency, Montana Office, *Milltown Administrative State Site Records*, reel 397 Government Documents, Mansfield Library, University of Montana.

By the mid-1990s, a growing body of research explained that periodic floods had washed the toxic sediment from Butte mine tailings and Anaconda smelter works. Whereas the normal flow of the Clark Fork River carried a trickle of the poisons, it was massive spring run-off that was responsible for piling heavy metal-laden silt behind the Milltown Dam and encrusting nearly 120 miles of floodplain. The flood of 1908 that nearly destroyed the dam had done most of that work.

The same EPA-mandated study efforts also began to reveal a much more detailed picture of the damage more than a century of industrial mining had had on the Clark Fork River and the Milltown Reservoir. Under the direction of the EPA and the watch of local river advocates like the Clark Fork Coalition, the Atlantic Richfield Company continued to pay for the bulk of this research. Corporate-funded, contract research proved how corporate pollution had harmed everything from water-borne bugs and earthworms, to native fish and generations of people. And that damage was not an inert, historic fact. River users continued to lament the degraded condition of the watershed. In spite of the human health emphasis within Superfund law, it wasn't until a decade after federal designation under that law that citizens began to wonder publically about how the contamination had actually affected them. And following intense thunderstorms, schools of belly-up fish floated down the Clark Fork and into the public eye and ire.

The attention and information on how toxic waste had imperiled aquatic resources, and continued to do so, amplified the first, largest, and most contested lawsuit of the Superfund process at Milltown. The same year Ochenski snorkeled the nearly barren Clark Fork River, the state government utilized a Superfund provision to sue ARCO for damages that western Montana's legacy of industrialization had inflicted on

the environment. Trying to recoup the loss of natural resources plunged state agencies and the major responsible party in the Clark Fork Superfund history into a long and contentious legal battle, the settlement of which would set the parameters and provide the funding for the transition from containing toxic waste to restoring the environment. But it was the attention on overall Clark Fork River ecology that spiked following the death of a few thousand fish in 1989 that transformed the state's suit from a rather small endeavor to a major, restorative component of the river's Superfund history. Actual restoration work was a long way off, but its origins lay in allowances in Superfund law and the ability of the state to capitalize on those allowances.

Detailed study of river health on the Clark Fork came out of a larger transition within the EPA to streamline the federal government's efforts to address perennially strong public concern for the environment. As criticism mounted about the wastefulness of the nation's signature toxic waste cleanup program, the EPA tried to rationalize Superfund law, emphasizing better scientific research, clearer cleanup standards, and a keener eye for cost-benefit analysis. The case of Milltown illustrated the implementation of all three of these new, national priorities for Superfund.

Just as the Montana Power Company shored up its relicensing ordeal with a six-year extension, the Atlantic Richfield Company took center stage in the Milltown and Clark Fork Superfund process. The company did so in the dual roles of protagonist and antagonist, continuing to craft the Superfund-mandated feasibility study, which would ultimately spell out permanent solution options at Milltown, while simultaneously combating the state's efforts to recover damages for the historic destruction of its natural

resources. On the one hand, ARCO was fulfilling the role of cooperative corporate partner that was the ideal of Superfund. On the other hand, the company embroiled the state of Montana in the kind of litigation that Superfund critics claimed was the legislation's weak point.

In the public eye, the company's villainous side emerged in the summer of 1989 with the headlines, "Government sues ARCO." The *Missoulian's* report actually dealt with the EPA's efforts to get the company to reimburse Superfund for some of the emergency work already accomplished along the upper Clark Fork, especially the new Milltown water supply, completed in 1985. That suit was a formality, ARCO having already recognized its liability for those duties. While it was "the first attempt to recover Superfund costs in Montana," the two sides were really only negotiating over whether or not the EPA had provided "adequate documentation of agency costs." The federal government's \$5.7 million claim on the company was for remediation, which Superfund defined as a host of possible actions "to prevent or minimize the release of hazardous substances so that they do not migrate to cause substantial danger to present or future public health or welfare or the environment." Essentially, this meant containing wastes, or curing the symptoms therefrom. That was the essence of Superfund as it was first written. Quick, emergency actions, such as replacing the drinking water supply at Milltown, were also "the unsung success story of the Superfund program," according to a thorough analysis of the program by the Brookings Institution. Dwarfing the initial

federal claim, what the state asked for pointed toward a new and different goal of Superfund.²

The federal suit pressed ARCO for money it had already spent; now the state wanted money for future expenditures. Specifically, the state Department of Health and Environmental Sciences (DHES) had filed a claim against ARCO back in 1983, “seeking \$50 million in compensation for damage to natural resources.” That was the maximum amount the original Superfund law allowed states to claim against a PRP in lieu of damaged environments. The new Superfund law passed in 1986 removed that cap and liberalized federal, state, and local government’s or individual’s abilities to pursue such claims, as well as emphasized that the money was for restoration. The DHES’s remunerative demands would soon increase; ARCO would fight the case for years; and, the issue would come to encompass far more than the dead fish that touched it off.³

Industrial runoff had killed fish in the Clark Fork for a century by the time the state sued ARCO. But it was only since designation of the river as a Superfund site that the exact causes and blame for the deaths became well known. In their suit the state claimed that since at least the 1860s, ARCO’s “predecessors-in-interest” had injured natural resources, including “fish, wildlife, surface water, groundwater, soil, and vegetation.”⁴

² Bill Wilke, “Government sues ARCO, wrecking firm,” *Missoulian*, 6/27/1989, B1. CERCLA, Section 9601, “Definitions,” [http://frwebgate.access.gpo.gov/cgi-bin/usc.cgi?ACTION=RETRIEVE&FILE=\\$\\$xa\\$\\$busc42.pt2.wais&start=15609073&SIZ=76006&TYPE=TEXT](http://frwebgate.access.gpo.gov/cgi-bin/usc.cgi?ACTION=RETRIEVE&FILE=$$xa$$busc42.pt2.wais&start=15609073&SIZ=76006&TYPE=TEXT). Probst, Fullerton, Litan, and Portney, *Footing the Bill for Superfund Cleanups*.

³ *Missoulian Editorial*, “Arco offer is only a start,” *Missoulian*, 8/18/1989, A6.

⁴ “1999 Consent Decree in Montana vs. ARCO,” see: <http://www.doj.mt.gov/lands/lawsuithistory.asp>

Once again, what was actually happening in the environment sparked a change. Fish-killing events amplified general concern about the loss of the state's natural resources. "It was Armageddon revisited," dramatized the *Missoulian* in July, 1989, in reference to a thunderstorm that washed enough old toxins off the riverbanks and into the Clark Fork to kill "thousands of fish" along at least 18 miles of the waterway. As state FWP biologists tried to assess the exact damages, the Clark Fork Coalition's Peter Nielsen recalled that at least seven documented disasters of identical nature had occurred since 1981, when Milltown had first come to the EPA's attention.

Ire turned on ARCO. As the local newspaper reported, "area sportsmen said they were angry that all the federal and state studies have yet to result in any action to protect the fishery." The truth was that ARCO had been working to build a "temporary diversion dam" meant to channel rain water rushing over especially contaminated sections of the upper river into settling ponds. The dam and the ponds were meant as a "Band-Aid" to prevent or lessen acute poisoning of the fishery until more thorough and permanent remediation work commenced, but spring high water had prevented progress on their building.⁵

Following the fish kill of 1989, letters from University of Montana scientists, the CFC, and riverside residents addressed to both the EPA and the DHES lamented the recurring problem and pressed the agencies for a more permanent solution. These letters also emphasized how major fish kills were poignant symptoms of a much bigger

⁵ John Stromnes, "Clark Fork fish kill: Old toxins wipe out trout along 18 miles of river;" "Arco says high water delayed dam project," *Missoulian*, 7/14/1989, A1; 7/15/1989, B1. Also see: Steve Woodruff, "Clark Fork killer: Biologist says he's cracked the case of the dying fish," *Missoulian*, 7/28/1987, 1; and Sherry Devlin, "Legacy of Pollution: State report documents Clark Fork River fish kill," *Missoulian*, 6/8/1993, A1.

problem: a lethally degraded watershed. As CFC director Peter Nielsen put it, aside from periodic, acute killings, the river suffered from “this low-level leaching long-term into the water system,” which left the fishery with a fraction of the fish it could support. None of this was a revelation. But it did lend support to the state’s actions against ARCO.⁶

The company’s response to the 1989 fish kill was as much an attempt to ameliorate the \$50 million state claim as it was about making amends for the recent events. In addition to fortifying the temporary dam and building similar berms around other toxic-laden stretches of the upper river, ARCO offered to contribute \$1 million to state coffers “for use in mitigating environmental problems affecting the Clark Fork River.” Attached to the funds was a request that the money would be in lieu of further state action on the matter of the recent fish kill. But the state was more interested in pursuing a more thorough and expensive claim, of which fish kill incidents were evidence of a much bigger issue.

Under the Superfund provision that empowered governments to sue PRPs for losses of natural resources, Montana hoped to restore the upper Clark Fork to its “pre-European condition.” The laws section on “natural resources liability” specifically allowed claimants to pursue money “to restore, replace, or acquire the equivalent of such natural resources” as had been damaged or destroyed. The law offered no definition of what restoration meant. The Clark Fork Coalition supported the state’s suit but warned

⁶ Letter from Johnnie Moore (UM) to Donald Pizzini (DHES), 11/8/1989; letters from Pizzini to Vicki Watson (UM) and Peter Nielsen (CFC), 11/9/1989; letter from Pizzini to Moore, 11/20/1989; letter from Nielsen to John Wardell (EPA), 5/8/1990; letter from Cindy Nelson (Deer Lodge Valley Conservation District) to DHES, 5/14/1990, in U.S. Environmental Protection Agency, Montana Office, *Milltown Administrative State Site Records*, reels 565, 602, 602, 565, 565 Government Documents, Mansfield Library, University of Montana. Also, Butte (AP), “‘Chronic’ fish mortality affects Clark Fork,” *Missoulian*, 10/15/1989, B5.

that the agencies involved were underfunded and generally unprepared to pursue their claim adequately, much less envision a river in “pre-European condition.” Aware of the magnitude of taking on ARCO, by the fall of 1990 the governor’s office was hiring a natural resources damage coordinator and appointing a special task force, the Natural Resource Damage Litigation Program (NRDLP), to oversee the suit. The CFC remained leery about whether those additions were enough to take on the job of determining the health of the watershed before mining or Europeans arrived, what a century of damages amounted to, and what it would take to undo those damages. About the state’s hopes of moving past remediation, CFC scientist Phil Tourangeau speculated that “(i)n the best of all worlds the Clark Fork would return to its pre-mining state. Realistically, I don’t know if that will ever happen.” That work certainly wasn’t going to happen with \$50 million, even if the state managed to win that amount. But that proved to be a long battle, which didn’t enter the courtroom until 1997.⁷

As the state slowly moved forward with its suit, the federal government proceeded at a similar pace with its oversight of remediating the Clark Fork. Specifically, the EPA and ARCO continued to work toward producing a feasibility study, on which the fate of the Milltown Reservoir hinged. One of the main reasons it took so long to produce this important document that listed possible solutions for a Superfund site was the ongoing concern about public participation.

⁷ Missoulian Editorial, “Arco offer is only a start,” *Missoulian*, 8/18/1989, A6. Sherry Devlin, “State isn’t ready for ARCO, Clark Fork Coalition says,” *Missoulian*, 9/14/1990, A1. CERCLA, Section 9607(f)(1), [http://frwebgate.access.gpo.gov/cgi-bin/usc.cgi?ACTION=RETRIEVE&FILE=\\$\\$xa\\$\\$busc42.pt2.wais&start=15821974&SIZ=71372&TYPE=TEXT](http://frwebgate.access.gpo.gov/cgi-bin/usc.cgi?ACTION=RETRIEVE&FILE=$$xa$$busc42.pt2.wais&start=15821974&SIZ=71372&TYPE=TEXT)

More than any other group or individual, the Clark Fork Coalition pushed the issue of how, when and to what degree, the public participated in the process. In addition to keeping an eye on the recent fish kill and counseling the state on its lawsuit, CFC director Peter Nielsen repeatedly requested that the EPA include more local input, or at least define the parameters of that input. As the summer of 1989 got under way, Region 8 EPA director John Wardell wrote to Nielsen assuring him that the coalition's and other local views of the FS work plan "are being factored in to the final draft." Wardell also offered that public input would precede "negotiations with PRPs." In other words, the EPA planned to consider people's thoughts before those of ARCO. Even though federal and court regulations disallowed the public or the CFC to be part of negotiations with PRPs, Wardell wrote that "CERCLA regulations and common sense demand that we do more, by providing information to the public, and by providing for meaningful public input throughout the process." In more congenial language, the regional director also assured Nielsen that, "(i)f you have specific suggestions on how to improve this situation, I would like to discuss them with you." Recognizing the importance of the coalition as a window into public sentiment and a medium of good public relations, Wardell wrote that "(a)ny help in this effort by your organization would be appreciated." CFC's help, along with public input, left its imprint on both the process and the final product.⁸

The EPA made efforts to explain the role of public participation to the local public. In May, 1990, regional administrators held a "Citizens' Superfund Workshop" in Missoula. Along with explaining the entire Superfund process from first identifying

⁸ Letter from Wardell to Nielsen, 6/27/1989, in U.S. Environmental Protection Agency, Montana Office, *Milltown Administrative State Site Records*, reel 241 Government Documents, Mansfield Library, University of Montana.

toxic waste sites through supervising remediation, the workshop included a detailed discussion of “citizen involvement.” In particular, participants learned all the ways in which EPA both dispenses information to the public and asks for input. The emphasis was on how the process operates as a two-way street.⁹

Superfund mandated many of the ways in which the EPA engaged the public, but the reality of public input was not wholly governed by codification. One Region 8 administrator described the way written law becomes lived reality as, “(h)ere in the Regions is where the rubber hits the road.” She went on to explain that it’s in local and regional EPA offices, at public meetings, on job sites, in local libraries or other public venues where citizens approach federal officials wanting to know whether or not a site is going to give everyone cancer or produce babies full of birth defects. In other words, outside the law and outside the formal workshops explaining it, most people understand Superfund through the lens of very personal concerns. Superfund provides a venue in which, and personnel at whom, people can direct those concerns.

The EPA realized from early on in Superfund implementation that harnessing, even institutionalizing, public input was essential. In addition to publishing frequent articles about the topic, the *EPA Journal* devoted an entire issue in 1985 to “EPA and the Community.” In his introduction, EPA director Lee M. Thomas claimed “(i)t is possible that we attract more intense interest – in the form of letters, phone calls, and attendance at local hearings – than any other agency of the federal government.” Hence, the agency needed to manage that interest. While acknowledging that most interest in Superfund is

⁹ U.S.EPA, Region VIII, “Citizens’ Superfund Workshop,” 5/5/1990, in U.S. Environmental Protection Agency, Montana Office, *Milltown Administrative State Site Records*, reel 241 Government Documents, Mansfield Library, University of Montana.

very local and “grassroots” – not entwined with national environmental groups, Superfund community relations experts wrote that “ a high level of community involvement in a hazardous waste problem and the development of opposition to government plans are usually linked to the way citizens believe they have been treated by the government.” So part of EPA’s goal is public relations, providing clear, accurate, and timely information to citizens. But “the program aims at two-way communication,” according to the experts. In fact, the EPA ideal for Superfund is a conflict-free process in which, “highly noticeable modifications are unlikely because planning can be continuously responsive to community needs.” Citing numerous examples, EPA experts emphasized the point that citizen input changes Superfund actions, especially during the writing and debate over the feasibility study.¹⁰

People around Milltown directly benefited from the EPA effort to increase public involvement. In fact, Superfund encouraged new forms of environmental activism. The Superfund legislation passed in 1986 funded communities to form technical advisory committees. These TACs could receive up to \$50,000 per year. As an EPA news release about the formation and funding of the Milltown TAC explained, the money allowed citizen representatives to “hire an independent technical advisor to help them understand and comment on technical factors in cleanup decisions affecting the Milltown and Missoula communities.” These grants were another way that Superfund institutionalized grassroots environmentalism. The Milltown grant disallowed recipients from using its

¹⁰ David Wann (EPA, Region VIII), “On the Firing Line: The Challenge of Environmental Risk in Region 8,” *EPA Journal*, (November, 1987): 30. Lee M. Thomas, “The Challenge of Community Involvement;” Daphne Gemmill and Edwin Berk, “Community Involvement in Superfund: The Results,” *EPA Journal*, (December, 1985): 2 and 7-9.

allotted funds for organizing citizens. Rather, it was explicitly for informing the committee and encouraging their participation in EPA-designated forums. The groups would join a host of other “civic and conservation groups” under the umbrella of the Milltown EPA Superfund Site committee (MESS). MESS, started as a citizens committee by the CFC in 1986, illustrated the diversity present even in local, grassroots organizations. It also provided an example of how local environmentalism was not a reaction to or against national environmental politics in the 1980s, but, at times, a codified and supported part of them. Superfund encouraged new environmentalists.

MESS chairperson Tina Reinicke-Schmaus knew nothing about the EPA, Superfund or any of the agencies involved at Milltown until she began wondering about the backhoes and trucks rumbling through in her neighborhood on the southeast side of the reservoir. Upon learning that the machines were creating the disputed “upland disposal site,” she got involved. Writing in the group’s newsletter, she attested that, “members...came from diverse backgrounds: housewives, homeowners, the state fish and wildlife department, Missoula City/County Health Department...Trout Unlimited, MontPIRG, the Clark Fork Coalition and the Milltown Water Users.” In addition to social diversity, the group dealt with many issues stemming from Milltown, rather than the single-issue focus attributed to most grassroots efforts. Their focus was the watershed – a place or ecosystem – not a single issue. Early on, MESS was charged with working alongside the EPA, the state, and PRPs on various environmental risk assessments of the watershed.¹¹

¹¹ U.S. EPA news release, 4/5/1991; Tina Reinicke-Schmaus, “A Crash Course in Superfund,” in *MTAC News*, February, 1993, in U.S. Environmental Protection Agency, Montana Office, *Milltown Administrative State Site Records*, reel 397, 601 Government

Risk assessments were a step toward a completed feasibility study. Meetings and comment periods ran through most of 1991 in preparation for a FS due in 1992-1993. Many of the comments addressed the various risk assessment reports that the FS required. During a spring, 1991, comment period, the Missoula Water Quality Advisory Group, which consisted of “hydrologists, soil scientists, water chemists, engineers and others involved in water quality related professions,” addressed each of the initial eleven recommended remedies for Milltown. In general the groups thought that “clean-up at Milltown without elimination of the upstream source would be foolish.” These professionals recognized the interconnectedness of the river’s ecology and, hence, the need to let the flow of the river (and the toxins it transported) dictate cleanup order. The Missoula City-County Health Department offered a similar critique. The department took the long view of ecology, criticizing cleanup options that were temporary or would allow similar pollution problems in the future, giving some of the first serious consideration to dam removal, and ending by declaring, “resource protection and the logistics of a perpetual clean up plan should dictate the solution. Not decades, but centuries of habitation are envisioned for the Clark Fork River Basin. Ecological destruction in the last century is a click on the clock compared to future use of the valley.” The Montana Chapter of the American Fisheries Society touted its membership of “over 100 professional biologists” before commenting that, among other things, the

Documents, Mansfield Library, University of Montana. Also see: CERCLA, Sec. 9617, [http://frwebgate.access.gpo.gov/cgi-bin/usc.cgi?ACTION=RETRIEVE&FILE=\\$\\$xa\\$\\$busc42.pt2.wais&start=16031330&SIZE=4725&TYPE=TEXT](http://frwebgate.access.gpo.gov/cgi-bin/usc.cgi?ACTION=RETRIEVE&FILE=$$xa$$busc42.pt2.wais&start=16031330&SIZE=4725&TYPE=TEXT)

initial reports about remedial alternatives at Milltown ignored “impacts on the aquatic ecosystem.” Impacts to the whole river thus rose to the fore.¹²

These concerns about overall environmental health wove together Superfund’s mandate to remove toxins and the emerging emphasis on fixing a broken ecosystem. It also fit into what a *New York Times* article, following the passage of SARA in 1986, deemed a movement toward thinking about the quality of Superfund cleanups. The revamped Superfund law included a provision that required the EPA to meet the most stringent environmental quality standards for each project, whether they were federal, state or local. As a 1990 retrospective published in *EPA Journal* summarized the law “Congress directed EPA to focus on permanent remedies for Superfund sites rather than simply containing untreated wastes on site.” Hence, cost effectiveness and protecting public health no longer drove cleanup standards; environmental quality supposedly did.

By the mid-1990s Congress was again tinkering with Superfund. In particular, Carol Browner, the EPA director under President Bill Clinton, favored a move toward what she called, “different levels of clean.” What she referred to was an effort to make Superfund waste cleanup standards match with the projected future use of a site. Current or proposed residential areas would necessitate much cleaner solutions than prospective industrial sites, for example. Stringency at all sites was giving way to site specific solutions. At Milltown and along the whole of the Clark Fork the emphasis remained on

¹² U.S.EPA, Region VIII, “Administrative Order on Consent: Milltown Reservoir Sediments Site;” letter from Barry Dutton (MWQAG) to DalSoglio (EPA), 3/28/1991; letter from Missoula City-County Health Dept. to DalSoglio, 3/30/1991; letter from Joe DosSantos (MCAFS) to DalSoglio, 3/29/1990, in U.S. Environmental Protection Agency, Montana Office, *Milltown Administrative State Site Records*, reels 399, 397, 397 Government Documents, Mansfield Library, University of Montana.

turning the destructive legacy of industry into a thriving watershed measured by baseline environmental health.¹³

Having seen the damaged river up close through his plastic mask, George Ochenski summed up the emphasis on natural resource problems best. His “two cents worth” noted how providing new drinking water in Milltown “was merely addressing the symptoms rather than the cause of the metals pollution.” Similarly, Ochenski deemed the proposed remedies for Milltown to be symptom relief rather than causal cure. Rather than just removing or containing the worst sediments, he proposed “actions necessary to return this river to a healthy and productive waterway.” In fact, Ochenski’s list of incremental steps for fixing the Milltown problem was eerily prescient. From attending to upriver cleanup first, to a slow lowering of the reservoir, through sediment removal followed by dam removal, and concluding with restoring the area to a “river-side ‘confluence’ park” run by the state, Ochenski laid out the basics of Milltown’s future. He even made one of the key arguments that later came to be an incontestable part of the plan: “the power generating capacity of the Milltown Dam is strictly ancillary to the main issue of a permanent clean-up.” For him, solving the problem included bringing the river back to its natural flow regime by restoring a free flowing confluence of the Clark Fork and its major tributary. Ochenski even saw that arguments for dam removal and ecological restoration had to hinge on more than just a healthy environment. In

¹³ Bob Narus, “Waste Sites: How Clean Will They Be?,” *New York Times*, 10/26/1986, 696. James J. Florio, “Public Role in Toxic Cleanup,” *New York Times*, 3/15/1987, 707. Editorial, “Not So Super Superfund,” *New York Times*, 2/7/1994, A16. Also see: CERCLA, Section 9621, “Cleanup Standards,” [http://frwebgate.access.gpo.gov/cgi-bin/usc.cgi?ACTION=RETRIEVE&FILE=\\$\\$xa\\$\\$busc42.pt2.wais&start=16104176&SIZE=26942&TYPE=TEXT](http://frwebgate.access.gpo.gov/cgi-bin/usc.cgi?ACTION=RETRIEVE&FILE=$$xa$$busc42.pt2.wais&start=16104176&SIZE=26942&TYPE=TEXT). “Progress and Challenges: Looking at EPA Today,” *EPA Journal*, (Sept/Oct. 1990): 24.

conclusion he wrote, “these solutions provide jobs for working Montanans restoring their environment...Many bright, young Montanans will dedicate their careers to restoring Montana’s largest volume river to a clean and healthy state.” Ochenski had company in thinking about the economics of Superfund.¹⁴

At the national level, economic criticism of Superfund mounted as the legislation faced another round of renewal. In his first State of the Union address, President Bill Clinton echoed calls for the EPA to rationalize its programs, particularly Superfund. By this the president and an increasing number of experts and politicians meant using scientific risk assessments to determine when and where to spend money on the environment, to create clearer national standards for cleanup work, and to heed cost-benefit analyses more closely. These goals and Clinton’s appointment of Carol M. Browner as the new EPA Administrator signaled a turning point.¹⁵

During the George H.W. Bush administration, Congress had renewed Superfund in 1990 with virtual no changes. That did not mean that legislators, or the public, saw the law as flawless. In a 1991 letter to the *New York Times*, the EPA’s top administrator of emergency and remedial responses felt compelled to dispel common criticism about his agency’s most well-known program. Henry Longest rebutted claims that Superfund was failing to attend to the nation’s toxic wastes. Though critics routinely pointed to the slow increase in NPL sites, Longest pointed out that while the EPA had only 1200 officially designated sites, the agency had screened 33,000 of which, “21,000 have been

¹⁴ Letter from George Ochenski to DalSoglio, 3/31/1991, in U.S. Environmental Protection Agency, Montana Office, *Milltown Administrative State Site Records*, reel 397 Government Documents, Mansfield Library, University of Montana.

¹⁵ Probst, Fullerton, Litan, and Portney, *Footing the Bill for Superfund Cleanups*.

determined *not* to require long-term remediation.” That is, Superfund was quite busy in its efforts to assess the country’s pollution problem. And to the charges that Superfund was financially bloated and misspent government dollars, he reminded readers that the Superfund survived on taxes collected from industrial corporations, not the public dime. Similarly, the EPA consistently fought off charges that the bulk of Superfund spending went, not to actual cleanup, but to “transaction costs,” which meant lawyer’s fees. Though experts on Superfund found most of its criticisms overstated, the agency was not beyond reproach.¹⁶

Carol Browner took her new job fully aware of the calls for change that the EPA faced. She knew that reforming Superfund had to be part of that change, since the program accounted for one-fourth of the agency’s yearly \$7 billion budget. To the task of reform she brought a new type of leadership that featured a personal love of the environment. She grew up exploring the Florida Everglades. After earning English and law degrees, she helped engineer the nation’s largest ecological restoration project in that stomping ground of her youth. Upon accepting the EPA’s top position she described her motivations as wanting her “son to be able to grow up and enjoy the natural wonders of the United States in the same way that I have.” Browner combined her passion for the environment with her proven business savvy. Or as a *New York Times* story announcing her appointment put it, “Ms. Browner is prominent among a new type of environmentalist who views economic development and environmental protection as compatible goals.” In the same article, Browner addressed her priorities of upholding the public desire to

¹⁶ Henry L. Longest, “Superfund Wasn’t Meant to Be a Cure-All,” *New York Times*, 8/18/1991, F11. Keith Schneiders, “E.P.A. Urged to Ease Rules On Cleanup of Toxic Waste,” *New York Times*, 2/25/1992, A12.

improve the environment and get business on board, saying, “I’ve found business leaders don’t oppose strong environmental programs. What drives them crazy is a lack of certainty. We can change that.”¹⁷

The changes in store for the EPA and Superfund may have come out of personal environmental passions, such as Browner’s, or the kind the public expressed in response to national catastrophes, but those changes meant to favor science over fervor.

Discussing the EPA’s history of addressing environmental issues, a 1993 *Times* article reported that “(e)xperts say that in the last 15 years environmental policy has too often evolved largely in reaction to popular panics, not in response to sound scientific analyses of which environmental hazards present the greatest risks.” William K. Reilly, one of Browner’s predecessors at the EPA, called the problem, “agenda-setting by episodic panic.” Reilly pointed to how the creation of and changes to national environmental policy had hinged on public outcry over “Love Canal, Valley of the Drums, (and) the Exxon Valdez.” Browner agreed with Reilly’s (and most experts’) notion that environmental policy ought to come from and focus on persistent problems and sound science. The *Times* dubbed the use of risk assessment and prioritizing through rational, science-based decisions and cost-benefit analysis “the vanguard of a new, third wave of environmentalism that is sweeping across America.”¹⁸

It may have been an exaggeration to say that a new environmentalism was “sweeping” the country, but changes were in the making. Between 1993 and 1995, four of the nation’s most important federal environmental policies were up for renewal,

¹⁷ Keith Schneiders, “New Breed of Ecologist to Lead E.P.A.,” *New York Times*, 12/17/1992, B20.

¹⁸ Keith Schneiders, “New View Calls Environmental Policy Misguided,” *New York Times*, 3/21/1993, 1.

including Superfund. The focus of the new Democratic policy makers was on making those laws more methodical and less reactionary. As the 1995 Superfund rewrite approached, those arguments peaked. Browner led the EPA in recommending that Congress amend Superfund to fit with the agency's new approach of favoring risk assessments, that is, letting scientific studies of exactly how dangerous an environmental problem is dictate the range of possible solutions. The EPA also was pressing for clearer national standards for environmental cleanup, but those standards would be based on a site's potential future use, rather than being rigid. Congress was looking to relax regulations on polluters in general and trim the EPA budget, including Superfund. Under White House pressure, Congressional Republicans dropped their efforts to remake Superfund into a basic waste containment program or what one DC environmental leader called "Superfence." A commentary in the *EPA Journal* explained the Clinton administration's clear victory over a heavily Republican congress elected in 1994 as a result of the fact that the environment continued to garner overwhelming public support even among voters who opposed Clinton because of their perception of his liberalism and failure on issues such as crime and the economy. Exit polls showed that the same people who voted Democrats out of national and state legislatures in 1994 still supported tougher environmental laws, not weaker ones. And they, like Browner, thought that the environment and the economy were not a zero sum game.¹⁹

¹⁹ John H. Cushman Jr., "Overhaul of Toxic-Waste Cleanup Program Passes First Test," *New York Times*, 5/12/1994, B12. Cushman, "Demoralized E.P.A. Works to Set Goals," *New York Times*, 9/24/1995, 26. Cushman, "Republicans Back Off Plan To Ease Polluters' Liability," *New York Times*, 9/29/1995, A28. Bill Line, "What Voters Say About the Environment Today: Poll shows widespread support for green causes," *EPA Journal*, (Winter, 1995).

In spite of all the criticism, studies were beginning to show that Superfund was leading to swifter, more cost efficient clean ups. In 1987, after the passage of SARA, which pushed responsible parties to take the lead in cleanup activities, especially risk assessment studies, those parties lead only 39% of remediation projects. By 1993 that had risen to 79% because of EPA's implementation of SARA. ARCO's willingness to accept the responsibility of researching and writing the Milltown FS was a case in point. The same studies that tracked the rise in the percentage of companies leading Superfund projects also indicated that that strategy made remediation cheaper and more rational. That is, corporate cleanup with federal oversight seemed to be working. In the fall of 1995, moderate Republicans broke with their more conservative party members and joined Democrats in pushing a Superfund renewal bill that left corporate liability intact and strengthened the law's emphasis on corporate-led, scientifically-driven waste cleanups. Of course that didn't mean that there weren't other, less EPA-friendly efforts in Congress. House Speaker Newt Gingrich pushed a plan to give liable companies government-funded rebates for their cleanup costs. That was just one example of how the Republican party was embracing ever more conservative and ever more hostile environmental regulations.²⁰

By early 1996, neither party was exactly having its way with the Superfund renewal issue. Squabbling over the federal budget had shut down debate on nearly every other issue in Congress. Superfund, much as in the lead up to the 1986 SARA renewal, was on the verge of a temporary shutdown. A deputy director of the EPA informed the

²⁰ Probst, Fullerton, Litan, and Portney, *Footing the Bill for Superfund Cleanups*, 17. John H. Cushman Jr., "Moderates Soften G.O.P. Agenda on Environment," *New York Times*, 10/24/1995, A1. John J. Florio, "Gingrich Revolution Gives Polluters a Rebate on Cleanup Costs," *New York Times*, 1/4/1996, A20.

Times that “unless there is a continuing resolution, we’re going to have to shut down operations.” In late January, 1996, Carol Browner testified in Congress about how the budget impasse was damaging her agency’s most vital programs, including Superfund. She also admonished the legislative body over deeper proposed budget cuts that would redouble that damage. She singled out the threat to drinking water that slashing the EPA and Superfund budget would pose. While not claiming a premature victory, Browner and DC environmentalists sensed that the GOP was backing away from its fiscal hacking of federal environmental programs. Some even saw those programs as approaching the status of issues such as Social Security, which were practically immune to Congressional cutting because “they carry such voltage with voters,” according to the *Times*. The issue sparked President Clinton to enter the debate. By early spring, he toured a few Superfund sites that Congress’s budget struggle had halted. Vowing to veto any legislation that cut the EPA program that carried great name recognition with voters, Clinton blasted conservative Republicans for trying to “let the polluters off the hook and make the taxpayers pay.”²¹

In April, Congress restored the EPA’s coffers nearly to their previous level of just under \$7 billion. Superfund resumed fiscally intact. But it was a temporary resumption. Congress still had to pass another five-year extension of the bill, about which Gingrich rebuffed Clinton with the threat that “I don’t know if we can frankly get to a mutually negotiated cleanup of the cleanup system.” In spite of that language, the House

²¹ John H. Cushman, “Program to Clean Toxic Waste is Left in Turmoil,” *New York Times*, 1/15/1996, A1. Andy Newman, “Cleanup of Toxic Waste Sites Falls Victim to the Federal Budget Tangle,” *New York Times*, 1/21/1996, NJ8. Cushman, “G.O.P. Backing Off From Tough Stand Over Environment,” *New York Times*, 1/26/1996, A1. Alison Mitchell, “Clinton Asks Tax Breaks For Toxic-Waste Cleanup,” *New York Times*, 3/12/1996, A17.

Speaker's vision of a "new environmentalism" sounded very similar to the changes the EPA was already pushing. Gingrich's idea of a renewed Superfund included "valid science, incentives for compliance rather than punishment for noncompliance, rapid adoption of new technologies, and a search for innovative solutions from communities." With the exception of replacing the compliance stick with a carrot, he sounded much like Browner, and a lot like what was already happening on the ground at Superfund sites.²²

Just as the spring of 1996 appeared to be another watershed moment for Superfund, it was, perhaps, the most important turning point in the law's implementation at the Milltown Dam. By the time Congress restored the EPA and Superfund budgets, the Clark Fork River once again reshaped the view of Milltown. Before that reshaping happened people were already questioning the path that the EPA and ARCO were setting for the site.

In the early 1990s, river advocate groups such as the Clark Fork Coalition and the locally-organized Milltown EPA Superfund Site Committee (MESS) both hinted at the idea that the dam did not belong in a long-term solution. Specifically, both groups challenged the idea of containment – keeping sediments in place – because it was not a long-term solution centered around restoring a healthy ecosystem. As MESS scientist Phil Tourganeau put it, "the emphasis on the pursuit should be the permanent (in geologic time) cleanup of contaminated sediment and groundwater to the degree that public and environmental health is unequivocally protected." Throughout these comments groups

²² John H. Cushman, "Gingrich, Like the President, Calls for a 'New Environmentalism'," *New York Time*, 4/25/1996, A19. Jerry Gray, "Both Congress and Clinton Find Cause for Cheer in the Final Budget Deal," *New York Times*, 4/26/1996, A22.

aligned themselves with local citizens. As one individual wrote, “keep in mind that the public has the greatest stake in this cleanup. We live here!” When the dam owners weighed in they also tried to align themselves with locals. MPC supported dam engineering remedies and institutional controls for the Milltown problem, claiming that the dam was “operated and maintained for the customer’s benefit.” The company went on to identify its ownership of the dam with ecological resources such as “waterfowl and deer hunting,” for which MPC historically opened its private land. Furthermore, by supporting the extension of a trail network on MPC land around the reservoir, the company implied its concern for encouraging a healthy environment. Its hopes for keeping the dam intact and improving it hinged on the language of an improved environment, just like proponents of more aggressive cleanup measures.²³

Another indication of the extent to which the EPA favored public comment was ARCO’s reaction. In response to the spring 1991 comment period, a company letter to the EPA warned “solicitation of a broad range of comments...appears inconsistent with...discussions between EPA and ARCO.” The company thought that the EPA should have restricted public comments to ARCO-reviewed and -approved topics in the ongoing feasibility study process. In particular, it angered the company that the EPA entertained public comments on different proposed technological fixes for Milltown, rather than just allowing citizens to register their opinion as to whether that list of proposals was complete. ARCO also questioned the federal agency’s decision to make

²³ Letter from Phil Tourganeau to DalSoglio, 4/1/1991; letter from Peter Nielsen to DalSoglio, 4/1/1991; letter from Frank Rives to DalSoglio, 3/28/1991; letter from MPC to DalSoglio, in U.S. Environmental Protection Agency, Montana Office, *Milltown Administrative State Site Records*, reel 397 Government Documents, Mansfield Library, University of Montana.

the company include public comments in its reports. After implying that the company might back out of its responsibilities if such behavior continued, its letter closed with a hope that “EPA will cooperate with ARCO in good faith to address the problems identified.” While the company did not make good on its marginally-veiled threats at the time, it would later scuttle work-in-progress for similar reasons attached to the state’s natural resource damage suit. At the very least, ARCO’s reprimand to the EPA demonstrated the degree to which the agency was extending itself to the public.²⁴

Of course, not all the attention to the current and future health of the watershed came via public comment or its opposition. Moving toward a feasibility study meant researching the river system. In an *EPA Journal* article about the agency’s regulatory capacity, the authors asserted, “all EPA’s decisions must be based on sound science.”²⁵ Private contractors and state environmental agencies began to produce studies on everything from aquatic insects and earthworms to waterfowl and fish. These studies, paid for by EPA and ARCO, factored into the FS, as well as the state’s suit. Not surprisingly to most observers, study after study completed during the early 1990s determined that heavy metals from the basin’s mining history had damaged the river’s natural resources. Soil eating worms accumulated high levels of heavy metals, which they potentially passed up the food chain when preyed upon by birds or fish. Macroinvertebrates, nicknamed “benthos,” proved full of arsenic and other heavy metals as well. These spineless aquatic creatures, including crayfish, snails, more worms, as

²⁴ Letter from ARCO to U.S. EPA, 4/8/1991, in U.S. Environmental Protection Agency, Montana Office, *Milltown Administrative State Site Records*, reel 397 Government Documents, Mansfield Library, University of Montana.

²⁵ Erick W. Bretthauer and Peter R. Jutro, “Science and the Regulatory Process,” *EPA Journal*, (March 1988): 13.

well as a host of insects that spend most of their lifecycle clinging to submerged river rocks before they hatch into their winged stage (giving them names such as stonefly and mayfly), are the staple of fish diets. People who fly-fish use imitations of many of these benthos to entice hungry trout. So too, native fish tested exceedingly high for arsenic, copper, and zinc. At least those that researchers could find did. Studies showed that similar Rocky Mountain rivers supported thousands of trout per mile, while populations in the Clark Fork from its headwaters to Milltown languished at about a quarter of the expected rate. Many of the surviving fish showed inhibited growth that correlated with a toxic diet, others had abnormal scale loss, or irritated gills clogged with mucus. As with the issue of public input, ARCO challenged some of the growing body of research (research funded by the company) about the river ecosystem, such as contesting that toxic metals were the most likely cause of the degraded fishery²⁶

Alternately, the Montana Power Company supported the scholarship pointing to a river degraded by historic contamination. In part, they did so as a way of minimizing the perception of their dam as the source of a languishing ecosystem. As part of its license

²⁶ U.S. Fish and Wildlife Service (Montana Office), "Milltown Reservoir Sediments Site Endangerment Assessment Wildlife Survey: Final Draft," June, 1991; David C. Wilborn and Clarence A. Callahan, "On-Site Earthworm (*Eisenia foetida*) Test for the Evaluation of Toxicity and Uptake of Contaminants at the Milltown Superfund Site, Feb. 1990; Ken Knudsen, "Preliminary Estimates for Trout Densities in the Middle Clark Fork River if Milltown Dam and Reservoir Were Not Present," 4/24/1992; U.S. EPA and Environmental Toxicology International, Inc., "Minutes of meetings with Wetlands Work Group, Public Health Work Group, and Fisheries Work Group," 2/10/1992; EPA and MDHES, "Milltown Reservoir: Superfund Site Report," July, 1992; University of Wyoming, "Milltown Endangerment Assessment Project: Effects of Metal-contaminated Sediment, Water, and Diet on Aquatic Organisms," 9/4/1992; letter from ARCO to DalSoglio (EPA), 10/19/1992; McGuire Consulting, "Clark Fork River Macroinvertebrate Community Biointegrity: 1993 Assessment," August 1994, in U.S. Environmental Protection Agency, Montana Office, *Milltown Administrative State Site Records*, reels 399, 645, 684, 465, 565, 564, 601, 768 Government Documents, Mansfield Library, University of Montana.

extension, the company had to address the effects the dam had on the river's fishery and propose a "mitigation and enhancement plan." Its assessment emphasized the damage due to toxic sediment and downplayed the role of the dam in blocking fish migration and spawning. The fix the company proposed included slower drawdowns of the reservoir to decrease fish harming sediment flushes, as well as \$65,000 per year to help restore tributary streams feeding the Clark Fork and Blackfoot Rivers important for fish spawning, to breed and release hatchery fish, and to monitor the effects.²⁷

Whereas most of the research on a collection of organisms that defined the river ecosystem focused on the historic and contemporary affects of contamination, most of the concern for human health looked forward. Reports by a Public Health Work Group working at Milltown evaluated "sources of exposures to humans visiting the reservoir." The primary concern seemed to be "projected recreational use of the reservoir." Identifying these pathways of human exposure, such as where families got their wild game, whether or not they ate vegetables from a home garden, or how often they swam in the reservoir, would help direct future cleanup that, in turn, would reduce future exposure. When it came out in July, 1993, the EPA-mandated "Baseline Human Health Risk Assessment" for Milltown served the stated goal of assessing "current and potential risks to health posed by chemical contamination at the site." The report included the results from surveys of Milltown residents determining the pathways by which they might have, did, or could expose themselves to toxic sediment and water, but it said nothing about past exposure. The Montana Department of Health and Environmental

²⁷ MPC, "Milltown Fisheries Protection, Mitigation, and Enhancement Plan," 10/29/1992, in U.S. Environmental Protection Agency, Montana Office, *Milltown Administrative State Site Records*, reel 601 Government Documents, Mansfield Library, University of Montana.

Sciences praised the report for its thoroughness and the “unusually open forum” in which the EPA produced it, including participation by the locally-organized MESS.²⁸

It wasn't until 1993 that an initiative to look at historic health affects in or near Milltown arose. And it arose through local public input. In a letter written on Halloween, 1993, Barbara Bennetts wrote to a member of MTAC asking about what they knew or were doing about reports of “high incidents of cancer among families living along the river.” Bennetts included in her concern the spooky anecdote that “(t)here is one cluster of homes...six or seven in all...where one hundred percent of the households have a cancer victim.” Before the end of the year the EPA recruited staff from the Center for Disease Control's Agency for Toxic Substances and Disease Registry (ATSDR) and the state DHES “requesting an investigation into the question of potentially high rates of cancer around the Milltown Reservoir.” The EPA manager involved, Julie DalSoglio, also accepted Barbara Bennetts' offer to act as liaison between agency people and community members. But as DalSoglio explained, the impending study by MDHES and ATSDR would be of the state's tumor registry, which included hospital-treated cases of cancer. The registry lacked information on cases treated outside a hospital or outside the state, as well as some specific types of cancer, like that of the skin, which is the primary risk associated with ingesting toxic quantities of water-borne arsenic. The Missoula City-County Health Department asked that the DHES keep it informed of any cancer cluster

²⁸ U.S. EPA and Environmental Toxicology International, Inc., “Minutes of meetings with Wetlands Work Group, Public Health Work Group, and Fisheries Work Group,” 2/10/1992; Environmental Toxicology International, Inc. for EPA, “Baseline Human Health Risk Assessment: Milltown Reservoir Operable Unit” and “Exposure Survey Results: Milltown Reservoir Sediments Site Public Health Evaluation,” July 1993, in U.S. Environmental Protection Agency, Montana Office, *Milltown Administrative State Site Records*, reel 465, 645, 712 Government Documents, Mansfield Library, University of Montana.

studies to come. Meanwhile one of the most important studies of the site that assessed human health risks dismissed any significant worry about cancer, except in the case of people drinking groundwater. And since no one was doing so anymore, the report deemed that risk low. Surprisingly the report said nothing about the historic affects of the people who had consumed groundwater on a daily basis for years, if not lifetimes.²⁹

The EPA organized a review of cancer in and around Milltown. At a May meeting in 1994, the agency got representatives from both ATSDR and Montana's DHES to agree to initiate a cancer cluster review for the area. They hoped to supplement the state tumor registry with information collected from residents' medical records, if they could get voluntary participation in the study. Over a year later, in July, 1995, the ATSDR epidemiologist on the case reported that there was "no data to show cancers in the area...outside normal, expected values." In a letter to Barbara Bennetts, who had first broached the subject with the EPA, Julie DalSoglio stated that in the end the study only included "a review of death certificates." The letter admitted that the results failed to address Bennetts' concerns fully and put the onus back on her to figure out additional funding for a more thorough study by the ATSDR, funding that the EPA could not provide.³⁰

²⁹ Letter from Barbara Bennetts to Steve Blodgett, 10/31/1993; letter from MDHES to DalSoglio (EPA), 11/3/1993; letter from EPA to MDHES, 12/27/1993; letter from MCCHD to MDHES, 1/5/1994; letter from Julie DalSoglio (EPA) to Barbara Bennetts, 2/1/1994; "ARCO Comments n the Baseline Human Health Risk Assessment Milltown Reservoir Operable Unit, Milltown Reservoir Sediments Site," 12/1/1993, in U.S. Environmental Protection Agency, Montana Office, *Milltown Administrative State Site Records*, reels 684, 712, 684, 885, 684 Government Documents, Mansfield Library, University of Montana.

³⁰ Letter from Jane Heath (EPA) to multiple EPA recipients, "RE: Meeting with ATSDR about Pancreatic Cancer Study and other activities" 5/10/1994; Todd Damrow (ATSDR), handwritten notes, 7/17/1995; letter from DalSoglio to Bennetts, 8/1/1995, in U.S.

Despite the completion of even more studies, the EPA considered deferring the feasibility study of Milltown. In a July, 1992, newsletter co-produced by EPA and MDHES, the agencies publically announced the possibility of delaying the FS at Milltown “largely because the sources of contamination upstream have not been addressed.” Like so much in the Superfund process, the decision to delay producing this vital document by carving the reservoir and dam out of the rest of the Clark Fork River plans included consultation with local advocacy groups. Even before the public announcement, the new director of the CFC and Peter Nielsen, who had just taken a job with the Missoula County Health Department, questioned the EPA about the possibility. Everyone, including ARCO, seemed to agree about the wisdom of deferring Milltown to allow more upstream remediation to progress. But that wasn’t the only justification.³¹

By the 1990s there was an emphasis within Superfund to streamline cleanup efforts as a way of making them more fiscally efficient. A 1990 edition of the *EPA Journal*, a report entitled, “Progress and Challenges: Looking at EPA Today,” recognized that “(t)he number of abandoned hazardous waste sites has turned out to be much larger than was predicted when Superfund was created. Furthermore, cleanup has turned out to be complex, taking more time and resources than expected to complete the job.” In 1982 the EPA listed 418 Superfund sites, including Milltown. By 1990 the agency had over

Environmental Protection Agency, Montana Office, *Milltown Administrative State Site Records*, reels 885, 885, 821, Government Documents, Mansfield Library, University of Montana.

³¹ EPA and MDHES, “Milltown Reservoir: Superfund Site Report,” July, 1992; notes from phone call between Robert Fox (EPA) and Sandy Stash (ARCO), 12/11/1992, in U.S. Environmental Protection Agency, Montana Office, *Milltown Administrative State Site Records*, reel 565, 602 Government Documents, Mansfield Library, University of Montana.

1200 active sites, compared to 52 completed cleanups. Milltown was representative of what was happening all over the country, the vast majority of Superfund sites took decades to remedy. Most of the “time and resources” were chargeable to the PRP, but the EPA still had to conduct each Superfund project, and the EPA added more every year on a limited staff. At a January, 1993, public forum held in Missoula, EPA project manager Julie DalSoglio recognized those limitation as reasons for delaying the Milltown process, saying, “EPA has been considering reapportioning staff resources to better address priority upstream problems.” And a limited operational budget made that decision more pertinent. At the same time, the final designation of Missoula’s aquifer as a “sole-source” water supply lent weight to the wisdom of fixing upstream problems prior to assessing the future of the reservoir and dam, which, for better or worse, kept the bulk of the watershed’s contamination out of Missoula’s water. A month later the MTAC newsletter confirmed the likelihood of the deferral, adding that the decision could delay work at Milltown for “3-5 years, with actual cleanup more years in the future.” Unbeknownst to anyone, the longer timeframe for Milltown would allow events to unfold that drastically changed the final outcome at Milltown. Like so much of the Superfund process at Milltown, end results hinged on unintended consequences.³²

Many places across the West were now beginning to call attention to the unintended, yet harmful, consequences of the region’s mining history. Milltown felt the effects of mining far from the tunnels and pits that Butte, Montana, mining companies

³² “Progress and Challenges: Looking at EPA Today;” Ross Ettlin, “Facts to Reflect On,” in *EPA Journal*, (Sept/Oct, 1990). Julie DalSoglio, “Clark Fork Coordinating Forum Minutes,” 1/21/1993, in U.S. Environmental Protection Agency, Montana Office, *Milltown Administrative State Site Records*, reel 601 Government Documents, Mansfield Library, University of Montana.

dug in search of copper. Plenty of other Western towns were beginning to deal with the effects of mining much closer to their sources. A 1993 *New York Times* article estimated that water running over old mine tailings had polluted approximately “10,000 miles of streams in the West.” All those stretches of degraded waterways amounted to the “staggering environmental cost from industrial development in the United States.” Just as Milltown had harbored the poisons that resulted from the copper mining that electrified the country, countless other western environments had born the brunt of material and technological advancement in America. According to the *Times*, the West’s tolerance of that legacy was waning and communities were beginning to demand studies and remedies for their local environments.³³

With a ballooning number of possible toxic waste sites to deal with, the EPA had to prioritize. Part of the agency’s efforts to do so entailed making risk assessments. In 1990 the EPA’s Science Advisory Board endorsed a report called “Reducing Risk,” which argued that the agency and Superfund, in particular, ought to focus on identifying the worst of the worst environmental sites in the country, then commit the most resources and immediate effort to remediating those places. As William K. Reilly, who served as EPA Administrator for George H. W. Bush (and in 2010 became Barack Obama’s point man for investigating the BP Deepwater Horizon Oil Spill in the Gulf of Mexico), summarized it for the *EPA Journal* shortly after the report’s release, “(se)ttling environmental priorities for the whole nation and bringing our Agency’s resources into alignment with those priorities are supremely daunting tasks.” The way to accomplish those tasks was to prioritize via risk assessment, rather than being “swayed by the

³³ Keith Schneider, “Old Peril of Abandoned Mines Stirs Calls for Action in West,” *New York Times*, 4/27/1993, A1.

passions of the moment,” Reilly surmised. And risk assessment meant using “sound science.” In other words, the EPA’s top administrator was saying that no longer would the squeakiest wheel get greasing. Instead, the agency would try to oil the hub or bearings with the worst documented cases of corrosion. The keystones of defining corrosiveness, or risk, which came from the Superfund’s original system of ranking polluted sites, remained human exposure pathways and toxicity of pollutants.³⁴

In an EPA forum addressing the science of risk assessment, environmental scientists admitted that determining risk was itself in the developmental stage. As one forum member put it, “(r)isk estimates for highway deaths are based on extensive statistical data. For most chemical carcinogens such statistical data do not exist; EPA’s cancer risk numbers are extrapolations from high-dose animal experiments.” The former held much more reliable powers of prediction than the latter. Whether or not a site might cause people to suffer cancer years down the road was a study in its infancy. In 1993, by the time the issue of Milltown’s deferral arose, the EPA viewed the science of risk assessment as more mature. An issue of the agency’s journal devoted to the topic no longer featured the debate over the efficacy of risk assessment. Instead “Profiles in Risk Assessment: New Science, New Contexts” contained articles about how the new means for prioritizing environmental cleanups was working, with titles like, “Breakthroughs in Cancer Risk Assessment” alongside successful case studies.³⁵

³⁴ William K. Reilly, “Why I Propose a National Debate on Risk,” *EPA Journal*, 17, (March/April, 1991) 2-3.

³⁵ D. Warner North, “Forum Two – The Science,” *EPA Journal*, 17, (March/April, 1991). *EPA Journal*, “Profiles in Risk Assessment: New Science, New Contexts,” 19, No.1, (Jan/Feb/March, 1993).

At Milltown the flow of the river added to discussion of risk assessment. With arsenic in groundwater at issue, the Milltown portion of the Clark Fork Superfund complex certainly scored high for risk, but cleaning from upstream downward made a great deal of sense, especially since the residents were no longer drinking from the contaminated wells in Milltown. Yet, public opinion trumped these other considerations. In the fall, 1993, John Wardell, the EPA's state manager, announced that Milltown would remain a priority within the river-wide Superfund complex and work toward completing an FS would continue. The CFC praised the decision and the agency's "willingness to listen to the concerns of the Missoula community. We believe that your decision is a solid one and one that is supported wholeheartedly by Missoula."

Others agreed. The Milltown Technical Assistance Committee began its first newsletter of 1994 commending the decision. The county health department praised the EPA and emphasized recent studies that indicated arsenic-tainted water moved from the Milltown aquifer into the Missoula aquifer. With "as much as 35% of the recharge to the Missoula Valley Sole Source Aquifer com(ing) from Milltown," the health department claimed, "public interest in the remediation of the Milltown groundwater site is very high in this community." Among the many letters that the EPA, state and county health departments received, one from a resident living downstream from the Milltown Dam may have expressed common sentiment when he wrote, the dam "is old and leaking. It sure makes sense to me to continue the studies and planning until we know enough to decide if deferral is a good idea."³⁶

³⁶ Letter from C.B. Pearson (CFC) to Wardell, 11/19/1993; State of Montana Natural Resource Damage Program, "Assessment Plan: Part I, Clark Fork River Basin NPL Sites, Montana," January 1992; letters from EPA to Bruce Farling (CFC) and Peter Nielsen

ARCO, on the other hand, was quite a bit less happy. The PRP complained that they had spent considerable money and time proceeding with the upriver feasibility study under the impression that the EPA planned to defer the Milltown FS. In addition to being surprised and disgruntled with the agency's choice not to defer on Milltown, a company spokesman wrote that the "decision was communicated to special interest groups either concurrently or before (the) call to me... which has done little to engender a cooperative relationship between our organizations." Even though ARCO opposed the decision and the EPA's apparent favoring of local advocacy groups, the studies and writing for the FS crept forward, as did the state's lawsuit for historic damage to its natural resources.³⁷

The state of Montana intended to use many of the same studies being conducted for the EPA's FS to bolster its natural resource damage claim against ARCO. The attention to and evidence about how contamination had degraded the Clark Fork watershed emboldened the state. By 1993 the state had contracted Hagler Bailly, an international consulting firm that, among other things, specialized in natural resource damage claims. In a fall, 1993 report, the consultant's scientists reported that the "Clark Fork River Basin contain(ed) some 9,900 tons of arsenic...99,000 tons of copper, 22,000 tons of lead, and 55,000 tons of zinc." Those contaminants had led to a nearly lifeless

(MCHD), 5/20/1992; letter from Kenneth Brett to Wardell, 12/3/1993; letter from Ellen Leahy (MCHD) to Wardell, 12/23/1993; letter from Kevin Kirley (MDHES) to DalSoglio, 12/27/1993; Steve Blodgett, "EPA Decides Not to Defer at Milltown," *MTAC News*, March 1994, in U.S. Environmental Protection Agency, Montana Office, *Milltown Administrative State Site Records*, reels 684, 821, 583, 684, 684, 821 Government Documents, Mansfield Library, University of Montana.

³⁷ Letter from C. Floyd George (ARCO) to Jack McGraw (EPA), 11/24/1993, in U.S. Environmental Protection Agency, Montana Office, *Milltown Administrative State Site Records*, reels 684, Government Documents, Mansfield Library, University of Montana.

river at times during the last hundred years, repeatedly caused catastrophic fish kills in the last decade, and persisted in degrading nearly all forms of aquatic life in the watershed, as well as posing an ongoing threat to human health. Hagler Bailly promised “to assess the monetary value of the injuries, and to establish a framework for the restoration of (the) resource” within the coming months. But the state’s money and plans for restoration hinged on what remediation looked like. And finally remediation, or the EPA decision as to how to deal with the contamination at Milltown, seemed to come into focus near the end of 1994, at least temporarily.³⁸

In the fall of 1994, the EPA released a Remedial Investigation (RI), which was the culmination of studies done at Milltown. They soon followed with the first feasibility study. Both were still drafts, but they gave the public its first official glimpse of what might happen at the site. What most people took away from these reports was the fact that Titan Environmental Corporation, which wrote them, ARCO, which paid for them, and EPA, which approved them, had narrowed twenty-three possible cleanup solutions to six. The winnowing process had involved “evaluating short- and long-term aspects of effectiveness, implementability, and cost,” according to the drafts. The extremes of the original, longer list included everything from “no further action,” which ranked surprisingly well in all evaluation criteria, to “Dam Engineering (Dam Removal),” which only scored minor points for long-term effectiveness.³⁹

³⁸ Jushua Lipson, “Assessing Impacts to Aquatic Resources of the Clark Fork River, Montana,” *Inside Hagler Bailly*, Oct., 1993, in U.S. Environmental Protection Agency, Montana Office, *Milltown Administrative State Site Records*, reels 768, Government Documents, Mansfield Library, University of Montana.

³⁹ Titan Environmental Corporation, “Milltown Reservoir Sediments Operable Unit: Screening of Alternatives Summary Report,” November, 1994, in U.S. Environmental

The first of what would be multiple “final” reports came out in early 1995. While acknowledging that the river was flushing arsenic through the sediments piled up behind the dam, then through the Milltown aquifer at a rate of “2 to 20 pounds per day,” which meant that it would take “several hundred years” to deplete the area of that one toxin, the first report continued to call the health risks “low.” According to the RI, the only grave danger presented by the contamination was “substantial scour and transport of sediment” such as in a 100-year flood or dam failure. Even though it would take hundreds of years for the problem to dissipate on its own, the report ranked a possible centennial flood as “rare or unlikely events.”⁴⁰

Nevertheless, the draft reports reduced the list of solutions to six, all of which left the dam in place. Four of the six, including “no action,” were fixes that left the contaminated sediment in place as well. With these limited options on the table, the Milltown Technical Assistance Committee led the way in promoting public participation at upcoming meetings where EPA and ARCO representatives planned to provide extensive detail about the six options, set a timeframe for choosing one, and taking public comment. Therein Milltown continued to exemplify what was happening with Superfund across the nation. As the director of Montana’s EPA office put it, “while greater and greater public input is occurring, a more streamlined, more cost-efficient approach is being mandated.” In an open letter to concerned organizations and the public, John Wardell went on to write: “Montana is recognized as a national model for public

Protection Agency, Montana Office, *Milltown Administrative State Site Records*, reels 768, Government Documents, Mansfield Library, University of Montana.

⁴⁰ ARCO, “Milltown Reservoir Sediments Operable Unit: Final Remedial Investigation Report,” February 1995, in U.S. Environmental Protection Agency, Montana Office, *Milltown Administrative State Site Records*, reel 767, Government Documents, Mansfield Library, University of Montana.

involvement in the Superfund process, which is a credit to many of you who have committed much time and talent.” Wardell ended by requesting that people continue to participate in the process, especially as the FS for Milltown drew near completion. He got what he asked for.⁴¹

Of all the reactions to the shortened list of six possible solutions, the state’s surprised people the most. Since first filing a claim in 1983 for restoration money against ARCO the state had spent \$7 million on its case in twelve years. Representing Missoula, where he would become mayor the following year, Mike Kadas asked the 1995 state legislature to approve another \$2.3 million to help fund, as he put it, “our one chance in history to bring this area back from a century of pollution.” With near unanimity the legislature approved of the expenditure. But what the recipient organization, the state’s Natural Resource Damage Litigation Program (NRDLP), envisioned as restoration at Milltown was inadequate to most local observers. The state tentatively backed the remedial solution that called for leaving contaminated sediments in place behind the dam and managing them through “institutional controls.” In the short run, that meant having MPC maintain its dam, continuing slow drawdowns, and controlling recreational use around the reservoir so as to limit people’s risk of exposure to toxins. In the long run, it left the removal of heavy metals to nature. Financially, it relieved ARCO of much cleanup expense. For the state, it closed the door on actually restoring the Milltown

⁴¹ Brian Sherry (MTAC), “KUFM Radio Commentary,” 10/20/1994, 11/17/1994, 12/15/1994; letter from John Wardell, 2/15/1995, in U.S. Environmental Protection Agency, Montana Office, *Milltown Administrative State Site Records*, reel 768, Government Documents, Mansfield Library, University of Montana.

stretch of the river to anything resembling a healthy, waste-free environment. And for Missoula, it spelled a persistent threat.⁴²

The swiftest and strongest reaction to the state's support for an 'in place' remedy came from downstream of Milltown. Perhaps it's not surprising that the area's largest community, located seven river miles below the Milltown Dam, opposed the idea of just leaving 6.6 million cubic yards of toxic sediment in place behind an old, leaky, partially-wooden structure plugging up a river prone to flooding. The Missoula City-County Health Department reacted with a sixteen-point resolution. On February 16, 1995, the department resolved to "strongly oppose the recommendation of the Montana Natural Resource (Damage) Litigation Program that no action be taken to remove contamination sources or to prevent the spread of contamination from the Milltown Reservoir." Much of the resolution seemed to reiterate Superfund language, calling for "the most effective and permanent" solution and requesting "public comment" to help guide the decision. Individual residents wrote letters echoing the health department's position. Sent directly to the state's NRDLDP, many of these letters cited human health and environmental health concerns, as well as recreation interests in their support for a more aggressive cleanup. They also saw corporate power at play in the decision. As one person put it, the deal looked like "a capitulation to ARCO and a perpetual danger to the people (and other creatures) downstream." Any kowtowing by the state to the company seemed unlikely given the legislature's recent passage of more funding for the NRDLDP to continue its more-than-a-decade long fight against ARCO, but people were angry.⁴³

⁴² Editorial, "'95 Legislative Digest – House Oks suit money," *Missoulian*, 3/2/1995, B2.

⁴³ Missoula City-County Health Department, "A Resolution Concerning the Cleanup of the Milltown Superfund Site," 2/16/1995; letter from Jeffrey J. Smith to Rob Collins

Most of the anger over the state's support of keeping dangerous sediments in place behind Milltown Dam was borne of fear. In every reaction to that decision, people wrote of the possibility of the dam collapsing, of a catastrophic flood, essentially of looming disaster. While hopes for a better environment inspired steady public participation throughout the Superfund process at Milltown, events or decisions that invoked a sense of fear resulted in the most public input. Even in a follow-up letter to city's resolution, Peter Nielsen, the new Environmental Health Supervisor for the health department, infused his very measured and scientifically based assertions with the scary ramifications of a dam failure or other event that could wash arsenic downstream.⁴⁴

The Clark Fork Coalition and the Milltown Technical Assistance Committee went a step further in their opposition to the state's choice of remedies at Milltown. Both organizations questioned the entire winnowing process that eliminated nearly three quarters of the original remedial alternatives. MTAC pointed requested that the EPA revisit that process and pay particular attention to retaining "dam engineering" options, such as removal. Both groups also argued that the state's preference for containing the wastes at Milltown was a poor fit with the overall Natural Resource Damage suit.

The coalition wrote that the suit's purpose, as dictated by Superfund law, was "to restore damaged natural resources to 'baseline conditions.'" CFC charged the state with failing to define the basic conditions of the river that restoration should achieve, "such as the plant, fish, and wildlife communities they expect the basin to support." Unless the

(NRDLP), 2/19/1995, in U.S. Environmental Protection Agency, Montana Office, *Milltown Administrative State Site Records*, reels 768, 821, Government Documents, Mansfield Library, University of Montana.

⁴⁴ Letter from Peter Nielsen (MCCHD) to Russ Forba (EPA), 3/10/1995, in U.S. Environmental Protection Agency, Montana Office, *Milltown Administrative State Site Records*, reel 768, Government Documents, Mansfield Library, University of Montana.

baseline condition of the rivers' confluence was a toxic-filled reservoir, then a keep-the-toxins-in-place solution seemed counter to the state's lawsuit, a suit that had grown to \$635 million by 1995. Some of that money was to go to improving the conditions of the river at Milltown, even if full restoration of the river to pre-European conditions was humanly impossible the groups argued. That was only possible if ARCO first paid to clean up some of the mess. In addition the CFC and MTAC asserted that the state's position ran contrary to Superfund's mandate to favor permanent remedies. In reaction to the state's claim that removing Milltown's toxic sediments ran the risk of flushing some of them downstream, CFC staff scientist Geoffrey Smith wrote that while "NRDP cites the potential for downstream injury as a reason not to remove the sediments, (it) fails to address the potential downstream impacts of leaving them in place." Again, this argument hinged on fear of a dam mishap in the hundreds, if not thousands of years it would take for the toxins to "naturally" disperse. As MTAC put it, thousands of years is a long time to speculate that there won't be "catastrophic events involving floods and/or earthquakes."⁴⁵

Just as the Missoula health department offered the earliest opposition to the state's support of a virtual "no action" plan at Milltown, the department also put forth some of the most incisive critiques of that plan. Peter Nielsen confirmed that since the city designated its sole source aquifer in 1988 and established a water quality district in 1993, local businesses had spent considerable time and money complying with new regulations

⁴⁵ Letter from Geoffrey Smith (CFC) to Rob Collins (NRDLP), 3/22/1995; letter from Brian Sherry (MTAC) to NRDL, 3/23/1995, in U.S. Environmental Protection Agency, Montana Office, *Milltown Administrative State Site Records*, reel 821, Government Documents, Mansfield Library, University of Montana.

to maintain, if not restore, clean water. As he put it, “the community expectation has been clearly expressed.” That expectation was that anyone affecting community water should be held liable, especially a company with the resources that ARCO possessed. Nielsen also contended that if the state settled for a “no action” alternative at Milltown it would seriously compromise the public’s ability to sway the EPA toward any other remedial option. In other words, he charged the state with failing to uphold citizens’ wishes. “When residents...supported the creation of the natural resource damage program...it was our clear understanding that the program would attempt to seek restoration of groundwater resources **above and beyond** the remedial actions taken through the EPA cleanup process.” The NRDLP was supposed to pursue money to improve upon Superfund cleanup, not hinder it.

That said, the state wasn’t exactly rolling over for ARCO. In October, 1995, the state upped its natural resource damage lawsuit by \$78 million to \$713.3 million total. ARCO vowed to fight the suit “to the very end.” The company’s stance was not surprising. Although the company had the proverbial deep pockets that Superfund was meant to capitalize on, a year earlier ARCO had disclosed to the federal Securities and Exchange Commission that the \$648 million it had set aside for environmental cleanups was going to be about \$1 billion shy of its new estimated expenditures. If Montana’s natural resource damage claim succeeded, the company would have to re-up its environmental expenditures by nearly another three-quarters of a billion dollars. Plus, the Congressional debate in 1995, led by House Speaker Newt Gingrich, still pointed toward

the possibility that Superfund liability would lose much of its teeth. So ARCO was not without potential aid in its fight against the state's claims.⁴⁶

Money certainly played a role in the debate about remedial alternatives at Milltown. The EPA recognized that the cost of removing sediments from behind the dam would be "quite high," as would the subsequent natural resource damage claims against ARCO for restoring the area if sediment removal happened. In the drafts of the RI and FS, ARCO penned the cost estimates for each remedial alternative, as well as ranked the alternatives based, in part, on their economic feasibility. That didn't mean that the company had free reign in figuring its possible future expenditures on cleanup. The EPA and the state DHES jointly set guidelines for ARCO's calculations and enforced revisions along the way. In responses to citizen and local organizations' concerns about the remedial alternatives, the agencies indicated no inclination to rule out possible solutions based solely, or even primarily, on costs. What the agencies did indicate was that local comments were changing the FS. One change that the EPA and state did not foresee was agency support for dam removal. The river would soon amend that.⁴⁷

⁴⁶ Letter from Peter Nielsen (MCCHD) to Rob Collins (NRDLP), 3/23/1995, in U.S. Environmental Protection Agency, Montana Office, *Milltown Administrative State Site Records*, reel 821, Government Documents, Mansfield Library, University of Montana. Helena (AP), "We will fight to the very end," *Missoulian*, 10/31/1995, B1; Company News, "ARCO Raises Cleanup Estimates by \$1 Billion," *New York Times*, Mar 4, 1994, D4.

⁴⁷ Letter from Russ Forba (EPA) to Bill Bluck (CH2M), 4/12/95; EPA and MDHES, "Comments: Milltown FS Screening Report Addendum," 4/13/1995; letter from ARCO to EPA and MDHES, 5/30/1995; letter from Kirley (MDEQ) to ARCO, 7/20/1995, in U.S. Environmental Protection Agency, Montana Office, *Milltown Administrative State Site Records*, reel 821, Government Documents, Mansfield Library, University of Montana.

Back when the Federal Energy Regulatory Commission issued Montana Power Company a six-year license extension, the agency indicated that if the Superfund process left toxic sediments in place behind the dam it would consider classifying the structure as “a high hazard dam.” Throughout 1995 the release of FS drafts and the reactions to them put the issue of permanently leaving sediments behind Milltown Dam at the forefront of the Superfund process and the state’s natural resource claim against ARCO. ARCO supported the “in place” remedy along with institutional controls, as did the state and EPA. Their reasoning hinged on mitigating short-term impacts of trying to move thousands of tons of toxic sediment out of a reservoir without washing them downstream, combined with proposals to maintain the Milltown Dam indefinitely. Local opinion took a much longer view. Individuals and organizations emanating out of Milltown and Missoula thought that short-term risks paled in comparison to the long-term possibility of failure to maintain a safe, stable dam. The issue of whether or not the EPA should require sediment removal was tied up with the NRDLP’s suit against ARCO. The way that EPA required the company to remediate would set the stage for the degree to which the state could restore the river. Leaving sediments in place left very little restorative possibility. Again, local opinion leaned heavily toward a much more thorough cleanup. All the study and observation of the river that the Superfund process and long state lawsuit had entailed had helped people see a severely damaged watershed, even if few people donned masks and snorkels to emulate George Ochenski.⁴⁸

⁴⁸ Letter from Kevin Kirley (MDHES) to Gary Fischer (MDNRC), 6/28/1995, in U.S. Environmental Protection Agency, Montana Office, *Milltown Administrative State Site Records*, reel 821, Government Documents, Mansfield Library, University of Montana.

Just before Christmas, 1995, the EPA invited the public to offer another round of comments on the ongoing FS process. Earlier criticisms had pushed ARCO to rewrite the feasibility study and the EPA opened a window for public input on the new product from December 26 through March 15, 1996. ARCO released yet another draft of the FS in April, 1996. The list of remedial alternatives had increased from six to eight. Two of those eight included removing the sediments behind the Milltown Dam. But the company had changed its assessment very little. In their final analysis, ARCO recommended the same option that they had before: leave the toxic sludge in place, use institutional controls to keep people out of harm's way, monitor the site indefinitely, and wait for nature to do the cleaning. But the April report was too late. Nature had already played its hand. During the comment period that preceded the release of the new draft FS, the Clark Fork and Blackfoot rivers made the thought of permanently leaving hundreds of tons of toxic sediment behind the dam obsolete. It would take awhile, as everything at Milltown seemed to do, for that obsolescence to become reality. But one day during the winter of 1996 the rivers flowing into the Milltown Reservoir once again forced the issue of their own cleanup.⁴⁹

⁴⁹ EPA, "Public Notice," undated (December, 1995); ARCO, "Milltown Reservoir Sediments Site: Draft Feasibility Study Report," April, 1996, in U.S. Environmental Protection Agency, Montana Office, *Milltown Administrative State Site Records*, reels 887, 932, Government Documents, Mansfield Library, University of Montana.

Another River Runs Through It

Paul and I fished a good many big rivers, but when one of us referred to ‘the big river’ the other knew it was the Big Blackfoot. It isn’t the biggest river we fished, but it is the most powerful, and per pound, so are its fish.

Norman Maclean, *A River Runs Through It*

The reason I came out here today to make this announcement is because I wanted to find the place – the one place in the West – that I thought told the most powerful story about the possibility for restoration.

U.S. Secretary of the Interior, Bruce Babbitt, on the Blackfoot River, 1998.

In the fall of 1992 Robert Redford’s film *A River Runs Through It* premiered in Montana. Redford’s film was an adaptation of a novella by the same name written by Norman Maclean in 1976. Maclean’s semiautobiographical tale of a family growing up in Missoula began with one of the book’s two most quoted lines: “In our family, there was no clear line between religion and fly fishing.” In the story that follows, the Blackfoot river is the scene of familial struggles, the religious zeal coursing through those struggles, and the love and art of fly-fishing. The Big Blackfoot River, as people called it in the novel’s early 20th century setting, inspired Maclean’s characters with the fortitude to stay those struggles, as well as match that zeal. The year after its publication, Maclean’s short story collection was nominated for a Pulitzer Prize, although the prize-granting board ultimately declined to pass out its illustrious award that year. Nevertheless, the story was legend in the fly-fishing community, especially in western Montana. Even before the movie’s production or release, it was common for newspaper stories about “Norman’s river” to begin with quips like, the book “has kindled a national love affair with the Blackfoot River.” But in 1992 it was the movie that catalyzed

support for the story's real life river and its legendary "high jumping" trout. The deep-rooted, as well as the newly gained notoriety of the Blackfoot helped shape the fate of the Milltown Dam Superfund site in the late 1990s.¹

The United States Secretary of the Interior, Bruce Babbitt paid a visit to the Blackfoot River in early June 1998. Plying the waters of the Clark Fork's biggest and most celebrated tributary for trout was as symbolic as it was genuine sport for Babbitt. He cast a dry fly on top of the current, which onlookers speculated had little chance of attracting a fish, but made for better television footage than trolling under the surface with a nymph. Rather than an actual trout, Babbitt was angling to allay fears that his agency's decision to apply the Endangered Species Act to bull trout would not kill recreational use of western Montana's prized fishing grounds. In 1985 the U.S. Forest Service had deemed the bull trout a sensitive species, making it eligible for protection under the ESA. After thorough studies of the fish and its remaining habitat, a coalition of Montana-based environmental groups had petitioned the U.S. Fish and Wildlife Service to list the species in 1992. Now, six years later and with much political and courtroom haggling under the proverbial bridge, Babbitt disclosed the choice to make bull trout a "threatened" species, meaning that his department would consider the fish for full protection as "endangered" within a year.

Babbitt's trip to western Montana was actually as much about the Blackfoot River as it was about one of its signature species. The secretary's choice of river to backdrop his announcement that compelled federal agencies to "conserve and restore" bull trout

¹ Maclean, *A River Runs Through It*. Edwin McDowell, "Publishing: Pulitzer Controversies," *New York Times*, 5/11/1984, C26. Daryl Gadbow, "Reclaiming a River," *Missoulian*, 5/17/1990, C1.

populations in the Columbian and Klamath River systems both acknowledged the fame of the river's recreational use and celebrated its revival. Babbitt told a crowd of government workers, area residents, and conservationists, "(T)he reason I came out here today to make this announcement is because I wanted to find the place – the one place in the West – that I thought told the most powerful story about the possibility for restoration." He was referring specifically to the efforts of a coalition of people, known as the Blackfoot Challenge, which had been behind most of the restoration work and study of the river for the past decade. That Brad Pitt had recently plied the waters of a Hollywood version of the Blackfoot certainly helped make the river's story more powerful.

While Babbitt's visit was symbolic, his department's decision to list the bull trout as a threatened species, with the potential to join the federal endangered species list looming, was real. That 1998 listing included the warning that the federal government might add cutthroat trout to the list of threatened species within a year. Those announcements shone a harsher light on the Milltown Dam's role of wrecking havoc with both fish's ability to survive in western Montana.²

In addition, the bull trout listing and Babbitt's visit to the Blackfoot was one of the seminal events that placed this Clark Fork tributary at the center of the Milltown story. During the 1990s the Blackfoot's health and future garnered as much local concern as those of the beleaguered Clark Fork. By 1996 the Blackfoot made itself an undeniable part of the Clark Fork and Milltown Superfund process. Coinciding with the

² Sherry Devlin, "Babbitt: Listing bull trout won't hurt fishing," *Missoulian*, 6/6/1998, A1. Susan Gallagher, "Lawmakers square off over bull trout protection," *Missoulian*, 3/5/1999, B4. Paul Larmer, "Bull Trout History," *High Country News*, 5/15/1995. Alliance for the Wild Rockies, "Key dates and events in the history of the Bull Trout listing:"
http://www.wildrockiesalliance.org/issues/bulltrout/history/bulltrout_chronology.html

listing of bull trout, Superfund-related studies of the Milltown Dam's effect on fish also drew a strong link between the structure and the Blackfoot. These events marked the turning point at which the remedy of leaving the dam and sediments in place at Milltown gave way to discussions of sediment and dam removal. In the bigger picture, what happened at Milltown because of the Blackfoot River and the attention it drew illustrated the flexibility within Superfund law, the permeability of Superfund sites, and benefits of a long and sometimes sluggish Superfund process.

By 1996, the biggest worry about leaving thousands of tons of toxic sludge in Milltown Reservoir was the dam's stability. Everyone involved in finding a permanent remedy for the Milltown Superfund site knew that the river had battered the dam repeatedly in the nine decades since it was built. Risk assessments noted historic flood levels and predicted the maximum water level that the dam could withstand. Locals held up the dual inevitabilities of spring high water against an aging, man-made structure, and worried.

If leaving the sediments it trapped in place was to be a viable solution, just as surely as everyone knew that the Milltown Dam would have to withstand more centuries worth of flood waters, they spoke of the Clark Fork River as the harbinger of disaster. But in the winter of 1996, just as the debate about such a tenuous solution heated up, the Clark Fork watershed made its own emphatic point. It was not the Clark Fork proper that did so. Nor was it rushing water that inflamed the discussion. What focused new attention on the dam was the Blackfoot, and ice.

The flood of ice that churned down the Blackfoot River toward Milltown in early February scoured the banks, drew crowds of onlookers, left one family homeless, and ultimately forced the EPA to reconsider its Superfund fix. The Blackfoot ice jam of 1996 also came at a time when the attention on the ecological health of that river was high. Some of the same people who stood along the river road to watch massive ice chunks grind, pop, and crunch past, had been holding meetings to discuss the long-term problems of the Blackfoot river fishery for years. Soon they came to see the Milltown Dam as one of the ongoing problems for fish in the Blackfoot, particularly a fish that the federal government was about to put on the endangered species list. The ice jam and the attention to the Blackfoot River fishery, especially its endangered bull trout, delayed and altered the Superfund cleanup remedy for the Milltown Site. And in many ways it illustrated the incongruities between the realities of a major Superfund cleanup project and national debates about the law itself. On the national level Superfund suffered criticism for its slow pace of implementation, locally that pace allowed for a radical rethinking of cleanup.

The 1996 ice jam, the high point of years of attention to the Blackfoot's fishery, and the federal listing of the bull trout on the endangered species list coincided to make taking down the dam a real option at Milltown. Bull trout evolved in colder water than most of their salmonid relatives. They spawn and rear in the chilliest waters a stream can provide, near springs or mountain-fed tributaries. Yet as adults they migrate through a wide and complex variety of riparian cover, from tangled nests of driftwood, to deep pools and shady, undercut banks. Bull trout, like most fish, have many specific needs within these various environments. A long incubation time means that bull trout require

stable gravel and sediment beds at the right time of year. But as much as these fish need specific microenvironments, they need to be able to move between those environments. That is, they need to migrate. Biologists have found that some bull trout travel over 100 river miles between where they were born and return to spawn and where they spend most of their adult lives. The upper Clark Fork was ideal bull trout habitat for millennia. The icy waters of the Blackfoot and other mountainous tributaries provided ideal spawning grounds. The main river's warmer waters offered many miles of adult habitat. Where colder waters joined warmer ones were particularly important. The Salish Indian name for the confluence of the Rattlesnake Creek with the Clark Fork in Missoula meant "many bull trout." "More bull trout," or more commonly, "place of the big bull trout" was their name for the confluence of the Blackfoot with the Clark Fork. The Milltown Dam severed a migratory path that bull trout had evolved along. But its building had not erased the evolutionary memory of that path. Fish wanted to get past the dam.³

People wanted fish to get past the dam, too. Fish passage meant better fishing and a healthier tributary river. The ESA required that fish get past the dam. The past delays and seemingly sluggish progress at Milltown allowed for the intersection of these three things. Hence, the evolving solution for this Superfund site benefited from the elapse of

³ U.S. Fish and Wildlife Service, Region 1, "Bull Trout (*Salvelinus confluentus*), Draft Recovery Plan," October 2002; CH2MHill, prepared for EPA, "Biological Assessment of the Milltown Reservoir Sediments Operable Unit, April 2003, in U.S. Environmental Protection Agency, Montana Office, *Milltown Administrative State Site Records*, reel 1523, 1572, Government Documents, Mansfield Library, University of Montana. G.D. Holton and H.E. Johnson, *A Field Guide to Montana Fishes*, third edition, (Helena, MT.: Montana Fish, Wildlife & Parks, 2003). J.B. Dunham and B.E. Rieman, "Metapopulation Structure of Bull Trout: Influences of Physical, Biotic, and Geometrical Landscape Characteristics," *Ecological Applications*, V.9, No.2, (May 1999): 642-655. Tim Swanberg, "The movement and habitat use of fluvial bull trout in the upper Clark Fork River drainage," (MA thesis, University of Montana, Missoula, Montana, 1996).

time, rather than floundered because of it, as was one of the complaints about Superfund nationally.

On February 9, 1996, Peter Nielsen was driving toward Milltown from his office in the Missoula health department up the Clark Fork. Early that Friday morning he planned on collecting a few water samples from untested community wells. Heading east with the Clark Fork River in view out his passenger-side window, Nielsen listened to a radio report about a major ice floe coming down the Blackfoot. When he reached the Milltown Dam, where the Clark Fork and Blackfoot converge, he saw “stunningly silver-gray water coming over the dam,” which he thought, “very odd.” Out of curiosity he took a small sample of water from below the dam. Then he followed the Blackfoot northward for about a mile above the reservoir to check out the reported ice. Along with “scores of drivers” and a film crew from the Montana Power Company, Nielsen watched what the *Missoulian* later described as “crusty tundras of ice and snow that made the Blackfoot River appear solid from bank to bank.”⁴

But the river wasn't solid. Where Nielsen and others watched from the banks the slow but steadily moving crush of frozen water had temporarily backed up at a sharp bend in the river. Later that evening, a section of the ice floe swept a century-old home and woodshop off their foundations, ruining both. As one local resident, Richard Frank, put it, “(w)hen it starts to move, there is nothing that can stop it.” That's what worried the dam's owners. Although MPC spokesman Cort Freeman later claimed “we never expected the dam to fail at all,” the company took immediate steps to minimize any

⁴ Peter Nielsen, interview with author. Mea Andrews, “Flood watchers still wary,” *Missoulian*, 2/11/1996, A1.

damage that the ice might inflict. Engineers opened some of the dam's flow gates, quickly dropping the water level in the reservoir. The sudden drop in water level stalled and collapsed the miles of ice battering its way toward Milltown, propelled by a river flowing at about 14,000 cubic feet per second or nearly ten times the Blackfoot's average. Colder temperatures in the following days further stabilized the moving mass, as well as diminishing the early spring run-off that was swelling the river. People's immediate attention turned to other statewide flooding, including the drowning of a Missoula area student who fell into the Clark Fork and got trapped under the sheets of ice that lined its banks.⁵

In the days following Nielsen's trip up the Blackfoot to collect water samples hundreds of National Guard troops along with resident volunteers mucked out ditches, stacked sandbags, and hauled valuables to contain or minimize the damage from widespread flooding around western Montana. The day or so of excitement near Milltown faded as quickly as the Blackfoot's diminishing flow undercut the ice jam, breaking it apart and floating it downstream in smaller chunks.⁶

By the first of March some of that excitement returned in the form of concern over effects stemming from how the Montana Power Company had tried to halt the giant jam. The day after the ice jams drew attention, the Missoula health department resampled water below the Milltown Dam and discovered what Nielsen described as "enormously high levels of copper" in the water. The news of how the rapid drawdown of the dam that staved off the ice jam had fouled the river generated huge public concern.

⁵ Ibid. Mea Andrews, "Statewide, the worst of it's over," *Missoulian*, 2/11/1996, 12. Mick Holien, "Still slamming, jamming," *Missoulian*, 2/12/1996, 1.

⁶ John Stromnes, "On Guard," *Missoulian*, 2/13/1996, B1. Michael Moore, "It's not over yet;" *Missoulian*, 2/13/1996, B1.

After the local newspaper printed Nielsen's review of health department samples that contained forty times the state standard for waterborne copper, ten times that of zinc, and five times that of arsenic, people reacted. Nielsen called the heavy metal numbers "serious" and "quite a bit worse than any data I've been able to find." The Clark Fork Coalition's staff scientist, Geoff Smith, saw the event as a concern for the "biological integrity of the Clark Fork and the safety of Missoula's aquifer." While both men praised MPC for protecting the safety of the dam itself, they also recognized that preserving the dam with all the toxic metal behind it was a permanent problem, not a permanent solution. Nielsen broached the question that would soon reanimate the debate about what cleanup meant at Milltown when he asked, "Are we going to leave those sediments in place? Could this sort of thing happen again?"⁷

People began to weigh in on that question immediately. Montana Fish, Wildlife, and Parks fisheries manager Dennis Workman reasoned that as long as the Milltown sediments were in place the river would periodically flush them downstream. But, what happened in February 1996, was, he thought, "a major event." Workman estimated that the event killed "loads" of fish, even if the stuff Nielsen had wondered about as it poured over the dam made it impossible to see. Like someone breathing heavily contaminated smoke that irritates their lungs, fish exposed to that quantity of sediment, let alone sediment laced with heavy metals, produce so much mucous in their gills that they literally drown in it. More fish would die throughout the year as they ate metal poisoned insects, Workman predicted.⁸

⁷ Sherry Devlin, "Milltown drawdown fouls river," *Missoulian*, 3/1/1996, A1. Peter Nielsen interview with author, 9/17/2009.

⁸ Sherry Devlin, "Major fish kill feared in Clark Fork," *Missoulian*, 3/2/1996, A1.

Just as the ice jam had fascinated onlookers, its consequences angered them. According to Nielsen, “the EPA received more phone calls and letters about Milltown than any other Superfund site following the ice jam. The reaction was triggered by fish kills and it was trout fishermen.” Summarizing local sentiment, the *Missoulian* printed an editorial entitled, “Milltown toxins must go.” In answer to Nielsen’s query about the ice jam being a recurrent problem, the editorial read “(i)t’s easy to imagine river flows and ice conditions that might create far worse problem.” Although no one knew it at the time, the winter of 1996 would pale in comparison to that of the following year. Nobody needed to be able to predict an individual flood or ice event to foresee that over time the river would threaten the dam.⁹

The thought of a flood or dam failure was hardly new. But the reality of such an event changed the fate of the site more than the hypotheses. And the reality contrasted with previous estimates of what the dam could withstand. In 1996 the ice-choked Blackfoot flowing at 14,000 cfs had paled in comparison to the “probable maximum flood” levels that MPC estimated their dam could withstand. If 14,000 cfs caused minor structural damage and forced the company to dump reservoir water that resulted in alarmingly high levels of downstream toxicity, what would the 271,400 cfs do that MPC claimed the structure could tolerate? Looking back at the 1908 flood, which peaked at 48,000 cfs and nearly wiped out what was then called Clark’s Dam, a river running more than five times that volume was an absurdity. The last time that much water had flowed through the canyon where the dam stood was probably at the end of the last ice age, over 10,000 years earlier. An independent contractor supposed that the dam could withstand a

⁹ Peter Nielsen, interview with author, 9/17/2009. *Missoulian* Editorial, “Milltown toxins must go,” *Missoulian*, 3/3/1996, A12.

“100-year flood” of the more modest level of 50,000 cfs. More importantly, they pointed out that even if the dam held, “(t)hese flows will cause scour and transport of the trapped sediments that are located throughout the Clark Fork River basin and also those that are trapped in Milltown Reservoir.” The EPA had shared concerns of this nature, too. As early as 1992 the agency compiled a literature review of “dam-breaks and sediment releases following dam-breaks,” as part of the Milltown site risk assessment “to identify similar dams that have failed and document the consequences of failure, especially with regard to sediment released from the impounded reservoir.” Their most pertinent discovery was of a 1991 dam failure on Idaho’s Middle Fork of the Boise River. There, a normal spring flood washed out a dam of similar age and construction as Milltown’s, along with a quarter million cubic yards of sediment contaminated with heavy metals from a century of upstream mining. The parallels with Milltown were uncanny, except that the Kirby Dam was much smaller and its sediment load a fraction of what Milltown impounded. And no Missoula sat immediately downstream of the dam.¹⁰

The events of 1996 hardly compared to a complete dam failure. But they made many people realize that catastrophe was a real possibility. By April, the Missoula City-County Health Department released the official results of its Clark Fork River water sampling from the previous two months. The report confirmed Nielsen’s earlier assessments. It also gave the public and involved parties some more tangible ways of seeing the events of February than the rather abstract counts of heavy metal molecules

¹⁰ MPC, “Milltown Dam Probable Maximum Flood,” 6/10/1991; in-house letter by CH2M, 4/22/1992; EPA, “Task V, Review Literature on Dam-Breaks and Sediment Releases Following Dam-Breaks,” 5/1/1992, in U.S. Environmental Protection Agency, Montana Office, *Milltown Administrative State Site Records*, reel 601, 601, 564, Government Documents, Mansfield Library, University of Montana.

per million. The ice jam measured “10 foot high, 40 feet wide and five miles long.” The result of its movement down the Blackfoot at about “8-10 miles per hour” were, among other things, “approximately 6 inches of sediments...on the bank” of the Clark Fork below the dam once the water level receded. Along with charts showing the specifics of the contaminants the ice floe had flushed downstream, the report made it clear that the event had essentially extended the Milltown Superfund site downstream of the dam. Calls for a different solution than leaving sediments behind Milltown Dam accelerated throughout the spring of 1996. But those calls emphasized the need for patience.¹¹

Nationally the EPA received plenty of criticism in its first decade and a half for implementing Superfund projects too slowly. But a close look at Milltown revealed that taking more time, not less, resulted in a more thorough cleanup. And while local people may have urged the EPA to implement some solutions as quickly as possible, they also understood the need for patience in achieving the best long-term solution to the pollution problem. The local chapter of Trout Unlimited exemplified as much when they penned a letter to EPA Director Carol Browner stating, “we ask you to delay your decision and to, please, select another alternative than leaving the sediments in place untreated. Milltown has been on the National Priority List since 1982 so there is no need to rush now.”

Within a month of the ice event, the Missoula City Council teamed up with Peter Nielsen and the health department to write a resolution requesting a more permanent fix at Milltown than leaving sediments in place and resolving that the EPA should delay its

¹¹ Missoula City-County Health Department, “Water Quality Sampling Associated with Ice Scouring and Flooding, Milltown Reservoir and Clark Fork River,” 4/1/1996, in U.S. Environmental Protection Agency, Montana Office, *Milltown Administrative State Site Records*, reel 932 Government Documents, Mansfield Library, University of Montana.

decision. When the City Council passed the resolution on March 21, 1996, it included the argument that local businesses and municipal facilities had to abide by water quality standards so the Superfund remedy should as well. Predictable violations of those standards, such as happened in February because of sediment scouring, were an unacceptable solution for Milltown. So too, the group resolved that the EPA should not cap the price tag of a solution. And, their resolution ended with a request for a delay in the process. The EPA fielded similar letters from Milltown and Missoula citizens, including one from a high school science class. Another letter co-signed by fifteen people ended with the request that the agency avoid hurrying and instead “continue” with “careful planning to get the best result.” The Missoula City-County Water Quality Advisory Council, “a group of 20 water resource professionals from industry, research, local agency, and citizen groups,” framed its request for a delay around the question they posed to regional EPA director John Wardell as to “why your agency finds that this structure (Milltown Dam) is secure for the 100-1000 year time frame of the alternatives” currently on the table.¹²

The EPA responded. Wardell let the local Trout Unlimited group know that his agency had “received several comments...requesting delay of the feasibility study and decision for the Milltown Reservoir Site. In light of this public comment and the

¹² Letter from Westslope Chapter Trout Unlimited to Carol Browner (EPA), 3/6/1996; Missoula Board of County Commissioners and Missoula City-County Board of Health, “Resolution to the United States Environmental Protection Agency Concerning Contamination of Ground and Surface Waters Below the Milltown Dam,” 3/21/1996; Letter from citizen group to John Wardell (EPA), 4/3/1996; Letter from Erik Ringelberg (MCCWQAC), 4/17/1996, in U.S. Environmental Protection Agency, Montana Office, *Milltown Administrative State Site Records*, reel 932 Government Documents, Mansfield Library, University of Montana. Sherry Devlin, “No-Pollution Parity,” *Missoulian*, 3/15/1996, B1.

February ‘scouring episode,’ we are taking this request very seriously.” Peter Nielsen recalled that in a private conversation with the city-county commissioners, Wardell said, “We’ve decided to re-examine our thinking.” Knowing that the regional director often resorted to understatement, Nielsen recognized that this meant sediment removal and possibly dam removal were viable options. Wardell’s comment appeared in the local newspaper on May Day 1996, although the paper reported him as saying that the EPA was unlikely “to recommend removal of the 6.6 million cubic yards of metals-polluted sediment in the reservoir.” The estimated \$134 million price tag was prohibitive. What the EPA did do was to delay the feasibility study, just as so many people had urged. That delay aimed at addressing how the Milltown Site was affecting the river below the dam and what solving that added problem entailed.¹³

Support for delaying a Superfund site on the National Priority List, especially one that was part of the largest such complex in the country, ran counter to the national dialogue on toxic site cleanup at the turn of the 21st century. Mostly it was a partisan dialogue and both sides advocated faster cleanups. By a few key indicators, such as number of toxic sites identified, remedial actions taken and completed, as well as site expenditures – the Clinton years were the high point for Superfund. During most of the 1990s the EPA added sites to the NPL list more rapidly than during any other period. So, too, the agency remediated and removed sites from that list at a faster rate than before.

¹³ Letter from John Wardell (EPA) to Robert Whalen (WCTU), 3/28/1996, in U.S. Environmental Protection Agency, Montana Office, *Milltown Administrative State Site Records*, reel 932 Government Documents, Mansfield Library, University of Montana. Sherry Devlin, “EPA postpones decision on Milltown cleanup,” *Missoulian*, 5/1/1996, A1.

And the cost of site cleanups dipped. The EPA gave credit for these signs of success to their emphasis on prioritizing, using risk assessments to drive listing, and cleanup decisions. National news stories and analysis touted faster and cheaper cleanups as an improvement in Superfund implementation.

One reason for such success was the Clinton administration support of EPA funding. Threatening to veto any general budget bill that cut the agency's funding, Clinton forced Congress to leave the EPA pocketbook intact during heated negotiations over the federal government's spending throughout the 1996 legislative session, when Superfund was up for renewal. According to the *New York Times*, the executive victory on environmental issues was one of the few things the White House could "crow about." Regardless, Congressional Republicans, such as House Speaker Newt Gingrich, continued their barrage of criticism, charging that "Superfund...is one of the most flawed programs ever designed in the name of environmental protection." Using selective statistics, Gingrich added that "(o)ver 16 years we have spent \$15 billion and cleaned up fewer than 100 sites out of 1,600." The speaker failed to account for the tens of thousands of sites the EPA had cleaned up without ever listing them on the NPL, as well as the fact that most of the 1600 or so on his list were deep into the cleanup process. From another perspective, "(t)wice as many cleanups have been completed in the five years of the Clinton Administration than in the previous 12 years," reported the *Times* in 1998. And as Milltown illustrated, in some places people advocated patience over haste when dealing with their waste. Yet what Gingrich and other critics most conflated was the issue of Superfund expenditures. He and other critics implied that the EPA was wasting public funds, when, in fact, nearly every cent of the Superfund budget came from

special taxes on polluters or liability suits against PRPs. The “polluter pays” still reigned at Superfund. And despite the sharp contrast of opinions of how to change Superfund, Congress renewed the program with virtually no amendments through the 1990s, mostly by simply reauthorizing its funding scheme. And against stiff opposition, Clinton oversaw a continuation of Superfund’s primary principle of the polluter paying for toxic cleanups.¹⁴

Republican lawmakers tried and failed to undermine the tradition of corporate responsibility in Superfund in a variety of ways. A 1997 defense bill included a provision that “would have exempted W.R. Grace & Company, the former operator of a Federal Superfund site, from further liability for cleanup costs” at a site where the giant international chemical manufacturing company had paid only \$800,000 of an expected \$120 million bill. In an example that reverberated throughout Montana, Republican leaders exempted the Clark Fork River from a provision of their Superfund renewal bill that limited states’ abilities to sue PRPs for natural resource damage claims. They did so because Montana’s \$765 million suit against ARCO was still pending and Republicans needed the support of Montana Senator Max Baucus, the ranking Democrat on the Environmental Committee that was vetting the bill. According to the *Times*, “if Mr. Baucus was impressed by the gambit, he did not show it at the hearing.” The bill failed, leaving all states with the opportunity to press for restoration funding from responsible parties. Through the end of the Clinton administration, the president, Congressional

¹⁴ Shreekant Gupta, George Van Houtven, and Maureen Cropper, “Paying for permanence: an economic analysis of EPA’s cleanup decisions at Superfund sites,” *Rand Journal of Economics*, V.27, No.3, (Autumn 1996): 563-582. Editorial, “White House Asks to Free Money for Toxic Sites,” *New York Times*, 5/18/1998, A14. Jerry Gray, “The Budget Truce: The Details,” *New York Times*, 4/26/1996, A22. Letter to the editor by Newt Gingrich, “Green, Green G.O.P.,” *The New York Times*, 5/13/1996.

Democrats, and EPA administrators combined to keep Superfund intact. And the EPA fostered a more efficient program by most measurements through administration choices. One such choice continued to be integrating public opinion into each stage of the cleanup process. That was certainly true when it came to how the EPA responded to the aftermath of the 1996 ice-scouring episode at Milltown.¹⁵

The EPA's first effort to find a new solution to the downstream contamination caused by the partially-frozen Blackfoot was to divide the Milltown Site into two cleanup decisions. One would address the contaminated aquifer; the other, the problems of downstream contamination. By doing so, the agency hoped to salvage the first feasibility study with its option of leaving sediments in place as the solution to the aquifer problem. Then they would consider a different solution to fix the troubles below the dam, such as skimming the most mobile sediments off the top of the reservoir's 6.6 million cubic yard load. The agency began by requesting public opinion.¹⁶

With one notable exception, people opposed the idea of breaking Milltown's cleanup into two parts. The Montana Power Company supported the proposed split. A month later, in October, 1996, the EPA sent ARCO comments on the Draft Feasibility Study due for official release in December. The comments therein indicated that the

¹⁵ Terry Pristin, "Superfund Item is Defeated," *New York Times*, 6/20/1997, . John H. Cushman, "Deep Within Superfund Bill Are Goodies for Montana," *New York Times*, 9/5/1997, D19. Editorial, "Environmental Tasks in 1998," *New York Times*, 1/2/1998, A16. Editorial, "White House Asks to Free Money for Toxic Sites," *New York Times*, 5/18/1998, A14.

¹⁶ Letter from EPA to multiple Missoula agencies and citizen groups, 9/11/1996, in U.S. Environmental Protection Agency, Montana Office, *Milltown Administrative State Site Records*, reel 932 Government Documents, Mansfield Library, University of Montana.

agency assumed its Milltown splitting proposal would gain public approval. They were wrong. The CFC wrote in mid-November opposing the plan. Restating its request for a delay, the organization's director, Meg Nelson, emphasized their belief that the worry about downstream contamination was linked to the entire Milltown site, not just the top layer of easily mobile sediments. The group favored a single, thorough solution that would address all the risks posed by the dam and its sediments. The Missoula Board of County Commissioners seconded that opposition and the views substantiating it. The MTAC weighted in similarly.

On December 23 the EPA announced that such comments had swayed it against separating the site into two parts. Instead, the agency would delay the whole process while it, the state, the PRP, and other concerned organizations pursued a new "focused Feasibility Study to address the release of sediments from the Milltown Reservoir" as well as the groundwater. The new timeline predicted that the focused study would culminate "between January 1997 and early 1998."¹⁷

On May ninth and tenth, 1996, 650 sixth-graders from Missoula and the Milltown area attended class on the banks of the Clark Fork River below the Milltown Dam. They spent their two days of open-air study learning about water. Activities and workshops helped them visualize the movement of individual water molecules through a

¹⁷ Letter from Larry D. Thompson (MPC) to Bob Fox (EPA), 9/25/1996; letter from EPA to ARCO, 10/9/1996; letter from Meg Nelson (CFC) to Robert Fox and John Wardell (EPA), 11/14/1996; letter from Missoula Board of County Commissioners to Robert Fox (EPA), 11/21/1996; EPA, "Monthly Progress Report, Milltown Reservoir Sediments Superfund Site, January 1997," in U.S. Environmental Protection Agency, Montana Office, *Milltown Administrative State Site Records*, reel 991 Government Documents, Mansfield Library, University of Montana.

seemingly endless cycle of evaporation, transpiration, condensation, and precipitation. They gained an understanding of their local watershed by playing games in which each student took on the role of some major aquatic components. Some kids acted like clean water helping guide their classmates, who mimicked native fish, through the perils of those approximating rocks, log jams, toxic chemicals, and a dam. The watershed became an obstacle course of friends and foes. Amy Michels recalled playing an insect that “had to die because of the pollution or chemical we were killed by.” A special section of the *Missoulian* devoted to area students featured Hank Schewe’s acrostic poem about one of western Montana’s native fish. Reflecting some of the things he’d learned, Schewe wrote:

Becoming extinct
Underwater life
Lives by eating bugs
Lives a life of danger
TROUT family
Really hard to tell the difference
Over dams
Under rocks
Trouble.

The fact that hundreds of grade-schoolers were becoming well acquainted with the perils of life in their local rivers, especially the lives of bull trout, was more than the product of an isolated day out of the classroom.¹⁸

The truth was, in the 1990s the Blackfoot River got a great deal of attention. And as with so many environmental efforts and issues, a single species came to symbolize a place’s problems and people’s hopes for its future. In the case of the Blackfoot, that species was the bull trout. A host of local, state, and federal environmental agencies,

¹⁸ 4U Special Section, “Water Works,” *Missoulian*, 5/27/1996, C1.

businesses, and organizations sponsored the Watershed Festival that gathered Michels, Schewe and their peers to the Clark Fork. With sponsors like the U.S. Forest Service, Montana Fish, Wildlife, and Parks, the local natural history center and city health department, as well as Montana Power and the local mall, the event indicated the range of interests at stake. Its emphasis on children revealed community-wide interest and the degree to which concern about the watershed's problems were becoming common knowledge. And the content of the festival left no doubt that one of the key things to know about the local river system was that it had problems alongside great potential. The most frequently noted symptom of those problems was fish, or their lack. Summarizing this focus on fish, Montana FWP wrote to John Wardell in May, 1996, that "(t)he demand for wild trout fishing is growing but our ability to increase opportunities is limited." Potentially, the letter continued, "(o)ne of the ways we could accommodate more demand is to improve fish populations in the Clark Fork where they are depressed." Before and after 1996, FWP along with other organizations had been trying to make those improvements, especially by attending to the nationally-famous trout stream, the Blackfoot River.¹⁹

The efforts to improve the Blackfoot River's fishery were connected to the Milltown Superfund site. By early 1997 the EPA had a list of the initiatives it had taken to address the "1996 ice scouring event which was the incident that brought the potential severity of such events to light." Almost all of their efforts aimed to curtail the death of

¹⁹ Letter from C. Richard Clough (MDFWP) to John Wardell (EPA), 5/2/1996, in U.S. Environmental Protection Agency, Montana Office, *Milltown Administrative State Site Records*, reel 932 Government Documents, Mansfield Library, University of Montana.

fish downstream from the dam. That work resonated with what had been happening on the Blackfoot for years and would soon directly involve the Milltown Dam.

What had been occurring on the Blackfoot became a clear example of the principle of unforeseen consequences in Superfund sites. In the early 1990s the decline of the Blackfoot's fishery garnered growing attention, which eventually led to studies of how the Milltown Dam impacted that river and not just the Clark Fork. The historical and cultural importance of the Blackfoot inspired far more people to get involved with the Superfund decision at Milltown than was the case when the Clark Fork was the dominant focus. The other river that ran through the Milltown site made a bit difference.

Historically, studies of the Clark Fork showed that the biggest reason that a modicum of fish managed to survive in the river was due to its tributaries. While mature fish, whether native or not, had very little tolerance for the rates and kinds of pollution in the main river, young fry had even less. So most of the viable spawning habitat that regenerated the Clark Fork fishery was in the colder, faster moving streams and rivers that fed it. Above Missoula, the Blackfoot was the largest of these. In fact, historical averages show that the Blackfoot, at 1606 cfs, carried more water than the Clark Fork's 1369 cfs. For most of the year, including at flood stages, the Blackfoot more than doubled the size of the Clark Fork at the same point that it gave up its name, somewhere beneath the Milltown Reservoir. By burying the confluence of both rivers, the dam and

reservoir were degrading the Blackfoot's ability to regenerate its fishery. Or as Hank Schewe put it, "over dams...trouble."²⁰

People began considering how to mitigate the dam's effects on migrating fish during the Montana Power Company's efforts to relicense their dam in the 1980s. Because of pressure by groups like the CFC over fish passage, the license extension that MPC finally attained included requirements that the company study and fund fish mitigation.²¹

At the same time, the Blackfoot River came under organized scrutiny. In 1988 a new chapter of Trout Unlimited formed on the Blackfoot River and launched "a five-year, \$220,000 study." The chapter, formed by concerned fishermen, raised money to help fund the work of state FWP fisheries biologists hoping to "pinpoint why fishermen have been reporting declining catches of trout in the Big Blackfoot the past few years." FWP biologist Don Peters speculated that the river's recent lack of fish had multiple causes, including elevated levels of silt from soil erosion caused by excessive logging that in the basin, heavy metals from historic mining in and around the Blackfoot's headwaters, and the river's popularity among fishermen, or overfishing. Within a year,

²⁰ Dennis Workman (MDFWP), "A Review of Trout Populations In The Clark Fork River, Warm Springs to Superior, Montana," April, 1985; MPC, "Milltown Fisheries Protection, Mitigation, and Enhancement Plan," 10/29/1992, in U.S. Environmental Protection Agency, Montana Office, *Milltown Administrative State Site Records*, reel 144 Government Documents, Mansfield Library, University of Montana.

²¹ Clark Fork Coalition, "Comments of the Clark Fork Coalition to the Federal Energy Regulatory Commission," 5/19/1986; letter from MDFWP to FERC, 2/24/1987, in U.S. Environmental Protection Agency, Montana Office, *Milltown Administrative State Site Records*, reels 150, 169 Government Documents, Mansfield Library, University of Montana.

Peters' speculations proved fairly accurate. The continual industrial uses of the river basin were damaging water quality; what remained, people loved to death.²²

The first solutions that FWP biologists suggested were to regulate fishing and fix some of the Blackfoot's tributaries. Don Peters proposed making cutthroat and bull trout catch-and-release to help keep breeding fish in the river. According to studies of what Peters called "the crash" – the decline of the Blackfoot fishery since the 1970s – the two native fish, cutthroats and bull trout, were probably at all time population lows.

Averaging 1.8 cutthroats and 0.2 bull trout per thousand feet, the river wasn't providing many opportunities to anglers anyway. The new policy would require the very deft or lucky fishermen who actually caught a native trout to throw it back. The strategy aimed to keep breeding fish in the river. Along with more fish, the river needed mending.²³

The Big Blackfoot chapter of Trout Unlimited led the effort to restore its namesake river's tributaries. After Peter Nielsen began directing the CFC he hired Bruce Farlin, who like Nielsen, had come to Missoula with an interest in rivers and environmental science. His job at CFC was to combine his science background with his graduate degree in journalism from the University of Montana to begin informing the public about what was happening in the watershed. After six years with the coalition, Farling became the director of the state's branch of Trout Unlimited. Recalling the efforts in the late '80s to revive the Blackfoot, he said that most of the tributary work

²² Helena (AP), "Study planned on Blackfoot fishery," *Missoulian*, 3/19/1988, 5. Dick Manning, "Biologists set to solve Blackfoot fishing puzzle," *Missoulian*, 3/24/1988, 13. Sherry Jones, "Frayed Fishery: Researchers look for clues to halt Blackfoot's decline," *Missoulian*, 5/18/1989, C1.

²³ Sherry Devlin, "Let 'em go," *Missoulian*, 9/29/1989, B1. Bruce Farling, OH428-04, Milltown Oral History Project, Archives & Special Collections, Maureen and Mike Mansfield Library, The University of Montana-Missoula.

hinged on good personal relationships as much as anything. “A bunch of them were friends of mine,” was the way Farling described members of environmental organizations like the National Wildlife Federation, Trout Unlimited, the Clark Fork Coalition, and the Blackfoot Challenge, the latter a group of land owners who organized to help protect both the wild and working heritage of their watershed. As a newspaper special on Blackfoot restoration work put it, “(t)he state, with help from its friends, wants to repair some damage.” In fact, land owners completely funded the first tributary restoration project on the river, which “served as a training ground for FWP biologists in reconstructing trout streams,” according to a *Missoulian* feature. Friendship and good personal relationships are rarely noted as the drivers of historical changes, but according to Farling and others who worked on the Blackfoot, those were important forces for that river and for the whole of the Clark Fork in the late 20th century.²⁴

In the next few years studies revealed very few surprises about what was harming the Blackfoot fishery and steps to fix it began to succeed. Logging plagued the lower river. Since before William Clark funded the Milltown Dam, whole logs had choked the Blackfoot’s lower stretches. Spring high water floated thousands of winter-cut trees toward the lumber mills located at the Blackfoot’s confluence with the Clark Fork, ravaging the river’s bed and banks for miles and devastating spawning runs. Sediment from cut-over soil rushed into the river along with the seasonal thawing of mountain snowpack, clogging the river’s gravel beds where trout laid their eggs and the insects on which they fed spent most of their lives. Modern logging substituted roads and trucks for the river. During the 1970s and ‘80s the United States Forest Service built 340,000 miles

²⁴ Farling, OH428-04. Daryl Gadbow, “Reclaiming a River,” *Missoulian*, 5/17/1990, C1. Gadbow, “Blackfoot tributaries go Back to the Future,” *Missoulian*, 8/13/1992, C1.

of road, mostly in western national forests. At eight times the length of all interstate highways, that effort made the USFS the country's most prolific road-builders. It also enabled modern, corporate logging on public lands. Through the 1980s logging roads in the Blackfoot gave industrial logging companies access to tens of thousands of acres, which they commonly clear-cut, leaving denuded hillsides and road cuts behind, both of which accelerated sedimentation into the river below. In his book *Last Stand*, about illegal clear-cutting practices in the Blackfoot Valley, *Missoulian* journalist Richard Manning described how "(s)ilt gathers in the spaces between rocks where trout deposit eggs, smothering both the eggs and young trout. In a few years, once vibrant trout streams become sterile ditches, broken by the work of carrying topsoil away." He based that description on what he, scores of trout fishermen, and a growing contingent of fisheries biologists had observed in the Blackfoot River.²⁵

The upper river suffered from its mining legacy. In particular, an old dam that held back mine tailings and heavy metal-contaminated water burst in 1975. By 1988 studies showed that native fish populations were still "20 times less than in a 1973 study." What few fish remained in the whole river bore the brunt of heavy fishing.²⁶

By 1991, great effort had improved the Blackfoot. As one story in the local outdoors section of the newspaper speculated, all the press about how poor the river was fishing in recent years might have helped keep anglers away. Fewer fishermen, alongside Don Peters' creel limits on native fish, combined to help more fish live and reproduce, especially in some of the waterway's newly-mended tributaries. With a few high water

²⁵ Richard Manning, *Last Stand: Logging, Journalism, and the Case for Humility*, (Salt Lake City: Peregrine Smith Books, 1991), 56.

²⁶ Daryl Gadbow, "Study divides Blackfoot's trouble spots," *Missoulian*, 5/17/1990, C1.

years to wash out some of the sediment accumulation in the main channel, Peters predicted, the river might rival Rock Creek, a nationally-renowned trout stream that feeds the Clark Fork above its confluence with the Blackfoot. “It’s better big-fish habitat. The bug life is there, the deep holes, I think it’s going to produce big fish consistently,” he said. That prediction was about to be tested. But the Blackfoot was also about to gain a much larger audience, most of whom cheered its recovery.²⁷

In the spring of 1992 American Rivers, the nation’s largest all-purpose river advocacy group, named the Blackfoot one of the country’s ten most endangered rivers. The group made special mention of the river’s devastated native trout populations, especially that of the bull trout. By then the Montana legislature had declared the upper Blackfoot a state Superfund site, but scheduled cleanup work for 1995 at the earliest. Well before that, a different and much wider sort of recognition contributed to the concern for the imperiled Blackfoot.²⁸

In *A River Runs Through It* the Blackfoot River was too lame to play itself. The first showing of Redford’s creation was in Bozeman, MT, a three-hour drive east and over the Continental Divide from Missoula. The choice to screen the movie outside of Missoula followed from the earlier choice to exclude the real Blackfoot from the making of the film. When producers toured the river that ran through Maclean’s tale they deemed it too degraded to star on the big screen. So, they shot the movie’s many dramatic river scenes on the Gallatin River south of Bozeman, Montana, on the headwaters of the Missouri River rather than those of the Columbia. While that irked

²⁷ Daryl Gadbow and Jeff Herman, “Bad press may have been a boon to the Blackfoot,” *Missoulian*, 7/11/1991, C2. Daryl Gadbow, “Blackfoot on the Mend,” *Missoulian*, 7/18/1991, C1.

²⁸ Sherry Devlin, “Troubled Waters,” *Missoulian*, 4/9/1992, A1.

many people in western Montana when it came time to debut the movie, they seemed to understand. The Blackfoot was not pretty enough for Hollywood. But they also hoped that its portrayal by a worthy double might help repair it. A month after the premier, the Big Blackfoot chapter of TU, the CFC, and a local fly-fishing shop sponsored a benefit screening of *A River Runs Through It* in Missoula to raise money for the river restoration projects they were helping to organize and oversee. Nationally, the movie paid immediate dividends to the real Blackfoot as well. By the spring of 1993, the river's TU chapter received nearly \$200,000 from donations collected by Orvis, an outdoor gear company that specializes in fly-fishing equipment. The company had advertised the Blackfoot's problems and needs in national outdoor magazines and offered donors of more than \$150 "a special edition copy of Norman Maclean's book." Anyone giving double that amount received a copy of the book *The Making of A River Runs Through It* signed by Robert Redford. The Orvis money helped TU toward its goal of \$400,000 for the Blackfoot projects, which would trigger the National Fish and Wildlife Foundation to contribute another \$200,000.²⁹

Meanwhile, the same people were involved in deciding how money should be spent to deal with fish at Milltown Dam. In late October 1992, the Montana Power Company released a draft of its "Milltown Fisheries Protection, Mitigation, and Enhancement Plan," which its license extension had required. The Westslope chapter of Montana's TU, the CFC, and the state's FWP all consulted with MPC on the plan, along with numerous other federal, state, and local agencies. The crossover of these groups

²⁹ Greg Tollefson, "Flies right, but the wrong river runs through it," *Missoulian*, 9/17/1992, C1. Sherry Devlin, "Blackfoot to benefit from 'River' showing," *Missoulian*, 10/10/1992, B1.Carolynn McLuskey, "'River' rakes in funds for rehabilitation," *Missoulian*, 4/5/1993, A1.

would soon seem obvious as the dam became integral to the issue of fish in the Blackfoot. At the time, most of the emphasis was on the Clark Fork. The draft plan estimated that the dam blocked passage of spawning fish for “56.7 miles of the Clark Fork River...and 13.5 miles of the Blackfoot.” Mostly the dam impeded upstream migration of fish spawning either in the spring (rainbow and cutthroat trout) or the fall (bull and brown trout). But those estimates lacked solid data on actual fish; they were guesses based on comparing the rivers flowing into Milltown to other rivers in Montana. The proposed solution of slowing dam drawdowns, funding hatchery fish to replace the estimated spawning losses, transporting some fish over the dam, restoring tributaries on both rivers to improve spawning habitat, and, of course, more study, would all cost MPC \$65,000 per year.³⁰

Within a year the price tag had risen and the emphasis was more squarely on research. For an additional \$50,000 the company offered to fund a fish ladder that would allow biologists to trap migratory fish and, in particular, “separate bull trout from other species and tag them to track their migratory behavior.” Dennis Workman, a state FWP fisheries biologist who had worked closely with Don Peters for years studying fish in the Clark Fork watershed, praised MPC’s efforts saying, “(y)ou can’t ask for much more.” Although most environmental groups ultimately opposed the idea of enhancing the rivers with hatchery fish, as well as establishing a fixed financial obligation for MPC in perpetuity, the rest of the plan continued to meet approval. As the CFC put it in a letter

³⁰ MPC, “Milltown Fisheries Protection, Mitigation, and Enhancement Plan,” 10/29/1992, in U.S. Environmental Protection Agency, Montana Office, *Milltown Administrative State Site Records*, reels 601, 169 Government Documents, Mansfield Library, University of Montana.

to MPC, “(e)mphasis in the plan should be placed on natural habitat improvements not artificial quick-fix approaches.” The one interesting exception was ARCO. The company commented that MPC’s study methods were flawed and that the Clark Fork suffered from so many environmentally degrading uses that lack of passage around the dam could not possibly account for the paltry number of trout in the river. In essence, ARCO seemed to be trying to diffuse the blame for the fishery’s troubles.

Nonetheless, the plan was one more way that people began to connect the dam with the Blackfoot, a connection that would later change the course of the Superfund solution at Milltown. In spite of estimates that the dam was preventing “from 75 trout to 750 trout” per river mile pursuing their instinctual migrations, Don Sprague, manager of MPC’s environmental department, said that dam removal was “not an option” due to the sediment it harbored. At least not yet it wasn’t.³¹

Although MPC averred dam removal, in spite of that solution’s inclusion in ongoing FS for Milltown, the company did court broad comment. In a letter announcing the release of its final plan, MPC noted that it was required to include only comments from a limited number of state agencies, but it had voluntarily solicited and incorporated “full participation,” which allowed it to “reach substantial agreement on many issues.”

³¹ Mick Holien, “MPC thinks fish ladder would keep step with trout,” *Missoulian*, 8/26/1993, B2. Sherry Devlin, “Montana Power to unveil fishery enhancement plan” *Missoulian*, 3/23/1993, A1. Sherry Devlin, “Milltown Dam plan leaves trout trapped, expert says,” *Missoulian*, 3/25/1993, B4. ARCO, “Comments on the Phase I Milltown Fisheries Protection, Mitigation, and Enhancement Plan,” 5/28/1993; letter from Steve Schombel (TU) to Don Sprague (MPC), 10/21/1993; letter from C.B. Pearson (CFC) to Don Sprague (MPC), 10/22/1993; MPC, “Final Report: Fish Passage at Milltown Dam, Montana – A Feasibility Study,” 9/1993; ARCO, “Comments on the Phase II Milltown Fisheries Protection, Mitigation, and Enhancement Plan,” 10/22/1993, in U.S. Environmental Protection Agency, Montana Office, *Milltown Administrative State Site Records*, reel 684 Government Documents, Mansfield Library, University of Montana.

One of the newest participants was the Confederated Salish and Kootenai Tribes (CSKT).³²

The tribe's participation in the Superfund process at Milltown would grow to include joining the state's suit against ARCO and restoration work on tribal lands, but it began with concern over fish. Along with *A River Runs Through It*, the most commonly known cultural reference locals made about the Blackfoot came from tribal history. Long before the Milltown Dam drowned the confluence of the Blackfoot and Clark Fork to produce electricity, Salish speaking people used the area during their seasonal ventures from the valleys radiating out from Missoula to the bison hunting grounds of eastern Montana. As they traveled up the Clark Fork, bison hunting parties crossed the river's junction with present day Rattlesnake Creek, which they called *Nl?ay(cčstm)* or "place of the small bull trout." A few miles upstream from there they left the Clark Fork and began following the Blackfoot at *N?aycčstm*. This "place of the big bull trout" offered a fine camping spot where the Salish stopped to fish the waters of the confluence before their journey over the Continental Divide.³³

Although the confluence of the Blackfoot and Clark Fork was a unique place in Salish tribal history, it was less unique as a general environment for bull trout. In spite of their common name, bull trout are actually not trout. They are subgroup of salmon known as char. Their taxonomical misrepresentation as trout stems from a long history of refining the biological boundaries of different fish species. True arctic char, like bull

³² Letter from Don Sprague (MPC) to FERC, 12/28/1993, in U.S. Environmental Protection Agency, Montana Office, *Milltown Administrative State Site Records*, reel 684 Government Documents, Mansfield Library, University of Montana.

³³ Salish-Pend d'Oreille Culture Committee, *The Salish people and the Lewis and Clark Expedition.*, 46-51. Farr, "Going to Buffalo," part 1 & 2, 26-43.

trout, lack the teeth in the roof of their mouths that true trout possess. Through that long process of distinguishing distinct fish species and naming them, bull trout acquired the Latin name *Salvelinus confluentus* in the mid-19th century. The English translation of the Linnaean genus and species appellation is roughly “brook trout” and “flowing together.” The former refers to the bull trout’s early lumping with trout, the latter its preference for spending most of its mature life in larger waters, especially the confluence of rivers that provide access to cold spawning grounds and warmer wintering ones. The Salish and Latin name for the confluence of the Blackfoot and Clark Fork told of the relationship between place and species.³⁴

Tribal involvement in the Milltown Superfund process hinged on their historic use of places like the rivers’ confluence. The Hellgate Treaty of 1855 had pushed a confederation of Salish, Kootenai, and Pend d’Oreille tribes onto a reservation north of the Clark Fork River in Montana. The founding of the Flathead Reservation also preserved the tribes’ access to traditional hunting and gathering grounds in western Montana, including the “place of the big bull trout.” So in 1993, when the CSKT commented on MPC’s plan to protect, mitigate, and enhance fish at their dam site, they were asserting “legal interests to all aquatic resources associated with the Clark Fork River.” In a letter to MPC, tribal council chairman Michael T. Pablo accepted most of the company’s plans, but argued that the “commitment must be for a long term,”

³⁴ R. J. Behnke, *Monograph of the native trouts of the genus Salmo of western North America*, (USDA Forest Service, U.S. Fish and Wildlife Service and Bureau of Land Management, 1979). Bob Batz and Raissa Marks, Natural Resources Conservation Service, “Bull Trout: *Salvelinus confluentus*,” *Fish and Wildlife Habitat Management Leaflet* February 2006: <http://policy.nrcs.usda.gov/OpenNonWebContent.aspx?content=18502.wba>. U.S. Fish and Wildlife Service, “Bull Trout: *Salvelinus confluentus*,” January 2003: <http://www.fws.gov>.

especially in regard to bull trout. The long history the tribe had with the Milltown area and what was becoming its signature species, the bull trout, would soon dovetail with the most thorough study of the dam's effects on fish and the listing of the bull trout as an endangered species by the federal government. All of these shaped Superfund decisions at Milltown. This was one of those times when the letter of the law could not have predicted what was going to happen. Rather, the process unfolded because local conditions triggered or emphasized particular provisions within the Superfund law, including its provisions demanding public input, according tribal sovereignty, and accounting for other environmental laws, such as the Endangered Species Act.³⁵

In the past, when people had taken fish out of the Clark Fork River and put them in a cooler, those fish were most likely destined for a dinner table or freezer. In the spring of 1995, coolers full of fish started helping Clark Fork fish survive, rather than become a meal. With MPC money, Montana FWP biologists rigged the company's dam with a trap meant to catch native fish on their upstream spawning runs. As part of the MPC mitigation plan, biologists used the trap to capture trout and transport them around the dam in coolers because there were so few spawning-quality tributaries below the structure and so many good ones above it. Biologists doing the work termed bull trout "at risk of extinction throughout their historic range, and westslope cutthroat are 'a heartbeat away.'" The *Missoulian* article that first covered the story mentioned the

³⁵ Letter from Michael T. Pablo (CSKT) to Don Sprague (MPC), 10/23/1993, in U.S. Environmental Protection Agency, Montana Office, *Milltown Administrative State Site Records*, reel 684 Government Documents, Mansfield Library, University of Montana.

importance of the rivers' junction in Salish history, as well as the electro-tagging of captured fish that would allow researchers to study their future.

The project of moving fish around a dam was hardly unique. At the same time that dozens of fish traveled around Milltown Dam in plastic coolers, the federal government was requiring the Bonneville Power Administration to spend hundreds of millions of dollars a year to barge endangered salmon around a few of its dams on the Columbia River. But riding in coolers in order to reach spawning grounds was a first for fish on the Clark Fork since the dam's erection 88 years before.³⁶

Fish making it around Milltown Dam with a little help from biologists were meant to help the ongoing efforts to revive the Blackfoot, as much as they were a part of the Clark Fork Superfund process. A 1995 retrospective on those efforts celebrated the work of Blackfoot Valley residents in raising money and awareness, which had amounted to the restoration of hundreds of miles of the river's tributaries, wetlands, and main channel. That work began in the late 1970s with a loosely-knit group of valley landowners who came together with ideas about how to enhance the Blackfoot watershed's natural resources, as well as its rural character. By 1993 the partnership named itself the Blackfoot Challenge. Remaining locally organized and gaining national renown, the Challenge has managed to foster the reintroduction of wolves and grizzly bears into the basin, while also maintaining its ranching heritage and tailoring logging practices toward better forest health. On the river itself, its members have worked with government agencies and environmental groups to create log and debris dams meant to replicate what beavers once did to establish a diverse ecosystem that favored trout reproduction.

³⁶ Sherry Devlin, "Fish net boosts trout's chances," *Missoulian*, 3/28/1995, A1. David Foster (AP), "Saving the salmon," *Missoulian*, 9/11/1995, C2.

They've helped more beavers survive. Repairing tributaries from overgrazing, keeping cows and logging out of the most sensitive riparian areas, and making irrigation more efficient so more water stays in the river are all examples of their efforts. Most of that work aimed to undo what a century or more of mining and its symbiotic industries of logging and agriculture had done to the river. But garnering support for the Blackfoot's restoration also made people more willing to accept restrictive fishing regulations that helped reverse the overharvesting that had resulted from the waterway's popularity. In an ironic but much needed twist, Redford's movie and the resurgence in popularity of Maclean's book had helped charge support for the Blackfoot's health, which decades of overzealous fly-fishing had helped diminish.³⁷

But celebrations of the Blackfoot's future were, perhaps, premature. While the history of mining had driven much of the damage done to the river, mining in the river valley was not just history. In 1996, just after ice threatened to take out Milltown Dam, the national environmental group American Rivers placed the Blackfoot River on its annual list of the nation's most threatened rivers. Four years earlier the same group had listed the Blackfoot as one of the nation's most endangered rivers. The leap from being one of many endangered rivers, which meant that it had an "imminent risk of destruction," to being the most threatened, signifying its position at the "brink" of demise, was due to mining. Just as things were looking better for the Blackfoot, a major gold mining proposal threatened to turn back those efforts. Plans for an open pit mine located above the Blackfoot's headwaters near Lincoln, MT. (which had acquired its own

³⁷ Ginny Merriam, "Bringing Back the Big Blackfoot," *Missoulian*, 11/9/1995, C1. For more on the Blackfoot Challenge, also see their webpage, which includes links to new stories on the group's history and achievements: <http://blackfootchallenge.org/Articles/>

sort of fame when the FBI arrested Ted Kaczynski, aka the Unabomber, in his hand-crafted cabin outside Lincoln in early April, 1996), included the practice of pouring cyanide over heaps of raw ore to extract the precious metal. That threat got the Blackfoot listed above such major watersheds as the Florida Everglades, the mighty and maligned Mississippi River, and the urbanized Hackensack as it ran through New Jersey and New York.

National prominence for the Blackfoot's contemporary challenge came from local effort. It was the Montana Environmental Information Center that nominated the Blackfoot for American Rivers' yearly "award." And it became a mostly local effort to protect the river against the mine proposal. The state's governor at the time, Marc Racicot, had put together a bull trout restoration team two years earlier to aid in the revival of the Blackfoot. He did so because of local encouragement in the face of the USFWS's unwillingness to create a federal plan for the species. Montana's bull trout restoration plan was one of the first and most well regarded state-sponsored efforts on behalf of the fish. It, along with western environmental organizations, helped push the federal government to apply the Endangered Species Act to the bull trout. As Glen Marx, the director of the state team, put it, "We want to prove we can managed bull trout...The bull trout affects our economy, our quality of life, our recreation. Why shouldn't we take the lead in its recovery?" Marx hit on the trilogy of motives that infused most environmental organizations by the 1990s, as well as pointed in the direction of local or watershed management that many of those same groups favored. But this wasn't the fruits of a state's rights movement, such as the Sagebrush Rebellion of the Reagan years. Local groups and state agencies consistently looked for support within a federal

framework. Racicot's team ranged from the Bonneville Power Administration and major timber interests to the CSKT, numerous state agencies, and environmental organizations. In addition to helping restore bull trout, the team aimed to push the U.S. Fish and Wildlife Service to consideration of the species for listing under the ESA.

With the Blackfoot River and bull trout restoration at stake, Racicot joined a chorus of concern over the proposed Seven-Up Pete mine. The CFC and others denounced the mine's proposal in an editorial to the Missoula newspaper that urged people to go see the proposed mine site for themselves. The group asked the public to imagine a "600-foot stack of waste rock, 895 acres of cyanide heap-leach pads, (and) an almost square-mile wide pit" marring the recuperating Blackfoot's upper reaches. Of most prominent concern was the river's rebounding fishery.³⁸

The first major study of the mine proposal determined that the Blackfoot's headwaters were its richest spawning grounds and the ones most imperiled by the proposed mine. In general, the river's richness in terms of fish increased with distance from the Milltown Dam. So, even as people fought against a near-future threat to the river, they recognized its biggest ongoing problem.³⁹

In 1997 American Rivers relisted the Blackfoot as one of the country's most threatened rivers, with the Missouri River replacing it in the top spot. Even so, the Blackfoot's cause was about to gain a very important ally in the form of more federal

³⁸ Sherry Devlin, "Blackfoot on the brink," *Missoulian*, 4/18/1996, B1. Devlin, "Governor: Planned gold mine may be threat to bull trout," *Missoulian*, 6/4/1996, A1. Devlin, "Trout reports expected this week," *Missoulian*, 6/4/1996. Karen Knudsen and Geoff Smith, "You've heard about it, now take your own look," *Missoulian* 7/21/1996, A4. Paul Larmer, "Bull Trout History," *High Country News*, 5/15/1995.

³⁹ Erin P. Billings, "Mine study: Fish populations depend on habitat variables," *Missoulian*, 3/6/1997, B1.

environmental law. Just as with the Superfund process that was beginning to tie the Blackfoot more securely to the fate of Milltown and the Clark Fork, the designation of the bull trout under the Endangered Species Act hinged on local efforts. By century's end, ongoing local efforts along with damning environmental impact statements would stop the Seven-Up Pete mine proposal. That was no small victory for advocates of a clean Blackfoot. Phelps Dodge owned the Blackfoot mining venture and poured \$2 million into a campaign that killed a 1996 citizens initiative vote in Montana that would have made cyanide extraction of gold illegal. In his book on the history of the Blackfoot and that particular initiative, journalist Richard Manning quoted the state's Trout Unlimited director, Bruce Farling, as saying, "We could have come up with an initiative that said 'Don't rape grandmothers.' If those guys opposed it with \$2 million, it would have lost." But losing the fight to ban cyanide heap leach mining outright failed to kill the more specific effort to disallow the actual mine. That was largely due to what Manning referred to as the maturity of local environmental groups like the CFC, groups that focused on whole regions or watersheds rather than single issues; that grew rather than wilted through transitions in leadership and staff; and that worked, by and large, with stable, government agencies rather than at odds with them.⁴⁰

Beginning in 1997, local environmental and governmental efforts coincided to support the listing of the bull trout on the Endangered Species list. That effort, along with the ice jam of 1996, made the idea of maintaining the Milltown Dam as part of the Superfund remedy substantially less tenable. At a summer public comment session on the issue of bull trout's ESA listing held in Missoula by the U.S. Fish and Wildlife

⁴⁰ Sherry Devlin (AP), "Blackfoot, Missouri named as threatened," *Missoulian*, 4/17/1997, A1. Manning, *One Round River*, 182.

Service, only two of eighteen speakers opposed the measure. Both were timber industry representatives. Those in favor were, according to the *Missoulian*, “conservation organizations, including Friends of the Wild Swan and Alliance for the Wild Rockies whose lawsuit forced the...Service to propose the listing.” These and other Montana environmental advocates saw listing the bull trout not as simply a way to save a single species, but as the means to protecting an entire ecosystem. As Alliance director Mike Bader put it, “We think listing the bull trout would have many benefits...because it is an indicator species of clean water supplies, [and] by protecting it, many other species would benefit as well.” A fisheries biologist for the U.S. Fish and Wildlife Service shared that assessment. In fact, the use of endangered species as a tool to preserving ecosystems had become the ESA’s most powerful and unexpected ramification. Indicator species such as the bull trout stood in for the well being of their native environments, like the Blackfoot watershed.⁴¹

Studies detailing the importance of the Blackfoot for bull trout spawning began to pile up. A lot of that work was due to Montana FWP fisheries biologist Don Peters, who vigorously opposed the plan to mine gold in the Blackfoot valley and leach it out of ore with cyanide. His best weapon in fighting the mine was getting his agency to produce “a thorough and ongoing analysis of fish populations in the upper Blackfoot and its...tributaries.” He reasoned, according to the *Missoulian*, that “We’ve put half-a-million dollars a year into projects designed to improve habitat...in the Blackfoot...And, in fact, it (the mine) has the great potential to harm a lot of our good work.” By April, 1998, the Blackfoot was on American Rivers’ list of most endangered rivers once again,

⁴¹ Daryl Gadbow, “Supporters push for bull trout listing,” *Missoulian*, 7/11/1997, B1. Petersen, *Acting for Endangered Species*.

with upstream mining the major worry. But by June, the presence of a single fisherman casting a dry fly into the river about halfway between the proposed mine location and the Milltown Dam would greatly lessen the gold mine's chances. Bruce Babbit's announcement that the federal government had, after nearly a decade and a half of indecision, listed the bull trout under the ESA, helped do just that.⁴²

But for many people, a fish named "Pollywog" did more than anything to bring attention to the connection between the Blackfoot river and the Milltown Dam and to erode the idea of leaving the dam in place. And Pollywog was a product of Superfund-related research at and on the dam. The story of Pollywog further demonstrates the importance in Superfund implementation of corporate funds, science, individual efforts, and public perception.

Like Peter Nielsen, David Schmetterling came to graduate school at the University of Montana because of its location in western Montana as much as for its academic offerings. In particular, both men loved the school's proximity to rivers. Schmetterling grew up in Maryland where he spent as much of his youth as possible playing outdoors, "catching things," especially fish. He remembers using field guides and encyclopedias to make a list of all the fish he wanted to catch in their native waters as a way "to explore different places and the country." That list included cutthroat and bull trout. After pursuing an undergraduate degree in architecture at Cornell, Schmetterling

⁴² Sherry Devlin, "FWP biologist has been hardened thorn in the side of the Seven-Up Pete Joint Venture," *Missoulian*, 8/21/1997, C1. Daryl Gadbow, "New bull trout spawning grounds show value of tributaries," *Missoulian*, 8/21/1997, C1. Sherry Devlin, "Mine puts Blackfoot on group's danger list," *Missoulian*, 4/6/1998, A1. Larmer, "Bull Trout History," *High Country News*, 5/15/1995.

gravitated back to his childhood loves and that unfulfilled list. In the early 1990s he moved to Montana in pursuit of both a master's degree in fisheries biology at UM and the state's native fish.

After graduating and catching his share of fish out of the local rivers, Schmetterling began working for the state's Fish, Wildlife, and Parks in 1995 out of the agency's Missoula office. As he remembers "apropos to Milltown, it was a really interesting time." His initial work was "with native species in the Blackfoot and Clark Fork Rivers and understanding ways that anthropogenic influences across the landscape were influencing fish like cutthroat and bull trout." In the midst of that work, "Milltown Dam kept coming up even though we weren't looking at it," he said. In terms of how it affected fish, "there was very, very little information on the dam." Schmetterling surmised that the lack of information was because "it just seemed like a hopeless situation." His work soon changed that perception.

In 1998 Schmetterling started a research project on the dam. He asked what he thought were a few basic questions. Was the dam still impeding fish migration almost a century after it was built? If so, what fish was it affecting? Was fish passage necessary? He asked these questions just as MPC was finalizing its fish mitigation plan. The plan concluded that the dam altered fish life cycles for a fifteen-mile stretch of river at most. Schmetterling's findings forced a radical shift in that reasoning.⁴³

What Schmetterling proved was that even with all the metals contamination and other human changes to the Blackfoot and Clark Fork, they should support far more

⁴³ David Schmetterling, OH-428-06, Archives & Special Collections, Maureen and Mike Mansfield Library, The University of Montana-Missoula.

native fish. And the dam was to blame. At different times of the year, fish like cutthroat and bull trout swam downstream from their breeding grounds over the Milltown Dam using its spillway. But they never returned. Schmetterling “ultimately estimated that two hundred thousand fish had their migrations annually impeded by the dam.” In the fall of 1998, David McEnvoy, one of the UM graduate students that Schmetterling was mentoring through his study of the dam, told the local newspaper, “We estimated there were 8,000 suckers in the pool one day. It was kind of disgusting. You could hardly walk across the pool there were so many of them stacked up in there.” The urge to spawn was driving those fish to the dam’s base. Essentially, the dam was blocking the reproductive capacity of the Blackfoot and Clark Fork Rivers well into their headwaters on the Continental Divide. Whereas the Clark Fork provided warmer water in which many fish overwintered, the Blackfoot offered the best cold water spawning grounds. Schmetterling was amazed that even after ninety years of running up against this impediment, those fish still followed their evolutionary instinct to get past the dam. “One brown trout’s been around here for three months trying to get over the dam. Almost every time we come out here we catch him again,” marveled Schmetterling. Similarly, many of the fish he observed stuck below the dam had abrasions all over their bodies from launching themselves repeatedly against the nearly forty-foot tall structure. These were Maclean’s “high jumping” trout, failing to clear a nearly century-old obstacle. After fruitlessly flailing against the dam “they probably won’t spawn again,” Schmetterling said. Bruce Farling credited Schmetterling’s work with connecting many of the dots between the dam, fish passage, the Blackfoot’s health, and the ESA. Once people understood that the dam prohibited bull trout spawning, it became “an illegal take

of a listed species” because the dam prevented the fish from fulfilling “its life history strategy, which is to move upstream and spawn,” said Farling. As a result, Farling remembered, “what really pushed EPA over the edge to go, ‘removal is going to be a serious option’ was that ice event and bull trout. The ice event freaked everybody out and then bull trout was sort of an issue that was icing on top of that.” By the late ‘90s everyone paying attention knew that the fish in the Salish name for the rivers’ confluence, “the place of the big bull trout,” as well as hundreds of thousands of other native trout, should be populating Norman Maclean’s now-famous river.⁴⁴

All those fish piling up under the Milltown Dam recast the understanding of the structure’s effect on the rivers’ fisheries and strengthened the argument for fish passage. But it was the fish that made it past the dam that really piqued public interest. The Superfund process at Milltown resulted in MPC having to fund research, such as Schmetterling’s that studied fish passage issues at the dam. With the hopes of connecting communities to his research, Schmetterling started an “Adopt a Trout” program. He figured that “the best way to discuss these issues...and invite people to see what we’re doing...was through the eyes of children...(I)t really changed a lot of people’s perceptions.” By 2001, Schmetterling had about a dozen elementary and high schools in the Blackfoot and surrounding areas involved in tracking native fish that he had implanted with radio transmitters. He gave students weekly updates on where their fish were moving since he’d helped them over the dam. Delighted with the immediate interest, Schmetterling recalled that “we’d go on field trips to the dam so they could watch their fish being captured and implanted and then we’d...look at places where those

⁴⁴ Daryl Gadbow, “Against the Wall,” *Missoulian*, 9/17/1998, C1. Farling, OH 428-04.

fish are [sic] spawning...People got to learn about the history of the dam...Most...had never been to the dam.”

The Seeley Lake Elementary school located on the Clearwater Creek tributary in the middle reaches of the Blackfoot Valley named its adopted cutthroat trout Pollywog. Pollywog found her way up the Blackfoot to Gold Creek, a particularly popular cutthroat spawning tributary. She then returned downstream and hung out in Milltown Reservoir for most of the summer, unable to get over the dam. One day Schmetterling got a call from a man claiming to have caught a radio-tagged pike out of the reservoir. In the late '90s northern pike had moved down into the reservoir from the chain of lakes along the Clearwater River where they had been illegally introduced. By 1999 fisherman reported catching them regularly in the reservoir where they thrived in its warm, stagnant water, devouring the native fish. According to Schmetterling, the natives hadn't yet learned to recognize pike as predators, although they were very aggressive ones, especially during spring run-off when cutthroats and bull trout moved downstream through the reservoir at the same time that northern pike go through a “post-spawning...feeding frenzy.” When he first heard the tale of a tagged pike, Schmetterling disbelieved the man since he hadn't tagged any of those non-native species, but the man's father, who was a former director of UM's Wildlife Research Unit, got on the line and confirmed the fish story. When the father and son read him the radio tag information, Schmetterling realized what had happened. The pike and tag were “all that remained of Pollywog,” he concluded. The story made the *Missoulian* and, as Schmetterling remembered, “(t)he kids were outraged. The parents were outraged that this cutthroat trout had been eaten by a northern pike. (They) could not believe that people weren't doing something more to stop this.” During

the course of the “Adopt a Trout” program, Schmetterling encountered many other instances where participants were amazed and angered by how the dam and reservoir were affecting their fish.

Suddenly a whole new contingent of people saw the need for a different solution to Milltown than simply leaving the dam in place. That began to include MPC. With the number of fish Schmetterling had trapped and counted below the dam, along with the newer concern over pike eating native and threatened fish, “fish passage was going to be really costly,” he emphasized.⁴⁵

Schmetterling never explicitly advocated dam removal, but ultimately that was the message people took from his work. Had he simply shown that the dam impeded migrating fish, especially the threatened bull trout, a fish ladder or some other means of transporting native species over the dam might have solved the problem. Combining statistics on the large number of native fish the dam halted in their reproductive cycle, habitat for predatory non-native species, and, finally, the expense of transporting fish around the dam, made on-going mitigation seem untenable to an ever widening community of people.

The ice jam of 1996 killed fish downstream of the Milltown Dam. In doing so, it essentially perforated the notion of a contained Superfund site and made the remedy of leaving the dam and sediments in place far less viable. It also helped delay the decision process by forcing a reevaluation of the feasibility study for Milltown. That delay

⁴⁵ Schmetterling, OH-428-06,. Also see, Sherry Devlin, “Trout by trout: Biologists carrying cutthroats up and over Milltown Dam to help embattled fish complete their spawning cycle,” *Missoulian*, 5/27/1999, C1.

allowed for the unfolding of other events that put the Blackfoot River at the center of the Milltown problem. Schmetterling's work, and the specter of having bull trout on the Endangered Species list, "really brought a lot of attention to the dam," according to the biologist. It all happened at a time when the Blackfoot River was in the news and on people's minds. The river's rebounding fishery, along with the movie that helped revive its popularity and concern for it, and a raft of study and restoration efforts, all meant that Norman Maclean's river was seeing more traffic than it ever had. By the turn of the century, the Blackfoot had a new set of regulations in place meant to preserve its struggling fish population and manage its human usage. With western Montanans leading the effort, the Blackfoot had also survived a proposal to mine the gold from its headwaters. Federal listing of the bull trout combined with Schmetterling's research made the dam culpable for taking the lives of an endangered species.⁴⁶

In essence, between 1996 and 1998 the Blackfoot River came into the spotlight of the Milltown Superfund process. An ice jam, a major Hollywood movie, the study of native migratory fish, and a fish called Pollywog placed the Blackfoot at the center of the solution for the contaminated reservoir under which it joined the Clark Fork. In particular, those events attracted enough attention to give life and eventual success to the next major campaign to alter the permanent remedy at Milltown. Following from these events, the first substantial call for removing the Milltown Dam would drown the idea of leaving it all in place. What happened in connection with the Blackfoot River was about to lead to a whole lot more people looking at the place where Milltown Dam and its

⁴⁶ Sherry Devlin, "A river run ragged," *Missoulian*, 3/14/1999, B1. Devlin, "Protect Blackfoot River but keep it open, agency told," *Missoulian*, 3/17/1999, B1. Land Lindbergh, Guest Column, "Restrictions on recreation may be wisest course to save the Blackfoot," *Missoulian*, 4/6/1999, A5.

reservoir were and considering that, perhaps, there should be an more natural river running through it.

*The Campaign:
“Remove the Dam. Restore the River.”*

Peter Nielsen never imagined the September eleventh terrorist attacks would reverberate through the Superfund process at Milltown. Yet barely a year after the destruction of the twin towers in New York City, the fear of further terrorism in the U.S. and the federal government’s efforts to prevent it provided one of the last proverbial nails in the coffin of Milltown Dam.

Just before Christmas, 2002, Nielsen was sitting in his office at the Missoula City-County Health Department making a routine check of the Federal Energy Regulatory Commission’s website. To his surprise, a seismic study of the dam popped up. It described large cracks, massive leaking and the structure’s vulnerability to earthquakes. Nielsen called FERC for an explanation. As he put it, “somebody didn’t get the memo at FERC and they were posting documents that were supposed to be classified...about the...vulnerabilities in our nation’s infrastructure.” By the next day a TV cameraman from a local station visited Nielsen’s office, hoping to film the documents on FERC’s website. With camera’s rolling, Nielsen logged on to the FERC site only to find that the agency had pulled the information, labeling it classified under the auspices of “national security.” As Nielsen later learned, part of the federal government’s efforts to prevent future 9/11-like attacks enabled FERC to “put the clamps on certain things so terrorists could not get in there and get diagrams to Grand Coulee” dam, for example.¹

¹ Sherry Devlin, “Milltown messages removed from FERC site,” *Missoulian*, 12/24/02, A5. Nielsen, OH 428-08.

The story of FERC withholding safety information about a seriously compromised dam that held back contamination in part of the country's largest Superfund site made national news, including a retelling in the *Washington Post*. A number of Freedom of Information Act watchdog websites covered the story. In Missoula, it prompted County Commissioner Barbara Evans to call the dam's owners and convince them to release the reports. "At the end of that conversation," according to Nielsen, MPC "decided they'd rather take their chances with terrorists" than with Evans. FERC issued Evans a formal apology and agreed to provide the city and county with any information they wanted about the dam. And, the incident helped push Montana's Republican Governor Judy Martz to come out in support of dam removal. The mistake at FERC, which associated the Milltown Dam with 9/11, dovetailed with a local campaign that had dramatically raised awareness about the Milltown Superfund site. The result was a flood of public support for the removal of the dam and the site's contaminated sediments.²

More than anything, the unlikely contingency of a FERC employee mistakenly posting a classified document about the Milltown dam and Nielsen happening to see it while "dink(ing) around on the computer" during his lunch hour raised people's fear of leaving an old and damaged dam in place by associating it with the national fears surrounding terrorism. But legitimate fear of keeping the Milltown Dam in place as a Superfund solution was only one of the reasons that the site garnered a record number of public comments during the EPA's efforts to pick a cleanup remedy. In the first few years of the new millennium, people bombarded the EPA with comments about the site because of their fears, their economic concerns, and their sense of fun. Those comments

² Nielsen, OH 428-08.

reflected and reiterated the Clark Fork Coalition's advocacy campaign about the Superfund site. The CFC's campaign to remove the dam and restore the river transformed the Superfund process. The campaign and resultant public outcry combined Superfund's original mandate to remediate contaminated places and its new dimension of restoring environments.

The success of the campaign and the reaction of its opponents revealed a powerful new direction for Superfund and environmentalism, as well as a case study in how struggles over the environment are not a winner-take-all prospect. In his essay "Reflections on a Spare Tire: SUVs and the Postmodern Environmental Consciousness" environmental historian William Rollins delved into the complex ways that advertising of automobiles has co-opted the language of environmentalism. And in a complementary turn, late 20th century American consumers have included buying products, including SUVs, as a significant display of their environmental values. With respect to the power of advertising to sell goods because of the environmental values they purport, Rollins concluded, "in the postmodern, media-saturated age, representation is nine tenths of the truth." Whereas he focused on media and material goods, the Clark Fork Coalition employed the power of representation to sell knowledge and promote action. The CFC used commercial modes of communications – advertising primarily – to educate and engage the general public in an environmental cause, rather than to sell a product. Those efforts led to the first time that Superfund remediation meant removing a dam.³

³ Nielsen, OH 428-08. Kurt D. Cline, "Influences of Intergovernmental Implementation: The States and the Superfund," *State Politics and Policy Quarterly*, V.3, No.1, (Spring 2003): 66-83. William Rollins, "Reflections on a Spare Tire: SUVs and Postmodern Environmental Consciousness," *Environmental History*, (October 2006). This argument also contrasts with Andrew Kirk's claim that since the late 1960s and the success of the

In 1988, Tracy Stone entered the Environmental Studies Program at the University of Montana. She had fallen in love with Missoula on her first visit and decided, “if I get in, I’m coming. If I don’t, I’m coming.” In addition to a passion for the place, she had convinced herself that environmental studies was a perfect way to put her undergraduate degree in media studies to work. As she put it, people had “been duped into over-consuming with advertising, perhaps we can be duped through advertising into living more sustainably.” Her MA thesis, “Into the Heart of the Beast: A Case for Environmental Advertising,” explored this new mode of environmentalism.⁴

Following completion of her degree at UM, Stone worked for various conservation organizations and eventually became a board member for the Clark Fork Coalition, as well as marrying environmental journalist Richard Manning. In 1999, when the director’s position opened, she applied. One of her terms for hire was that the organization “expand and change how we do conservation.” In particular she wanted the CFC to “be about community” as much as it was “a science-based advocacy group about water quality in a river.” The board embraced her vision.

Whole Earth Catalog American environmentalism has been infused with the notion that new technology and green consumption are the solutions to restoring the planet. In the CFC campaign and at Milltown in general, dam removal and river restoration advocates operated under no such grand ideologies. Rather they provide a convincing account of the practicality and immediacy of environmental advocacy. See: Andrew G. Kirk, “Appropriating Technology: The Whole Earth Catalog and Counterculture Environmental Politics,” *Environmental History*, V.6, No.3, (July, 2001): 374-394; and *Counterculture Green: The Whole Earth Catalog and American Environmentalism*, (Lawrence: University Press of Kansas, 2007).

⁴ Tracy Stone-Manning, OH 428-03, Archives & Special Collections, Mansfield Library, The University of Montana-Missoula.

Stone-Manning began her directorship by making the Milltown Dam the Coalition's signature project. She asked, "why aren't we advocating for cleaning it all up and taking out the dam?" By February, 2000, the coalition launched a campaign they called: "Remove the Dam. Restore the River."⁵

When Stone-Manning met with Sean Benton about doing an advertising campaign about Milltown, she knew the CFC couldn't afford much. What she had not imaged was that Benton and his colleagues at Partners Creative would offer to do the work pro bono. One of the Missoula-based marketing firm's core principles was that its work should "make the community that we live in better." The company also hoped that doing free work would allow it the sort of creative freedom that could help distinguish Partners Creative in the competitive ad business. Being pro-environment coincided with growing the business. Looking at the research emboldened Stone-Manning and Benton to ask for dam removal in hopes of creating enough "public will that would push it [removal]."⁶

The new campaign used multiple media to educate people about the major issues surrounding the Milltown Superfund site and the forthcoming decisions about its cleanup. It drew on support from around the community, especially small businesses, and it was meant to be fun, even funny. Stone-Manning hoped that balancing humor with serious issues would entice people who didn't consider themselves environmentalists to support an environmental issue. It worked. The campaign got people involved in shaping the outcome of federal public policy by educating them with advertising. Most of that

⁵ Stone-Manning, OH 428-03.

⁶ Sean Benton, OH428-05, Archives & Special Collections, Maureen and Mike Mansfield Library, The University of Montana-Missoula.

education centered on recreational interests, the idea of restoration, and the fears surrounding Milltown's Superfund site.

People who had been paying attention to the Milltown site already had fears about it before the Coalition's campaign. So, it wasn't surprising that the advertising effort drew on those fears. In particular, the campaign and people's responses centered on fear for the dam's safety, of the toxins it withheld, and about the responsible companies.

Fear of a catastrophic failure wasn't new in 2002 when FERC accidentally posted information about Milltown Dam's instability. Locals had feared the dam would collapse as far back as during the flood of 1908 and as recently as the ice scouring event of 1996. In 2001, one of the group's local TV advertisements began with a soundtrack reminiscent of Darth Vader's breathing, followed by a series of dissonant, industrial tones. The ad's only visual was a white liquid infiltrated by a surge of black ink that swirled and filled the screen as the narrator spoke about the "poisoning" and "threatening" affect of the Milltown sediments. Newspaper advertisements included the image of a skull and crossed bones with the word "POISON" underneath.

One of the CFC's signature messages, which headlined newspaper advertisements and appeared on a Missoula billboard, read "Not All Time Bombs Tick." More than anything else in the campaign, this slogan fit the national trend of politics and advertising playing on post-9/11 fears. The billboard featured a black and white photo of the Milltown Dam's downstream face – the view from Missoula. The dam's spillway and gates were caked in ice and snow, as were the wooded mountainsides in the background, which was a visual reminder of the 1996 ice-scouring event that nearly destroyed the structure. Newspaper ads equating the dam with a bomb threat was a potent, post-9/11

symbol. Referring to the Milltown Dam as part of “one of the largest Superfund sites in the nation,” a 2001 *New York Times* article reported that local residents “all along the political spectrum” were beginning to “portray the dam as a toxic time bomb.” Like most CFC ads, the *Times* detailed the contents of the proverbial bomb in terms of heavy metal quantities and the vulnerability of the dam.⁷

When it came to playing on fear of toxins, Milltown’s problems made it fairly easy to create copy. “Arsenic is bad. Had it been something that nobody knew (about) behind the dam, it would have been a lot harder. But everybody knows arsenic,” remembered Benton. One study found that 68,000 tons of metal-laced sediment flowed through and over the dam every year. That was a steady trickle compared to what a flood-wrecked dam might cause. The campaign tried to make the figure of 6.6 million cubic feet of contaminated sediments as common a local knowledge as the ounces of soda in a can. In the buildup to the EPA’s final decision on Milltown, virtually every letter the agency received in favor of dam removal addressed the tandem worry of an old, unsafe dam and the toxins behind it. Many quoted the statistics the Coalition’s campaign made so widely known.⁸

Whereas environmental realities made the campaign’s message about toxins accessible, timing did so for its focus on fears about the responsible corporations. During the first few years of the new millennium, as the EPA and ARCO worked through a second and third feasibility study necessitated by public and organizational input, the potentially liable parties began changing hands. As early as the summer of 1997

⁷ “Montanans Weigh Options on a Toxic Legacy,” *The New York Times*, 5/7/2001, A12.

⁸ Benton, OH428-05. All advertising material created by Partners Creative. Copies in possession of author. Sherry Devlin, “Toxics, trouble mounting behind dam,” *Missoulian*, 7/11/1997, B1.

Montana Power Company was trying to rid itself of the dam. Within a year, MPC was selling its hydropower plants and trying, as the company VP put it, “to get out of the power generation business.” The company knew that it would be hard to sell the dam because it produced very little power and was entangled in Superfund. The Missoula City-County government and other observers, like the CFC, worried that if MPC sold the dam the trail of liability would become longer, more complex, and more tenuous. In November, 1998, MPC sold all its power generating facilities, except the Milltown Dam to PP&L Global Inc., just as ARCO was finishing a Focused Feasibility Study, a revision of the original FS that the EPA demanded because of people’s unsolicited comments indicating that they “didn’t believe that the dam removal option was given proper consideration.”⁹

MPC’s financial role at the site was uncertain, whereas ARCO’s appeared integral to the possibility of a polluter-pays cleanup. When BP-Amoco sought to buy ARCO for \$25 billion in March, 1999, EPA spokeswoman Pam Hillary had to assure Montanans the new owners “won’t be off the hook.”¹⁰ In fact, the purchase, which created the world’s second largest oil company, would eventually facilitate the removal of the Milltown Dam. But at the time, the worry was that the liable company at the site would become even less amenable to environmental cleanup. As the sale was happening, ARCO settled

⁹ Russ Forba, personal communication with the author, notes in author’s possession, 6/18/2011. Letter from Phyllis Flack (ARCO) to EPA; letter from Russ Forba (EPA) to Phyllis Flack (ARCO), 11/20/1998; 12/16/1998, in U.S. Environmental Protection Agency, Montana Office, *Milltown Administrative State Site Records*, reel 1147, Government Documents, Mansfield Library, University of Montana. Sherry Devlin, “Milltown Dam a liability for MPC sale;” “Engineer confirms leaks in Milltown Dam;” “Milltown dam remains MPC’s liability,” *Missoulian*, 5/8/1998, 2/13/2001, 11/3/1998, A1, A1, A2.

¹⁰ John Stucke, “BP Amoco to purchase Arco for \$25 billion,” *Missoulian*, 3/30/1999, B1.

with the state of Montana's Natural Resource Damage Program and the Confederated Salish and Kootenai Tribes over natural resource damage claims for \$260 million. Culminating a sixteen-year court case, the settlement was only about a third of the \$765 million the state once sought. Advocates for river cleanup thought that the money was a boon for the Clark Fork's future, but also a sign of ARCO's intention to pay for as little of that future as possible.¹¹

In July, 1999, BP and ARCO were nearly finished sealing their deal. That deal included, as the *Missoulian* front-page reported, a \$63 million severance package for the seller's "top five officials."¹² In the same month, EPA received a draft of ARCO's Focused Feasibility Study.¹³ Upon review, the agency forced the company to make two major changes. Both pointed to the company's preference for minimizing its costs. First, according to the EPA, ARCO had underestimated cost information for dam safety improvements and fish passage construction for the option of leaving the dam in place. Second, ARCO had overstated the risks of sediment and dam removal, thereby making that option appear more risky and expensive than the agency deemed it. ARCO preferred a solution that would cost less than one out-going executive's severance package.¹⁴

ARCO came in for additional suspicion about its commitment to cleaning up the dam site the following spring. In the midst of another round of license extension requests

¹¹ John Stucke, "Judge Oks Arco deal," *Missoulian*, 4/20/1999, A1.

¹² John Stucke, "BP buyout could net Arco brass big bucks," *Missoulian*, 7/20/1999, A1.

¹³ Prepared for ARCO by Schafer & Associates, "Milltown Reservoir Sediments Site, Draft Focused Feasibility Study," in U.S. Environmental Protection Agency, Montana Office, *Milltown Administrative State Site Records*, reel 1194, Government Documents, Mansfield Library, University of Montana.

¹⁴ Letter from Russell Forba (EPA) to Robin Bullock (ARCO), 11/8/1999, in U.S. Environmental Protection Agency, Montana Office, *Milltown Administrative State Site Records*, reel 1194, Government Documents, Mansfield Library, University of Montana.

from the Montana Power Company to FERC, which nearly everyone paying attention opposed, ARCO struck a private deal with the dam owners.¹⁵ MPC reported that it had agreed to join ARCO in support of a “dam-in-place and sediments-in-place remedy for the Milltown Reservoir.” Calling it a “Stewardship Agreement,” the companies committed to “search for a third party to assume local control of the dam into the future” and to create an operating fund for the prospective owner. The deal promoted shoring up the aging dam with an “inflatable,” “rubber structure” along its crest and leaving all the toxic sediment where it was, then handing the whole thing over to the locals.¹⁶

As the *Missoulian* reported in early May, 2000, “the response was quick and critical.” It was also fearful. Local government agencies worried that the deal would “leave a mess for us to deal with in this community.” Peter Nielsen saw the move in the context of Superfund sites nationwide, which he worried were getting incomplete remediation and being left for local governments to wrestle with. Since the Clinton era Congress failed to maintain the taxes that targeted industry and funded such “orphan sites,” those sites were receiving ever-decreasing support from the federal government. While private industry had paid for cleanup at roughly two-thirds of Superfund sites since its enactment, funding for the other third “dwindled from a high of \$3.8 billion in 1996 to a projected \$28 million” by 2003,” according to *The New York Times*. The Bush White House made no effort to reinstate a corporate tax to support Superfund sites without liable parties – that orphaned one-third. As the Superfund shrank, orphan sites depended

¹⁵ Sherry Devlin, “Groups to oppose MPC dam relicensing,” *Missoulian*, 2/23/2000, A1.

¹⁶ The Montana Power Company, “MPC and ARCO Sign Milltown Dam Stewardship Agreement,” 5/2/2000, in U.S. Environmental Protection Agency, Montana Office, *Milltown Administrative State Site Records*, reel 1372, Government Documents, Mansfield Library, University of Montana.

increasingly on general appropriates from Congress for cleanup money. At Milltown, Nielsen saw an orphan site in the making. “The further away you get from the companies ...the less likely it is that you’ll get anything out of them...Arco is being swallowed up by BP-Amoco and Montana Power is going away. And now they’re talking about turning the whole thing over to a nonprofit group. Get real.” Seconding Nielsen’s unease, the Missoula County Commissioners released a report called “Case for Removal of Milltown Dam,” which expressed fears that the community would take on the burden of future problems if the dam stayed and its former owner disappeared.¹⁷

Along with keeping attention on dam safety concerns and toxins, the Clark Fork Coalition campaign kept the responsible parties in the spotlight. All of the Coalition’s newspaper advertisements that encouraged public participation summarized corporate responsibility, or lack thereof. One ad reminded readers, “EPA has requested a cleanup proposal from ARCO, the company liable for this mess. But this subsidiary of multibillion dollar conglomerate BP seemingly intends to do as little as possible.” Another ad pointed out the small financial burden that dam and sediment removal would entail and, hence, the pettiness of corporate refusal to embrace that option. It estimated “(t)he entire cleanup would...cost \$100 to \$150 million. That’s a lot of money to us, but it’s only about 1 percent of the net profit BP made in 2000.” The Spring 2001 edition of the CFC newsletter, “Currents,” reiterated that point with the metaphor that “(F)or this company, \$130 million is the household equivalent of, say dinner and a movie.” In other

¹⁷ Opinion, “Shortchanging Superfund,” *The New York Times*, 7/6/2002, A12. Missoula Board of County Commissioners, “Case for Removal of Milltown Dam,” 2/1/2000; letter from Missoula City-County Board of Health to FERC, 5/17/2001, in U.S. Environmental Protection Agency, Montana Office, *Milltown Administrative State Site Records*, reel 1282, 1371, Government Documents, Mansfield Library, University of Montana. Nielsen, OH 428-08

words, by opposing the removal option, the responsible party was being cheap, if not greedy.¹⁸

The public's reaction to the corporations reflected the CFC dam removal campaign. When the local newspaper ran a four-part series on the dam, including an entire section devoted to the CFC and his firm's campaign, Benton knew that "(s)uddenly the discussion became [one] around the issues that we were putting out there." All their campaign ads encouraged people to contact the EPA and express their support for dam and sediment removal, as well as restoration.¹⁹ People responded. And they often did so by reflecting the campaign's language of fear. In the end, the federal agency received about 10,000 public comments on Milltown, which was a Superfund record.

Many commenters charged the company with both past grievances and obstruction of the current cleanup. Voicing his hopes for dam removal in an email to the EPA, Missoula resident John Adams opined "(W)hen I hear company reps whine about the cost, I can only think back on the billions of dollars of profits they took out of Montana in creating this problem." Catherine Price-Alick and Claude Alick emailed an even more vitriolic message to the EPA, equating Milltown's history with "(B)ig greedy corporations" that "have stolen Montana's wealth for years, killing people, destroying the earth, and then leaving us, poor taxpayers who didn't 'benefit' from the theft, to clean up the toxic waste ourselves." In reference to the company's campaign to support keeping

¹⁸ All advertising material created by Partners Creative. Copies in possession of author. Clark Fork Coalition, "Cleanup Myths," in "Currents," Spring 2001, in U.S.

Environmental Protection Agency, Montana Office, *Milltown Administrative State Site Records*, reel 1372, Government Documents, Mansfield Library, University of Montana.

¹⁹ All advertising material created by Partners Creative. Copies in possession of author.

the dam and sediments, Dane Durham charged “ARCO’s ads are designed to mislead the public.”²⁰

Sometimes the influence of the local environmental campaign was even more obvious. Numerous people quoted campaign literature verbatim when they equated BP’s ability to pay with a date-night expenditure. At the same time, the companies tried to allay people’s fears with a few of their own.²¹

ARCO’s president of environmental remediation, Sandra Stash, voiced the company’s worries about dam removal. She claimed to be “frustrated by that whole discussion,” calling the idea of taking down the dam “impractical.” In 2001 Stash told *The New York Times* that removing the dam would “do more harm than good.” Penning the company’s official response to the Missoula County resolution supporting dam removal Stash summarized that prospect as carrying “extremely severe practical problems and risks.” Similarly, Montana Power spokesman Jim Williams equated dam removal with “crossing an interstate blindfolded.” Their attempts at raising counter-fears seemed to pale compared to the “ticking time bomb.” When details of the closed-door

²⁰ Email from John Adams to Wardell (EPA), 7/12/2001; email from Catherine Price-Alick and Claude Alick to EPA, 8/11/2001; email from Lee Torgrimson to Judy Martz, EPA, *Missoula Independent*, *Missoulian*, *Montana Standard*, and *Silver State Post*, 9/9/2001; email from Dan J. Durham to Martz and EPA, 9/15/2001, in U.S. Environmental Protection Agency, Montana Office, *Milltown Administrative State Site Records*, reel 1472, Government Documents, Mansfield Library, University of Montana.

²¹ Email from Robert Logan to John Wardell, 8/18/2001; email from Brett Hackman to Wardell, 4/29/2002, in U.S. Environmental Protection Agency, Montana Office, *Milltown Administrative State Site Records*, reel 1472, Government Documents, Mansfield Library, University of Montana.

deal between MPC and ARCO came to light, along with reports that MPC had hidden more information about leaks in its dam, fears of a superficial cleanup seemed justified.²²

Due to public pressure and the Clark Fork Coalition's use of Montana's sunshine laws, ARCO and MPC had to release the details of their agreement for public scrutiny in early 2002. Their deal limited the dam owner's liability to \$10 million, as long as MPC coordinated all of its efforts in support of ARCO's cleanup choice, which was the least expensive method of keeping the dam and sediments in place. ARCO's threat to sue MPC explained why the power-turned-telecommunications company had abruptly switched from trying to decommission the dam to applying for another series of license extensions. Apparently MPC saw the deal with ARCO as a safer and cheaper bet than relying on the 1986 Superfund Amendments and Reauthorization Act provision that tentatively released the dam owners from liability. As CFC attorney Matt Gifford gleaned from the legal provisions of the deal, "when Montana Power says it wants to keep the dam," even though it's a money-losing prospect, "that's ARCO talking."

What ARCO was talking about was exactly what the Coalition and local government had feared – spending as little money as possible and walking away. In each of its three feasibility studies the company did its best to favor dam retention, whether that meant distorting the expense and their ability to implement cleanup, or simply

²² Sherry Devlin, "MPC, Arco want cleanup, not removal;" "MPC: Buy it all, or don't bid;" "Engineer confirms leaks in Milltown Dam;" "State angry over leak disclosure;" "Official: Cracks not a risk;" "Divers map Milltown Dam cracks in detail," *Missoulian*, 5/3/2000, 5/6/2000, 2/13/2001, 2/17/2001, 3/1/2001, 3/2/2001, A1, A1, A1, A1, A1, B2. "Montanans Weigh Options on a Toxic Legacy," *The New York Times*, 5/7/2001, A12. Letter from Sandra Stash (ARCO) to Missoula County Board and City Council, 6/11/2001, in in U.S. Environmental Protection Agency, Montana Office, *Milltown Administrative State Site Records*, reel 1372, Government Documents, Mansfield Library, University of Montana.

offering its opinion and coercing MPC into following suit. But in the long and tedious process of writing a feasibility study acceptable to the EPA, the company faced the steadfast scrutiny of local environmental advocates, an equally engaged local citizenry, and a national press that kept an eye on the situation.²³

As with many turns in the Milltown story that revealed the details of Superfund implementation, public input was key. And in the case of the fears surrounding corporate buyouts and liability, environmental marketing helped inform public input, which flooded EPA project manager Russ Forba. Along with individuals, organizations petitioned the agency. The CFC rebutted many of the findings in ARCO's FFS, especially its underestimating of risks and costs associated with the cheap fix of leaving the dam and toxins in place, as well as inflation of costs and risks linked to dam and sediment removal. The Missoula City-County Health Department submitted the exact same complaints to the EPA. The Clark Fork River Technical Assistance Committee, the Superfund-funded information outlet for the site, trebled those observations, explicitly stating "the analyses are cursory and subjective, aimed at finding the cheapest alternative without regard for what is best for the river." Montana Fish, Wildlife and Parks agreed. Arvid Hiller, the VP and General Manager of Mountain Water Company, which provided Missoula's drinking water, feared that the remedies outlined in the FFS provided

²³ Sherry Devlin, "FERC won't reconsider relicensing Milltown Dam;" "Group wants access to Milltown pact;" "MPC releases secret agreement on dam," *Missoulian*, 9/27/2000, 1/11/2002, 1/26/2002, B1, A1, A1. Letter from ARCO to EPA, 11/16/2000; ARCO Environmental Remediation L.L.C. (prepared by EMC2), "Milltown Reservoir Sediments Site Draft Focused Feasibility Study," 11/15/2000; EMC2, "Remedial Alternatives Retained for Further Evaluation in Focused Feasibility Study," 7/14/2000; letter from Michael Manion (MPC) to Russ Forba (EPA), 1/3/2001, in U.S. Environmental Protection Agency, Montana Office, *Milltown Administrative State Site Records*, reel 1331, 1282, 1371, Government Documents, Mansfield Library, University of Montana.

insufficient safeguards for the downstream sole source aquifer. The US Department of the Interior's Fish and Wildlife Service added its fear that an in-place solution would fail to protect the threatened bull trout. Also from the federal level, the US Army Corps of Engineers commented that ARCO's draft FFS underestimated "implementability" of removing sediments.²⁴

At the behest of the EPA, the Corps conducted studies of dredging scenarios for the Milltown sediments and found that they amounted to common earth-moving ventures, which carried little danger of polluting the river or downstream aquifer. Based on its growing experience with dismantling such obstructions, the Corps returned a much lower cost estimate for dam removal than ARCO. By April, 2001, EPA engaged ARCO in a thorough rewrite of the draft FFS, especially with regard to cost estimates and "implementability" of various options.²⁵ The final product, a "Combined Feasibility Study," the last assessment of cleanup options leading to an EPA decision at Milltown,

²⁴ Letter from Matt Clifford (CFC) to Russ Forba (EPA), 1/2/2001; letter from Peter Nielsen (MCCHD), to Forba, 1/2/2001, Dennis Workman, "Partial Comments by CFRTAC on the Milltown Reservoir Sediments Site Draft Focused Feasibility Study," 1/2/2001; letter from Don Skaar, Ladd Knotek, David Schmetterling (MFWP) to Forba, 1/4/2001; in U.S. Environmental Protection Agency, Montana Office, *Milltown Administrative State Site Records*, reel 1372, 1372, 1371, 1372, Government Documents, Mansfield Library, University of Montana.

²⁵ Letter from Johnnie Moore and William Woessner (UM) to Arvid Hiller (MWC), 12/21/2000; letter from Arvid Hiller (MWC) to Russ Forba (EPA), 12/27/2000; letter from USFWS to Forba, 1/8/2001; USACE, "Comments on Milltown Dam Superfund Site-Focused Feasibility Study," 2/21/2001; EPA, "Comments on the Milltown Reservoir Sediments Site Revised Final FFS," 4/27/2001; letter from Paul Schroeder (US Army Engineer Research and Development Center) to Forba, 8/10/2001 in U.S. Environmental Protection Agency, Montana Office, *Milltown Administrative State Site Records*, reel 1371, Government Documents, Mansfield Library, University of Montana. Sherry Devlin, "Caution urged in cleanup;" "Corps' Milltown dredging report outlined;" "Milltown dredging deemed 'fairly clean,'" *Missoulian*, 6/20/2001, 8/30/2001, 8/14/2001, A1, A1, A1.

analyzed costs and downstream impacts more rigorously. And it, too, lessened the risk of implementing dam and sediment removal.²⁶

Although the EPA's official public comment period was supposed to follow the release of the Combined Feasibility Study, people continued to speak up ahead of schedule, and they repeatedly drew on the environmental campaign's language to do so.²⁷ Fear of corporations surfaced most consistently. After comparing the responsible parties to the mining companies she had watched pollute Lake Superior, Rosanne Davis lamented that if the EPA failed to enforce a full cleanup, including dam removal, "the people/taxpayers end up being responsible for the arrogance and greed of the mining industry." She ended her letter by scolding the EPA that "(t)o continue to dance to the tune of the mining industry and gambling with our health is unconscionable. It's about time that Atlantic Richfield took responsibility for the wealth it extracted from Montana and the destruction it left in its wake." Although Davis, like many other people, confused the fact that ARCO harbored liability not because they had done the mining and polluting

²⁶ Letter from Russ Forba (EPA) to Robin Bullock (ARCO), 7/3/2001; U.S. Army Corps of Engineers, "Technical Report: Evaluation of Dam Removal Costs," 10/31/2000, in U.S. Environmental Protection Agency, Montana Office, *Milltown Administrative State Site Records*, reel 1372, 1331, Government Documents, Mansfield Library, University of Montana. USACE website on its dam decommissioning and dismantling program and history: http://www.crrel.usace.army.mil/sid/Dam_decom/overview.htm

²⁷ Email from Stuart Goldberg to Russ Forba (EPA), 6/30/2000; letter from David Ausband to Forba, 1/27/01; email from Patia Stephens to John Wardell (EPA), 7/1/2001; email from Christopher C. Ballentine to EPA, 7/9/2001; email from Richie Moore to EPA, 6/16/2001, in U.S. Environmental Protection Agency, Montana Office, *Milltown Administrative State Site Records*, reel 1282, 1331, 1472, 1472, Government Documents, Mansfield Library, University of Montana. John Stromnes, "Sediment won't harm residents," *Missoulian*, 9/15/2001, B1.

but because they bought the company that did, her anger at the past and fear of the future in regard to corporations was commonplace.²⁸

With MPC contractors using sand and grout to plug cracks in the dam that measured up to four inches wide, with the dam up for sale and MPC getting out of the power business, with ARCO and MPC coordinating their efforts to back a minimal cost and minimal cleanup option, with ARCO being folded into the world's second largest energy company, and with the site's risk assessments reporting plenty of problems with leaving the toxic sediments in place, perhaps public input that focused on fear was well placed. Post-9/11 it was certainly not surprising. What *was* surprising was a seamless blend of fear with fun in the dam removal campaign.²⁹

Play is the way many people know the environment. That was certainly true for Sean Benton. He first forayed west from Kansas City on overnight drives to Colorado, leaving his first marketing job behind on a Friday so that he could lash his fly rod at mountain streams first thing Saturday morning. Moving to Missoula and getting Partners Creative started in 2000 helped shorten his drives from business to pleasure.

Thinking back about the advertisements he helped design for the Clark Fork Coalition, Benton mused, "It's a commercial world and that's the way it works... I'm not a big fan of seeing a billboard on my way to Glacier National Park either, but they're

²⁸ Letter from Mark Everingham to Forba, 8/4/2000; letter from Rosanne E. Davis to Forba, 12/7/2000; email from Elise Crull to EPA, 7/5/2001, in U.S. Environmental Protection Agency, Montana Office, *Milltown Administrative State Site Records*, reel 1282, 1331, 1472, Government Documents, Mansfield Library, University of Montana.

²⁹ Email from Doug Anderson to EPA and Martz, 10/9/2001, in U.S. Environmental Protection Agency, Montana Office, *Milltown Administrative State Site Records*, reel 1472, Government Documents, Mansfield Library, University of Montana.

there. They can have a message about Miller Light or they can have a message about Remove the Dam. The billboards that we did wound up being some of the things that are most recognized.” Like Stone-Manning, Benton believed that commercialism had a role to play in environmentalism beyond selling green products.³⁰

Along with the toxic time bomb billboard, the one that got the most attention read: “Ski Milltown! It’s Toxic!” If the message was surprising, the image it overlaid was more so. In shades of green the color of an algae-choked lake, the billboard featured four smiling women clad in matching tutu-style bathing suits and tiaras. The quartet appeared to be water skiing barefoot with their right legs tucked under them like flamingoes and their right hands placed on the next skier’s shoulder in a chorus-line pose. The image conjured a 1940s Palm Beach water show far more than it was akin to anything that might unfold at Milltown Montana, which people knew for its solitary blue herons rather than flocks of showy pink birds or water skiers. It was also a new tactic by the Clark Fork Coalition.³¹

The message dutifully referenced the real toxicity of Milltown. Underpinning the “It’s Toxic” text, the color of the billboard spoke of polluted water in a watershed prized for its clear, cold trout streams. The promotion of water skiing tapped into the pervasive connection between the area’s rivers and recreation, while the retro image made light of that particular form of recreation in a river environment. The reservoir itself was out of place by implication. Most importantly to the ad’s creators, it was funny.

The Coalition retained its emphasis on the serious problems at Milltown by keeping toxicity in its ads. That was especially effective since the EPA passed a more

³⁰ Benton, OH428-05.

³¹ All advertising material created by Partners Creative. Copies in possession of author.

restrictive law governing arsenic in drinking water in the midst of the dam removal campaign.³² In May, 2000, *The New York Times* announced the Clinton administration's proposal for the EPA to lower the allowable amount of arsenic in drinking water by *ninety* percent. Within a month, CFRTAC wrote to the EPA about how a change in arsenic standards might "affect the plume boundary in the Milltown area." If far less arsenic in water posed a health risk, than far more water supplies would be considered unhealthy.³³ Upon taking office, President Bush promptly suspended the Clinton initiative, which began months of public reaction and agency pressure. He recanted eventually, just as he came to support Milltown Dam's removal after having delivered a campaign speech in 2000 supporting retention of Snake River dams that faced environmental challenges due to their obstruction of salmon passage, as well as using the opportunity to promise that "removing dams would not be on the table in a Bush presidency," as the *Seattle Times* paraphrased it.³⁴ In February, 2001, the *Missoulian* ran a front page article on the EPA's decision to abide by new research showing that ingesting even small amounts of arsenic increased people's risk of cancer and other deadly ailments. CFC director Stone-Manning connected the national shift in

³² John H. Cushman, Jr., "E.P.A. Proposes New Rule to Lower Arsenic in Tap Water," *The New York Times*, 5/25/2000, A20.

³³ Letter from L.F. Schombel to Russ Forba (EPA), 6/6/2000, in U.S. Environmental Protection Agency, Montana Office, *Milltown Administrative State Site Records*, reel 1282, Government Documents, Mansfield Library, University of Montana.

³⁴ Douglas Jehl, "E.P.A. to Abandon New Arsenic Limits for Water Supply," *New York Times*, 3/21/2001, A1. Chuck Fox, "Arsenic and Old Laws," *New York Times*, 3/22/2001, A27. Robin Toner, "Environmental Reversals Leave Moderate Republicans Hoping for Greener Times," *New York Times*, 4/4/2001, A16. Jehl, "E.P.A. Delays Its Decision on Arsenic," *New York Times*, 4/19/2001, A14. Katherine Q. Seelye, "Arsenic Standard for Water is Too Lax," *New York Times*, 9/11/2001, A20. John K Wiley, "No breaching of dams, Bush vows," *Seattle Times*, 2/26/2000, accessed 3/14/2012, <http://community.seattletimes.nwsources.com/archive/?date=20000926&slug=4044494>.

environmental regulation with the local issue, observing “EPA’s tougher stance on arsenic pollution is just one more reason why Milltown Reservoir needs a radical cleanup.”³⁵

Nearly every campaign ad quantified the reservoir’s toxic load. One used the headline “Tons of Incentive to Speak Out” to point out that “19 tons of arsenic” flowed downstream annually. A Coalition-sponsored local TV clip showed underwater footage of a pair of trout swimming upstream while a male narrator described the poisonous water that was killing those fish as long as the dam stayed in place. The message about heavy metals was clear.³⁶

The use of water skiers and trout in these advertisements was meant to speak to recreationalists as much as anyone. The research Benton and Partners Creative did before designing their advertisements for the Clark Fork Coalition proved that the watershed was home to plenty of people who cared about the river’s fishery because they fished for sport, which was especially true of tourists the area attracted. Between efforts to clean up tributaries on the Blackfoot, Redford’s film version of *A River Runs Through It*, FWP fisheries biologist David Schmetterling’s work on fish passage at the Milltown Dam, including the story of a reservoir pike eating the trout Pollywog, and the Department of the Interior’s listing of bull trout as threatened, both local and out-of-state people who fished were paying attention to the Superfund process in one of western Montana’s most coveted recreational watersheds.

³⁵ Sherry Devlin, “EPA to crack down on arsenic levels,” *Missoulian*, 2/20/2001, A1. Katherine Q. Seelye, “E.P.A. to Adopt Clinton Arsenic Standard,” *The New York Times*, 11/1/2001, A18.

³⁶ All advertising material created by Partners Creative. Copies in possession of author

Anglers weren't the only ones thinking about recreational opportunities in association with remediation at Milltown. By early 2001 the Missoula County Commissioners had drawn up a proposal called "Two Rivers Restoration and Development Project." The proposal looked past dam removal to "environmental restoration and recreational development." The county's "once in a lifetime opportunity to do something very special for our community" included an extended nature trail, footbridges, "Riverside Park," and "construction of whitewater features on both the Clark Fork and Blackfoot Rivers."³⁷ The *Missoulian* ran a feature on the proposal in which one of its designers, Gary Lacy, envisioned how "this project would bring the rivers back into...a natural appearing whitewater stretch that is attractive for all the reasons why people like rivers" such as "deep pools for fishing and paddling...waves and drops and white water." Those same features would benefit fish, too, but recreation or outdoor fun was helping to sell the idea of dam removal and restoration.

Sporting organizations like the Montana Chapter of the American Fisheries Society, The American Whitewater Association, and the Missoula Whitewater Association, as well as owners of local sporting goods businesses and many Missoula residents approved of dam removal. Missoula Whitewater Association president John Anderson wrote to contribute his members' support and to send the EPA copies of a *Paddler Magazine* article about the popularity and economic success of whitewater parks that western towns and cities had created in recent years. Brian Daly, the owner of a local software development company, wrote to EPA state director John Wardell that

³⁷ Board of Missoula County Commissioners, "Two Rivers Restoration and Development Project," undated, in U.S. Environmental Protection Agency, Montana Office, *Milltown Administrative State Site Records*, reel 1331, Government Documents, Mansfield Library, University of Montana.

“[A]lthough I am one of the staunches [sic] Republicans you’ll ever find...the plan for a “Whitewater Park” at the confluence of the Clark Fork and Blackfoot rivers [sic] makes a lot of sense to me.”³⁸ Of the thousands of letters supporting dam removal that the EPA eventually received, many mentioned recreation.

In the fall of 2001, the CFC published a book titled *The River We Carry With Us*. The anthology included poetry, old news clippings, photos, historical accounts and essays. Author Ian Frazier’s contribution, like many of the book’s offerings, paid tribute to the fun that rivers provide. He admitted, “I should thank the river – throw wads of tens and twenties into it, not just pennies – for all the pointless fun it gave me. Smashing ice with my son for example.” Although Frazier’s was a personal expression about intimate experience, it contained some of the most significant attributes of the larger story at Milltown. Lots of money was going to be spent on the Clark Fork in compensation for the way people had used it. And many people thought that that expenditure ought to benefit recreational uses.³⁹

In fact, the demographic of river recreationalists was prevalent enough that Partners Creative and the Coalition opted *not* to make harm to recreational fishing an

³⁸ Sherry Devlin, “Restoring Nature’s Flow;” “County unveils river restoration proposal;” “Two Rivers Talk,” *Missoulian*, 2/22/2001, 2/22/2001, 3/15/2001, C1, A1, A1. Letter from Michael Enk (MCAFS) to Missoula County Commissioners, 3/6/2001; letter from Triel Culver (AW) to John Wardell (EPA), 6/6/2002; letter from John Anderson (MWA) to Wardell, 7/12/2001; letter from Dan Gavere (Wave Sport Kayaks) to Wardell, 3/6/2001; letter from Brian J. Daly to Wardell, 3/6/2001, in U.S. Environmental Protection Agency, Montana Office, *Milltown Administrative State Site Records*, reel 1331, 1524, 1524, 1331, 1331, Government Documents, Mansfield Library, University of Montana.

³⁹ “Our River: An Essay on Missoula’s Beautiful Clark Fork,” *Missoulian*, 8/26/2001, E1. Ian Frazier, “A View of the Clark Fork,” in *The River We Carry With Us: Two Centuries of Writing From the Clark Fork Basin*, eds. Tracy Stone-Manning and Emily Miller, (Livingston: Clark City Press, 2002), 127-128.

explicit part of their campaign. Simply having fish in their ads and talking about the detrimental affects of Milltown to the fishery would attract the constituency that Benton identified as “forty plus and they’re male and they like to fish.” In other words, the ads only had to imply or hint at the recreational aspects of the rivers to attract the support of fisherfolk, boaters, riverside hikers, or ice-smashers. And the implication of the “Ski Milltown!” billboard was, “in a very cheeky way,” according to Benton, that the reservoir was “not a flat-water resource” worth keeping. Rather, it was something that could be a true river recreation resource.⁴⁰

Stone-Manning ventured that the “cheeky” aspect of such ads would draw unlikely support for the campaign. Tired of seeing environmental groups continually fighting against things or always saying “no,” she wanted to advertise the positive. She also chafed against environmental organizations tendency to “preach to ourselves.” With the goal to “get people excited” about the dam removal, humor became one of the campaign staples.

When Stone-Manning saw the first samples of the “Ski Milltown!” image she thought “it was funny!” Wanting to gauge its appeal to a new set of people, especially non-environmentalists, she began showing it around. When a very conservative county auditor laughed, Stone-Manning asked, “You don’t think it goes too far? You don’t think it is too cheeky?” The woman responded, “That’s the problem with environmentalists. They don’t laugh enough.” With that, Stone-Manning knew it was time to run the billboard. As she recalled, “I want to capture this woman and all of her friends.”⁴¹

⁴⁰ Benton, OH428-05.

⁴¹ Stone-Manning, OH 428-03.

A sense of fun about this serious environmental issue peaked when the Clark Fork Coalition sponsored some actual playtime on the river. The temperature reached 104 degrees in Missoula on July 13, 2002. Sweltering summer heat on a Saturday meant heavy traffic on the local rivers – families and college students floating in tubes, anglers rowing rafts, and the occasional lone kayaker. But temperature and weekend free time could not have drawn the number of people drifting toward Missoula on the Clark Fork that day. It was the work of the Coalition’s campaign to remove Milltown Dam.

“Ideas came from the community,” Stone-Manning remembered about the origins of some aspects of the campaign. Her favorite was from a CFC member. Jack Moyer spotted Stone-Manning’s tall, thin frame and curly red hair in a grocery store, walked up to her and said: “Do you know what you need? You need a big flotilla from the dam into Missoula!” “We totally need a big flotilla from the dam into Missoula,” she responded. So the Coalition advertised the first “Milltown to Downtown” float in support of removing the dam. Or more precisely, they *attempted* to organize it.

The Coalition staff rounded up about fifteen friends who had boats to accommodate the dozens of people Stone-Manning expected to show up. By the time temperatures were peaking, more than 150 crafts and an estimated 500 or more people were on the water. And that didn’t include the scores of dogs. “It was crazy! It still makes my eyes water” confessed Stone-Manning. She recognized only a fraction of the people there. She thought, “Who are these people[?]...I love them.” It was, according to her, “not those environmentalists from Missoula...it was grandmas, babies, and frat boys...it was a very cool expression of people saying, ‘this is what we want!’” Some wanted dam removal because of fish or drinking water concerns, others so that they could

recreate more safely, and some because of the economics of recreation. Whitewater guide Morgan Valliant warned, “Do not underestimate the economic force of recreation...taking the dam out of this river would be huge because it would restore the native fish migrations. Fishing guides would really benefit.” As Stone-Manning’s raft cruised into Missoula she looked up at one of the bridges and saw John Wardell, the EPA’s state director, “with a big grin on his face.” She knew that he saw the same thing she did, overwhelming public support for his agency’s option of removing the dam. County Commissioner Barbara Evans got out of the river slightly wet, but her excitement was far from dampened. “This ought to show the community concern,” Evans quipped to a reporter. As the *Missoulian* reported, the only opposition present was a riverside sign imploring: “Keep the Dam, Kill the Hippie.” To Stone-Manning and Benton seeing the opposition riff on their slogans, especially in a funny way, confirmed that the campaign was really working.⁴²

The second annual Milltown to Downtown event drew nearly 3000 people. More importantly, the EPA received an estimated 10,000 public comments about the Milltown decision, largely as a result of the advertising campaign. It was this flood of public comment that helped sway the EPA. People’s comments reflected fear of leaving the dam in place, as well as fear of being left with the cleanup bill by the responsible companies. They spoke of recreational connections to the Clark Fork and Blackfoot Rivers and the recreational potential of the watershed. Many reiterated human and environmental health concerns. In addition, they nearly all linked restoration with dam removal.

⁴² Stone-Manning, OH 428-03. Sherry Devlin, “Fleet floats in support of dam’s removal;” “Debating the Dam,” *Missoulian*, 7/14/2002, A1, A1.

Diana Hammer saw Milltown for the first time in 2001. Compared to other Superfund projects on which she'd worked as the EPA's community coordinator, Milltown struck her as "really beautiful." Yet Hammer knew that when it came to the beauty of some Superfund sites, especially the ones she'd seen in Montana, "your eyes can fool you." She also knew that it was the CFC campaign, along with the EPA grant-funded Clark Fork River Technical Assistance Committee that "did a ton of leg work" to get people involved in the Superfund education and comment process. Those comments, according to Hammer, prompted the EPA to make dam removal one of two final options in the CFS. As a lifelong student of the environment and a river rafter, it "was a really quite exciting time" for Hammer. In addition to personal interest, she knew that Superfund had no history with dam removals. Milltown, if it happened, would be a first.⁴³

The Milltown Superfund site also gained an historic reputation for public input. At Milltown, as with any Superfund site, the EPA has guidelines for public comment periods. Probably the most important of those periods surround the feasibility study, or in the case of Milltown, the Combined Feasibility Study, which public input had already altered outside the confines of regular comment periods. After the release of any FS, the EPA solicits "public review." This review and the input of the site's state government (essentially the governor's office) are the last two significant factors the EPA uses to

⁴³ Diana Hammer, OH 428-02, Archives and Special Collections, Mansfield Library, The University of Montana-Missoula. Sherry Devlin, "Corps will assess dam removal," *Missoulian*, 4/4/2000, A1. Letter from Hammer to EPA, 4/10/2003, in U.S. Environmental Protection Agency, Montana Office, *Milltown Administrative State Site Records*, reel 1709, Government Documents, Mansfield Library, University of Montana.

chose a cleanup option from those listed in the final FS.⁴⁴ A 2001 study of Superfund implementation showed that in making cleanup decisions, the EPA prioritized the involvement of “concentrated private interests, such as liable parties and local communities,” over even costs or contaminants.⁴⁵ A similar 2003 study suggested “the importance of state-level factors in Superfund implementation.”⁴⁶ At Milltown, people and organizations had submitted comments throughout the CFC dam removal campaign, well before the release of the CFS. And they did so in record numbers. Those numbers helped sway the state.

The Clark Fork Coalition’s campaign emphasized the importance of people speaking their minds. Print ads both served as educational primers on Milltown and emphasized empowerment of citizens. Enlarged messages such as, “Your voice,” “Can the Impact of Your Opinion Take Out a Dam,” and the inclusive “Let’s Make the Contamination History...” headlined campaign material. People heeded the call.⁴⁷

The campaign encouraged pushing Superfund beyond remediation and toward *restoration*. The original Superfund Act said nothing about restoration, but on the Clark Fork its implementation was making it an intended outcome. Restoration was not a new idea at Milltown; in 1999 the state’s Natural Resource Damage Program won a \$260 million lawsuit against ARCO, which would help fund “recovery” of the Clark Fork

⁴⁴ EPA Region 8, “Milltown Reservoir Sediments Superfund Site: Combined Feasibility Study,” April 2002, in U.S. Environmental Protection Agency, Montana Office, *Milltown Administrative State Site Records*, reel 1472, Government Documents, Mansfield Library, University of Montana.

⁴⁵ Hilary Sigman, “The Pace of Progress at Superfund Sites: Policy Goals and Interest Group Influence,” *Journal of Law and Economics*, Vol. XLIV, (April 2001): 315.

⁴⁶ Kurt D. Cline, “Influences on Intergovernmental Implementation: The States and the Superfund,” *State Politics and Policy Quarterly*, V. 3, No. 1, (Spring 2003): 66.

⁴⁷ All advertising material created by Partners Creative. Copies in possession of author.

environment. But the campaign linked river restoration to dam removal. Every billboard, print ad and TV spot included the paired commands: “Remove the Dam. Restore the River.” “You couldn’t just take down the dam and see what happens” said Sean Benton of the decision to link toxic cleanup and restoration. As the mantra of restoring Milltown gained momentum the term lost its simple definition of trying to bring the confluence of the Clark Fork and Blackfoot Rivers back to a pre-European condition, to the time when people knew the area as “the place of the big bull trout.” Rather, people embraced a very practical definition of restoration, which included a free-flowing river system and reconnected trout migration routes, as well as “redevelopment” of the local economy. Specifics of what restoration actually meant developed only after the decision to remove the dam was made.⁴⁸

Removing the dam as a catalyst to developing new financial opportunities in the Milltown area was, in large part, a product of opposition to dam removal. Just as remove-and-restore advocates were winning overwhelming public support, opponents of that option shaped the debate about what would happen to local people if the rivers ran free. As such, Milltown became an example of a new direction for Superfund and environmentalism, as well as a case study in how struggles over the environment are not a winner-take-all prospect. As such the “really beautiful” Superfund site that Diana Hammer saw was the site of that law’s first dam removal, as well as its move toward restoring environments and stimulating economic redevelopment for the communities that surrounded them.

⁴⁸ Benton, OH 428-05. John Stucke, “Judge Oks Arco deal,” *Missoulian*, 4/20/1999, A1.

As EPA's project manager for the site, Russ Forba confirmed "(I)t's not a vote, but what the public says will influence what we say." Hoping that the public's say would be heard, CFC board president Geoff Sutton encouraged "(I)f the community yells loud enough, FERC and EPA will listen. But we've got to yell."⁴⁹

The "yell" of support for dam removal that Sutton sought came in many forms. Emails and letters addressing Milltown continued to arrive in the EPA's state office. So did the results of a few community studies. In early 2001, the University of Montana's Sociology Department conducted a survey of Missoula county residents that revealed 68% of people surveyed supported full cleanup of the reservoir, with a strong correlation between people's level of knowledge about the issue and their support for cleanup. Dam removal supporters began to sway local government. At the end of March, Missoula county commissioners passed a resolution in favor of dam removal in reaction to public input. At the same time the *Missoulian* editorial threw its support in the same direction⁵⁰

Support for dam removal by the county commissioners brought important bi-partisan support to the issue. Leaders of the conservation community and local agencies involved at Milltown all point to the importance of Commissioner Barbara Evans's decision to advocate for dam removal.⁵¹ Evans, a Republican, came to that decision because of her worries about long-term human and environmental health issues, such as a

⁴⁹ Sherry Devlin, "Company: Sediments must stay;" "Officials, conservationists say time is now for reservoir cleanup," *Missoulian*, 11/29/2000; 2/6/2001, A1, A1.

⁵⁰ Letter from Stone-Manning to EPA, 2/13/2001; email from Matt Desch to Forba, 2/27/2001, in U.S. Environmental Protection Agency, Montana Office, *Milltown Administrative State Site Records*, reel 1331, 1331, Government Documents, Mansfield Library, University of Montana. Sherry Devlin, "Hearing on dam planned;" "Sediment must go, board says," *Missoulian*, 3/14/2001; 3/29/2001, B1, A1. *Missoulian* Editorial, "Do the Milltown Reservoir cleanup right," 3/30/2001, B4.

⁵¹ Farling, OH428-04; Nielsen, OH 428-08; Stone-Manning, OH 428-03.

tainted Missoula aquifer. As a fiscal conservative, she was wary of county citizens and county government having to pay for future cleanup needs if the liable corporations funded an incomplete or faulty remediation. When ARCO released the CFS and backed its own plan of placing a synthetic extension on the top of the dam, Evans criticized it as the “rubber hot dog” fix. Because Evans was a conservative Republican with a long history in local politics, her support “made it a bipartisan thing right away...it became...a community issue” said Tracy Stone-Manning.⁵²

Montana’s Trout Unlimited director Bruce Farling agreed about the influence of Evans’s support, which he remembered came out of her personal interests in the environment as much as her politics. Farling said of the commissioner, “she’s not an environmentalist. But she has...affection for frogs. She’s really into frogs. When she found out that this contaminated eggs...and high metals kill frogs, she started paying attention.”⁵³ In 2000 Evans revealed her environmental interests when she told the *Missoulian*, “I want that reservoir cleaned up, so it is a safe place for people and for fish and for the frogs.” Evans and her fellow commissioners wrote an opinion to the newspaper featuring an illustration of three men trying to maneuver a boat through a large crack in a dam. The opinion defended a resolution the commissioners adopted on March 28, 2001, calling for dam removal. The resolution and subsequent opinion invoked the bi-partisan community support for dam removal and restoration.⁵⁴

⁵² Stone-Manning, OH 428-03.

⁵³ Farling, OH 428-04.

⁵⁴ Sherry Devlin, “Officials say agencies need to take actions,” *Missoulian*, 5/31/2000, A1. Barbara Evans, Bill Carey and Jean Curtis, “Time for Super Cleanup,” *Missoulian*, 4/1/2001, B4. Board of County Commissioners, “Resolution 2001-030,” 3/28/2001, in U.S. Environmental Protection Agency, Montana Office, *Milltown Administrative State*

The evolving solution at Milltown represented a national trend toward solving environmental problems concerning rivers through a non-partisan, whole watershed approach. The diversity of watersheds and people's use of them seemed to necessitate a move away from the divisively partisan attitudes about the environment that had flourished in the 1980s and '90s, according to historians. As Tim Palmer wrote in about groups like the CFC in *Endangered Rivers and the Conservation Movement*, "new groups sought to include representatives from all different points of view, each member a 'stakeholder.'" Once Milltown was designated a Superfund site, no one opposed environmental cleanup. Rather, liable parties sought to limit their financial obligations and the majority of public participants, and local and state agencies, pushed for thorough remediation. Not whether, but how cleanup should happen, was at issue, and antagonistic political parties seemed to play little or no part in that decision. Rather, the notion of cleanup teetered between containment – the original Superfund model – and restoration.⁵⁵

With the release of the CFS and opening of a new public comment period, people were supposed to voice their preference for one of two remedial options – 2A or 7A. They certainly did that. But they also pushed beyond the scope of remediation in favoring restoration and redevelopment of the confluence. Steven E. Bristol provided a very representative email when he wrote that as a Clark Fork watershed resident he thought that all the evidence indicated "(T)he dam needs to be taken away and the river returned to its natural state." Jeff Rolston-Clemmer agreed that "(A)s a resident of

Site Records, reel 1371, Government Documents, Mansfield Library, University of Montana.

⁵⁵ Palmer, *Endangered Rivers and the Conservation Movement*, 304. On the partisan politicization of environmentalism see: Rothman, *The Greening of a Nation*; Wellock, *Preserving the Nation*.

Missoula...I think removal and restoration of the Milltown Reservoir is the only safe and permanent solution.” Many others concurred.⁵⁶

Meanwhile, plenty of people included economic development, or what came to be called redevelopment, in their opinions. Brad Robinson, part owner of Missoula’s Big Sky Brewery, emailed the EPA and governor that “the economic benefits to the greater Missoula area will be tremendous.” He foresaw that “(R)ecreational tourists will travel from great distances to use this new free flowing and clean river” and “will increase the number of people who...stay in Hotels and eat in Restaurants,” as well as, perhaps, drink the local beer. Not surprisingly, some calls for using the removal of Milltown Dam as a jobs project were labor groups. In a letter entreating Governor Martz to favor dam removal, Montana State AFL-CIO considered option 7A “a potentially huge economic development opportunity for Montana.” Whether urging removal because of anti-corporate feelings, care for the future, recreational aspirations, economic benefits, hopes for restoration or any other reason, an increasing number of people wrote to governor Martz, or forwarded her their correspondence with the EPA.⁵⁷

The Clark Fork Coalition campaign helped inform people of the necessity to gain the state’s voice in their collective “yell” for dam removal. That meant getting Martz, a Republican, who had once referred to herself as the “lapdog of industry,” and had a poor

⁵⁶ Email from Steven E. Bristol to EPA, 6/8/2001; email from Jeff Rolston-Clemmer to Wardell, 7/9/2001, in U.S. Environmental Protection Agency, Montana Office, *Milltown Administrative State Site Records*, reel 1472, Government Documents, Mansfield Library, University of Montana.

⁵⁷ Letter from Jerry Driscoll, MT AFL-CIO to Judy Martz, 6/11/2001; email from Brad Robinson to Martz and EPA, 7/20/2001; email from Kirsten Renander to Martz and EPA, 9/23/2001 in U.S. Environmental Protection Agency, Montana Office, *Milltown Administrative State Site Records*, reel 1472, Government Documents, Mansfield Library, University of Montana.

environmental record according to the state's conservation community, on board. When the inaugural Milltown to Downtown float took place in July, 2002, "community acceptance" of a solution for the Superfund site was pretty clear. By that time the state's EPA office had received "8,312 comments on the Milltown cleanup, a number unheard of for a Superfund site – particularly one that does not yet have a proposed cleanup plan," reported the *Missoulian*. The EPA's Diana Hammer called the "7,801 comments – or 94 percent" supporting dam and sediment removal, "pretty impressive, and very unusual." Copies of most of those comments sat on the governor's desk.⁵⁸

On November 5, 2001, the EPA released its Final Combined Feasibility Study. The agency also announced it would propose a cleanup plan by "early 2003." Diana Hammer, the EPA community coordinator for Milltown, told the *Missoulian* "(T)his is the time for people to tell us what they want... This is when public comment really counts." In the fall of 2001 it was clear that local conservation organizations, local government and an increasing and vocal portion of the public supported dam removal. The EPA was set to hear more of that support. It had also become clear who opposed it.⁵⁹

ARCO touted the cost efficiency and innovativeness of the "rubber hotdog" fix, as County Commissioner Barbara Evans called it, while dam removal advocates feared both those reasons – one as a cheap fix, the other as a dangerous experiment where a

⁵⁸ Sherry Devlin, "Debating the dam," *Missoulian*, 7/14/2002, A1. Letters from Judy Martz to Gary W. Hawk and Dean Ritz, 8/15/2001, in U.S. Environmental Protection Agency, Montana Office, *Milltown Administrative State Site Records*, reel 1372, Government Documents, Mansfield Library, University of Montana.

⁵⁹ USEPA, Region 8, Montana Office, "EPA Releases Final Combined Feasibility Study of the Milltown Reservoir," 11/5/2001, in U.S. Environmental Protection Agency, Montana Office, *Milltown Administrative State Site Records*, reel 1709, Government Documents, Mansfield Library, University of Montana. Sherry Devlin, "Arco recommends leaving Milltown sediment," *Missoulian*, 11/6/2001, A1.

permanent solution was the goal. The CFS estimated ARCO would spend \$20 million on the rubber solution and up to \$319 million on dam removal. Outside the company, people who championed keeping the dam tended not to address the rubber dam at all. Rather, proponents of alternative 2A fretted over what they saw as the negative impacts of removing the dam. They, too, spoke in terms of permanence, fear, and environmental and economic concern.⁶⁰

The Bonner Development Group formed in the mid-1990s as a community advocacy organization in the Bonner and Milltown area. Local residents and business leaders came together to help promote and carry out small community development projects and advocate for their towns within the county government. By 1996 the group considered accepting “financial assistance from ARCO to staff and operate the organization.” Jerry Tavegia, one of the state’s economic development officers for the Montana Department of Commerce, advised the groups that “accepting start-up funding from ARCO” would not lead to compromising the group’s independence. Rather, corporate funding would be “a tool to enable the organization to mature,” instead of it regressing “to a social club.” The group’s most active leaders, Gary Matson and Bruce Hall, accepted that advice.⁶¹

By early 1999, Bruce Hall was the executive director of the BDG, whereas Gary Matson had ceased to support the group. Hall’s organization became the most prominent

⁶⁰ Devlin, “Arco recommends leaving Milltown sediment.” USEPA, Region 8, Montana Office, information postcard, including webpage fact sheet address and contact information, in U.S. Environmental Protection Agency, Montana Office, *Milltown Administrative State Site Records*, reel 1709, Government Documents, Mansfield Library, University of Montana.

⁶¹ Letter from Jerry Tavegia (MDC) to Gary Matson (BDG), 9/13/1996, in U.S. Environmental Protection Agency, Montana Office, *Milltown Administrative State Site Records*, reel 1524, Government Documents, Mansfield Library, University of Montana.

public opponents of removing the Milltown Dam. As Hall articulated it, BDG opposed removing the dam because for Milltown it was “an important piece of the town’s economy.” In newspaper articles and letters to the EPA the group repeated the statistic that the dam contributed “\$200,000 – or about 15 percent – of the local school funding base.” Taking out the structure would also destroy the “wetlands and recreational opportunities” that it had created and maintained for generations. Furthermore, the group’s members and their community supporters expressed fear about the damage dam removal could cause to the downstream watershed, or what Bruce Hall called “a Pandora’s Box of unexplored and highly questionable unknowns” in a letter he wrote to gubernatorial candidate Judy Martz in 2000. In essence, BDG used many of the same arguments for keeping the dam that supporters of removal made – fear for the watershed, recreational use of the area and care for wildlife, as well as economic concerns.⁶²

The BDG position inspired and was reflected in letters to the EPA and the governor. In mid-December, 2000, Missoula resident Dorene Tompkins sent the EPA a handwritten note stating that she and her husband thought: “(T)here is a wonderful park and wildlife refuge behind the dam. We think to remove it would pollute more downstream, all the way to the Columbia.” A postcard survey that BDG conducted of its members in early 2001 “revealed strong voter support, 79%, in favor of keeping the Milltown Dam in place.” The survey stated its purpose was “**to determine membership support for preserving the Milltown Dam** (bold in the original).” Then it offered

⁶² John Stucke, “Groups wants Milltown Dam left alone,” *Missoulian*, 2/7/1999, B1. Letter from Bruce Hall (BDG) to gubernatorial candidates, 4/27/2000; letter from Hall to Forba (EPA), 12/11/2000; letter from Board of Directors, Bonner Development Group to Forba, 12/21/2000, in U.S. Environmental Protection Agency, Montana Office, *Milltown Administrative State Site Records*, reel 1282, 1331, 1372, Government Documents, Mansfield Library, University of Montana.

participants the BDG board of directors' opinion about "keeping the dam in place in order to conserve valuable wildlife habitat, retain existing recreational opportunities, preserve local history, and protect the economic health of the local tax base" before instructing them to check their preference on a pre-printed postcard. The BDG survey demonstrated how dam removal opponents used the same rhetoric and methods as their rivals.⁶³

Dam removal opponents echoed BDG's arguments for keeping the structure in their own letters and emails to the EPA and governor. Some, like Missoulian Daniel Monroe, reminisced about their recreational outings on the reservoir and the wildlife they encountered. In an hour of sea kayaking, Monroe recalled "spotting an eagle, blue heron, and a moose," plus other recreationalists such as "canoeists...and...a double skull team." In his email he made the point that most people who wanted the dam to remain also wanted the EPA to clean up the water, just not by draining the reservoir and getting rid of a viable power source. Don Wibracht wrote to the agency to point out that the dam "has created a habitat that nurtures a dense and diverse flora and fauna. Removal of the dam would result in the diminishment of a remarkably fecund wetland." Elden Inabnit of Missoula wrote to the *Missoulian* that a lifetime of living in the area had shown him that nobody was dying or suffering from toxins and that "(T)he area above the dam on the

⁶³ Letter from Dorene Tompkins to EPA, 12/9/2000; letter from Bruce Hall to Forba, 2/4/2001; letter from Board of Dir., BDG to Bonner Development Group Members, 2/20/2001; Board of Directors of the Bonner Development Group, "Milltown Dam Survey," 2/27/2001; letters from BDG to Missoula County Commissioners, Forba (EPA), and BDG members, 3/11/2001, 3/12/2001, 4/2/2001, in U.S. Environmental Protection Agency, Montana Office, *Milltown Administrative State Site Records*, reel 1331, 1524, 1331, 1331, 1331, 1331, 1331, Government Documents, Mansfield Library, University of Montana. On the history of people's appreciation for the natural environment at created places see: Mark Fiege, *Irrigated Eden: The Making of an Agricultural Landscape in the American West*, (Seattle: University of Washington Press, 2000).

Clark Fork looks like the ‘Garden of Eden’ every summer with boaters, moose, deer, birds and critters up the gazoo.’⁶⁴

Not all opponents of dam removal made arguments that mirrored those of the issue’s supporters. Just as anti-corporate sentiments motivated many proponents of taking out the dam and restoring the rivers, anti-environmentalism found its way into the rhetoric of many BDG supporters. Leroy Zent emailed governor Martz from Great Falls to propose that if the EPA decided to remove the Milltown sediments every environmental “activist must adopt and take home at least 100 Lb.s (sic) of sediment and take care of it” and “dig into their own pocket and contribute the sum of \$1,000.00 to help off-set the cost of this project.” In an email to the EPA, Gary Bray charged that he was “tired of all the damn dam liars...Eviro (sic) groups the worst. They find one stinking fish on river bank a fisherman threw there and they cry ‘Fish Kill.’” His outrage over the situation ended with the supposition that “If telling lies were against the law there would be no Enviros. They would all be in jail!” Other anti-environmentalist sentiments were less accusatory. And in the end, there were far, far fewer opponents than supports of dam removal, but they existed and included locals at the site of the dam.⁶⁵

The Bonner Development Group tried to discredit the flood of support the EPA received for dam removal. In response to the EPA’s receipt of thousands of letters

⁶⁴ Email from Daniel R. Monroe to EPA, *Missoulian*, and MT state Gov., 6/27/2001; letter from Elden Inabnit to *Missoulian Letters*, 9/6/2001; letter from Don Wibracht to Wardell, 8/22/2002, in U.S. Environmental Protection Agency, Montana Office, *Milltown Administrative State Site Records*, reel 1472, 1524, 1472, Government Documents, Mansfield Library, University of Montana.

⁶⁵ Email from Leroy Zent to Judy Martz, 7/19/2001; letter from Alan T. Hoyt to Wardell, 7/11/2001; email from Gary Bray to EPA, 11/16/2001, in U.S. Environmental Protection Agency, Montana Office, *Milltown Administrative State Site Records*, reel 1472, 1524, 1472, Government Documents, Mansfield Library, University of Montana.

favoring option 7A, Bruce Hall asked John Wardell “(W)hat legitimacy does the United State Environmental Protection Agency place on the receiving of form post cards and petitions...?” While disparaging the postcards that the CFC wrote, printed and distributed as part of its “Remove the River, Restore the Dam” campaign, Hall ignored the fact that his group had mailed out “1100” postcards to conduct their survey months earlier.⁶⁶

Methods aside, the EPA received more comments on Milltown than on any previous Superfund site. Most people credited the Clark Fork Coalition’s campaign. As this public “yell” swelled into 2002, historian Stephen Ambrose donated a quarter million dollars to the Coalition and Trout Unlimited to help them further fund their dam removal campaigns. He argued that the Army Corps of Engineers “don’t build many new dams these days, but are beginning to use their expertise to restore rivers and streams.” Putting his money where the organizational mouthpiece was also signaled that Ambrose understood the importance of public education and public input when it came to this historic shift in managing watersheds.⁶⁷

Such widespread public support for a thorough, permanent cleanup was critical to the Superfund process. That was certainly what the “Mother of Superfund,” Lois Gibbs,

⁶⁶ Letter from Bruce Hall (BDG) to Wardell (EPA), 10/29/2001; letter from Hall to Diana Hammer (EPA), 11/5/2001, in U.S. Environmental Protection Agency, Montana Office, *Milltown Administrative State Site Records*, reel 1418, 1524, Government Documents, Mansfield Library, University of Montana.

⁶⁷ Letter from Tracy Stone-Manning to Wardell, 12/21/2001; letter from Nielsen (MCCHD) to Forba, 1/3/2002; letter from Missoula Board of County Commissioners to Wardell, 1/3/2002, in U.S. Environmental Protection Agency, Montana Office, *Milltown Administrative State Site Records*, reel 1524, 1417, 1417, Government Documents, Mansfield Library, University of Montana. Sherry Devlin, “County tells EPA that long-term cleanup of Milltown is most important,” “Ambrose contributes to Milltown fund,” *Missoulian*, 1/5/2002, 1/16/2002, A1, A1.

thought when she came to Missoula to talk about the law, its history, and future. Gibbs admitted that Superfund had struggled since she helped birth it by fighting to get the federal government involved in making the Hooker Chemical Co. clean up her hometown of Love Canal, NY. Yet, looking at the Milltown Dam issue, she reminded a crowd at the University of Montana “(W)hen communities have been able to move it politically, Superfund has worked.” Having followed the history of this Superfund site, she thought it was “headed for a solid, healthy cleanup” due to public advocacy. Spring high waters were set to fill the Clark Fork and Blackfoot Rivers and, like Gibbs, most commenters on the Milltown site filled their letters with more visions of renewal for the watershed.⁶⁸

Following such leads, state support for a decision seemed to be heading in favor of dam removal. In January, 2002, the *Missoulian* reported on a meeting of state officials, including the attorney general, wherein “every elected official in the room – Democrat and Republican...agreed...The U.S. Environmental Protection Agency should order the removal of Milltown Dam.” While reiterating all the familiar reasons for removal, such as recreation, economics, fish and safety, the state AG, Mike McGrath, assured those at the meeting and the public that he would help make sure MPC’s sale of the dam to Northwestern Energy and its parent company, telecommunications giant Touch America, would not leave the city or state government liable for the structure’s fate.⁶⁹

By March, 2002, Republican Governor Judy Martz’s office hinted for the first time that the state was leaning toward dam removal. In a letter to the Rocky Mountain

⁶⁸ Sherry Devlin, “Fund astray: ‘Mother of Superfund’ says program had good start, but is now a ‘mess,’” *Missoulian*, 3/12/2002, B1.

⁶⁹ Sherry Devlin, “‘Unique opportunity,’” *Missoulian*, 1/23/2002, A1.

Chapter of Montanans for Multiple Use, a group that supported state over federal authority in general, and favored keeping the dam in particular, Martz countered the economic arguments for keeping the structure with the conclusion that “the Milltown Dam is currently an encumbrance for any corporation, agency, or group trying to generate electricity and revenue.” The governor also forecast the state’s leanings by writing about how removal would succeed. As if the decision were already made, Martz wrote that during dam removal “releases will be minimal and the Missoula aquifer will not be contaminated.” The EPA effectively admitted a similar bias by the end of the month when John Wardell announced that his agency was going to begin sharpening “the cost estimates” for dam removal, according the *Missoulian*. If that wasn’t definitive enough, Wardell admitted “from a personal perspective the removal option is where I am leaning.” By that time Wardell had nearly 10,000 postcards and personal letters that weighed heavily in favor of option 7A.⁷⁰

The support of the Confederated Salish and Kootenai Tribes pushed the state toward dam removal as well. Because the tribes were around before the state and because the 1855 Hellgate Treaty both carved out a reservation for the tribes and granted them rights to traditional hunting and gathering grounds, including “the place of the big bull trout,” tribal chairman Fred Matt believed that “the tribes have ‘a little more’ right to – and responsibility for – the Clark Fork than does the state of Montana.” While maintaining a focus on the importance of bull trout recovery and habitat restoration, the tribes added the renewal of a spiritual resource to their reasons for supporting dam

⁷⁰ Letter from Judy Martz to Ted Antonioli (RMCMMU), 3/22/2001, in U.S. Environmental Protection Agency, Montana Office, *Milltown Administrative State Site Records*, reel 1418, Government Documents, Mansfield Library, University of Montana. Sherry Devlin, “Removal focus of EPA talks,” *Missoulian*, 3/28/2002, A1.

removal. Having gained official position as a “trustee” for the site by the Department of the Interior in 1995, the CSKT’s claim to rights and responsibilities carried weight within Superfund law. But the tribal government was participating in the implementation of public policy beyond the confines of the reservation for more than just tribal reasons. In a letter to Governor Martz, Matt articulated CSKT’s support for dam removal as a way of preserving a subsistence tradition, as a guarantee of treaty rights, and as “Montana citizens” seeking “to preserve the right under the Montana Constitution to a clean and healthful environment.” The tribe was also acting within their Superfund rights.⁷¹

Aside “public participation,” Superfund law contains only one section dedicated to a specific group. Under section 9626, the law gives “Indian tribes” the “same treatment as a State with respect to the provisions” of Superfund. In particular, the law includes tribal “consultation” in the choice of a cleanup action. At Milltown, CSKT exercised that right over an environment that was not on its reservation and an issue that was of a public, not just a tribal, interest.⁷²

Listening to the public, local government and the tribe, the state seemed ever closer to throwing its support behind dam removal. That decision rested mostly with Governor Martz’s administration and the Department of Environmental Quality. While

⁷¹ Sherry Devlin, “Tribes weigh in, say dam should be dismantled,” *Missoulian*, 3/28/2002, A1. Letter from Robert T. Anderson (Div. of Indian Affairs, U.S. Dept. of Interior) to Michael T. Pablo (CSKT), 12/4/1995; letter from Fred Matt to Wardell, 3/15/2002; CSKT, “U.S.A. before the FERC: Motion to Intervene of the Confederated Salish and Kootenai Tribes,” 3/18//2002; letter from Matt to Martz, 6/28/2002, in U.S. Environmental Protection Agency, Montana Office, *Milltown Administrative State Site Records*, reel 1418, 1524, 1418, 1524, Government Documents, Mansfield Library, University of Montana.

⁷² [http://frwebgate.access.gpo.gov/cgi-bin/usc.cgi?ACTION=RETRIEVE&FILE=\\$\\$xa\\$\\$busc42.pt2.wais&start=16177696&SI ZE=3043&TYPE=TEXT](http://frwebgate.access.gpo.gov/cgi-bin/usc.cgi?ACTION=RETRIEVE&FILE=$$xa$$busc42.pt2.wais&start=16177696&SI ZE=3043&TYPE=TEXT)

they deliberated through the spring of 2002, other state agencies, like Fish, Wildlife and Parks, had already approved option 7A, both publically and in letters to the DEQ and Martz. As the state and Martz remained noticeably uncommitted, the EPA further forecast the possibility of dam removal.⁷³

In July, 2002, the EPA added to the momentum of turning Superfund cleanup into environmental and economic renewal. In a news release entitled “EPA announces \$1.3 million in Superfund funding to return contaminated sites to productive use,” administrator Christie Whitman confirmed her agency’s new commitment to turning some of the nation’s worst waste sites into healthy, financially-productive places. Milltown was one of 19 communities being offered funding.⁷⁴

The \$40,000 Milltown was to receive as part of the new Superfund Redevelopment Pilot Program seemed to strengthen the possibility of dam removal. Nationally, the initiative indicated that Superfund was evolving into more than just a hazardous waste containment or cleanup policy. Just like traditional cleanup efforts, the Pilot Program would award money from a viable PRP or the EPA, if no PRP existed, to help local governments and community organizations plan and carry out post-cleanup ecological restoration and economic redevelopment. Funding for such efforts, which Milltown received at the end of July, 2002, would become a standard part of Superfund

⁷³ Sherry Devlin, “State will weigh in on dam,” *Missoulian*, 4/30/2002, A1. Letter from MFWP to DEQ, 5/3/2002; letter from Forba to Robin Bullock (ARCO), 7/10/2002, in U.S. Environmental Protection Agency, Montana Office, *Milltown Administrative State Site Records*, reel 1472, 1524, Government Documents, Mansfield Library, University of Montana.

⁷⁴ EPA news release, “EPA announces \$1.3 million in Superfund funding to return contaminated sites to productive use,” 7/18/2002, in U.S. Environmental Protection Agency, Montana Office, *Milltown Administrative State Site Records*, reel 1711, Government Documents, Mansfield Library, University of Montana.

implementation nationally. The program enabled communities to turn toxic waste sites into everything from “wildlife sanctuaries” to “manufacturing facilities.”⁷⁵

At Milltown, the Pilot money helped give Bonner and Milltown residents more direct participation in the Superfund process and outcome. Although the Bonner Development Group opposed the decision to award the money to the county, even though that was what the program was bound legally to do, members of the group joined the project. In fact, it was BDG’s attention to how dam removal would undermine the community’s tax base that kept local economic interests in the spotlight of restoration and redevelopment. The influence of BDG was one more way in which Superfund implementation was a coordination of many competing interests, rather than a winner-take-all outcome. And the redevelopment committee that formed to direct the pilot project was one more indication that things were moving toward dam removal and river restoration.⁷⁶

⁷⁵ Office of Congressional and Intergovernmental Relations, “Milltown, Montana,” undated; Missoula County press release, “\$40,000 Awarded for Milltown-Bonner Area Superfund Redevelopment,” 7/26/2002; in U.S. Environmental Protection Agency, Montana Office, *Milltown Administrative State Site Records*, reel 1711, Government Documents, Mansfield Library, University of Montana. Sherry Devlin, “Federal funds allocated for Milltown planning,” *Missoulian*, 7/31/2002.
<http://www.epa.gov/superfund/programs/recycle/>

⁷⁶ Letter from Hall (BDG) to Wardell and Missoula Board of County Commissioners, 8/20/2002; EPA, “Superfund Redevelopment Pilot for the Milltown Reservoir Sediments Superfund Site,” 8/26/2002; letter from Hall to Wardell, Martz, etc., 8/29/2002; EPA, “Milltown Superfund Site Redevelopment and Restoration Initiative,” 9/2002; letter from Missoula Board of County Commissioners to Diana Hammer, 10/22/2001; James Ariail, Catherine Allen, and Linda Manning, “Proposed Project Approach Facilitating the Formation of a Working Group to Advise EPA Region 8 on the Future Use of the Milltown Reservoir Sediment Site,” 10/28/2002, in U.S. Environmental Protection Agency, Montana Office, *Milltown Administrative State Site Records*, reel 1524, 1711, 1524, 1524, 1711, 1711, Government Documents, Mansfield Library, University of Montana.

More than just opinions and planning pointed in the direction of dam removal. By summer's end, the EPA had ordered a slow drawdown of the Milltown reservoir to allow federal and state agents to test the toxic sediment. These tests were meant to help "refine...cost estimates of several cleanup options," although testing sediment so that it could be left in place behind a rubber-fortified dam seemed unlikely. Keith Large, an EPA site manager, told the *Missoulian* that the drawdown would also answer questions that spoke to removal, such as: "What construction techniques could we use to load sediments onto rail cars? How much excavation could we do versus dredging?" The month-long drawdown also allowed Montana FWP biologists to kill as many of the reservoir's illegally-introduced, trout-eating, non-native northern pike as they could net, hook or strand on dry land. Eradicating invasive species appeared to be part of a bigger plan to recover native ones.⁷⁷

By mid-August, 2002, the EPA had also eliminated another argument against dam removal. The agency released its plan for cleaning up the Clark Fork River between Butte and Milltown. Funded by ARCO, the \$100 million effort included removing the worst of the streamside contaminants. Many of the people who opposed dam removal argued that the dam prevented upriver contaminants from polluting the Clark Fork below Milltown. The plan to remediate and restore the upper river seriously weakened that argument. This "turning point," as Tracy Stone-Manning called the plan, for the upriver

⁷⁷ Sherry Devlin, "Milltown Dam drawdown begins Monday;" "Superfund official inspects reservoir to get better idea of cleanup costs," *Missoulian*, 8/2/2002, 8/23/2002, B1, A1.

portion of the nation's largest Superfund complex, was a nudge in the direction of restoration for the reservoir portion.⁷⁸

Public comments kept nudging the EPA in that direction as well. By early fall, 2002, the EPA counted more than 9000 public comments on Milltown. A growing number of those comments came from Bonner-Milltown area residents who now favored dam removal. Most of those writers spoke of a silent local majority being out "yelled" by the BDG. As Mary Erickson offered, "we are part of a large but perhaps less vocal or financially motivated group of citizens that want to see the whole 'dam' mess cleaned up." She admitted having cancelled her membership with BDG due to the influence she thought ARCO was having with the group.

By October, Erickson and many other locals raised their voices by forming the Friends of Two Rivers group with the explicit purpose of countering BDG in the Bonner-Milltown community. And on the eve of Halloween, the new group's efforts were part of more than ten thousand comments received by the EPA, which Diana Hammer, who directed the site's public relations, called "very rare, unheard of actually, to get this kind of response outside of a formal public comment period."⁷⁹

⁷⁸ EPA, "Environmental News: EPA Proposes Cleanup Plan for the Clark Fork River," 8/15/2002, in U.S. Environmental Protection Agency, Montana Office, *Milltown Administrative State Site Records*, reel 1473, Government Documents, Mansfield Library, University of Montana. Matt Gouras, "EPA unveils Clark Fork cleanup plan," *Missoulian*, 8/16/2002, A1; Sherry Devlin, "Healing at hand," *Missoulian*, 9/12/2002, C1.

⁷⁹ Email from Diana Hammer (EPA) to EPA, 9/10/2002; letter from Mary Erickson to EPA, 10/8/2002; letter from Gary Matson to EPA, 10/12/2002, in U.S. Environmental Protection Agency, Montana Office, *Milltown Administrative State Site Records*, reel 1524, Government Documents, Mansfield Library, University of Montana. Sherry Devlin, "New group to back Milltown Dam removal;" "EPA offices flooded with public comments on Milltown Dam," *Missoulian*, 10/24/2002, 10/30/2002, B1, A1. Greg

In December the EPA announced that it would release its cleanup proposal for Milltown “in late January/February 2003.” Because the proposal needed “State and Community Acceptance,” the agency wrote that it “looks forward to learning what the State and Community think about the Proposed Cleanup Plan during the public comment period.” The comment period was a Superfund formality. The EPA knew what the public thought. And that had been one of the major thrusts of the CFC campaign. As Stone-Manning put it, “(W)e did sort of a pre-comment period campaign so that they (EPA) knew they would have public support.” The governor, however, had opted for public silence on the issue.⁸⁰

The CFC and other dam removal advocates fretted about the governor’s position. Referring to George Bush’s campaign promise, Stone-Manning recognized that Martz was “a Republican Governor under President Bush...who on the campaign trail said there would be no dams coming down under his watch and who believes in state’s rights.” In fact, after Bush had defeated Al Gore in 2000 and Martz had won the Montana governorship, the Milltown project manager had called Stone-Manning and asked if her organization was going to continue its campaign. She told Forba and the *Missoulian* that the national and state turn in politics was simply motivation to “ramp up” the campaign.

Matson, “Guest Column: Restoring the river would revitalize a community, provide permanent remedy,” *Missoulian*, 11/6/2002, B5.

⁸⁰ Letter from Stone-Manning to Wardell et. al., 10/30/2002; EPA, “Press Advisory: Milltown Reservoir Clean Up Decision Schedule Announced,” 12/23/2002, in U.S. Environmental Protection Agency, Montana Office, *Milltown Administrative State Site Records*, reel 1525, 1524, Government Documents, Mansfield Library, University of Montana. Stone-Manning, OH 428-03.

The plan was to trump Republican opposition to dam removal at the state level with public support. The Coalition didn't imagine turning such opponents into supporters.⁸¹

Yet, in answering letters from dam removal advocates and opponents, Martz was beginning to intimate her decision. Responding to concerns expressed by BDG about the local economy, the governor detailed the high cost of stabilizing the Milltown Dam and its poor prospects for turning a profit. She also admitted working closely with other agencies on the issue, such as the state FWP, USFWS, and the Confederated Salish and Kootenai Tribes, all of which supported option 7A.

In her State of the State address on January 21, 2003, Martz made the surprising announcement that she and the state would support dam and sediment removal. She said that safety issues, which had gained attention when FERC had classified the dam as a possible post-9/11 terrorist target, had swayed her. The recent organization of the Friends of Two Rivers had also helped Martz recognize that there was ample local support for option 7A. The next day the *Missoulian* reported that the EPA had come to the same conclusion. In February the agency would make public a "\$90 million proposal" that specified "reconfiguring the Clark Fork River's channel, restoration of the confluence of the Clark Fork and Blackfoot rivers, and a slurry pipeline that delivers contaminated sediments to a permanent repository on high ground south of the river." Even President Bush made an exception to his blanket support of dams by giving the Milltown Dam removal a symbolic nod.⁸²

⁸¹ Stone-Manning, OH 428-03.

⁸² Stone-Manning, OH 428-03. Letter from Martz to Bruce Hall (BDG), 12/24/2002, in U.S. Environmental Protection Agency, Montana Office, *Milltown Administrative State Site Records*, reel 1524, Government Documents, Mansfield Library, University of Montana. Sherry Devlin, "State of the State Address: Martz: Remove Milltown Dam;"

In the three years between the beginning of the CFC campaign and Martz's public embrace of dam removal, Tracy Stone-Manning had a dream about the confluence of the Clark Fork and Blackfoot Rivers. Admitting that it sounds "goofy" for someone who is not "New Agey," she recalled falling asleep and simply hearing the sound of the free-flowing rivers converging. When she woke she told her husband, "it is going to happen." But it wasn't until Stone-Manning heard Martz's address, in which the governor "sounded like she was reading off our website," that "there was champagne." Listening to Martz reiterate the rhetoric of the campaign confirmed the message of Stone-Manning's dream confluence. It was "going to happen."⁸³

More support for making it happen quickly followed. The state's congressmen made visits to the dam to express and publicize their position in favor of its removal. Martz revealed that the state had been in secret negotiations with ARCO, the dam's owners and the EPA, which pointed to the companies' acquiescence to the proposed plan. "They could have fought us and paid for attorneys from here to forever," said Martz of the liable parties' willingness to accept the EPA decision. She knew that did not eliminate the possibility of problems along the way to a cleanup plan. In a letter to the Missoula county commissioners, she wrote "(D)ifferences of opinion will occur and tough decisions will need to be made." But the path seemed set.⁸⁴

"EPA wants Milltown Dam removed," *Missoulian*, 1/22/2003; 1/23/2003, A1, A1. Blaine Harden, "Once Again, A River Will Run Through It," *The Seattle Times*, 4/17/2003, last modified 4/1/2012, <http://community.seattletimes.nwsources.com/archive/?date=20030417&slug=dam17>.

⁸³ Stone-Manning, OH 428-03.

⁸⁴ Sherry Devlin, "Baucus in Bonner to talk about Milltown;" "Baucus offers help;" "Right thing to do," *Missoulian*, 2/19/2003; 2/20/2003; 2/28/2003, B2, A1, A1. Letter from Martz to Missoula county commissioners, 3/5/2003, in U.S. Environmental

The buyout of ARCO by BP in 2000, which frightened many people concerned about Milltown, helped facilitate dam removal in the end. Trout Unlimited's state director, Bruce Farling, recalled meeting a small group of BP scientists and executives for the first time as the feasibility study process came to a close. He and Tracy Stone-Manning explained their case for dam removal to the BP representatives, who, as Farling intimated, thought "we were like these loony, crazy people." With ARCO environmental remediation director Sandra Stash looking on and defending the dam-in-place logic, Farling saw the BP "guys" experience a sudden "attitude shift." They realized that Milltown was, according to Farling, "this annoying pimple thing" and they were a "multi-billion dollar company." Stone-Manning saw the shift, too. As opposed to what Stash had been telling them, the BP "guys" suddenly understood that removing the dam would erase a "tiny liability...off our books." Getting the Superfund site off BP's books permanently also coincided with the EPA's increasing preference for permanent remediation.⁸⁵

Perhaps it was fitting that the EPA released its plan for Milltown on Tax Day, 2003. Just as April 15 piques arguments over the federal government's revenues, opinions about dam removal began to differ. One of the most contested elements of the plan was where to put the contaminated sediment. Yet such struggles were part of a new debate. How to remove the dam and restore the river rather than whether to do so became the central question at Milltown.⁸⁶

Protection Agency, Montana Office, *Milltown Administrative State Site Records*, reel 1524, Government Documents, Mansfield Library, University of Montana.

⁸⁵ Farling, OH 428-04; Stone-Manning, OH 428-03.

⁸⁶ Sherry Devlin, "Dam's days numbered," *Missoulian*, 4/16/2003, A1. Email from Diana Hammer to EPA, 4/10/2003; EPA, Region 8, news release, "EPA and DEQ

With a Record of Decision designating the final remedy due out within the year, the EPA fostered public comment on its plan more than at any other time during the process. The comments came in a steady trickle compared to the surge that preceded the agency's decision. Most writers praised the option to remove the dam as a good, foregone conclusion and directed the EPA to supervise a thorough cleanup and restoration. Both acknowledging the precedent Milltown set in the public participation schedule and the need for that engagement to continue, John Wardell told the *Missoulian* “(T)his effort has been unique because we’ve gotten so much public comment in advance of the release of the proposed plan. But we need to hear from people now as well.” Diana Hammer later acknowledged that Milltown became a model for how her agency engages the public in the Superfund process, like commencing official comment periods earlier.⁸⁷

Hammer also recognized that the EPA was expanding its definition of Superfund cleanup. “When the Superfund program first started, we were dealing with...oozing messes or leaking barrels and drum,” she recalled. With Milltown as an early and successful example, Hammer acknowledged that her agency “should be thinking about how that land could be re-used in some beneficial way.” Until the EPA started the redevelopment Pilot Project and places like Milltown looked to a usable, economically

Release Proposed Cleanup Plan for Milltown Reservoir Sediments Superfund Site,” 4/15/2003, in U.S. Environmental Protection Agency, Montana Office, *Milltown Administrative State Site Records*, reel 1709, 1524, Government Documents, Mansfield Library, University of Montana.

⁸⁷ Sherry Devlin, “Public urged to comment on details of river’s future,” *Missoulian*, 4/16/2003, A9. Hammer, OH 428-02. For a statistical study of the EPA’s preference for permanent cleanup plans see: Shreekant Gupta, George Van Houtven, and Maureen Cropper, “Paying for permanence: an economic analysis of EPA’s cleanup decisions at Superfund sites,” *Rand Journal of Economics*, V.27, No.3, (Autumn 1996): 563-582.

viable future, simply containing wastes “just didn’t seem like we had finished the job” to Hammer.⁸⁸

The path to dam and sediment removal at Milltown furthered other changes in environmentalism as well. The Clark Fork Coalition’s campaign spoke of a new mode of environmentalism. The group created surprising images of environmentalism as fun, funny, and, even, “sexy” as Tracy Stone-Manning put it. Such playfulness in a media campaign advocating an environmental issue allowed the group to entice, educate and motivate people outside its usual audience. And those people participated in the Superfund process, altering its course in historically large numbers. Emails were quickly taking the place of traditional letter writing. In addition to the tone and style of the Coalition’s campaign, it promoted the idea of pushing Superfund remediation into the realm of restoration. The motto “Remove the Dam. Restore the River” connected Superfund’s original mandate of basic waste cleanup with the new direction of ecological regeneration. And the emphasis that opponents, such as Bonner Development Group, placed on the local economy as a Superfund consideration coincided with the EPA’s fledgling efforts to promote redevelopment along with remediation. As the agency’s public information arm, the Clark Fork Technical Assistance Committee, deemed it, the “project now underway at the Milltown Reservoir is one of the nation's most challenging and ambitious environmental cleanups,” due to its size, as well as its integration of restoration and economic development with cleanup. At Milltown and elsewhere, this

⁸⁸ Hammer, OH 428-02.

would come to be known as the “three Rs” of Superfund: Remediation, Restoration and Redevelopment.⁸⁹

The drinking of champagne in celebration of the EPA’s decision at Milltown hardly ended the Superfund process. A week after its announcement a *Missoulian* editorial cheering the proposal concluded that “(A) decade from now, when the dam is gone and the river is cleaner, people will look back in amazement that we ever agonized over what course of action to take with Milltown Reservoir.” In the following ten years the dam came down to many rounds of toasting and festivities, and the agonizing did seem to abate. The river began to regain some of the character that had once earned it the name “Place of the Shining Waters” in the Salish tongue. The EPA, state of Montana, Confederated Salish and Kootenai Tribes, and local government helped promote new economic opportunities associated with the free-flowing confluence. Restoration and redevelopment also spread far beyond the place where the rivers meet and the dam once stood and did so in some very unexpected ways. The whole process settled into another chapter in the area’s and Superfund’s history. And as it did, two of the truly unique features of the final stage of the Superfund process at Milltown – the actual work of the three Rs – were the rise of corporate ecological restoration and the directions people pushed restoration.⁹⁰

⁸⁹ See CFRTAC’s focus on the “three Rs:” <http://www.cfrtac.org/061009b.html>. The EPA had developed websites devoted to its restoration and redevelopment processes and accomplishments: <http://www.epa.gov/superfund/programs/nrd/primer.htm> and <http://www.epa.gov/superfund/programs/recycle/index.html>.

⁹⁰ *Missoulian* editorial, “Milltown decision will prove momentous,” *Missoulian*, 4/22/2003, A4.

The Three Rs of Superfund: Remediation, Restoration, and Redevelopment

Restoration is about having the power to visualize, to say that we can imagine a landscape that we don't see today, that we can create, or recreate, a landscape that was seen by Lewis and Clark... We can look to the past, and by understanding the past, visualize the future. And then engage communities and conservationists in the act of restoration. That has a lot of magic and power.

Bruce Babbitt, on the theme of his time as Secretary of the Interior.¹

Spring runoff from the Clark Fork River had threatened repeatedly to breach the Milltown Dam in the century it stood. When that breach came, the history of floods imperiling the dam was one of its many justifications. But heavy machinery, not high water, did the actual work.

On March 28, 2008, a few hundred people stood on a bluff overlooking the dam site. With high noon sunshine melting the snowpack off the surrounding mountainsides, Montana Governor Brian Schweitzer hollered, "Let 'er run!" A stream of muddy river water flowed in a new channel past what for a century had been the north end of the Milltown Dam. Construction workers, public officials, environmental advocates, and local citizens all cheered. From the bluff above the confluence's south side, people spent the next few hours watching a trickle swell into a modest waterfall that tumbled over the twenty-foot drop where the dam used to be. They snapped photographs, listened to short speeches, pointed out curves in the river's new channel, as well as remnants of its creation; berms, piles of riprap, orange pylons and plastic fencing, earthmoving machinery, and a nearly 200-acre expanse of muddy ground that had been underwater for

¹ Bruce Babbitt, Cornelius Amory Pugsley National Level Award, 2000, last accessed 3/16/2012, www.aapra.org/Pugsley/BabbittBruce.html.

a hundred years. County Commissioner Barbara Evans offered that it was “really a historic occasion.”

If dynamite and a massive wave of water played no part in the river’s first uninhibited run past the dam in a century, no one seemed let down. Speakers reminded the crowd that after thirty years of Superfund designation, the celebration was about the culmination of a long, tedious, sometimes contentious, but very methodical process. It was also about the future. The first breaching of the dam was one of many riverside ceremonies commemorating the many small steps that marked fixing one of the nation’s largest Superfund sites. It would take at least another year just to get rid of the rest of the dam so that the Clark Fork could truly run free.

The same kind of planning, bureaucratic oversight, corporate negotiations, and public input that had brought about the decision to removal the Milltown Dam and its load of toxic sediment prevailed in the years actual dam removal took. Numerous celebrations marked milestones of both the paper and shovel work of Superfund remediation at Milltown. School groups toured the dam’s powerhouse before it closed for good; workers cheered for the first bucket of sediment scooped from the muddy floodplain; and on any given day, people trekked to the site’s overlook to watch the earth moving, jackhammering, or machines carving a new river channel. Most days onlookers would have had a hard time distinguishing cleanup from river retooling, much less the goal of making the project an economic boon to the area. Yet the integration of remediation, restoration and redevelopment made Milltown “really” historic as Evans put it.

As EPA community coordinator for Milltown, Diana Hammer saw how the process of implementing a Superfund solution at the site helped make it a model of the law's evolving emphasis on "the three Rs." As she awaited Schweitzer's command, Clark Fork Coalition scientist Christine Brick told the *Missoulian* "I feel like an 8-year old kid waiting for Christmas." The Christmas present was \$120 million for remediation. But with overwhelming local support, cleaning up the toxins at Milltown became the starting point for restoring the watershed. Part of that evolution was figuring out what restoration of a natural environment meant. Or as Brick once observed, "without restoration the river would have been left to run in a rock-lined ditch."²

Environmental historians have argued that restoration in the West began with efforts to return individual species to their native places. In the late-20th century grizzly bears and wolves returned to Montana, for example. In *The Natural West* Dan Flores proposed that the bigger challenge was for westerners to tackle whole ecosystems, such as watersheds, and to do so with the understanding that virtually all environments are products of a long and varied human presence. Thus, restoration would be another new human manipulation of the environment, not a return to untrammelled nature.

In many ways, restoration at Milltown was moving in that direction. No one involved at Milltown suggested that Superfund implementation would return the area to pre-European conditions. Overlooking the site of the former dam and toasting its removal included watching cars and trucks roar by on Interstate-90 directly opposite the confluence. Remembering that the area once bore the names "place of the big bull trout" and "shining waters" was more about recognizing that people could help undo some of

² Christine Brick (CFC), "Clark Fork River Restoration," lecture at the University of Montana, Missoula, Montana, 3/27/2012.

the last hundred year's worth of industrial damage to the environment, rather than hoping that they could wholly erase the world wrought by industry. Milltown's restoration in the history of Superfund also demonstrated that that new environmental project was a national undertaking, not just a western one. As Elizabeth Grossman pointed out in *Watershed: The Undamming of America* cases like Milltown were part of a national trend whereby more dams have been decommissioned than built in the U.S. since 1998.³

At Milltown, restoration came to include the dispersal of Superfund money and addressing impacts well beyond the confines of the site. Corporate and public interests, federal and state laws, Native American efforts, as well as the riparian environment all played a part in determining the course of dam removal and river restoration at Milltown. So too, thinking about how to repair and revitalize the river led to considering the health of the local economy. Superfund implementation aided a rise in the environmental restoration business, as well as providing a catalyst to local entrepreneurship.

Since Superfund's passage, remediation of sites has meant removing or containing the source of toxins that threaten human health. At Milltown that effort centered on removing contaminated sediments. The debate over where to move tons of contaminated sludge brought with it the question of environmental justice. The choice to move Milltown's waste to an upstream community came about because of ecological concerns, rather than social disparity or corporate malevolence. Just as remediation affected environments outside the Superfund site, restoration spread beyond the designated site as well. One of the most unique dispersals of Superfund impacts

³ Dan Flores, "The West That Was, and the West That Can Be: Western Restoration and the Twenty-First Century," in *The Natural West: Environmental History in the Great Plains and Rocky Mountains*, (Norman: University of Oklahoma Press, 2001). Elizabeth Grossman, *Watershed: The Undamming of America*, (New York: Counterpoint, 2002), 3.

happened on a tributary to the Clark Fork watershed on the Flathead Indian Reservation. Finally, Superfund implementation at Milltown demonstrated how improving an environment could help redevelop a fading extractive economy. And as a 2011 EPA case study of Milltown's accomplishments demonstrated, integration of the three Rs, backed by robust and consistent community involvement was a model "that can help guide similar projects at contaminated lands across the country." Public participation in the Superfund process at Milltown became part of a new, more thorough definition of toxic waste cleanup for the EPA.⁴

Heavy metal-laden sediment behind Milltown Dam was the culprit that earned the site federal designation, and it was the first major consideration when cleaning up the place became a reality. As project manager for Milltown Russ Forba told *Waste News* shortly after the EPA released its first cleanup plan, "(T)he main emphasis of this and the main cost is the removal of sediments to restore groundwater."⁵ EPA estimates showed that "300,000 cubic yards of uncontaminated sediment scoured from the mouth of the Blackfoot River" would wash downstream in the months following dam removal. In the next ten years the Clark Fork would probably flush another ten times that much sediment, "the largest sediment load ever released by a dam removal in the United States" according the *Missoulian's* account of the federal agency's remediation plan. So, as monumental and iconic as dam removal was, it was the removal of the contaminated

⁴ <http://www.epa.gov/superfund/programs/recycle/pdf/milltown-casestudy.pdf>

⁵ Joe Truini, "Big dam cleanup in Big Sky country," *Waste News*, 4/28/2003.

sediment that stirred the first crucial debates about how to implement the EPA's decision for Milltown. In fact, the issue of sediment altered that decision from its outset.⁶

The public comment period that followed the EPA's draft plan elicited fervent response to the question of sediment removal and forced one of the major changes in the agency's plan. It also complicated historical arguments about the overlap between social justice and environmental issues. Environmental historians attuned to social justice have argued that polluted environments disproportionately affect working class and minority populations. Either those populations can't afford or don't have access to the political power and scientific knowledge to fight pollution, or the low property values surrounding polluted places draw disadvantaged populations. A caveat to that argument is that people who *can* afford the efforts maintain a "Not In My Backyard" attitude toward environmental pollution. At Milltown, the sediments wound up at a significant remove from the Superfund site, but the forces behind that decision challenged traditional arguments about "NIMBYism." Milltown had the same history and contemporary demographics as a working class community as the place the area's sediments ended up. The reason an environmental justice controversy arose over the movement of that contaminated waste was because Missoula residents were so active in getting them moved. Their destination, Opportunity Ponds, Montana, certainly suffered from its proximity to industrial waste. But injustice within the Milltown Superfund process did not account for those circumstances. Mining history, public opinion based on

⁶ John Cramer, "Into the Breach: Clark Fork, Blackfoot rivers punch through Milltown Dam," *Missoulian*, 3/29/2008, A1. Sherry Devlin, "Dignitaries hail return of unhindered flows," *Missoulian*, 3/29/2008, A1. Personal observations by the author. Diana Hammer Interview, OH 428-02, Archives and Special Collections, Mansfield Library, The University of Montana-Missoula

environmental science, and, most importantly in the case of Milltown, the knowhow of a new corporate restoration industry shaped the sediment decision.⁷

The issue of where to put contaminated sediments gained momentum as early as 2000. A study contracted by the EPA evaluating disposal sites estimated that a site needed between 15 and 184 acres of land depending on how much of the sediment the final cleanup produced. The study identified two local sites that would entail creating a new, plastic-lined disposal complex on undeveloped land on the margins of the Clark Fork floodplain.⁸

Others had local waste repository sites in mind as well. In August, 2000, Peter Nielsen wrote to Russ Forba to tell him that the Missoula city-county health department had identified no less than “eleven sites” in the county that might work.⁹ The state’s Trout Unlimited director, Bruce Farling, thought that most of the local environmental community agreed that it “was fine having it (sediment) around here somewhere as long as it’s high and dry,” as well as closely monitored. “As long as it isn’t under water, it’s OK,” he offered. That opinion wasn’t the same as every environmentalist taking home a share of the waste, as one opponent of dam removal had once suggested, but it wasn’t a

⁷ See Ellen Stroud, “Troubled Waters in Ecotopia: Environmental Racism in Portland, Oregon,” in *American Environmental History*, Louis S. Warren, ed., (Malden, MA: Blackwell Publishing, 2003); Mark Dowie, *Losing Ground: American Environmentalism at the Close of the Twentieth Century*, (Cambridge: MIT Press, 1995); Deohn Ferris and David Hahn-Baker, “Environmentalists and Environmental Justice Policy,” in *Environmental Justice: Issues, Policies, and Solutions*, Bunyan Bryant, ed., (Washington, D.C.: Island Press, 1995).

⁸ EMC², “Disposal Location Sensitivity Analysis,” 7/25/2000, in U.S. Environmental Protection Agency, Montana Office, *Milltown Administrative State Site Records*, reel 1282, Government Documents, Mansfield Library, University of Montana.

⁹ Letter from Peter Nielsen (MCCHD) to Russ Forba (EPA), 8/21/2000, in U.S. Environmental Protection Agency, Montana Office, *Milltown Administrative State Site Records*, reel 1282, Government Documents, Mansfield Library, University of Montana.

‘not in my backyard’ response either. It was a practical understanding that cleaning the river meant sacrificing some other landscape. At the time, a local place was acceptable.¹⁰

In the end, the practicalities changed. Local sites were too close to the water. In April, 2002, state EPA director John Wardell wrote to Dan Watts, the president of Montana Rail Link, and the economics of using his company to haul sediments away from Milltown. Dennis Washington, who had grown his fortune in the 1980s by buying most of the mining in Butte, owned MRL. Having seen ARCO saddle itself with environmental liability, Washington purchased entities like Butte’s East Continental Pit *from* ARCO, while leaving that company with all the liability for past contamination. As Butte-born journalist Edwin Dobbs put it in an article for *Harper’s Magazine*, “Washington’s net worth...reportedly shot up to more than \$1 billion, the bulk of it made in Butte on an investment of only \$18 million, the fire-sale price ARCO accepted for the Richest Hill on Earth.” Wardell’s letter helped position Washington to make even more money from ARCO and its environmental liability. The state EPA director was opening discussions with Watts about getting “the best possible estimate for the potential cost of rail transport of the dewatered sediments from Milltown to Opportunity Ponds.” With Watts’ positive response, the possibility of moving the waste about 100 miles upriver and spreading it in an existing repository within sight of where the toxic mess had been produced became a reality. Watts roughed out that possibility at \$20-\$34 million depending on the amount of sediment, not including the construction of new rail spurs. With that, Opportunity Ponds became central to the debate about Milltown solution.¹¹

¹⁰ Farling, OH428-04.

¹¹ Edwin Dobbs, “Pennies from Hell: In Montana, the Bill for America’s Copper Comes Due,” *Harper’s Magazine*, (October, 1996): 45. Letter from John Wardell to Dan Watts,

When the EPA released its proposed plan for Milltown a year later on April 15, 2003, it still included placement of the sediments “in a lined repository located less than a mile downstream from the Dam.” The plan was to use “hydraulic dredges” to scoop the contaminated sediments off the bottom of the reservoir and “send them via slurry pipeline” to the disposal site.¹² As with so many turns in the Milltown story, vigorous public participation prompted an extension of the EPA’s official comment period on its dam removal proposal.¹³ In a newspaper article about the comment period, project manager Russ Forba encouraged people to help answer questions about the how and where of sediment removal. Opportunity Ponds became the favored location.¹⁴

In 1914 ARCO’s predecessor, the Anaconda Mining Company, established what a *New York Times* retrospective called “a model community to show that people could raise crops and livestock” in the midst of heavy mining and known pollution. Opportunity had been a dumping ground for toxic waste from its inception. With streetcar service, a

4/9/2002; letter from Watts to Wardell, 4/16/2002; letter from Watts to Wardell, 6/10/2002, in U.S. Environmental Protection Agency, Montana Office, *Milltown Administrative State Site Records*, reel 1472, Government Documents, Mansfield Library, University of Montana.

¹² Sherry Devlin, “Disposal debate: Forum addresses possible sites for Milltown sediments;” “Dam’s days numbered,” *Missoulian*, 5/1/2002, 4/16/2003, A1, A1. EPA, “EPA and DEQ release proposed cleanup plan for Milltown Reservoir Sediments Superfund Site,” 4/15/2003, in U.S. Environmental Protection Agency, Montana Office, *Milltown Administrative State Site Records*, reel 1524, Government Documents, Mansfield Library, University of Montana.

¹³ Email from Diana Hammer to EPA, 6/17/2003; EPA, “Public Comment Period Extended,” 6/17/2003, in U.S. Environmental Protection Agency, Montana Office, *Milltown Administrative State Site Records*, reel 1709, Government Documents, Mansfield Library, University of Montana.

¹⁴ Sherry Devlin, “Deadline extended to comment on Milltown cleanup;” “Public urged to comment on details of river’s future,” *Missoulian*, 6/21/2003; 4/16/2003, B4, A9. Email from Brooks and Jackie Sanford to EPA, 4/16/2003, in U.S. Environmental Protection Agency, Montana Office, *Milltown Administrative State Site Records*, reel 1709, Government Documents, Mansfield Library, University of Montana.

school and golf course, people had readily bought 10-acre parcels and moved their families to the new town of Opportunity as the town boomed alongside copper production during and between both world wars. Residents accommodated the waste repository as a normal, necessary part of life in the heart of industrial mining country. But with most mining jobs gone by the early 21st century, many locals began to balk at having to suffer the industry's consequences.¹⁵

Forba, along with EPA's John Wardell and Diana Hammer, received plenty of answers to the question of where to dump Milltown's wastes, especially during public forums on May 7 and 8, 2003, in Bonner and Missoula. The most common comments about the agency's proposal addressed moving sediments to Opportunity. Local resident and Friends of Two Rivers member Mary Erickson opened the discussion by asking, "why purchase another property here, prepare it, line it, build the site and duplicate that kind of expenditure when perhaps we could utilize the Opportunity Ponds?" Locals and people from up and down the river agreed that using undeveloped land on the lip of the river's floodplain for a toxic waste repository that had to last in perpetuity was a questionable notion of permanent cleanup. Proposals ranged from stuffing the wastes back into the Butte mines and pits from whence they came, to the more practical and thoroughly supported option of the Opportunity Ponds.¹⁶

¹⁵ Jim Robbins, "In a Town Called Opportunity, Distress Over a Dump," *The New York Times*, 8/24/2005, A10.

¹⁶ Martin-Lake & Associates, Inc., The Court Reporters, "Superfund Program Clean-up Proposal Milltown Reservoir/Clark Fork River, Transcript of Proceedings, 5/7-5/8/2003, in U.S. Environmental Protection Agency, Montana Office, *Milltown Administrative State Site Records*, reel 1709, Government Documents, Mansfield Library, University of Montana.

The day before the Bonner and Missoula meeting commenced, US Senator Max Baucus weighed in on Milltown. In a letter to Russ Forba, Baucus summarized how an Opportunity repository “would allow EPA to coordinate and manage in one place” all the waste produced from cleaning up the entire Clark Fork Superfund complex, with plenty of space available if that amounted to more than expected. Along with that justification, Baucus offered to help negotiate a deal between the “interested parties,” which meant getting ARCO to pay a Dennis Washington enterprise for the work of dealing with the kind of waste that Washington had been savvy enough to avoid liability for in his purchase of Butte mines from ARCO. Baucus added that his proposal would create more Montana jobs as well. The Missoula-based Carpenters Local Union #28 and the Montana Community-Labor Alliance/Jobs with Justice registered its support of the dam removal proposal and favored the Opportunity Ponds option as a jobs creation or redevelopment prospect, too.

State Senator Sherm Anderson, who represented the district encompassing Opportunity Ponds, denounced Baucus’s proposal to the EPA, claiming that the area already suffered enough from being a waste repository and that moving Milltown’s sediment the 100 miles there would cost an additional \$100 million. Besides being a gross exaggeration of the added cost of freighting the material upriver, compared to building a new site near Milltown, Anderson obviated the fact that the addition to Opportunity would be a fraction of what was already there. The EPA estimated Milltown’s waste would need less than 180 acres, whereas the Opportunity site was 4000 acres. And, as Bruce Farling put it, he and Peter Nielsen had traveled to Anaconda and Opportunity over the years and gotten figuratively “beaten up” for their efforts at trying

to help residents push ARCO to improve its sprawling waste repository. Instead, area residents had preferred that the company spend \$48 million of Superfund liability dollars on a Jack Nicklaus-designed golf course covering portions of the area's old smelting grounds, including bunkers filled with black mining slag instead of sand.¹⁷

Ecological arguments also pushed the EPA to change its plan for Milltown's sediments. A Missoula ecological consulting firm sent a four-page letter to Russ Forba outlining its stance on the Milltown proposal. The letter argued that moving sediments to Opportunity would help make the "fullest possible re-naturalization of the river/floodplain/riparian area" possible. Penning the Missoula county health department's eight-page letter to the EPA, Peter Nielsen said that the first priority was getting the sediment out of the river and if that entailed creating a local repository, local government would support it. But, he confirmed that it made more ecological sense to use the Opportunity site instead of breaking "clean ground."¹⁸

Corporate opinion agreed. In early 2003, Missoula-based Envirocon, with ARCO's encouragement, had won the bid for performing sediment cleanup at Milltown. In 1988 Dennis Washington had started Envirocon to apply the "heavy construction" resources and know-how of major industry, like mining, to environmental cleanup.

¹⁷ Letter from Max Baucus to Russ Forba, 5/5/2003; Letter from Sherm Anderson to Russ Forba, 6/8/2003 email and letter from G. Bruce Morris (Carpenter's Local Union #28) to Forba, 6/18/2003; letter from Montana Community-Labor Alliance/Jobs with Justice to Forba, 7/15/2003, in U.S. Environmental Protection Agency, Montana Office, *Milltown Administrative State Site Records*, reel 1709, Government Documents, Mansfield Library, University of Montana. Farling, OH 428-04.

<http://www.perc.org/articles/article220.php>

¹⁸ Letter from Gary Carnefix (Carnefix Ecological Consulting) to Russ Forba, undated (but references the comment period); letter from Nielsen to Forba, 7/21/2003, in U.S. Environmental Protection Agency, Montana Office, *Milltown Administrative State Site Records*, reel 1709, Government Documents, Mansfield Library, University of Montana.

Having performed such work on thousands of projects, many of which fell under the direction of federal agencies, the company now helped shape the sediment removal plan, as well as carry it out. At Envirocon's first meeting with local government and the public, the company's regional manager, Kris Kok, explained the technical and ecological wisdom of draining the reservoir and excavating dry sediments with backhoes and dump trucks, instead of scooping and sucking up wet muck with floating machinery. For one, Envirocon could do the job in half the time since crews could work longer days and year-round on dry ground, as opposed to discontinuing work most of the winter due to a frozen reservoir if the pool were left in place. Even at two and a half instead of five years, the project would be Envirocon's largest, most lucrative, and its first in Missoula county. Kok also proposed that the EPA retool its plan by rail freighting the contaminated soil to Opportunity. Acknowledging that his company had no real say in the matter, Kok echoed the suggestion that using the Opportunity site would eliminate building and monitoring another repository.¹⁹

Opportunity residents were less excited about the possibility of acquiring Milltown's mess than local residents were of sending it upstream. When Kok explained his company's preferred plan to people in Anaconda-Deer Lodge County, they had more concerns than praise. They wondered why the sediments were called toxic waste in Milltown, but described upriver as relatively good organic material that would help "revegetate" the Opportunity Ponds repository. Area residents believed it was because of the community's declining population, high unemployment, and poor wages compared to the relatively opposite situation in Missoula. Kok and ARCO spokesmen explained that

¹⁹ Sherry Devlin, "Ready to go: Envirocon answers questions on cleanup plans," *Missoulian*, 7/23/03, 1.

location mattered, and the sediments were not in Missoula. When in the river and Milltown groundwater the stuff was a health concern worthy of Superfund designation; as a covering for wastes with much higher concentrations of heavy metal, Milltown's sediment would be an enhancement. Still, some opposition remained, although it seemed infused with an anti-Missoula sentiment, as much as it was concern about adding a bit more material to Opportunity's repository. Anaconda resident Charlene Hagan proposed turning Opportunity's "lose-lose situation to a win-win for Missoula. In her letter to Forba she asked if the sediment could be "unloaded and sculptured, then capped at a proper site...to construct a world class ski jump hill (or hills) for different height jumps as well as acrobatic jumping?" Hagan's assessment of Missoula as a town of ski enthusiasts was more about aiming sarcasm downriver than proposing a viable waste containment site.²⁰

While Opportunity area residents were slow to accept the new proposal, others did so quickly. Governor Martz wrote to John Wardell supporting the change in the EPA's plan. By May 2004, the EPA released a Revised Proposed Cleanup Plan, which acknowledged that along with public input, ARCO's promotion of the Envirocon method of removing sediment had swayed the agency. The new plan spelled out its "key revisions" as: draining the reservoir and rerouting the Clark Fork temporarily to help dry the sediment, removing 2.5 million cubic yards of it mechanically (instead of using hydraulic methods), and transporting the waste by Montana Rail Link to Opportunity Ponds. Although the revisions inflated the estimated price tag of cleanup from \$95 to

²⁰ Roberta Forsell Stauffer, "Opportunity residents wary of Milltown waste," *Missoulian*, 7/29/2003, B3. Letter from Charlene Hagan to Forba, 6/18/2004, in U.S. Environmental Protection Agency, Montana Office, *Milltown Administrative State Site Records*, reel 1710, Government Documents, Mansfield Library, University of Montana.

\$106 million, the EPA clarified that public opinion and the responsible party was helping to drive that change. At the same time the EPA released its Record of Decision for the upper Clark Fork, which included sending toxic sediment from nearly 100 miles of riverbank to Opportunity Ponds. That helped squelch the reality of building separate site-specific repositories throughout the floodplain. So did a steady flow of public input.²¹

Along with Milltown and Missoula area residents, some people from upriver, like Anaconda-Deer Lodge County resident Jim Flynn, wrote to the EPA voicing the opinion that “removal of the Milltown Tailings to the Opportunity Ponds is also a good and positive step forward.” A Butte “extractive resources engineers and geosciences” firm produced a technical report confirming Envirocon’s assertion that dry excavation of sediments would reduce the amount sent inadvertently downstream. A coalition of seven Montana NGO’s, ranging from labor alliances to the Clark Fork Coalition, co-authored a letter to Russ Forba praising his agency’s revised plan. Tracy Stone-Manning sent John Wardell a separate letter enclosing 558 citizen comments to the same affect. Scores of citizens provided their own postage or clicked emails to the EPA offering support for its new plan. By mid-June, 2004, even Dan Cox, the chief executive of Anaconda-Deer Lodge County, informed Forba that his office favored the decision to dump Milltown’s

²¹ Letter from Martz to Wardell, 9/22/2003; EPA, “Superfund Program Revised Proposed Cleanup Plan: Milltown Reservoir Sediments Operable Unit,” May 2004; EPA press release, “EPA and DEQ Announce Record of Decision for Cleaning Up the Clark Fork River in Montana,” 5/4/2004, in U.S. Environmental Protection Agency, Montana Office, *Milltown Administrative State Site Records*, reel 1572, 1709, 1670, 1710, Government Documents, Mansfield Library, University of Montana. Sherry Devlin, “EPA unveils Clark Fork cleanup plan,” *Missoulian*, 5/5/2004, A1. Vince Devlin, “Milltown revisions unveiled,” *Missoulian*, 5/18/2004, A1.

sediment at Opportunity Ponds, although he insisted that the effort receive as much attention to protect human health as the dam site had.²²

Opportunity residents' complaints about being left out of the decision and being dumped on, literally, contrasted with the EPA governed process. Milltown's cleanup added 2.6 million to the nearly 200 million cubic yards of mining waste already stored in the ARCO-owned waste facility. Instead of trying to find the more than \$2 billion it would take to clean up Opportunity Ponds by hauling that waste somewhere else, the EPA required ARCO to monitor local water wells and airborne dust, which was the primary complaint of local residents. The company also maintained a trust fund to pay for future problems should they arise. ARCO and the EPA both supported adding Milltown's sediment, in part, because studies showed that it would help abate dust by capping the existing contaminants with a layer of viable topsoil. Yet, some residents still felt ignored in the process.

A community was going to have toxic waste dumped near them against some people's will. Opponents described the issue in class terms – white collar Missoula pushed Milltown's contaminants on blue collar Opportunity. It looked like classic environmental injustice. In reality, the decision had far less to do with polarized communities than ecological considerations. As much as anything, the solution to Milltown's sediment illustrated a major element of environmental cleanup and

²² Letter from Jim Flynn to Forba, 6/8/2004; letter from Kuipers & Associates, LLC to CFRTAC, 6/16/2004; letter from Montana Community-Labor Alliance/Jobs with Justice, CFC, et. al. to Forba, 6/21/2004; letter from Stone-Manning to Wardell, 6/21/2004; letter from Dan Cox to Forba, 6/18/2004; letter from Charlene Hagan to Forba, 6/18/2004, in U.S. Environmental Protection Agency, Montana Office, *Milltown Administrative State Site Records*, reel 1710, Government Documents, Mansfield Library, University of Montana.

restoration. Mending one place meant sacrificing another. Contrary to a few letters the EPA received, it wasn't possible to stuff the sediment back down mining shafts. It was possible to consolidate it in a single repository.²³

When finally the EPA favored the upriver storage of Milltown waste, it was not choosing a disenfranchised community for dumping over an affluent one piqued with NIMBYism. Nor was it opting for a cheap solution to handling pollution. The agency picked an established, large and safer place to dispose of the waste instead of creating a new repository on the margins of the floodplain. Because of transportation costs, using the established site raised the cost of cleanup. And, both communities in question shared an industrial, working-class history, just as both communities garnered EPA attention throughout the process. In addition, opposition in Opportunity led to closer regulation of its repository. Finally, all the attention about sediment centered on its going to Opportunity. Yet, the trainloads of waste that began leaving Milltown in early October, 2007, ended up hauling 2.6 million cubic yards of sediment upriver, leaving nearly double that amount in the Clark Fork River floodplain where the river had carried it and the Milltown Dam sequestered it over the last century.²⁴

Other controversies besides the sediment issue arose in the process of implementing the Superfund cleanup at Milltown. The EPA and state of Montana had to file court proceedings against NorthWestern Corp., the dam's owner, and ARCO to prove that the private agreement the two companies made limiting NorthWestern's liability

²³ Perry Backus, "Dirty subject," *Missoulian*, 10/1/2006, A1.

²⁴ Sherry Devlin, "Revised cleanup plan gets initial public review," *Missoulian*, 6/10/2004, A1. Perry Backus, "Shipping Sediment," *Missoulian*, 10/3/2007, A1.

lacked legal teeth. Champagne and celebration greeted the EPA's release of its Consent Decree in August, 2005. The decree obligated NorthWestern Corp. to surrender its dam license, pay \$11.4 million toward removing the structure, and give the state its land and water rights in the Milltown area, as well as a few miles of riverside property along a downstream section of the Clark Fork renowned as a whitewater canyon. As for ARCO, it had to pay \$100 million for cleaning up Milltown. From locals to federal officials, people gathered on the dam's overlook to toast the decree, which also committed the state to spend \$7.6 million (from its previous suit against ARCO) on restoration work at Milltown.²⁵

With the first steps toward dam removal scheduled for as early as January, 2006 and the money to do the work secured, the EPA had the intervening time to press forward with a few important legal provisions of the Superfund law. The agency had released its Record of Decision on the last day of spring, 2004. Although the document was the final decision to remove Milltown Dam and sediments, the specifics of the work took time to determine. Those specifics varied from engineers figuring out the realities of dismantling the dam and powerhouse, to fisheries biologists preparing studies on how the process altered fish survival and populations, to an Army Corp of Engineers ice researcher determining how the dam's absence might change the formation and dynamics of ice

²⁵ Letter from NorthWestern Corp. to Forba, 7/21/2003, in U.S. Environmental Protection Agency, Montana Office, *Milltown Administrative State Site Records*, reel 1709, Government Documents, Mansfield Library, University of Montana. Sherry Devlin, "Feds file objection over dam cleanup;" "Groups hammer out Milltown agreement;" "Milltown pledge gets OK," *Missoulian*, 11/15/2003; 5/8/2004; 6/22/2004, 1, A1, A1. U.S. Department of Justice, "Civil Action No. CV89-039-BU-SHE: Consent Decree for the Milltown Site," 7/12/2005. Perry Backus, "Bringing down the dam: Champagne popped as accord is finalized," *Missoulian*, 8/3/2005, A1.

floes through Missoula. The planning and scrutiny would last through 2006 when actual remediation work commenced.²⁶

Even with the dam still standing, most of the public attention shifted to the prospect of restoring the Clark Fork and Blackfoot Rivers. The emphasis the Clark Fork Coalition had put on restoration in its: “Remove the Dam. Restore the River” campaign pervaded the public comment periods leading up to approval of the EPA’s final plan. Just as the public had absorbed other campaign language such as the “toxic time bomb,” people followed the Coalition’s lead in asking the EPA to “dovetail” Superfund cleanup with restoration. The public, the CFC and, eventually, local government and the state encouraged the EPA to make sure that money and time spent dealing with sediment and dam removal would make restoring a natural, free-flowing stream more efficient. Because of its responsibility for recovering bull trout, the U.S. Department of the Interior pressed the EPA to make restoration an “integrated” part of remediation, too.²⁷

Media attention on the Milltown Dam Superfund site tended to emphasize visions of its restoration. In the years between the EPA’s Record of Decision and Governor Brian Schweitzer’s call to “Let ‘er run,” numerous local newspaper articles about the project included a diagram depicting the confluence of free flowing rivers. When *The*

²⁶ Sherry Devlin, “Milltown Dam removal plan finalized,” *Missoulian*, 12/21/2004, A1. Colin McDonald, “Missoula on ice,” *Missoulian*, 1/12/2005, A1. EPA, “Superfund Program Revised Proposed Cleanup Plan: Milltown Reservoir Sediments Operable Unit,” May 2004, in U.S. Environmental Protection Agency, Montana Office, *Milltown Administrative State Site Records*, reel 1709, Government Documents, Mansfield Library, University of Montana.

²⁷ Email from Jon Van Arsdale to EPA, 6/20/2003; email from Erin Kalagassy to EPA, 6/20/2003; letter from Robert Stewart (U.S. Department of the Interior) to Forba, 7/1/2003; email from Denise Zembrysi to EPA, 7/8/2003, in U.S. Environmental Protection Agency, Montana Office, *Milltown Administrative State Site Records*, reel 1709, Government Documents, Mansfield Library, University of Montana.

New York Times published a story about the dam's removal, the quip it included from Tracy Stone-Manning celebrated "putting a river back together," rather than taking apart a dam. Plenty of dams had come down in America. The removal for the Edwards Dam from the Kennebeck River in Maine became a model for such projects in 1999.

According to the nation's leading river conservation organization, American Rivers, "the number of recorded dam removals has grown each year" in the decade since the Edwards came down. Dismantling Milltown's dam would help revitalize the Clark Fork and the river made famous by Norman MacLean and Robert Redford, going beyond just removing the dam, and doing so as the first such project at a Superfund site.²⁸

Lots of attention went to figuring out what restoring the confluence meant. Studying rocks, soil and landforms to recreate the Clark Fork's historic riverbed, its natural drop in the area where the reservoir had impeded it for a century, the particulars of its union with the Blackfoot, and its new inclinations below the dam site had to be modeled and undertaken. Site-specific restoration also included revegetating the floodplain with native plants. Natural processes would account for some of the restoration. In one surprising and feel-good twist to the process, many native plants came out of a hundred years of dormancy under the reservoir and sprouted on their own in its

²⁸ Jim Robbins, "Dam and Waste Will Go, Freeing Two Rivers," *The New York Times*, 8/4/2005, A12. Also see: Jim Robbins, "The Copper Mine Ran Through It: Tales of a River's Rescue," *The New York Times*, 4/1/2003, F2. Blaine Harden, "Once Again, A River Will Run Through It," *The Washington Post*, 4/16/2003, last modified 4/1/2012, <http://community.seattletimes.nwsourc.com/archive/?date=20030417&slug=dam17>. On the Edwards Dam see: http://www.nrcm.org/issue_edwardsdam.asp and <http://www.americanrivers.org/our-work/restoring-rivers/dams/projects/edwards-anniversary.html> (accessed 4/10/2012).

absence.²⁹ The EPA estimated that it would take four to ten years for the Milltown aquifer to clean itself and become a viable water source for residents again. Meanwhile, Envirocon hauled sediment from riverbed to dump truck to train car, sculpted bends and cut banks, entangled logjams and graded the floodplain around the confluence. Because of a Superfund-required monitoring plan, the EPA kept tabs on water quality throughout the remediation. Lots of that restorative work happened in the course of removing contaminated sediments, but took place before ARCO had agreed to pay the state's Natural Resource Damage Program an additional \$11 million for restoring Milltown, on top of the \$168 million it owed for the same purpose throughout the watershed, none of which included the company's liability for remediation. In the end, restoration at Milltown was practical, scientific, cost-conscious, and driven by notions of what people could do make a section of the Clark Fork a healthier ecosystem, rather than trying to erase human presence or turn back the clock. As the EPA-funded Clark Fork Technical Assistance Committee defined it, restoration was, at its simplest, "returning natural functions" to the river, which meant recreating viable riparian fish and wildlife habitat, including making the river safe for people to enjoy.³⁰

EPA's oversight of restoration at Milltown also allowed that restoration wasn't always site specific. Some work financed by ARCO's restoration dollars happened well beyond the boundaries of Milltown or the Clark Fork's main body, as well as stretched the definition of restoration beyond returning a waterway to its natural state.

²⁹ Rob Chaney, "Milltown Dam endgame on track, say project officials," *Missoulian*, 10/21/2009, B1.

³⁰ Chris Brick, "Rivers Run Free: As Milltown Dam Removal Nears Completion," in Clark Fork Technical Assistance Committee newsletter, Fall 2008. Clark Fork Technical Assistance Committee newsletter, "Defining restoration for the Clark Fork River at Milltown," 2010, last modified 4/4/2012, <http://www.cfrtac.org/061009b.html>.

As 2005 waned through the middle of bird- and bow-hunting season in Montana, another gathering took place near the Milltown dam. Organized as “Community Days at the Confluence,” the autumn congregation of people on the banks of the reservoir celebrated the past, present and future ways of life where the Blackfoot meets the Clark Fork River. The *Missoulian*’s front-page coverage of the event featured a photo of Salish elder and storyteller Louis Adams. Adams reminded five- or six-dozen picnickers that long before people called the area Milltown or Bonner, they called it “place of big bull trout.” Recalling that his ancestors moved throughout western Montana on a regular basis and buried their dead wherever they died, he said that the confluence, as well as most of the region, was sacred. With the sun spotlighting him, Adams also emphasized how removing the dam and toxins would help restore the river, its former namesake fish, and a general sense of its sacredness.³¹

Just as Louis Adams described the confluence as one point in a region connected both naturally and culturally, Superfund restoration at Milltown radiated beyond the retooling of the old reservoir site. The Confederated Salish and Kootenai Tribes on the Flathead Indian Reservation undertook one of the most unexpected of those radiations. While federal listing of the bull trout helped bring cleanup and restoration to the Milltown site, the CSKT used Superfund money to help foster conservation of bull trout habitat far from “the place of big bull trout.” Tribal efforts on behalf of the threatened fish were part of a cultural restoration project as well.

Using funds garnered in 1998 from participating in the state’s Natural Resource Damages Program, CSKT chose to start a Bull Trout Restoration Project on the Flathead

³¹ Betsy Cohen, “Where the Blackfoot and Clark Fork meet, residents look to the future,” *Missoulian*, 9/26/2005, A1.

Reservation, about 15 miles north of Missoula. Germaine White, director of the project, remembered the tribe's decision to use some of its \$18.5 settlement (with ARCO and the state of Montana's NRDP) to restore a tributary of the Clark Fork River that ran across the reservation. In particular, the tribe wanted to mend a waterway that was comparable to the headwaters of the Clark Fork, where Butte had disastrously damaged Silver Bow Creek.

All fifty miles of the Jocko River flow through the Flathead Indian Reservation. Resident bull trout survived in the river's upper reaches at the turn of the millennium. But its lower stretch wound through agricultural land and increasing development before joining the Flathead River, which, in turn, flowed into the Clark Fork near the reservation's western edge. Those pressures on the lower Jocko had decimated bull trout, especially the migratory population. Using what White called a "watershed" approach, the Bull Trout Restoration Project included retooling up to 22 miles of the Jocko's riparian environment. Restorative efforts included improving irrigation so that more water stayed in the stream, restricting new development within the floodplain, repairing the riverbanks and bed in places damaged by livestock grazing and development, reconstructing nearly 800 acres of wetlands and replanting native plants throughout.

By the time the Clark Fork flowed past the partially dismantled Milltown Dam in 2008, the lower Jocko was meandering, pooling and purifying in new wetlands, swirling and depositing clean sediment in handcrafted logjams and back eddies, quenching the roots of expanding patches of willow and cottonwood, as well as helping birth a growing population of native trout. Those efforts mirrored the kind of work happening at Milltown and the upper Clark Fork. As often as possible, the CSKT tried to implement

what White called “passive management,” or removing “the change agent that’s causing the disturbance and allow the natural processes to restore the river... The rivers always want to heal themselves.” It is “the best way to restoration,” according to White. In addition to pushing restoration into distant tributaries, and by using unique methods, the CSKT project emphasized education and cultural renewal, as well.

Germaine White helped guide CSKT to publish *Bull Trout’s Gift: a Salish story about the value of reciprocity*. Based on a series of fifth-grade field trips to the Jocko, the book used the grade-schoolers’ interest in the bull trout as the starting point for them to learn a bit about the natural history of the area and the people who lived there. Illustrations accompanied an intertwined retelling of the field trip to the modern-day Jocko and the tribes’ history, traditions, and religion associated with western Montana waterways, as well as changes that settlement by non-Indians brought. CSKT produced the book as part of an educational package including a field journal and an interactive DVD called *Explore the river: bull trout, tribal people, and the Jocko River*. While scientific data on restoration drove much of the actual work on the Jocko, the tribes believed that lasting changes necessitated a “sense of stewardship among the community,” which depends on “public information and education,” in White’s words.³²

Classrooms on and beyond the Flathead reservation adopted *Bull Trout’s Gift* and took field trips similar to the one in the book. White has enjoyed seeing this offshoot of the Clark Fork Superfund site encourage lots of “experiential and observational learning”

³² <http://jockoriver.net/Jindex.lasso> and http://jockoriver.net/j_master.lasso?page=MasterPlan&side=mp&subside=prjdsc&session=JRR:3F99556B07ab41608CqtI3540390. Last modified, 3/14/2012. Germaine White radio interview, KUFM 89.1, Missoula, <http://www.prx.org/pieces/63782-germaine-white-bull-trout-s-gift>. Vince Devlin, “Around the bend: CSKT works to restore watershed back to its natural state,” *Missoulian*, 5/6/2010, A1.

or actually “being in the water” as a way for children to study bull trout, riparian habitats and people’s relationship with the natural world. So in very intimate ways, restoring bull trout has offered the gift not just of more and healthier native fish, but a renewed connection between people and their local environments, their history and in many cases, their culture.

Throughout the book, readers grapple with the pronunciation and meaning of Salish names, especially those associated with rivers, wildlife and western Montana. Those words are part of a tribal emphasis on restoring a nearly dead native language to a new generation. In 2001, CSKT opened Nkwusm, the only Salish language immersion school in the world. The tribe has continually expanded and revised its native language dictionary in the last decade. Salish elder and storyteller Johnny Arlee, who has written numerous books of Salish stories, as well as consulted for and acted in movies, such as *Jeremiah Johnson*, appears in *Bull Trout’s Gift*. Sitting along the banks of the Jocko, he tells the story’s grade school class a tale of forbidden love that carries the message of the importance of knowing and respecting the environment on which you depend. Throughout his story within the story, Arlee familiarizes his audience with important Salish place names. The book reinforces this effort at restoring language with a detailed pronunciation guide. As the book’s subtitle explains, it’s about reciprocity. To give is to receive; to know the bull trout is to know a whole environment, a way of life, and a language.³³

³³ White, <http://www.prx.org/pieces/63782-germaine-white-bull-trout-s-gift>. Confederated Salish and Kootenai Tribes, *Bull Trout’s Gift: A Salish Story about the Value of Reciprocity*, (Lincoln, NE: University of Nebraska Press, 2011). Jenna Cederberg, “Words Alive: Salish language dictionary expands from 186 pages to 816,” *Missoulian*, 1/10/2011, B1.

The story also made it plain that the state of the environment depends on people's actions. As with so many Native American stories about the relationship between people and their environments, *Bull Trout's Gift* emphasizes the profound impacts humans have on the rest of the world. In this case, when a pair of Salish parents disrespects an unknown element of the environment, symbolized by their daughter's forbidden love interest, the river's dry up, sucking the life out of the surrounding watershed. Trekking to the river's source "to make amends" for their disrespect helped coax the rivers back to life. Damaging and restoring environments was part of Salish history and *Bull Trout's Gift* was meant to acknowledge human's capacity for such change.³⁴

The Clark Fork's restoration led to resuscitating other histories as well. In November, 2005, Envirocon finished removing a small dam on the Blackfoot River just above the Milltown structure. As a small power-producing project and an endpoint for millions of board feet of logs that once flowed down the river to the Milltown and Bonner area mills, the dam had been a precursor to Milltown Dam. Removal of the Stimson Dam was a precursor as well, or as Envirocon's project superintendent, Brian Vibbert said, "It's been a good practice run for Milltown Dam." That practice run evoked many retellings of the area's logging and milling history. Some of that history came to life as

³⁴ CSKT, *Bull Trout's Gift*, 29. For other literature on how Native American stories reflect ideas about environmental impacts or management see: Keith Basso, *Wisdom Sits in Places: Landscape and Language Among the Western Apache*, (Albuquerque: University of New Mexico Press, 1996); Shepard Krech III, *The Ecological Indian: Myth and History*, (New York: W.W. Norton & Co., Inc., 1999); Richard White, *Roots of Dependency: Subsistence, Environment, and Social Change Among the Choctaws, Pawnees, and Navajos*, (Lincoln: University of Nebraska Press, 1983); and Donald Fixico, "Ethics and Responsibilities in Writing American Indian History." *American Indian Quarterly*, V20 (Winter 1996).

century old logs, preserved by the cold water of the river, washed ashore in the following seasons. The restoration company plucked many of the massive logs from the river. Four of them became pillars in a new Native American Studies building on the University of Montana campus in Missoula. Others were reserved for possible use in an interpretive center planned for the old reservoir site. Just as remediation blended into restoration, restoration was meant to promote regional economic development.³⁵

By the time engineers shut off the Milltown Dam's generators for the last time on April 7, 2006, locals and the county had devised a restoration and redevelopment plan for the area. The plan included physical changes such as new hiking trails, a park, and an interpretive center. It also foresaw the need for setting up and funding a community council so that area residents would have an ongoing say in shaping the confluence. The efforts of the Milltown Superfund Site Redevelopment Working Group prompted Montana Sen. Max Baucus to insert a \$5 million redevelopment package for the group into a federal highways bill. By 2010, Baucus garnered nearly \$1 million more in federal appropriations, aside from the state NRDP's \$2.6 million to turn the confluence into a state park. The state park would feature a restored river environment, while also attracting people to recreate.³⁶

³⁵ Perry Backus, "Let the water flow;" "Practice run;" "Blackfoot to flow free;" "Bonner Dam gone;" "Historical log;" "Fishing for wood," *Missoulian*, 10/6/2005; 10/20/2005; 11/3/2005; 11/22/2005; 11/27/2005, 10/7/2006, B1, A1, A1, E1, B1. Rob Chaney, "Water Logged: Grand-funded effort pulls up century-old timbers plus piers for safety on the recreation corridor," *Missoulian*, 10/13/2010, B1.

³⁶ Perry Backus, "Milltown Dam: 'Dead in the water;'" "Bill contains \$5 million for Milltown Dam renovation;" "Fishing for answers;" "Drawing down the water," *Missoulian*, 4/8/2006; 7/20/2005; 5/2/2006; 6/2/2006, A1, B1, B1, A1. Michael Moore, "County supports Milltown proposal," *Missoulian*, 3/3/2005, A1. Clark Fork Technical

Using the river to aid the local economy seemed to make sense to everyone. Along with its dam and reservoir, Milltown was losing its namesake industry. By the summer of 2006, the Stimson Mill had laid off most of its workforce and was nearing a complete shutdown. In a town named for producing wood products, the nationwide slump in the lumber industry meant that redevelopment was important. Rather than garnering blame for the mill's closure, the environmental effort to remove the dam became a source of economic possibility.³⁷

Three decades after its passage, debates and measurements of how Superfund has impacted the national economy have focused mostly on the law's negative economic impacts – to insurance, PRPs, banks and taxpayers, primarily. But Milltown was an example of another set of Superfund's economic consequences. Superfund projects had become part of a growing restoration economy. Just as Superfund implementation in western Montana provided a business opportunity for Envirocon, the U.S. government was embracing restoration in other ways. U.S. Deputy Secretary of Interior Lynn Scarlett had visited Missoula in September 2006 to deliver a keynote called, "From Resource Damages to Restoration." Speaking at the 30th annual Public Land Law Conference, she both detailed and promoted the federal government's concerted effort to encourage an economy of restorative work by the private sector on public land projects. By 2010, Tom Vilsack, U.S. Agricultural Secretary, informed the national media that his agency's new

Assistance Committee newsletter, "Redevelopment: Milltown State Park & Trail Projects Progress, Winter, 2011.

³⁷ Robert Struckman, "Deep cuts in Bonner," *Missoulian*, 10/2/2005, A1. Tyler Christensen, "Stimson to cut 43 jobs at Bonner mill;" "Lumber market in flux," *Missoulian*, 12/15/2006; 5/28/2007, A1, A1. Perry Backus, "Stimson: Cutting back in Bonner," *Missoulian*, 5/27/2007, A1. Kim Briggeman, "Fortune faded: Working-class town loses luster of yesteryear," *Missoulian*, 9/3/2007, B1.

vision “begins with restoration.” The secretary singled out watersheds as particularly important to fostering the health of federal lands. The Society for Ecological Restoration, a clearinghouse for all aspects of the restoration economy, from jobs to conferences to major corporations, began in 1988 and counted members in more than 70 countries by 2010. Using national parks as case studies, Washington University (at St. Louis) professor William Lowry argued in his 2009 book *Repairing Paradise* that by the 21st century Americans and their government had realized that preserving renowned environments was not enough. Even many of the country’s most cherished landscapes warranted restoration. By 2012, American Rivers, which had once ranked the Blackfoot River at the top of its most endangered waterways list, launched a campaign to remove 100 dams and restore the sections of rivers they impounded within a year. The group listed Milltown as a model.³⁸

Besides serving as an emblem in a national trajectory, fixing environmental damage at Milltown held potential for local entrepreneurs as well. As Missoula marketing entrepreneur Sean Benton said of the campaign to remove the dam and restore the river, “I think that it’s been great for our company and, to a certain extent, it’s shaped a lot of the kind of work that we do.” In the heat of the summer, 2005, a new tube rental

³⁸ <http://www.simplyhired.com/a/jobs/list/q-environmental+restoration>.
<http://www.ser.org/about.asp>. Websites last modified 3/15/2012. Googling “environmental restoration company” (with quotes so that the words appear in together in any hit) results in over 73,000 hits. A single website listed over 1200 jobs in environmental restoration, mostly as technicians, engineers, project managers and the like. Perry Backus, “Interior official urges cooperation on land restoration,” 9/26/2006. Phuong Le, “Ag secretary looks to protect watersheds on USFS lands,” Associated Press, 8/15/2009. William Lowry, *Repairing Paradise: The Restoration of Nature in America’s National Parks*, (Washington, DC: Brookings Institution Press, 2009).
<http://www.americanrivers.org/our-work/restoring-rivers/dams/patagonia/dam-removal-map.html>.

and river shuttle service was thriving along the Blackfoot. Fly-fishing guides reported that the improved image of the rivers associated with restoration (even if most of it was yet to happen) was boosting business. State economic reports showed that 39% of all guided trips in Montana were on rivers, amounting to more than \$50 million a year. A 1999 study showed that tourism brought \$150 million to Missoula County each year. By the spring of 2006, the *Missoulian* reported that a two-day event spurred by the magnitude of work on the Clark Fork called the “Governor’s Restoration Forum” was “the first comprehensive look at the economic and public benefits of revitalizing Montana’s landscapes.” Storm Cunningham, the keynote speaker, had recently authored *The Restoration Economy: The Greatest New Growth Frontier*. Positioning themselves on that frontier, a Milltown couple reopened a defunct whitewater rafting company in 2007. In the small riverside town of Turah, just upstream from the doomed dam, Kathy Marshall, owner of the hamlet’s single small store, credited the Superfund cleanup at Milltown with renewing her hopes for staying in business.³⁹

As UM economist Thomas Powers argued in a 1996 book on the value of place, “(A)ttractive natural landscapes influence the location of economic activity.” While

³⁹ Benton, OH 428-05. Robert Struckman, “Cooling off, cashing in,” *Missoulian*, 7/24/2005, D1. Mea Andrews, “Making waves,” *Missoulian*, 1/13/2006, A1. Perry Backus, “Forum to address impact of restoration,” *Missoulian*, 5/23/2006, B1. Tyler Christensen, “Making Waves,” *Missoulian*, 4/15/2007, D1. Rob Chaney, “Restoration River: Unlocking potential,” *Missoulian*, 9/8/2009, A1. *Missoulian* editorial, “Tourism district a great promotional tool,” *Missoulian*, 10/16/2009, B4. Clark Fork Technical Assistance Committee, newsletter, “Author Speaks on Restoration,” June 2006. Norma Nickerson, “Niche News: Montana’s Outfitter and Guide Industry,” Institute for Tourism and Recreation Research, University of Montana, Missoula, MT, January 2007, <http://www.itrr.umt.edu/NicheNews07/MTOutfitting%20Industry%20Summary.pdf>. Al Ellard, Kristin Aldred Cheek, Norma Nickerson, “Missoula Case Study: Direct Impact of Visitor Spending on a Local Economy,” Institute for Tourism and Recreation Research, University of Montana, Missoula, MT, April 1999, <http://www.itrr.umt.edu/research/MslaCase.pdf>

Powers used preserved places, such as National Parks and federal Wilderness Areas, to make his point, what was happening on the Clark Fork demonstrated that reviving damaged environments led to similar economic benefits.⁴⁰

There were many immediate and tangible qualities to remediation, restoration and redevelopment at Milltown. Millions of tons of toxic sediment were gone. The river flowed in a sinuous channel feeding native riparian plants and depositing sediment that would foster aquatic life rather than kill it. Businesses sprang up in hopes of capturing clientele that would come to fish and float the renewed rivers. Groundwater models predicted that the area's aquifer would rid itself of arsenic in four to ten years.

Yet in some ways, the removal of Milltown Dam and the area's restoration was an experiment, the outcome unknown. The renewal of language study on the Flathead Reservation was one such trial. Another was a series of art exhibits at four Missoula museums in the fall, 2006. The art ranged from photographs of the rebounding rivers, to a branch and cloth sculpture that looked a bit like clean water flowing over skeletal hands, perhaps signifying new life emerging from a dead past. The most notable of the exhibits in the "Changing Currents" show was a room-sized installation piece. German-born, "internationally renowned artist [Gerhard] Trimpin" constructed a wall map of the Clark Fork River and marked it with significant river restoration events and places. He wired the map so that when a sensor mounted on rails glided over each mark, it closed an electric circuit that activated the lifting and lowering of bamboo tubes within vats of

⁴⁰ Thomas Michael Power, *Lost Landscapes and Failed Economies: The Search for a Value of Place*, (Washington, DC: Island Press, 1996), 160. U.S Census Data, <http://quickfacts.census.gov/qfd/states/30/3050200.html>

water placed throughout a room of the Missoula Art Museum. Cut to precise lengths, the tubes hummed different notes as their movement blew air over reeds within them.

Trimpin's installation, like all of the art, was an abstract way of pondering the future of a restored river. As critic Betsy Cohen wrote, the art asked such questions as: "What will the river sound like? What new paths will it forge? How wild will it be?"⁴¹

Answers to those questions came in small steps. In late 2006, tiny trout swam in Butte's Silver Bow Creek for the first time in nearly a century. The *Missoulian* likened the fish discovered by a Montana FWP electroshocking project to a "canary in a coal mine in reverse," the fish an indicator of a rejuvenating stream. It took three more years before someone actually caught a trout from that stream using rod and reel, and another three before the state published a fishing report for the Clark Fork's headwaters. At Milltown, the river was flowing through its newly created "historic" channel by then. And in 2010 the state FWP was in the process of buying land around the confluence of the Blackfoot and Clark Fork, as well as the overlooking bluff, the site of so many celebrations. After giving a parcel to the Bonner school, making it "possibly...the first elementary school in the nation with its own community school forest," according to superintendent Doug Ardiana, the state aimed to gather community input to steer its plans for making the land into a state park with a series of new paths. Superfund money from ARCO would fund the purchase and development. With the dam's removal playing no

⁴¹ Betsy Cohen, "Watershed moments," *Missoulian*, 9/7/2006, 1. Joe Nickell, "Museums join forces to document removal," *Missoulian*, 4/22/2006, A1. University of Montana, Gallery of Visual Arts, brochure, "Changing Currents, Altered Landscapes," Autumn, 2006. Also, personal observation, notes in author's possession.

small part, fisheries biologists declared the bull trout recovered in places like Clearwater River, one of the Blackfoot's last major tributaries before it joins the Clark Fork.⁴²

But the Superfund pocket filled by ARCO was not bottomless. Within two years of the dam's removal, the number and diversity of proposals for restoration work strained the fund and its management. As Peter Nielsen said of projects that ranged from museums and trail work "miles away from the Clark Fork... There's not enough money." Although it demanded more money from ARCO, fixing a problem with Milltown's sediment in Opportunity Ponds got swift approval from the EPA, river advocates, and the community. As of February, 2012, the Milltown soil had failed to grow much vegetation on 700 acres of ARCO's upper Clark Fork repository, so the company continually mitigated dust blowing off the site. Having pushed the decision to put the sediment in Opportunity, all the involved parties agreed on as quick, thorough and permanent solution to the bare site as possible. ARCO consented to pay another \$15 million to cap the Milltown deposit with a combination of lime, fresh topsoil, and a new round of plantings.⁴³

Superfund implementation at Milltown demonstrated the efficacy of combining remediation, restoration and redevelopment, as well as making community involvement an integral part of that combination. Having helped write the EPA's first guidelines for

⁴² Missoulian editorial, "Tiny trout may be harbinger of rebirth," *Missoulian*, 10/29/2006, E4. Rob Chaney, "Open for discussion: FWP wants input on public area proposals around former Milltown Dam site;" "Bull Trout: Fish thriving in Seeley;" "Speakers: Unexpected water to harbor good fish," *Missoulian*, 11/5/2010; 11/27/2011; 3/14/2012, A1, B1, 1.

⁴³ Rob Chaney, "Dirt Gone Barren: Milltown sediment spread at Opportunity won't grow grass;" "Missoula, Butte both interested in restoration funds," *Missoulian*, 10/31/2010; 12/5/2010, 1, A1. George Plaven, "Milltown Dam Sediment: Concept for treating tailings in place," *Missoulian*, 2/2/2012, B6.

developing community advisory groups at Superfund sites, Diana Hammer saw her work as the community coordinator at Milltown helping to push the agency in that direction. She saw the measure of success at the confluence of the Blackfoot and Clark Fork as “the opportunity to take a federal Superfund site and turn it into a state park.” That transformation echoed the progress in the law from its inception as an emergency waste cleanup measure to one that, at best, made cleaning up toxic waste one step in renewing damaged landscapes and revitalizing economies.⁴⁴

Montana skiers loved the winter of 2010-2011. Slopes reported near record snow-pack, as well as lift ticket sales. Come spring, river watchers were more anxious than excited about all that snow. With high flood levels a distinct possibility, Envirocon workers bulked up protection of their restoration work. But a lot would depend on the river. Running at the “35-year flood” level, the Clark Fork flushed nearly 14,000 cubic feet per second through Milltown after gaining the Blackfoot’s flow. When runoff finally settled in mid-summer, the results were encouraging. Except for tweaking some of the newly built S-curves upriver from the old dam site, the restoration work held, signifying that what Envirocon had constructed was acting like a fairly natural floodplain. Once again people celebrated.⁴⁵

⁴⁴ Hammer, OH 428-02.

⁴⁵ Rob Chaney, “Rush before runoff;” “Channel Change: High spring runoff tests new direction of Clark Fork River,” *Missoulian*, 4/26/2011; 8/31/2011, A1, B1.

Conclusion

Men may dam it and say that they have made a lake, but it will still be a river. It will keep its nature and bide its time, like a caged animal alert for the slightest opening. In time, it will have its way; the dam, like the ancient cliffs, will be carried away piecemeal in the currents.

Wendell Berry

*In a mucked up lovely river,
I cast my little fly.
I look at that river and smell it
And it makes me want to cry.
Oh to clean our dirty planet,
Now there's a noble wish,
And I'm puttin' my shoulder to the wheel
'Cause I wanna catch some fish.*

Greg Brown, "Spring Wind" in *Dream Cafe*

What happened at Milltown didn't tip the balance of any presidential elections, nor did it birth or overturn any major laws. Few national environmental organizations got involved. On the rare occasions they did, it was to lend a token of support for what was already transpiring. What happened at Milltown was that people participated in the implementation of a major environmental policy over the course of more than thirty years. They engaged in the kind of process that was more common than extraordinary. Rather than laying claim to shaping a rare sea change, they made the kind of history that happens most every day by affecting incremental change from within the bounds of the law. It is tempting to compare the patient, often tedious, work people undertook and the unexpected changes that work bore to the slow steady forces of a river that, as Wendell Berry noted, "will have its way."

One of the things that made the Superfund process at Milltown important, and perhaps a little frightening, was its commonness. By 2012, the EPA had considered tens of thousands of places as possible Superfund sites. At any one time since the law's

inceptions, a few hundred to a few thousand of these make it onto the agency's annual National Priority List. The majority of them share qualities with the Milltown site, such as their location on the fringes of urban centers, industrial history (especially mining), contribution to water (especially groundwater) contamination, and the presence of arsenic or other heavy metals as their primary human health risk. They range in size from about the area of an average suburban back yard to the 120 miles of river and riparian area that made the Clark Fork Superfund Complex the largest such site in the country. Every state has them and even in a large, thinly populated place like Montana, Superfund sites are usually within an hour or so drive of any point on a map. In other words, just about everyone in the United States lives near their own Milltown. And, the cleanup that happened at Milltown, as well as its impacts on Superfund implementation was, in large part, due to local residents.³⁸⁷

Milltown had the advantage of being just upstream from a community with a long history of social activism, of which environmental advocacy was a developing strong suit. Missoulians spearheaded public participation at Milltown where more people wrote to the EPA about the site than ever before and did so mostly outside the regimented comment period. That response to the Clark Fork Coalition campaign and the realities at Milltown encouraged the EPA to embrace more and earlier public input. The EPA now maintains a community involvement link on its Superfund website. The agency helps fund and organize half a dozen kinds of community groups meant to help citizens engage in the Superfund process. And each year since 2000, EPA administrators select an

³⁸⁷ For a map of hazardous waste sites in the U.S., see EPA's "Cleanups in My Community" webpage, last modified, 4/4/2012, <http://iaspub.epa.gov/apex/cimc/f?p=255:63:1603772554611628>.

individual or group to receive the “Citizen’s Excellence in Community Involvement Award.” People’s participation at Milltown did not single-handedly bring about all these changes. But as Milltown’s EPA community coordinator, Diana Hammer, recognized, “Cleanup [at Milltown] was unique and a great Superfund model because of all the involvement of informed advocates...The EPA does a better job of this now than we used to [of] being more upfront with people about what’s going on and letting them look behind the curtain and seeing how are those decisions being made and actually be part of it.”³⁸⁸

Because public input promoted, if not demanded, restoration, Milltown’s outcome was part of a shift in Superfund toward a greater concern for restoring natural environments, instead of simply removing or containing toxins. At Milltown that meant getting the worst toxic sediments out of the floodplain. Equally important, the EPA dovetailed sediment removal, a traditional remediation, to Envirocon’s (the Montana restoration company that got the contract to do the work at Milltown) creation of a naturally functioning and historically mimetic river channel that is beginning to improve water quality, provide a variety of fish and wildlife habitat from riparian trees and shrubs, to wetlands and modest river rapids. Superfund money generated through the law’s corporate liability provisions has helped pay for and demonstrate some of the law’s unexpected consequences. Restoration of bull trout habitat, as well as native language recovery efforts on the Flathead Indian Reservation made that point. Those unexpected types of restoration also revealed how the law’s implementation encouraged tribal participation in issues off the reservation that were of broad public interest.

³⁸⁸ Hammer, OH 428-02.

In addition, the EPA used remediation and restoration as springboards to economic redevelopment. At the turn-of-the-millennium, cleaning up and restoring the Milltown site became one of Envirocon's largest and most lucrative undertakings. For the first time along the Clark Fork, enhancing rather than extracting from the natural environment became a viable economic driver. The fix at Milltown was meant to create long-term financial opportunities as well. The Montana State Parks department conversion of nearly 500 acres of land once owned by the local mills, much of which had spent 100 years underwater, into the Milltown State Park is one such example. A place once deemed a toxic waste site of national concern will become a healthy environment for people to congregate, recreate, and, ostensibly, spent money in the local community. The new state park, like so much at Milltown, resulted from public input and involvement.

While much of how Superfund implementation happened at Milltown was because of the diligent participation of local residents, like so much history, contingencies helped along the way. As Wendell Berry discerned, the Clark Fork kept "its nature" and bided "its time." A few spring floods and ice jams heightened attention to the dam's age and safety, as well as attuned peoples' attention to the river's ailing health beyond the defined boundaries of the original Superfund site on the Clark Fork. Bull trout and other native fishes continued to follow their evolutionary impulses upstream in search of ancient spawning waters even though a man-made collection of rock, timber, concrete, and steel had blocked their way for a century. The presence of fish thwarted in their spawning efforts provided biologists and concerned citizens with added justification for removing Milltown Dam. When a non-native northern pike in

Milltown Reservoir opted to eat Pollywog, a cutthroat trout radio-tagged by a fisheries biologist and tracked by a group of grade school students in the area, it educated a growing contingent of people about yet another way the Superfund site was wreaking havoc on native fish.

Other contingencies were of a more human nature. Peter Nielsen's inadvertent discovery of classified documents about Milltown on a FERC webpage, which someone in an office thousands of miles away posted mistakenly, harnessed post-9/11 fears of terrorism to the more tangible concerns about the Milltown Dam's stability and downstream impacts. When an acquaintance bumped into Tracy Stone-Manning in the grocery store and suggested a Milltown to Downtown float, he added a powerful demonstration of community and recreational concern to her organization's dam removal and river restoration campaign. Admitting that it might be a "corny" expression, Diana Hammer said that her colleagues "joked that it's not only a project at the confluence of two rivers but it's been a confluence of people and a confluence of events," some purposeful, some not.³⁸⁹

Most of what happened at Milltown resulted from how a community involved itself in the Superfund process. Local scientists connected arsenic pollution in drinking water to the reservoir and the long history of upstream mining. People who moved to Missoula to attend the university, stayed and committed their lives to working for local government or environmental organizations that shaped the outcomes at Milltown. Local business owners devoted money and time to the same causes. A record number of citizens wrote to the EPA supporting the eventual solution of removal and restoration.

³⁸⁹ Hammer, OH 428-02.

Opponents of the plan pushed the cause of economic redevelopment. As Greg Brown wrote in his song “Spring Wind,” people participated in the Superfund process because of very personal cares and ways of knowing the Clark Fork watershed.

Then there are outcomes that may still be in the making and will not be found in any law, state park, or river. When asked if Milltown is important beyond the local communities and local environmental organizations, Trout Unlimited’s state director, Bruce Farling, who was active in the site’s implementation from nearly the beginning, said, “[T]his is a pretty big deal...I think this tells other communities what the possibilities are. They don’t have to settle for lowball stuff...I mean a \$140 million cleanup and restoration...against two very powerful corporations.” Farling’s sentiments fit with those of Jenny Price’s 2008 call for river restoration to become the icon for 21st century environmentalism. Both of them seem to understand that just as many places, particularly watersheds, need serious revitalization, people need stories of an improving environment as much as they need reminders of its degradation. But what happened at Milltown is more than a single story or icon. Rather, practical restoration of damaged environments represents the heart of American environmentalism at the turn of the millennium.³⁹⁰

Three years after the combined flow of the Clark Fork and Blackfoot Rivers scoured its way through a breach in Milltown Dam, the river’s course through Hellgate Canyon ran nearly unimpeded. Footings for Interstate-90 still stood in the Blackfoot, just above the confluence. I-90 still followed the river’s path through most of western Montana. Old logs from Milltown’s former life as the major industrial processing center

³⁹⁰ Farling, OH 428-04. Jenny Price, “Remaking American Environmentalism: On the Banks of the L.A. River,” *Environmental History*, 13, (July 2008): 536-555.

between forest and finished timber jutted onto the nearby banks. The stumps of trees cut more than a century ago studded the old reservoir bed. Restoration did not mean that the Clark Fork would look like it did when the Salish gave it names like “place of the big bull trout,” or “shining waters.” It did mean that arsenic levels were dropping in the groundwater. Native plants were sprouting on the riverbanks and non-native fish populations were dwindling. So, too, native fish swam freely past the old dam site. And although it was closed to recreational traffic for at least another year, a few rogue boaters floated through the confluence on nights when moonlight allowed them to cast flies for trout, see the shine of water tumbling over rocks, and enjoy a stretch of river no one had plied for generations.

Bibliography

- Adler, Robert W., Jessica C. Landman, Diane M. Cameron, *The Clean Water Act 20 Years Later*, (Washington DC: Island Press, 1993).
- American Social History Project, *Who Built America?: Working People and the Nation's Economy, Politics, Culture, and Society, Volume Two: From the Gilded Age to the Present*, (New York: Pantheon Books, 1992).
- Bailey, Ann K., "Concentration of Heavy Metals in the Sediments of a Hydroelectric Impoundment," MS thesis in EVST, University of Montana, 1976.
- Basso, Keith, *Wisdom Sits in Places: Landscape and Language Among the Western Apache*, (Albuquerque: University of New Mexico Press, 1996).
- Behnke, R. J., *Monograph of the native trouts of the genus Salmo of western North America*, (USDA Forest Service, U.S. Fish and Wildlife Service and Bureau of Land Management, 1979).
- Bicentennial Committee Bonner School, *A Grassroots Tribute: The Story of Bonner, Montana* (Missoula MT: Gateway Press, 1976).
- Blum, Elizabeth D., *Love Canal Revisited: Race, Class, and Gender in Environmental Activism*, (Lawrence: University of Kansas Press, 2008).
- Bodnar, John, *The Transplanted: A History of Immigrants in Urban America*, (Bloomington: Indiana University Press, 1985).
- Brooks, David, *Bobos in Paradise: The New Upper Class and How They Got There*, (New York: Simon & Schuster, 2000).
- Bryant, Bunyan ed., *Environmental Justice: Issues, Policies, and Solutions*, (Washington, D.C.: Island Press, 1995).
- Clark, Ella E., *Indian Legends from the Northern Rockies*, (Norman, OK.: The University of Oklahoma Press, 1966).
- Confederated Salish and Kootenai Tribes, *Bull Trout's Gift: A Salish Story about the Value of Reciprocity*, (Lincoln, NE: University of Nebraska Press, 2011).
- Coon, Shirley, "The Economic Development of Missoula, Montana," MA thesis, University of Chicago, 1926
- Dobbs, Edwin, "Pennies from Hell," *Harper's Magazine*, October 1996.

- Dowie, Mark, *Losing Ground: American Environmentalism at the Close of the Twentieth Century*, (Cambridge: MIT Press, 1995).
- Environment and Natural Resources Policy Division, *A Legislative History of the Superfund Amendment and Reauthorization Act of 1986 (Public Law 99-499)*, (Washington, DC.: US Government Printing Press, 1990).
- Farr, William, "Going to Buffalo: Indian hunting migrations across the Rocky Mountains, Part 1, Making Meat and Taking Robes & Part 2, Civilian Permits, Army Escorts," in *Montana: The Magazine of Western History*. V.53, no.4, Winter 2003. 2-21. V.54, no.1, Spring 2004.
- Fiege, Mark, *Irrigated Eden: The Making of an Agricultural Landscape in the American West*, (Seattle: University of Washington Press, 2000).
- Fleischer, Lisa, "Health Study of Milltown, Montana," (Missoula, MT.: MontPIRG, 1983).
- Flores, Dan, *The Natural West: Environmental History in the Great Plains and Rocky Mountains*, (Norman: University of Oklahoma Press, 2001).
- Forman, Dave, *Rewilding North America: A Vision for Conservation in the 21st Century*, (Washington, D.C.: Island Press, 2004).
- Gibbs, Lois Marie, *Love Canal: and the Birth of the Environmental Health Movement*, (Washington, DC.: Island Press, 2011).
- Glasscock, C.B., *The War of the Copper Kings: Greed, power, and politics: the billion-dollar battle for Butte, Montana, the richest hill on earth*, (Helena, MT.: Riverbend Publishing, 2002).
- Gorby, Michael S., "Arsenic in Human Medicine," *Arsenic in the Environment: Part II: Human Health and Ecosystem Effects*, (New York: John Wiley & Sons, Inc., 1994).
- Grossman, Elizabeth, *Watershed: The Undamming of America*, (New York: Counterpoint, 2002).
- Hawley, Steven, *Recovering a Lost River: Removing Dams, Rewilding Salmon, Revitalizing Communities*, (Boston: Beacon Press, 2012).
- Hays, Samuel P., *Beauty, Health, and Permanence: Environmental Politics in the United States, 1955-1985*, (Cambridge: Cambridge University Press, 1987).
- Holton, G.D., and H.E. Johnson, *A Field Guide to Montana Fishes*, third edition, (Helena, MT.: Montana Fish, Wildlife & Parks, 2003).

- Kirk, Andrew G., *Counterculture Green: The Whole Earth Catalog and American Environmentalism*, (Lawrence: University Press of Kansas, 2007).
- Klyza, Christopher McGrory, and Bill McKibbin, eds., *Wilderness Comes Home: Rewilding the Northeast*, (Middlebury: University Press of New England 2001).
- Krech III, Shepard, *The Ecological Indian: Myth and History*, (New York: W.W. Norton & Co., Inc., 1999).
- Lindstrom, Matthew J., and Zachary A. Smith, *The National Environmental Policy Act: Judicial Misconstruction, Legislative Indifference, and Executive Neglect*, (College Station: Texas A&M University Press, 2001).
- Lowry, William, *Repairing Paradise: The Restoration of Nature in America's National Parks*, (Washington, DC: Brookings Institution Press, 2009).
- Maclean, Norman, *A River Runs Through It*, (New York: Simon & Schuster, Inc., 1976).
- MacMillan, Donald, *Smoke Wars: Anaconda Copper, Montana Air Pollution, and the Courts, 1890-1920*, (Helena, MT.: Montana Historical Society Press, 2000).
- Malone, Michael, *The Battle for Butte: Mining and Politics on the Northern Frontier, 1864-1906*, (Helena: Montana Historical Society Press, 1981).
- Malone, Michael P., Richard B. Roeder, and William L. Lang, *Montana: A History of Two Centuries*, revised edition, (Seattle: University of Washington Press, 1976).
- Mangam, William Daniel, *Biography of W. A. Clark and His Tarnished Family*, (Butte, MT: Old Butte Publishing, 2007).
- Manning, Richard, *Last Stand: Logging, Journalism, and the Case for Humility*, (Salt Lake City: Peregrine Smith Books, 1991),
- , *One Round River: The Curse of Gold and the Fight for the Big Blackfoot*, (New York: Henry Holt and Company, Inc., 1997).
- Mead, Daniel W., *Water Power Engineering: The Theory, Investigation and Development of Water Powers*, (New York: McGraw-Hill Books Co., 1920).
- Montana Constitutional Convention, *Montana Constitutional Convention, 1971-1972*, (Helena, MT: Montana Legislature, 1979-1982).
- Nicholas, Liza, Elaine M. Bapis, and Thomas J. Harvey, eds. *Nature, Identity, and Play in the New West*, (Salt Lake City, UT: University of Utah Press, 2003).

- Nriagu, Jerome O. (ed.), *Arsenic in the Environment: Part I: Cycle and Characterization*, (New York: John Wiley & Sons, Inc., 1994).
- Palmer, Tim, *Endangered Rivers and the Conservation Movement*, (Lanham, MD.: Rowman & Littlefield, 2004 edition).
- Petersen, Shannon, *Acting for Endangered Species: The Statutory Ark*, (Lawrence, KS: University of Kansas, 2002).
- Power, Thomas Michael, *Lost Landscapes and Failed Economies: The Search for a Value of Place*, (Washington, DC: Island Press, 1996).
- Price, Jenny, "Remaking American Environmentalism: On the Banks of the L.A. River," *Environmental History*, 13, July 2008
- Probst, Katherine N., Don Fullerton, Robert E. Litan, and Paul R. Portney, *Footing the Bill for Superfund Cleanups*, (Washington, DC: The Brookings Institute and Resources for the Future, 1995).
- Punke, Michael, *Fire and Brimstone: The North Butte Mining Disaster of 1917*, (New York: Hyperion, 2006).
- Quammen, David, "Alias, Benowitz Shoe Repair: Heavy metal, high water, and a man in a neoprene suit," *Outside*, December, 1983.
- Rainbolt, Jo, *Missoula Valley History*, (Dallas: Curtis Media Corp., 1991).
- Reagan, Ronald, *The Reagan Diaries*, Douglas Brinkley, ed., (New York: HarperCollins Publishers, 2007).
- Revesz, Richard L. and Richard B. Steward, eds., *Analyzing Superfund: Economics, Science, and Law*, (Washington, DC: Resources for the Future, 1995).
- Rothman, Hal K., *The Greening of a Nation: Environmentalism in the United States Since 1945*, (Orlando: Harcourt, Brace and Company, 1998).
- Sale, Kirkpatrick, *The Green Revolution: The American Environmental Movement, 1962-1992*, (New York: Hill and Wang, 1993).
- Salish-Pend d'Oreille Culture Committee and Elders Cultural Advisory Council, Confederated Salish and Kootenai Tribes, *The Salish people and the Lewis and Clark Expedition*, (Lincoln: University of Nebraska Press, 2005).
- Scott, Ruth Boydston, *Missoula: Trading Post to Metropolis*, (Missoula, MT: R. Scott, 1997).

- Smith, Norman, *A History of Dams*, (London: The Chaucer Press, 1971).
- Stiller, David, *Wounding the West: Montana, Mining, and the Environment*, (Lincoln: University of Nebraska Press, 2000).
- Stone-Manning, Tracy and Emily Miller, eds., *The River We Carry With Us: Two Centuries of Writing from the Clark Fork Basin*, (Livingston: Clark City Press, 2002).
- Swanberg, Tim, "The movement and habitat use of fluvial bull trout in the upper Clark Fork River drainage," thesis, University of Montana, Missoula, Montana, 1996.
- Vig, Norman J., and Michael E. Kraft, *Environmental Policy in the 1980s: Reagan's New Agenda*, (Washington, DC.: Congressional Quarterly Inc., 1984).
- Warren, Louis S., ed., *American Environmental History*, (Malden, MA: Blackwell Publishing, 2003).
- Weisel, George F., "Ten Animal Myths of the Flathead Indians," *Anthropology and Sociology Papers*, No.18, 1959.
- Welch, Alan H., and Kenneth G. Stollenwerk, *Arsenic in Ground Water: Geochemistry and Occurrence*, (Norwell, MA: Kluwer Academic Publishers, 2003).
- Wellock, Thomas R., *Preserving the Nation: The Conservation and Environmental Movements, 1870-2000*, (Wheeling, IL.: Harlan Davidson, Inc., 2007).
- White, Richard, *Roots of Dependency: Subsistence, Environment, and Social Change Among the Choctaws, Pawnees, and Navajos*, (Lincoln: University of Nebraska Press, 1983).

Periodicals and newspapers:

American Indian Quarterly

Anaconda Standard

Congressional Digest

The Daily Missoulian

Ecological Applications

Engineering News-Record, vol. 52-62, 1904-1909

EPA Journal

Environment

Environmental History

Harper's Magazine

High Country News

Journal of Law and Economics

The Los Angeles Times

Missoulian

The New York Times

Northwest Tribune

Rand Journal of Economics

Seattle Times

State Politics and Policy Quarterly

The Washington Post

Waste News

Archival collections:

Charles Herbert McLeod, Mansfield Library, University of Montana.

David Brooks' Milltown Oral History Interviews, OH 428, Mansfield Library, University of Montana.

Jack Demmons/Bonner School Photographs, Mansfield Library, University of Montana,
<http://www.lib.umt.edu/digital/demmons>.

Missoula Water Company Records, Mansfield Library, University of Montana

Montana Power Company Papers, Mansfield Library, University of Montana.

Montana Power Company Predecessor Company Records, 1880-1947, Montana Historical Society Archives, Helena, MT.

Montanans at Work Oral History Project, Montana Historical Society, Helena, MT.

U.S. Environmental Protection Agency, *Milltown Administrative State Site Records*, Government Documents, Mansfield Library, University of Montana.

Missoula City-County Health Department, Milltown Collection, Missoula, Montana.

Websites:

www.aapra.org/Pugsley/BabbittBruce.html

<http://www.americanrivers.org/our-work/restoring-rivers/dams/projects/edwards-anniversary.html>

<http://www.americanrivers.org/our-work/restoring-rivers/dams/patagonia/dam-removal-map.html>

<http://blackfootchallenge.org/Articles/>

<http://www.ci.missoula.mt.us/DocumentView.aspx?DID=650>

<http://www.ci.missoula.mt.us/index.aspx?NID=185>.

<http://www.cfrtac.org/>

<http://www.clarkfork.org/index.html>

<http://www.climate-zone.com/climate/united-states/montana/missoula/>

http://www.crrel.usace.army.mil/sid/Dam_decom/overview.htm

<http://www.doj.mt.gov/lands/lawsuithistory.asp>

<http://www.epa.gov/compliance/cleanup/superfund/comply.html>

<http://www.epa.gov/compliance/cleanup/superfund/neg-type.html#aas>

<http://www.epa.gov/compliance/cleanup/superfund/orders.html>

<http://www.epa.gov/superfund/about.htm>

- <http://www.epa.gov/superfund/index.htm>
- <http://www.epa.gov/superfund/policy/cercla.htm>
- <http://www.epa.gov/superfund/policy/sara.htm>.
- <http://www.epa.gov/superfund/programs/recycle/>
- <http://www.epa.gov/superfund/sites/npl/frlist.htm>
- <http://www.epa.gov/superfund/sites/npl/nl/n0800445.pdf>
- [http://frwebgate.access.gpo.gov/cgi-bin/usc.cgi?ACTION=RETRIEVE&FILE=\\$\\$xa\\$\\$busc42.pt2.wais&start=16031330&SI ZE=4725&TYPE=TEXT](http://frwebgate.access.gpo.gov/cgi-bin/usc.cgi?ACTION=RETRIEVE&FILE=$$xa$$busc42.pt2.wais&start=16031330&SI ZE=4725&TYPE=TEXT)
- <http://www.fundinguniverse.com/company-histories/atlantic-richfield-company-company-history.html>.
- <http://www.fws.gov>.
- <http://iaspub.epa.gov/apex/cimc/f?p=255:63:1603772554611628>
- <http://www.itrr.umt.edu/NicheNews07/MTOutfitting%20Industry%20Summary.pdf>.
- <http://www.itrr.umt.edu/research/MslaCase.pdf>
- <http://jockoriver.net/Jindex.lasso>
- <http://www.makeitmissoula.com/community/non-profits/>
- http://www.nrcm.org/issue_edwardsdam.asp
- <http://www.perc.org/articles/article220.php>
- <http://policy.nrcs.usda.gov/OpenNonWebContent.aspx?content=18502.wba>
- <http://www.prx.org/pieces/63782-germaine-white-bull-trout-s-gift>.
- <http://quickfacts.census.gov/qfd/states/30/3050200.html>
- <http://www.ser.org/about.asp>
- <http://www.simplyhired.com/a/jobs/list/q-environmental+restoration>
- <http://www.tworivershistory.net/>

http://waterdata.usgs.gov/mt/nwis/monthly/?referred_module=sw&site_no=12340500&por_12340500_2=66181,00060,2,1929-03,2010-09&site_no=12340500&por_12340500_23=66181,00065,23,2004-10,2010-09&format=html_table&date_format=YYYY-MM-DD&rdb_compression=file&submitted_form=parameter_selection_list

http://www.wildrockiesalliance.org/issues/bulltrout/history/bulltrout_chronology.html

<http://www.wrh.noaa.gov/mso/climfacts.php>;

