Case Study Three  The Clark Fork Superfund Sites in Western Montana

The Superfund program
The federal Superfund program is a program designed to clean up the most serious hazardous waste sites in the United States. These sites include many dumps or landfills, old industrial plants and refineries, abandoned mines and smelters, and federal military or nuclear sites. Superfund does not deal with currently operating solid waste landfills or active industries, but only with closed or abandoned sites. The federal program under the supervision of the United States Environmental Protection Agency (USEPA) deals only with the most serious of such sites, though state programs handle many others.

Under the “polluter pays” principle, the government takes legal action to get the former owners and users of the site to do the cleanup themselves or to pay for it. If the responsible parties cannot be identified or are now bankrupt, the costs are paid from a “Superfund” created by a tax on manufacturers of petroleum and chemicals.

The Superfund program was created by the Comprehensive Environmental Response, Compensation and Liability Act of 1980 (CERCLA) PL 96-510. In addition to setting up this program within the USEPA, the Act established the Agency for Toxic Substances and Disease Registry (ATSDR) as part of the Public Health Service to deal with the associated health issues.

The Superfund program requires re-authorization every five years. The most extensive changes were made in the first such re-authorization, the Superfund Amendments and Reauthorization Acts of 1986 (SARA) PL 99-499. SARA required higher and clearer standards for cleanup and sought faster cleanup. Most significantly for this project, SARA required the USEPA to seek increased public information, comment, and participation in decisions at these sites.

When the Superfund program started, no one really knew how many sites might eventually require this kind of treatment or how much it might cost. Indeed much of the technology needed for treatment did not exist then and has not even now been developed. Often the best that can be done is containment and monitoring. The first National Priorities List (NPL) was created in 1983 and contained 406 sites. This list is continuously updated as sites are completed and new ones are added. There were 1222 sites on the NPL as of November 22, 2000. These represent only a small fraction of what some estimate may be as many as several hundred thousand sites that present potential hazards to human health (United States. Congress. Office of Technology Assessment. 1989:129). The USEPA maintains a database called CERCLIS that lists these hazardous waste sites by state. There have not been complete and systematic searches for such sites. Much of the dumping involved was surreptitious and illegal, and ordinary citizens have played an important role in locating and exposing the existence of the toxic wastes in their neighborhoods.

Sites are selected for the NPL on the basis of a Preliminary Assessment using a formal scoring system that ranks the amount of hazard presented by the site. The field investigation of sites, like
much of the work of Superfund, is done by private contractors. Sites that receive a score high enough to be on the NPL will be remediated by the Superfund program and those that get lower scores will not. There is room for a good deal of negotiation between the community, the state, the responsible parties, and the federal government before this happens. Listing is a regulatory process that requires a public comment period before the sites are final-listed in the Federal Register.

After listing on the NPL, the next steps for a Superfund site are the studies that lead up to a Baseline Human Health Risk Assessment and a Baseline Ecological Risk Assessment. These studies indicate the risk of future harm to people and other species because of exposure to the toxic materials present. If a site is complicated, it may be broken down into two or more Operable Units that are dealt with separately. Both of the Risk Assessments need to be completed before the Feasibility Study is prepared. The Feasibility Study proposes a range of possible remedies, each with their pros and cons and estimated costs. (One of the proposed remedies is always to do nothing.) One of the alternatives is indicated as the preferred choice, but this may get changed as a result of public discussion, with some new alternative even emerging from the discussions. This may be something that the Responsible Party considers can be done with less expense or some combination of the alternatives that had been suggested.

The selection of a remedy is always a matter requiring public comment, followed by the issuance of a Record of Decision (ROD) that tells, briefly, what will be done. After this the engineers go to work on the detailed design and construction contracts are signed. The whole process from site investigation to the completion of construction is likely to take many years—in the three cases studied for this project as much as twenty years or more. This does not mean that public health is under threat all that time, for the USEPA can undertake an emergency removal of hazardous materials at any time along the way to a more permanent solution.

The involvement of communities of faith at Superfund sites

Why have local congregations become involved with Superfund sites? At the neighborhood level, a church building (or a mosque, synagogue, or temple) may be located at the Superfund site. Its members may become concerned that they may be exposed to hazardous waste while in the building. Or a congregation may have members living in the neighborhood with illnesses or deaths in their family that they attribute to exposure to hazardous wastes. As part of their pastoral care, ministers or deacons, become involved in helping individuals attribute meaning to their suffering. A congregation may become embroiled in conflict over the significance of the pollution and what should be done about it. Thus religious congregations, like schools, businesses, and other local institutions, are sometimes part of the community most directly affected by the presence of hazardous waste.

At the level of the wider community of faith, city-wide or regional religious bodies may become involved with issues of hazardous waste as part of their work toward social justice. Examples of these organizations are judicatories such as the diocese in the Catholic or Episcopal denomination, the Methodist Conference, or a Presbytery or Synod. Indeed it is at the regional level of a county or group of neighboring counties that the engagement of communities of faith in
an organized way is most likely to take place. This fact made it necessary to take something larger than the neighborhood as the unit of study in this project.

Most cities, counties, or states also have ecumenical or inter-faith organizations that become involved in issues of social justice. Such councils became engaged in some way at all three of the Superfund sites studied in this project. In addition, clergy may be involved in ministerial associations that cross denominational lines. National religious bodies also make statements about environmental issues and other public policy issues. They may make financial grants to grassroots groups engaged at Superfund sites—and they did so in two of the three cases, Love Canal and Clark Fork (Milltown).

Not all religious groups are equally open to participation at Superfund sites. In the case studies and annotated bibliography developed for this project it will be obvious that the Catholic church, the mainline Protestant denominations, and the historically black denominations have been most involved. Predominantly white churches of evangelical or pentecostal types have been less engaged. Partly this stems from reasons of polity (church government) and partly from political and ideological reasons. For example, a highly influential evangelical financial guru, Larry Burkett, is a “virulent critic” of the Superfund program (Eskridge 2000). However, as a biblically-grounded evangelical rationale for environmental stewardship has been developed during the 1990s, there are signs that evangelical churches are becoming more open to these issues.

Each of the three sites chosen for this project has made a significant contribution to the history of the religious environmentalism and environmental policy in the United States. Just as Love Canal was the key site in the passage of Superfund legislation, it was the key site in the religious communities' recognition that they needed to respond to technological disasters as well as natural disasters. The Love Canal case study considers the shaping of the institutional structures for this response that took place during the two decades from 1979 to the present. Similarly, the North Hollywood case study indicates how the city of Memphis came to be prominently mentioned in a major document in the history of environmental justice. This was the influential 1987 study by the United Church of Christ Commission of Racial Justice that exposed the racial and economic inequalities in exposure to toxic wastes throughout the United States. The third case study, the Clark Fork River in Montana, the largest tributary of the Columbia River, is connected to a major document of Catholic social teaching on the environment, The Columbia River Watershed: Caring for Creation and the Common Good. This Pastoral Letter was circulating in draft form during the project research and has subsequently been revised and released. In their letter the bishops of the Pacific Northwest, from dioceses in both Canada and the United States, struggled with the claim of God's creation to be protected for its own sake and not only for human use. This makes an interesting parallel to the Clark Fork Superfund site, where the initial steps toward remediation dealt with urgent needs to protect human health but the current decisions, for remediation of the sediments along the river and behind the dam, require considering what is best for the health of the whole ecosystem, including fish as well as humans.

Communities of faith may become involved at any or all of the stages of response at a Superfund site. As the case studies for this project indicate, a religious group that becomes involved at an
early stage may drop out and leave the field of community response to other players, perhaps re-engaging in a different way at a later stage. This project was mandated to look at the involvement of religious groups and inter-faith coalitions in site identification, the assessment and communication of risk, and remediation. In the case of Love Canal, a fairly stable organized coalition of religious groups stayed with the Superfund site over a long period of time. In the case of the Hollywood Dump in Memphis, religious groups were involved in site identification and the early stages of risk assessment but did not attempt to organize a lasting coalition to stay with the Superfund process. And at the Clark Fork sites in Montana, secular environmental groups fostered intense public participation. That participation took forms that were quite different from the other two case studies, including heavy use of the EPA’s TAG grants to hire technical experts and much more citizen input into the whole planning process. Coalitions at the Clark Fork sites are only beginning to engage religious groups quite late in the remediation process.

Why this project?

As indicated earlier, the USEPA is mandated to involve the public in decisions made at Superfund sites. This is done in a formal way by making public announcements that documents are available for public inspection at libraries near the site. Public meetings are called at key points in the process, minimally when the proposed plan for remediation is selected, before the Record of Decision (ROD) is issued and design and construction begin. A Community Advisory Committee may be formed to enable informed public input over a longer span of project history. Desirable as these formal opportunities for public participation may be, probably no one regards them as adequate. The issues involved at Superfund sites are complex enough that few people are likely to be able to understand the reports well enough to participate effectively without a great deal of time, study, and assistance. This biases public participation toward persons with more education and income. By the time the required public meeting is held, rather late in the Superfund process, the community may already be highly polarized. Deep divisions may have opened up between environmentalists and businesspeople or between persons who believe than the toxic materials at the site have damaged their family’s health and those who believe such claims are exaggerated. It can only be helpful to broaden the avenues for public participation by engaging organizations that already exist in the community, especially ones that may help to bridge some of the divisions in order to reach consensus on how to solve the problem for the common good.

Churches and other religious organizations have been involved at Superfund sites from the very beginning of the program. When President Carter signed CERCLA in December 1980, a nun had been directing a broadly based ecumenical organization at Love Canal for a year and a half, a Baptist minister was chairing the Memphis Environmental Task Force as it addressed the hazards at the North Hollywood Dump, and an Episcopalian rector was deeply involved in community struggles with toxics in the well water of Woburn, Massachusetts. Yet these efforts have generally had a low profile in media coverage and social science research. This project was devised to help to fill that gap. Its intent is primarily descriptive, to indicate when and how religious groups have been involved and to what effect.
The project is one part of a larger five-year collaborative agreement between the USEPA and the Society for Applied Anthropology. The project design, with its centerpiece of three case studies, was specified in the contract. The researcher was allowed to choose the three Superfund sites. The three case study sites selected for this project were Love Canal in Niagara Falls, New York, the North Hollywood Dump in Memphis, Tennessee, and the Clark Fork complex of sites in western Montana.

A case study approach has often been used by the USEPA and by the Congressional Office of Technology Assessment in examining the Superfund program (United States. Congress. Office of Technology Assessment. 1988) (United States. Congress. Office of Technology Assessment. 1989) (United States. Environmental Protection Agency. Office of Emergency and Remedial Response. Community Involvement and Outreach Center. 1996). Sociologists have used a similar approach in studying environmental justice issues at Superfund sites (Bullard 2000) (Environmental Justice Resource Center 1997). The case study method used in such policy studies involves using a predetermined formal template to examine a fairly narrow set of questions. They typically use a larger set of five or ten case studies, enabling somewhat conclusive comparisons.

In contrast, anthropologists usually favor doing a single in-depth case study. Anthropologists put a program into context by studying the larger community. As they approach their ethnographic fieldwork they are open to following out threads of investigation that arise during the course of research rather than adhering to a template determined beforehand. They generate new hypotheses and insights as they go.

This project represents a compromise between the two conceptions of case study, ordering the material on three sites in such a way as to facilitate comparison, yet approaching each field site with the flexibility and openness to context that characterize anthropology.

**Methods of the study**

The traditional ethnographic field methods of anthropology dictate immersion in the life of a community as a participant observer for months or years. This was not practical under the time constraints of this project, which funded a total of three months of full-time work divided between three communities and an additional six months of part-time work. This schedule included literature review and writing, and no research assistance or clerical help was provided. Despite these limitations, it was possible to do some of the field work in this classic manner, by observing naturally occurring events—

- worshipping with two very different Memphis congregations at 8 A.M. and 11 A.M. services one Sunday morning,
- taking the scheduled group tour of the Milltown Superfund site,
- marching with environmental justice protestors in Memphis,
- eating at a church potluck supper with former Love Canal activists who are now deeply engaged in criminal justice issues.
The main method used was the open-ended interview with key informants. The persons interviewed were selected initially from among persons mentioned in news coverage of the site or mentioned by others as knowledgeable of the site. These persons were asked for additional suggestions, from which those who were mentioned more than once were contacted. Where full interviews were not practical, phone interviews were conducted. Additional contacts were made directly with some ministers of churches adjacent to sites, whether they were involved or not. The questions asked were different for each person and were designed to explore further the issues and events raised in the site literature. An informed consent form was used that allowed the respondent to choose between remaining anonymous or being acknowledged in the report. Because most persons were interviewed in some public role in which true anonymity would not be possible, almost all of those who gave full interviews are identified. The persons interviewed were true collaborators in this research, and the report relies heavily on their insights.

Archival research was as important as fieldwork in all three cases. This included reading newspaper accounts on microfilm (and for recent years, on-line). Another major archival source was the EPA site documents and administrative record available at EPA offices and public libraries near each site. These were in all cases too voluminous to read in detail, but large parts of them were skimmed. Special attention was directed to the materials indicating public responsiveness, particularly the transcripts of public meetings associated with the Record of Decision for sites. These transcripts are a valuable source of data on community involvement in the past.

Another helpful resource for understanding these communities was the few social science masters’ theses and doctoral dissertations available for these communities. Precisely because they are unpublished student works rather than tightly written and polished for publication they often include a great deal of detail that is helpful for understanding the community, sometimes including direct quotes from anonymous individuals easily recognized as people interviewed years later for this project.

It is important to note that this project did not involve research concerned with the USEPA or the state environmental and health agencies. Officials of these agencies were not systematically interviewed and their programs were not evaluated. This was a research project concerning religious organizations in the communities surrounding Superfund sites. To research Superfund itself would be another whole project (and a very useful one).

Introduction to the Clark Fork Sites

The image of Superfund has been so shaped by Love Canal, the Valley of the Drums, and other sites related to the chemical industry that few non-specialists are aware that many of the largest, most complex, and most costly Superfund sites are related to the mining industry. Relatively little of the research and writing on Superfund has dealt with these mining sites. Among the mining sites, Butte, Montana, once called “the richest hill on earth” is now the upstream end of a complex of four Superfund sites that stretches downstream to Missoula along the Clark Fork River, the largest tributary of the Columbia River. (See Figure 1)
Religious groups have not been heavily involved at the Clark Fork Superfund sites. Even so, this case study documents several types of engagement of communities of faith. They include:

(1) church resources as a funding source for grassroots activism, which here occurred early in the history of site discovery,
(2) communities of faith as participants in coalitions with environmental organizations, labor organizations, and other community organizations, which here occurred only recently, late in the remediation process,
(3) people of faith as motivated individual volunteers in Superfund community organizations, which occurred throughout the process,
(4) Native American spirituality, as it relates to toxic waste sites.

Each of these patterns of involvement is significant at many other Superfund sites. In addition, the Clark Fork site (along with several other Superfund sites in the Pacific Northwest) is part of
Figure 1. Clark Fork superfund sites. USEPA map.
the Columbia Watershed, a place of special significance at this juncture in the history of the churches’ involvement with environmental issues. The Roman Catholic Bishops of the Columbia Basin issued a Reflection in 1999 in preparation for a Pastoral Letter, issued in February 2001. Documents such as this make up the social teaching of the Catholic Church. Some of them have been very influential. This one had the potential to be especially so because it tried to break new ground in the application of theology to ecology and place. The Reflection made specific mention of the Clark Fork River, damaged by more than a century of mining; this was one major reason that this site was chosen as one of the three case studies in this project. Ongoing discussions and decisions that were stimulated by the Bishops’ letter made an appropriate backdrop to the research project.

**The place**

Despite its huge land area—exceeded only by Alaska, Texas, and California—Montana is a state with a small population of fewer than a million residents. The communities most directly concerned with the Clark Fork Superfund sites have a total population of about 100,000. The part of southwestern Montana within or adjacent to the Superfund site complex includes the following cities (2000 Census), as well as the sparse populations of the riverside reaches between them:

<table>
<thead>
<tr>
<th>Community</th>
<th>Population</th>
</tr>
</thead>
<tbody>
<tr>
<td>Butte-Silver Bow County</td>
<td>33,941</td>
</tr>
<tr>
<td>Anaconda-Deer Lodge County</td>
<td>10,278</td>
</tr>
<tr>
<td>Powell County</td>
<td>6,620</td>
</tr>
<tr>
<td>Missoula city</td>
<td>42,918</td>
</tr>
</tbody>
</table>

(Missoula county 78,687)

All of these communities are more than 95 percent white, with virtually no blacks, few Hispanics or Asians, and a slightly larger number of urban Native Americans. To a sociologist or anthropologist approaching the upper Clark Fork, it is immediately apparent that major cultural/social fault lines run between the communities that inhabit this area, although some individuals are required by their work to move between them. In an over-simplified scheme, this is a three-way division between mining, agricultural, and university towns.

Butte is an industrial, urban place, dominated for most of the century by two companies—Anaconda Mining Company and Montana Power. Butte is beginning to transcend its history as a company town. Of the new industries that have come in, the most prominent are a silicon processing plant and various environmental research and remediation companies. Butte's small university campus, Montana Tech, is an engineering school largely dominated by mining interests. Butte and Anaconda are home to ethnic communities descended from successive waves of immigrants brought in as miners: the Irish, Italians, Finns, Serbs, Croatians, and others. The population of Butte peaked at 60,000 in 1920 and dropped gradually thereafter. Butte’s loss of population is partly obscured by the demolition of many densely populated residential neighborhoods when open-pit mining replaced underground mining, but the upper floors of downtown buildings are noticeably vacant.
Though smaller, Anaconda is similar to Butte in many ways, but even more a one-company town and even more desperately in search of alternatives to its permanently-closed smelter. Its best hopes were pinned on the development of tourism, incorporating its mining heritage into the Jack Nicklaus Signature Old Works golf course on part of the Superfund site and attempting to preserve the 600 foot smokestack of the Washoe Smelter as a state park.

Northwest of Butte, the Clark Fork valley is an agricultural/ranching area, settled in the later part of the 19th century by westward movement from Minnesota through the Dakotas. Deer Lodge is primarily a town that services neighboring ranches of Powell County, but it is also home to the state prison. It was once an important railroad center at the junction of two lines. Deer Lodge has modest tourist presence at the Grant-Kohrs Ranch Historical Site and the Old Prison museum (antique autos, law enforcement) but it does not seem to make much of this with tourism-based businesses.

In contrast to Butte and Deer Lodge, Missoula is a growth area that feels like a Montana variant of the culture of a West Coast city. This is not surprising in the light of high immigration from Southern California and Seattle. The population of Missoula County grew from approximately 58,000 in 1970 to 86,000 in 1994, through a process of “rural gentrification” that brought in largely prosperous middle class urbanites in search of an improved quality of life (Ghose 1998). Many writers and artists have chosen to live in Missoula, their presence conspicuous through exhibits, conferences, and their works on sale at local shops. The main campus of the University of Montana is here. One of its most significant programs is its interdisciplinary program in environmental studies. Not coincidentally, Missoula is headquarters to several regional, national, or international environmental organizations that originated locally. Some of the main ones are the Rocky Mountain Elk Foundation, Alliance for the Wild Rockies, The Wildlands Center for Preventing Roads, Women’s Voices for the Environment, and the Clark Fork Pend Oreille Coalition.

Despite the striking differences among the communities, several of the people interviewed lived in one of the communities and worked in another. One minister interviewed currently served churches in both Anaconda and Deer Lodge and was articulate about the differences between the communities. Another minister had served churches in both Missoula and Butte at different times. A self-described river activist had been active in an environmental organization based in Missoula while living on her family’s ranch near Deer Lodge and working full-time in Butte.

_A brief history of Butte mining_

More than a century of mining has left the upper Clark Fork basin with a rich history that fascinates both residents and tourists in addition to professional historians, anthropologists, and sociologists (Emmons 1989; Mercier 1995; Curran 1996; Murphy 1997; Finn 1998; Mihelich 1999). It has also left a scarred landscape—piles of tailings and slag, hillsides denuded by airborne smelter pollution, and, less visibly, streams and aquifers polluted by metals.

Beginning with the discovery of gold in 1864, gold and silver were mined at Butte for the rest of the 19th century, leaving behind soils contaminated with heavy metals that are still being cleaned up. Soon after Marcus Daly discovered a rich copper vein in 1882, Butte became exclusively a
copper-mining town. During the peak years of 1887 to 1916 the underground mines tunneled under Butte hill produced one-sixth of the copper produced in the world (Shovers 1998:41). Butte was the birthplace of the Western Federation of Miners and was referred to as the "Gibraltar of Unionism" long after in reality union power had been considerably diminished after World War I. Some 15,000 men were employed in the mines at the peak of the war effort.

Butte copper was needed to wire homes and businesses in the boom years for the expansion of residential electrification throughout the United States. By the late 1920s the Anaconda Mining Company was the eighth largest industrial company in the United States (Murphy 1997:3). It controlled not only Butte but virtually all of Montana through its dominion over politics and the press.

This dominance only began to erode until aluminum and then fiber optics reduced the demand for copper. By mid-century Butte’s mines were less significant to Anaconda than the low-cost copper produced by its Chilean mines. Under the pressures of labor costs and lower grade ores that made underground mining unprofitable, Anaconda began open-pit mining at Butte in 1955. Digging the Berkeley pit demolished part of the historic residential and recreational area of the city. By decision of the city council, Anaconda was stopped short of destroying the whole downtown in 1976. The following year Anaconda merged with the Atlantic Richfield Oil Company (ARCO).11

When ARCO acquired Anaconda in 1977, ARCO was flush with oil profits and attracted by tax write-offs that resulted from Anaconda’s losses in the nationalization of its Chilean mines. Like other oil companies that pursued the same strategy of diversifying into mining in that era, ARCO quickly became disillusioned.12 In 1983 ARCO ceased mining at Butte. In 2000 ARCO was acquired by BP Amoco, forming the second largest oil company in the world.

Missoula financier Dennis Washington’s company Montana Resources (MR) acquired the mine from ARCO in 1986 (without taking on all of its past Superfund liabilities, but with responsibility for its own wastes). MR began to produce copper-molybdenum concentrate with a small non-union work force. Its workforce of 300 people was only about one-third of the number employed by environmental technology firms in Butte (LA Times, March 27, 1994). MR operates out of the Continental Pit, east of the Berkeley Pit, and stores its tailings behind the Yankee Doodle tailings impoundment perched above the city. The copper concentrate was shipped out of Montana by rail for smelting, most often in co-owner ASARCO’s Texas plant.

Montana Resources ceased mining in July 2000 when electricity deregulation increased its power costs dramatically and laid off most of their employees. The company talked of starting up again in a few months, if a new contract for electric power at a lower price were obtained, but in November they announced that that this had not been possible. MR is no longer diverting water through its operations and treating it, as it had been doing since 1996 as part of the remedy agreed on for the Mine Flooding Operable Unit of the Superfund site. Now the Berkeley Pit is filling more rapidly, accelerating the schedule for Superfund cleanup of the acid waters of the pit lake.
The environmental issues

In the other two case studies, Love Canal and the Hollywood Dump, the toxic chemicals that were of primary concern were synthetic organic chemicals. These were largely residues from the production of pesticides, products of the enormous expansion of the chemical industry during and following World War II. In the Clark Fork sites the main concern is with certain metallic elements that are present in the ores but not fully recovered when the ore is processed and smelted — particularly copper, arsenic, lead, mercury, zinc, and cadmium. Of these metals, copper is present at levels that threaten aquatic life in the Clark Fork River. Arsenic is present at levels that are most significant to human health in sites associated with the Clark Fork, though one cannot discount the possible effects of other metals, particularly as they interact with each other in the human body.

When ARCO ceased mining at Butte they turned off the pumps that de-watered the underground diggings. The Berkeley Pit immediately began filling with highly acidic water containing high levels of metals (particularly copper, zinc, and arsenic). The pit continues to fill, now forming a toxic lake a mile by a mile-and-a-half wide and 918 feet deep (Pitwatch, April 2000). What looks like a lovely expanse of water, tempting to flocks of geese flying overhead, is acidic enough to kill birds that land on it. The Berkeley pit lake is regrettably not the only such lake in the United States, though it is the largest and most famous. The boom in cyanide heap leach gold mining in Nevada’s Comstock Lode is currently creating a string of such toxic lakes, in a water-short area.

The most concentrated sources of metal contamination remaining from historic mining are those near a smelter, where the high temperatures of a furnace are used to purify the metals. In the early years of mining, smelting took place at various sites around Butte, later it was all done at the smelter in Anaconda. In residential yards and other places around both towns there was contaminated soil requiring the removal of heavy metals, especially where children were exposed to pollution by playing outdoors.

The largest quantities of material containing heavy metals are the mine tailings, the finely ground ore from which most of the copper has been removed. In recent years, the tailings have been retained behind the Yankee Doodle tailings impoundment, above Butte. Prior to that, they were treated downstream from Butte, at the Warm Springs Ponds. The first of these ponds was created by the Anaconda Mining Company in 1911 as a settling pond where the wastes from Silver Bow Creek could be captured before they flowed into the Clark Fork River. Even so, contamination with metals is found in sediments throughout the riverbed and riverbanks. Contamination is greatest in the upper reaches of the river, that is, in Butte-Silver Bow County, Anaconda-Deer Lodge County, and Powell County, where the city of Deer Lodge is located. Another focus of contamination is farther downstream, in the sediments trapped behind the Milltown Dam just above Missoula.

The ecological issues: riparian habitat and fish

The Clark Fork River no longer provides the excellent habitat for trout that it once did. The present difficulty seems to be fish kills associated with spikes of soluble copper rather than chronically high levels of metals in the water. Copper is released after summer rainstorms flush the surface of exposed deposits of tailings along the river. These exposed deposits, locally called
“slickens,” are generally 12 to 30 inches deep. In addition, there are shallow buried deposits that could be exposed in the future as the river changes its channel (ISSI Consulting Group. 1999).

The dream of environmentalists and trout fishermen, and also those whose business depends on tourism, is that the Upper Clark Fork River be restored to what it once was or to the condition of other trout streams in Western Montana. The Superfund program requires remediation rather than restoration. The terms remediation and restoration are not interchangeable. The Superfund process is concerned with remediation, correcting the conditions that pose a threat to public health and the ecosystem. This does not mean restoring the environment to what it was before the damage occurred, although natural resources damage suits allow the injured party to make a claim for restoration.

In past centuries, the Upper Clark Fork was a traditional fishing place of the Salish, or Flathead, Indians. The 1855 Treaty of Hell Gate that established their reservation in the Flathead River Valley (located north of Missoula) retained for the Flathead Nations “the right of taking fish at all usual and accustomed places.” Therefore, the Confederated Salish and Kootenai Tribes of the Flathead Nation joined in the Natural Resources Damages suit that the USEPA, the US Department of the Interior, and the State of Montana filed against ARCO in the U. S. District Court in Montana. In November 1998 the Flathead Nation agreed to settle its liability claim for $18.3 million from ARCO (Char-Koosta News, November 20, 1998).

The Tribes will use the money from the settlement for restoring resources within the larger Clark Fork Basin equivalent to those that they lost in Silver Bow Creek, not for restoring the Creek itself. As required under the terms of the legal settlement, the Tribes completed a Wetland/Riparian Habitat and Bull Trout Restoration Plan for their reservation. In this planning process, they selected the Jocko Watershed for restoration. The Jocko flows into the Flathead River, which in turn joins the Clark Fork downstream from Missoula. The Jocko is quite similar in many ways to Silver Bow Creek, the stream injured by mining in the Upper Clark Fork River Basin. The Jocko River and its tributaries have the most significant native trout populations on the reservation and forested wetland areas that are suitable for restoration.

None of the Clark Fork Superfund sites are located on the Flathead Reservation in the same way as several other mining Superfund sites included within reservations. It is nevertheless relevant to mention the Reservation here, in a study of faith-based responses to Superfund sites, because the legal case and the restoration plan frame the issues in terms of native American spirituality. Traditional beliefs about the sacred landscape are used explicitly as a basis for these claims, although the Flathead have long been Christians, having invited Jesuit missionaries to establish a mission a century and a half ago (CSKT ARCO-Settlement ID team, 2000).

**The human health issues**

The human health issues at the Clark Fork sites are remarkably confused, considering that the toxic effects of the heavy metals involved are well known. This is in contrast with many of the hundreds of volatile organic compounds, solvents, and other chemicals that are found at other Superfund sites. The confusion surrounding the health effects in the Montana sites results in part
from gaps in research, in part from conflict or mismatch between bureaucracies, and in part from willful denial on the part of the public. In order to sort out some of the confusion, it may be helpful to look at environmental health in the framework of past-present-future; that is,

- What health effects do we see in the population that may result from past exposure to toxic substances? This is the kind of question that people are usually asking with the most emotion: “Why does my wife have cancer?” “Why does my child have a learning disability?” Or, turning it around, as one reads frequently in the transcripts of EPA’s public meetings: “Why are they making such a big fuss when I am healthy at a ripe old age, even though I played on those mine waste dumps throughout my whole childhood?”
- What are the present threats to health in the area, from which people need to be protected by reducing their exposure? This is the question that the Agency for Toxic Substances and Disease Registry (ATSDR) addresses with its public health assessments. The appropriate response to such a threat is to put up a fence or to tell people not to go swimming or eat the fish.
- What are the risks to future populations? This is the question that the EPA addresses in its baseline human health risk assessments and that guide the decisions about remediation. The EPA is not a health agency and does not have medical researchers on its staff. The EPA is strictly concerned with estimating the potential for future exposure to substances known to be toxic at given concentrations by determining completed pathways by which humans may be exposed to them.

Stated in this way, it is obvious that the questions that the ATSDR and EPA are answering in their reports, even when they are doing the job that their legislative mandate requires of them, are not necessarily the same questions that people are asking.

Of the various kinds of reports about health in relation to the mine wastes in the area from Butte to Missoula, USEPA baseline human health risk assessments have been produced for the Superfund sites, as required (Sherman and Pascoe 1993; Roy F. Weston 1998). The immediate health threats were addressed first, by removal actions. The big and costly tasks of remediation that remain to be done are ones that do not address future threats to human health as much as they address threats to other species, particularly fish.

The ATSDR is required by the Superfund legislation to do Public Health Assessments at all Superfund sites. The Reagan administration was slow to establish the ATSDR in the 1980s until forced to do so by a lawsuit. Subsequently the Agency was too under-funded and under-staffed to play catch-up very effectively for the early sites named to the NPL, so it is not surprising that there is nothing more than a brief memo serving as a public health assessment for the Clark Fork sites.15

In addition to full-scale public health assessments, the ATSDR also does health consults on specific questions at the request of local authorities. These have been done on various occasions at the Clark Fork sites. The ATSDR did a study of lead and arsenic exposure of residents at Rocker in 1992. In response to questions about exposure to tailings in the community of Deer Lodge, ATSDR also did further sampling of hair and urine, analyzing these for the EPA.
Unfortunately, differences in organizational culture between the EPA and the ATSDR, along with the ATSDR’s lack of channels for regular communication to the community, have worked against the community coming to a shared understanding of the possible health risks from exposure to heavy metals in the Clark Fork area.

Chronic exposure to low levels of arsenic can cause cancer. Among the heavy metals that are present in the ores and in the tailings and sediments derived from the ore, arsenic moves most easily in water. Arsenic has polluted groundwater in the Clark Fork basin at sites such as Rocker, Anaconda, and Milltown (Sherman and Pascoe 1993:ES-18). Arsenic in dust and dirt is also a problem for persons who breathe it in or ingest it. This is not as serious around the mining area, where it is in sulfide form, as it is around the smelter, where it tends to be in oxide form, and therefore more soluble and bioavailable (Moore n.d.).

Childhood exposure to lead is also a concern in soil and house dust in Butte, though the problems resulting from mining are not necessarily separable from those due to lead-based paint in old houses. Research showed that lead levels in Butte children are not in fact high, despite the fact that they are high in soil. This discrepancy may be due to the fact that the lead in soil is tied up in very insoluble form in sulfide minerals, or it may be due to high zinc levels in the soil that may suppress lead uptake in the body (Moore n.d.).

Oddly enough, it was not health professionals but a geologist and a U.S. Geological Service biologist who drew attention to health problems related to mining in Butte. They reviewed epidemiological data that support the contention that exposure to mine wastes in the Clark Fork basin may be linked to elevated death rates from disease (Moore and Luoma 1990; Moore and Luoma 1997). Speaking at the Clark Fork symposium, Moore and Luoma cited mortality data from Butte and Silver Bow County published by the National Cancer Institute and National Institute of Health. These national health statistics are maintained for the specific purpose of identifying localities of elevated risk that need further study. Even so, the statistics had largely been ignored and have not led to intense medical or epidemiological research activity in western Montana.

In disease-caused mortality, Butte ranked number one among the 480 largest cities in the United States in 1950 and 1960 and fell to second place in 1970. Mortality from several types of cancer in Butte-Silver Bow County was higher than expected between 1950 and 1979 (Moore and Luoma 1990). The elevated mortality extended to women, suggesting that it was not occupational exposure that increased risk, because women did not work in the mines. The most recent cancer atlas supports the pattern Moore and Luoma observed, with elevated cancer mortality for women (Devesa 1999).

The mortality data used by Moore and Luoma were not widely publicized in Butte, according to a researcher who specifically looked at attitudes toward health in Butte a few years later and reviewed local newspaper coverage (Curran 1996 pp. 184, 240). Subsequently environmental organizer Mary Kay Craig attempted to draw public attention to Butte health issues in relation to the Superfund sites, battling deep-seated indifference to these issues (Craig 1997).
Remarkably little other health science research has been done in the upper Clark Fork area, considering the clues that the mortality statistics should have given that something was deserving of further study. This unfortunate research gap is probably mostly to be understood by the fact that Montana does not have its own medical school or school of public health, with students and faculty looking for nearby research projects. Montana Tech does have a small program in Industrial Hygiene. A master’s thesis in that program (Satterly 1995) looked at the epidemiology of amyotrophic lateral sclerosis (Lou Gehrig’s disease). Satterly found significantly elevated rates of ALS in four mining communities: Butte, Anaconda, Kellogg (Idaho), and Trail (British Columbia) but not in Lead, South Dakota, or Leadville, Colorado. With a few exceptions such as this one, the paucity of health information for the Clark Fork is striking in contrast to the rich body of research literature on the ecology and history of the area.

Health professionals in Butte seemingly have been reluctant to investigate and speak out on health issues related to mine-related pollution. Indeed, the Butte physician who spoke most publicly, making a presentation at a formal hearing concerning the proposed disposal of streamside tailings, was a radiologist. He was concerned that he would see victims of broken bones from road accidents due to trucking the contaminated soils! The doctor was one of many, especially local government officers, who expressed opposition to trucking the contaminated materials several miles to a repository, and the plan was changed to dispose of the materials closer to the stream (Montana Department of Environmental Quality and U. S. Environmental Protection Agency. 1995).

The public health officers of Powell County have been more outspoken about possible health dangers from heavy metals in streamside tailings. Dr. Mike Murnik of Deer Lodge in 1997 offered critical comments in the period for public comment on the Baseline Human Health Risk Assessment of the Clark Fork River Operable Unit (Roy F. Weston 1998:5-8). His comments led to additional sampling being done in Deer Lodge by ATSDR that did not show elevated levels of metals. The current public health officer, Dr. Kathleen Evans, following a consultation with ATSDR, questioned the safety of Arrow Stone Park, the park created by cooperation between community volunteers and ARCO atop tailings along the Clark Fork at the entrance to Deer Lodge, prior to Superfund remediation of the area. By doing so she faced criticism from other public officials, who vigorously deny the need for extensive remediation (interview with Powell County commissioners, July, 2000; Montana Standard, April, 2000).

The Superfund site chronology

The Clark Fork Superfund complex (see map) is a group of four Superfund sites:

1. the Silver Bow Creek/Butte area site, extending from Butte to the Warm Springs Ponds between Anaconda and Deer Lodge,
2. The Montana Pole Site in west Butte, an area contaminated by organic compounds and creosote from treating wood, including mine timbers,
3. the Anaconda Smelter site, where mill and smelter operations left tailings, furnace slag, and flue dust that contaminated the soil, air, and water,
(4) the Milltown Reservoir Site, seven miles upstream from Missoula, where some six million cubic yards of contaminated sediments have accumulated for a century behind a small hydropower dam.

Each of the sites in turn is divided into several Operable Units, each of which requires a separate evaluation and plan for remediation. At all of the Clark Fork Superfund sites the USEPA works with representatives of Montana State government (particularly the Department of Environmental Quality) and the major potentially responsible party at all four sites, ARCO. Together the four sites form what is sometimes said to be the largest Superfund site in the country. That may not be an entirely meaningful designation when one considers the vastly more complicated and expensive federal nuclear sites such as Hanford Reserve in Washington state.

Because contaminants released upstream may have effects downstream, the USEPA needs to coordinate cleanup activities through the whole river basin. Generally speaking, that means cleaning from upstream to downstream, but the downstream progression has been complicated by the need to address urgent, health-threatening concerns wherever they have emerged. So, for example, residents of Milltown, near Missoula, were provided with first a temporary water supply, and then (in 1984) a new community well, after it was learned that their wells were contaminated with arsenic flowing into groundwater from the sediments behind the dam. Residents of the Mill Valley neighborhood two miles east of Anaconda were relocated in 1988 and their homes were demolished after it was discovered that the urine of their children and the soils of their yards showed unacceptably high levels of arsenic derived from smelter wastes.

The Berkeley Pit is also known as the Mine Flooding Operable Unit of the Silver Bow/Butte site. It was added in 1984 to an existing Superfund site, the Silver Bow/Butte Superfund site, the one that includes other operable units in the Butte area such as residential soils contaminated with lead by 19th century smelters, old railway beds, and streamside tailings. Work on all these other operable units has gone on for the past several years and is nearing completion. In 1994 a Superfund Record of Decision was issued on the Mine Flooding Operable Unit, the largest remediation task in Butte. The ROD incorporated a planned delay of twenty years or more, delaying remediation until the pit fills to the so-called critical water level of 5401 feet above sea level. (Delaying beyond that would threaten groundwater, which currently flows into the pit.)

In order for pumping and treating to start when the critical level is reached, the design and construction of the treatment plant must begin eight years in advance of the date that the critical water level in monitoring wells is reached. The major arguments for waiting were to reduce the cost of pumping the water out of the pit for treatment and to give time for the development and testing of new technologies. The existing technology for treating acid mine drainage was to add lime, producing a toxic sludge containing heavy metals. The goals of new technologies under study would be to find economical ways to remove the metals without having to dispose of the toxic sludge. The risk managers at EPA were satisfied that waiting until the critical water level was reached did not threaten either public health or the environment, though the public was less confident of this, as indicated by petitions and letters received during the period for public comment on the ROD (Administrative Record, USEPA, Helena).
In the summer of 2000 the most visible Superfund remediation activities in the Clark Fork were being carried out by heavy equipment several miles along Silver Bow Creek in the southwestern part of Butte-Silver Bow County. Streamside tailings had been removed. Stream banks were being back-filled and reclaimed and would be re-vegetated.

From the end of the Butte Superfund site at Warm Springs Ponds, the Clark Fork runs more than 100 river miles downstream to Milltown, just outside of Missoula. This stretch of river and its floodplain comprise the Clark Fork River Operable Unit, a unit of the Milltown Reservoir Superfund site. Along most of that distance, until it enters the narrow, wooded Hellgate Canyon near Missoula, the Clark Fork River passes through a wide, arid valley. The river water is used to irrigate hay fields and pastures of private ranches. One of those ranches, the Grant-Kohrs Ranch at Deer Lodge, was turned into a national historic site, administered by the National Park Service since 1972. The ranch was restored to show ranching as it was practiced in the 1880s. The inclusion of a unit of the National Park Service within a Superfund site lends an additional complexity to the cleanup decisions, another decision-making unit with its own set of standards for protecting visitors.

A controversial aspect of the remediation of the Clark Fork River Operable Unit is the extent to which it will rely on STARS, a technology promoted by ARCO. STARS, or Streambank Tailings and Revegetation Study, is a process for immobilizing hazardous substances by adding lime and other calcium components to tailings and contaminated soils and planting grasses that are tolerant of acid and metals. Critics of STARS argue that erosion and channel migration will release contamination from the tailings if they are left in the floodplain. They would also prefer that diverse native vegetation be re-established rather than an impoverished stand of acid and metal tolerant species.

The Milltown Reservoir site was included in the nation’s first group of Superfund sites. It was the first of the Clark Fork sites to be acted on under Superfund, when the EPA dealt with arsenic contamination in local wells in 1981 by providing an alternate water supply for the small community. However, if the orderly downstream progression of cleanup is pursued, Milltown should be the last site where work is completed (with the exception of the Pit). ARCO and the EPA had completed public health and ecological assessments (1993) and a feasibility study. They were on the verge of announcing remediation plans when a 1996 ice jam sent these plans back to the drawing board.

In February 1996 a threatened ice jam forced Montana Power personnel to release water and tailings-contaminated sediments from the reservoir. The flood of sediments raised copper concentrations in the river dramatically and severely reduced the population of trout in the Clark Fork downstream from the dam, as confirmed when sampling was undertaken the following summer.

Another critical change occurred in 1999 when Montana Power Company sold off all its electricity generation facilities except the Milltown dam. The Milltown power plant was too small and inefficient as well as too burdened with liabilities to be attractive to the buyer of its other dams and coal-fired plants. One of its liabilities was the charge that Montana Power was (inadvertently) taking an endangered species, the bull trout, by blocking migration of the fish.
With all of these changes, it now became possible to consider removing the dam as one of the alternatives for remediation under Superfund. The EPA invited the Army Corps of Engineers to use its experience in evaluating the removal of dams on the Snake River to help the EPA to study this alternative (Missoulian, April 4, 2000). The Clark Fork Coalition and the Missoula county commissioners declared in favor of removal of the dam.\textsuperscript{21} Appalled at the possible cost of this alternative, compared to leaving the dam and sediments in place, ARCO quickly moved to form an arrangement with Montana Power. They proposed jointly to create a trust fund for the continued operation of the dam, preferably under management of a local group (Missoulian, May 3, 2000).

The draft feasibility study was released by ARCO at the end of November 2000, proposing that the dam and sediments be left in place (Missoulian, November 27, 2000, Missoula Independent, 12/7/00, 3/1/01). The draft feasibility study outlined ten alternatives whose estimated costs ranged from less than $10 million (for no action) to more than $300 million (for removal of the dam and all sediments). Sediments would be dredged and put in a lined landfill elsewhere in Missoula county.

Local environmentalists immediately vowed to fight the selection of alternatives that would leave the dam in place. They had contacted specialists to outline plans for a whitewater park that would draw kayaking enthusiasts and foster tourism as well as restoring healthy fish populations (Missoulian, February 22, 2001). The environmentalists' cause was inadvertently aided by a public relations blunder by Montana Power at about the same time. Divers working for the company had discovered small leaks in the dam months earlier. Montana Power properly reported the leaks to the Federal Energy Regulation Commission (FERC) and proceeded toward designing a repair to what they considered a small problem. However, presumably wanting to avoid bad publicity, they did not report the leaks to anyone else, including the state environmental officials responsible for the Superfund project. When word got out of this less-than-candid behavior, they had further eroded public trust (Missoulian, February 13 and 17, 2001).

The slowness of the cleanup of the Clark Fork sites was once notorious; a 1991 report to Congress, following a request by Montana Senator Max Baucus, noted that only two of 23 Operable Units had been remediated (United States. General Accounting Office. 1991). In response the reported noted that neither the EPA nor Montana’s Department of Health and Environment had experience in dealing with such complex sites. Certainly in addition to the technical complexity, much of the complexity for the USEPA lies in the delicate negotiation of compromises between ARCO and the state. Subsequently, work moved along more quickly (e.g. 1996 Update to Master Plan).

From this brief introduction, it is obvious that the Clark Fork Superfund sites present a large and complex picture far beyond the resources and scope of this small research project. Yet it is necessary to look at the whole, from Butte to Missoula, in order to make any sense of either the remediation process or community involvement. It was not possible in the time available to look in detail at all operable units. As an organizing principle, an attempt was made to focus attention on tailings, the finely ground ore that is left after the copper has been extracted. Tailings were
traced through the whole river system from where they are impounded behind the Yankee Doodle dam by the current mining company to older tailings storage areas within Butte, the Warm Springs tailings ponds, through the riverside deposits, the slickens that are seen as blue patches along the upper Clark Fork, on down to the deep sediments behind the Milltown Dam. For lack of time, relatively less attention was paid to the sites related to smelting or treating wood.

Open pit mining from both the Berkeley and Continental pit has created a massive tailings impoundment perched above the city of Butte in the valley of Yankee Doodle creek. A crude rock dam retains a lake of gray sands covering more than 1000 acres, in places to a depth of as much as 600 feet. The dam itself is continuously built up by dump-truck loads of boulders and waste rock as they are removed from the pit during mining. Because the sands themselves have no structural stability, it is crucial that the dam be constructed to withstand an earthquake. The Continental Fault runs through Butte and a major earthquake would have serious implications for both the Pit and the tailings impoundment.22

The Bureau of Permitting for Hard-Rock Mining of the Montana Department of Environmental Quality does quarterly inspections of the active mine that include the tailings impoundment. The DEQ has issued two violation letters to Montana Resources: one for failing to make timely reports and one for the air pollution from drying dust blowing off the impoundment (Montana Standard, September 28, 2000). However, the engineer responsible for DEQ’s oversight of Montana Resources has been satisfied enough with the reports on structural safety from MR’s consultants (Czehura and Zeihen 1999) not to require additional investigations of the dam (telephone interviews, August and September, 2000). The active mine area is part of the Superfund site, but the EPA will not be involved in remediation of the active mine area, including the tailings impoundment, until after mining ceases.
Brief chronology of the Clark Fork sites

1855 Hellgate Treaty and origin of Flathead Indian Reservation
1864 Gold struck in Silver Bow Creek
1906 Hydro-electric dam constructed at Milltown
1912 585-foot smelter smokestack built at Anaconda
1977 Atlantic Richfield Corporation (ARCO) acquires Anaconda
1980 Anaconda’s Washoe smelter shut down
1981 Arsenic found in wells serving 33 Milltown residences
1982 ARCO closes Butte mining operations
1983 Silver Bow Creek, Anaconda Smelter, and Milltown Reservoir sites placed on NPL
1985 Kathleen Hadley approaches EPA to add river to Superfund site
1986 Montana Resources purchases Anaconda and resumes mining
1987 Montana Pole in Butte becomes a separate Superfund site
1988-94 Removal activities at mine-waste dumps in Walkerville and Butte
1990 Record of Decision issued for Warm Springs Ponds (first of the operable units to reach this stage)
1993-97 Removal of mine tailings in lower area of Butte
1994 Record of Decision for Mine Flooding Operable Unit (Berkeley Pit)
1995 Record of Decision for Streamside Tailings
1997 Ice dam causes release of sediments downstream from Milltown Dam, draft feasibility study scrapped
1997 Old Works golf course opened at Anaconda
1999 Pastoral Reflection “The Columbia River Watershed: Realities and Possibilities” issued by Catholic Bishops
1999 Release of Ecological Risk Assessment for Clark Fork River Operable unit of Milltown site
2000 Formation of PLACE coalition
The community dynamics

In comparison with other Superfund sites, both the other two included in this project and others noted in the literature, the Clark Fork has had a very high level of informed community participation that has persisted over a very long time. This is all the more striking in that there was no single emergency directly affecting the health of more than a few families. There was no single public health crisis that served to galvanize a grassroots organization comparable, for example, to the Love Canal Homeowners Organization. Instead, community involvement has been oriented to a broad range of issues including environmental restoration and economic development along with public health.

Identification in 1981 of the public health hazard presented by the sediments at the Milltown dam above Missoula came through the work of a social justice organization called Montana People’s Action, an organization now concerned with low income issues such as housing, welfare, and living wages. When one of their organizers went to Milltown over concerns about a stop sign, residents said their more serious problem was their well water: it tasted bad, smelled bad, and damaged their plumbing fixtures (telephone interview, Nina Cramer, July 25, 2000). The work of Montana People's Action was funded a grant from the Catholic Fund for Human Development of the U. S. Catholic Conference. Montana People’s Action pressed the county health department to test the water and high levels of arsenic were discovered, leading to its being listed as a Superfund site. Arsenic is tasteless and odorless; it would have gone unnoticed had there not been coincidentally other contaminants, some less harmful combination of the many other metals present in the sediments.

After Milltown residents were provided with a safe water supply they did not remain active in pressing for further cleanup. Milltown is a small (pop. 127), blue-collar community of elderly pensioners who had worked at the sawmill when it cut timbers for the Butte mines—unlikely environmental activists. Nor did Montana People's Action stay with the Superfund concerns, which they did not see as central to their focus on poverty issues.

A new phase of community activism surrounding the Milltown site began in 1989. It was led by Tina Reinecke-Schmaus, a housewife and social services worker from nearby Bonner (High Country News, October 30, 1995, and telephone interview, July, 2000). Her family had not even been affected by the earlier well pollution. She was at home with her new baby when heavy equipment and trucks moving sediments from the reservoir disturbed her with their noise and dust. The high ground chosen by Montana Power for disposal of wastes turned out to have two adjacent residences, one of which was hers. The owners had not been notified and the county department of environmental health was also unaware that there were homes near the disposal site. Incensed, Tina Reinecke-Schmaus and others formed an organization called the Milltown EPA Superfund Site Committee (MESS).

MESS evolved into the Milltown Technical Assistance Committee (MTAC) in 1991, when the organization applied for a Technical Assistance Grant from the USEPA. These renewable grants of $50,000 allow citizens’ groups to hire their own technical consultants to interpret and critique Superfund cleanup plans. Tina Reinecke-Schmaus served as the chair of this committee from its formation until 2000, combining this volunteer position with full-time employment and family
responsibilities. Her position was taken on by Bob Benson, a retired forester who has been a volunteer with the Clark Fork Coalition for 15 years. The Clark Fork Coalition had itself employed technical staff and used University scientists as volunteers to enable it to critique Superfund reports and propose alternatives, setting a standard for highly sophisticated public input into Superfund decisions in this area. So it was natural that once the USEPA TAG grants became available, this area was primed to take advantage of them, even though it meant forming a special organization get the grant, one that would undertake to remain neutral amidst the competing visions of environmentalists and others in the community. In response to the high level of citizen interest, the Helena office of the USEPA opened up the Superfund planning process, allowing citizens to participate in technical committees.

Butte and Anaconda also formed organizations for the express purpose of receiving Technical Assistance Grants from the USEPA. These grants are intended to inform citizens about technical aspects the Superfund sites in terms they can understand and make public participation more effective. Each of the groups had a distinctive approach. The Anaconda group, the Arrowhead Foundation, was unusual in seeking a TAG grant that aimed its studies toward a plan for remediation that would simultaneously create economic development to replace the now-closed smelter. This group was responsible for the development of the Old Works golf course, publicized by the regional EPA office on its web site as a Superfund success story.

The Butte organization, Citizen’s Technical Educational Committee (CTEC), founded in 1991, has had the most challenging task of the three groups because of the amount of community conflict over remediation, conflict that was replicated at times within CTEC. Initially dominated by technically trained people sympathetic to business and mining interests, the board of CTEC was taken over by the grassroots, people more concerned for health and ecological issues. This was done under the leadership of Mary Kay Craig, who served as president of the board from 1994 to 1997 (Curran 1996 and interview with Mary Kay Craig, July 27, 2000).

There is a substantial amount of civic boosterism in Butte that denies or downplays the seriousness of contamination. Civic leaders simultaneously want to take advantage of both mining-history-based tourism and the research and development opportunities in high-tech environmental remediation (Baum and Knox 1992). ARCO has waged an effective public relations campaign. The company also has a loyal group of retirees still receiving pensions from work in the mines prior to 1982. Persons with serious health and safety or environmental concerns about either historic contamination or ongoing mining face an uphill battle to be heard. One of them, John Ray, a tenured professor at Montana Tech and a vocal environmentalist, lost his position as chair of the Department of Liberal Studies. His claim of unlawful discrimination was heard by the Human Rights Bureau and the Department of Labor and Industry, and he was awaiting a decision at the time of this research (Missoulian, April 8, 2000; Missoula Independent, May 11, 2000; e-mail J. Ray to P. Townsend, March 13, 2001).

The ARCO public relations effort has been so effective that community residents have generally favored alternatives that were least costly to the responsible party. Perhaps the only Superfund project where public opinion in Butte favored an alternative that would be more costly to ARCO than what the EPA was proposing was the mine-flooding unit. The decision to allow the pit to
fill to a higher level before pumping and treating met not only with a technical critique but also with a petition drive that quickly gained 3000 signatures in favor of beginning treatment immediately (petition of April 28, 1994, in Administrative Record, USEPA, Helena).

Yet a fourth group, the Upper Clark Fork Committee (UpTAC), sought its own Technical Assistance Grant to deal with concerns specific to the Clark Fork River operable unit of the Milltown site, that is, with the tailings along the river from the Warm Springs Ponds to Deer Lodge and beyond. The grant was denied on the basis of the limitation of one grant per Superfund site, although the distances involved in their participation in the Missoula group are great. (It is 100 miles from Missoula to the upper reach of the Clark Fork, above Deer Lodge, where most of the historic mine tailings are located.) However, technical assistance from renewal of the TAG grant is shared throughout the Milltown site, and MTAC was renamed the Clark Fork River Technical Assistance Committee (CFR-TAC) to emphasize this.

The organizations created to hold TAG grants are expected to remain neutral and reach out to all sectors of the community. However, there would not have been a high enough level of public involvement to create all of these TAG groups had there not already been environmental organizations deeply involved with Superfund. The Clark Fork Pend Oreille Coalition is the local environmental organization with the strongest presence of the Superfund site. The Coalition speaks out at public hearings and in press releases, tracking developments related to the Superfund site closely. Even the EPA public relations releases refer readers to the Coalition as well as to EPA and TAG group offices. The Coalition library is one of the repositories where the public can consult project documents. The Coalition was founded in 1985, initially organizing around the issue of pollution from a paper mill downstream from Missoula.  

In May 1985, Kathy Hadley on Deer Lodge wrote to the USEPA, signing her affiliation as the Clark Fork Coalition, of which she was one of the founding members. She questioned the exclusion from the Superfund site of the stretch of the Clark Fork River between the Grant-Kohrs Ranch and Milltown, in the light of evidence that heavy metals were also elevated in river water at Garrison and Drummond and that fish populations were also depressed in this reach. Her letter went to the Montana office, with copies to the regional and national offices (copy of letter in Administrative Record, Helena office). Visiting Washington to approach a foundation on behalf of funding for the National Center for Appropriate Technology in Butte, where she worked, she went to the Superfund office there with her sister Lois Gibbs. She again indicated, this time on a map, the unreasonableness of having two Superfund sites, contaminated from the same source, linked by a river that was not part of either site. Subsequently the USEPA made this reach of the river an Operable Unit of the Milltown Site.

Subsequent to Kathy Hadley’s early foray into Superfund on behalf of the Clark Fork Coalition, the Coalition has been involved throughout the entire complex of sites. They employ an executive director and technical consultants, as well as volunteers and board members, who read and evaluate studies, sit in on meetings, and monitor progress toward cleanup. The Missoula-based organization is limited in its effectiveness in Butte because of its middle-class, technocratic style and its focus on aesthetics and fisheries, rather than the economic and health issues that are more important to working-class Butte. Recognizing the social-cultural barriers that it made it difficult
for their organization to influence affairs in Butte, they recruited a part-time staff person to open a Butte office. Mary Kay Craig is a Butte native who had spent several years in California but still had deep roots, family, and (Catholic) church connections in Butte. She remained intensely involved with Superfund issues in Butte throughout the 1990s, especially as they related to public health (Craig 1997, and interview of July, 2000).

Trout Unlimited is another environmental organization that has been involved with the Clark Fork site. It is a national organization but its involvement has been through its local affiliates (Mike Morris, interview, July 2000). Mike Morris represents the West Slope Chapter in coalition work on the Clark Fork. In 1999 Trout Unlimited issued a document suggesting how the state of Montana might spend the money received in settlement of the natural resources damage lawsuit effectively for stream restoration (Workman, Kuipers et al. 1999).

The role of religious groups at the Clark Fork site

High on the continental divide overlooking Butte stands Our Lady of the Rockies, a sparkling white-painted iron sculpture 90 feet tall. Though not officially recognized by the Catholic Church, the Madonna with outstretched hands attracts busloads of visitors daily and donors of memorials who pay to have it lighted at night, plant a tree near it, or place an honored woman’s name at the base of its chapel. It also attracts commentary from cultural analysts of Butte, who particularly note its symbolism of gender relations and community solidarity (Finn 1998:130-133). It was built by volunteers working from 1979 through 1985, men who included ARCO’s laid-off and retired workers. The massive statue started with the vow of a man grateful for his wife’s recovery from cancer. His original plan was to put a much more modest, lawn-ornament-sized Madonna in a public place.

From the point of view of this project, Our Lady of the Rockies is heavily weighted with additional symbolism within the Judeo-Christian tradition. In that tradition, mountains as sacred places are particularly significant—from the mountains on which Moses perceived the burning bush and received the ten commandments to the mountain of Jesus’ transfiguration. It is hard to imagine a more dramatic intrusion on a mountain as a sacred place than digging an open-pit mine that became a toxic pit.

It is also noteworthy that the vow that started the building of the statue was related to the healing of cancer. Many of the chemical pollutants at Superfund sites, including arsenic in the Clark Fork sites, are known carcinogens. Familiar enough with the occupational hazards to men working in the underground mines such as lung disease and fires, many Butte residents have been resistant to suggestions that environmental hazards of mine wastes above ground might be related to apparently elevated rates of cancer mortality in women in the county. Placing a symbol of healing high above a community that denies a need for healing has a certain irony.

Not only does Butte physically look rather like an old northeastern industrial town in Pennsylvania, Massachusetts, or New York, its religious life is not very different from these towns—predominantly ethnic Catholic, with smaller representation of the mainline Protestant and evangelical churches. Because Butte has lost population, most of these churches have also experienced proportionate declines in membership. Statistics on church membership in Silver
Bow County and Deer Lodge County are not very different from those for Niagara County. Catholics comprise 32.8 percent of total population in Butte-Silver Bow, 44.8 percent in Anaconda-Deer Lodge, and 42.5 in Niagara. Of those adhering to some religion, 67.9 percent are Catholics in Butte-Silver Bow, 71.8 percent in Anaconda-Deer Lodge, 64.2 percent in Niagara (Bradley and Association of Statisticians of American Religious Bodies. 1992). Of the twenty-odd other religious groups in Butte, Lutheran (two ELCA congregations and one Missouri Synod), United Methodist, and Latter-Day Saints are the most numerous.²⁷

Missoula is very different from Butte and Anaconda; it has a low level of religious affiliation and a majority of Protestants. Only 30.5 percent of the population of Missoula county is religiously affiliated (Bradley and Association of Statisticians of American Religious Bodies. 1992) and of these, only about a third are Catholics. Lutherans are the largest among the Protestant groups. In addition to the various mainline Protestants there are various evangelical and Pentecostal congregations such as Assemblies of God, Foursquare, and Southern Baptists and several congregations of Latter-Day Saints.

Because Missoula is growing in population, it has not experienced the purely demographic attrition in church membership that Butte has. Indeed some small congregations within mainline denominations that are declining nationally have experienced growth in Missoula. The United Congregational Church (UCC), for example, (where the inter-faith Caring for Creation Network meets and from which its leaders Claudia and Gary Brown come) has just completed a building program to accommodate its growing congregation in the neighborhood just east of the University.

Interruption and movement among denominations today tends to obscure the distinctive origins of the various Protestant denominations in Montana. The Methodist circuit riders were often the first preachers in the gold camps, as on the rest of the American western frontier (Small 1992). The Congregationalists and Presbyterians sent early missionaries from back East, the first arriving among the Blackfeet in the same year as the Jesuits came to the Flathead Indians. Presbyterians notably emphasized education, in 1883 establishing the first institution of higher education in Montana, a college at Deer Lodge. The College closed in 1900, re-opened, closed again, and eventually merged its assets with schools of other denominations to become Rocky Mountain College in Billings (Small and Kuhns 1992). The various Lutheran churches were established by Norwegian, Swedish, and German farmers who came to Montana, mostly from Minnesota (Everett 1992). Pentecostal groups and Latter-day Saints (Mormons) are more recent entrants to the religious field.

An even more recent complication to the religious landscape of the Superfund site is what we might term religious tourism or pilgrimage by people visiting from outside. The Berkeley Pit has itself become a symbol for inter-faith groups to perform rituals related to environmental awareness. Perhaps the earliest of these was the memorial for the flock of snow geese that died in the acid waters of the pit. The service, incorporating elements from traditions as diverse as Bahai and Native American and Christian, was held in February 1996 at the Knights of Columbus building in Butte.
On Sunday, July 9, 2000, a group of 150 women and a few men performed the hula at the pit to the music of “Cool Water” to symbolize cleansing of the toxic waters. The idea came from a Missoula artist, and Butte residents learned of it mostly from the newspaper, with few of them participating (Montana Standard, July 10, 2000). A month later, on Sunday evening, August 7, six women members of Gaia’s Witness, a performance art ministry from out of state, built a simple shrine and held a ceremony at Granite Mountain Memorial overlooking the Pit. Joined by a few Montana women in a circle, they sang, prayed, chanted, and spoke of their desire “to create a container that can hold all the emotions and spiritual reactions to the pit.” They had previously done a walk from Santa Rosa to San Francisco, California, and planned performances in contaminated areas in other states (Montana Standard, August 8, 2000).

It is difficult to assess what the ultimate influence of these performances on Montana communities may be. One possibility is that commonly expressed local perceptions of this as ‘weird New Age’ behavior might reduce polarization by making local environmentalists who say that they are readily dismissed as ‘radicals’ appear to be more moderate.

Another cultural characteristic of Montana that requires examination here is extreme individualism and its implications for religious life. An Oregon-born minister who came to Montana after attending seminary and serving a congregation in the East said that the important thing to understand about the church in the West was that it was pervaded by individualism far more than other parts of the country. People insist, he claimed, on picking and choosing beliefs from here and there without the discipline of community or creed.

Several interviewees volunteered, after hearing an explanation of this research project, that they were ‘spiritual but not religious’ and that their spirituality informed their environmental activism. During the research, a work group at Missoula conference was observed as they struggled together to find language that would accommodate those in the group who felt that the term ‘inter-faith’ was not sufficiently inclusive, because it might exclude those who considered themselves spiritual but were not part of a faith community.

Even in the least religious communities (Missoula and Powell County—in contrast with Butte), private spirituality is a motivation for those who work for environmental protection. This has not yet resulted in faith communities as institutions being environmentally activist, even when their ministers or rabbis were personally sympathetic. Those leaders interviewed for this project who were simultaneously church members and environmental activists did not seem to derive significant social support for their activism through their church. Indeed, the lack of such support seemed sometimes to contribute to burnout.

The view that faith is something private or personal is not unique to Montana but prevalent throughout the U. S., standing in tension with communitarian concepts such as “covenant community” or “body of believers” or “household of faith.” This tension between the individual and communal must be taken into account when trying to understand the significance of the recent growth in the religious sector of the environmental movement. Growth of interest at the level of individuals, or even among national denominational leaders, does not mean that local congregations in large numbers will necessarily “sign on” to work in coalition with environmental organizations, with the important exception of those that already have a strong tradition of
working together on other issues. In Montana, project interviews suggested that those would be predominantly Unite Church of Christ (Congregational), Methodist, and Catholic churches.

**Interfaith organizations in Montana and environmental concerns**

The Clark Fork case study differs from the other two in this project in that environmental issues are as prominent as public health issues. At the Clark Fork sites arsenic was found in drinking water supplies and children playing in their yards were exposed to dangerous levels of heavy metals. These public health threats were very real but localized in specific neighborhoods that could be cleaned up or provided with a new source of water. The question that still remains and overarches the whole watershed is: To what extent are we, as a society, prepared to deal on a large scale with the costly remediation or restoration of industrialized landscapes for the health of entire ecosystems? Or are we only interested in removing only the most immediate and obvious threats to human health alone? Many of the most fervently voiced opinions of those interviewed were concerned with this question.

- The director of the Clark Fork Coalition, sharing her vision of a removed dam and restored trout stream at the junction of the Blackfoot and Clark Fork rivers,
- A Powell county commissioner saying that ranchers don’t want to hear about fish (said with scornful emphasis) when it is their livelihood that is at stake,
- An EPA project manager, widely considered (on all sides) as already committed to relatively limited remediation of the Clark Fork, speaking reverently of nature’s ability to heal itself after being damaged by mining, and
- A theologian expressing hope and anticipation that the Bishops’ Pastoral Letter on the Columbia Watershed will be the first of the regional statements of the Catholic church in the United States to speak of environmental stewardship on behalf of all creation for its own sake rather than only for human use.

The Pastoral Reflection in preparation for the Bishops' letter is a convenient place to begin this discussion of inter-faith organization surrounding the Clark Fork site, although it deals with mining as only one of its topics (Columbia River Pastoral Letter Project. 1999). The idea for the pastoral letter originated with theologians and ethicists of the Environmental Justice Program of the U. S. Catholic Conference meeting at Mount Angel Seminary in Oregon in May 1995 (Robbins 2000). Following on the Pope’s World Day of Peace message in January 1990, called “The Ecological Crisis: A Common Responsibility,” and the U.S. Catholic Bishops' 1991 teaching, "Renewing the Earth," they were looking for a way to move from more abstract discussions of green theology to ones anchored in a specific place. They wanted to demonstrate how moral and religious dimensions add to scientific and economic approaches to the ecology of a watershed. Choosing the Columbia River, they asked Bishop William Skylstad of Spokane if he would head a steering committee to develop the letter. A pastoral letter comes from the bottom up, from the bishops of a region with contributions from lay people and priests, in contrast with an encyclical, which comes down from the Pope. But both kinds of Catholic social teaching have a history of influencing policy and social change.
Pastoral letters are not commonly developed, but there were precedents for regional letters of this type, earlier ones having been produced in the Appalachian region and the agricultural heartland. This one was different in bridging the national boundary between the U. S. and Canada, a region that includes eight Catholic dioceses and twelve bishops. It would also break new ground theologically to the extent that it would assert that God’s creation has value of its own that is deserving of protection and not merely for its usefulness to humans (Schaeffer 1999). Religious groups that became involved at Superfund sites have generally done so because of the threat to human health or because of the injustice to the poor that exposes them to a noxious environment that the wealthy would not tolerate. Catholic social teaching already clearly supports that kind of involvement. The new document could strengthen social teaching to support caring for creation for its own sake.

In meetings throughout the Pacific Northwest from 1997 to 1999, Bishop Skylstad listened and learned about the problems facing people in the area. The document would address the needs of American Indians and of workers impoverished by economic changes in the area and not only of the trees and salmon. Professor John Hart of Carroll College in Helena, Montana, was the Project Writer who was charged with bringing together the input of scientists and theologians and incorporating the insights that came out of the discussions. Hart credits the Bishop with being a skilled facilitator of discussions that elicit a wide range of opinion. This is a quality that also comes through in Bishop Skylstad’s lecture in Helena in April, where he spoke of the church as providing space for discussion of contentious issues with civility (Skylstad 2000). The church as "a place where the big issues can be discussed" is a theme that also comes through in the idealism of politically and environmentally active Protestant clergy such as Barbara Archer, a Harvard-trained United Church of Christ minister living in Butte.

The second draft of the pastoral letter was posted on the Internet in May 1999 for more comment, and a third draft went to the bishops meeting in July 2000. It was finally released February 22, 2001, a delay of several months over the timetable when it was first posted. The final version was severely edited, shorn of much of the poetry and science of the earlier work. The extinction of some species of salmon became "seriously depleted salmon supplies." The theology pulled back, too, from any hints of a creation theology that might suggest that other creatures have value for their own sake, value to their Creator like that of humans. The theology of the final document reverted to the older stewardship theology—responsibility to care for creation because of its utility to humans.

Although it was a document produced within the Catholic Church, during its preparation phase the bishops’ letter already served as a focus for inter-faith conversations. Professor John Hart of Carroll College in Helena, the project writer, started or joined several of these conversations in Montana. In October 1998 he spoke to an inter-faith conference in Missoula. Out of this grew Missoula’s Caring for Creation Network, an active ongoing inter-faith group that sponsors monthly meetings, monthly hikes, and conferences. Hart was one of the organizers and hosts of a conference, “A Green Millennium? Reweaving the Web of Life,” held at Carroll College April 1, 2000, sponsored by the Montana Association of Churches.
The Montana Association of Churches (MAC) was founded in 1975. Earlier there had been ecumenical cooperation among Protestants, but MAC is a more inclusive body that included from its beginning the Roman Catholic Dioceses of Great Falls and Helena and was soon joined by the Serbian Orthodox Church in Butte (Small 1992). It has become noted for its work in rural ministries (channeling grants from Willie Nelson’s Farm Aid into a program to assist distressed farmers), opposing hate groups, and lobbying the state legislature on a variety of progressive legislation in line with the policies that its annual Assembly approves.

At an earlier inter-faith conference, sponsored by MAC and held in October 1998 at the Congregational church in Missoula, Dr. John Hart spoke about issues of faith and environment, concerns that appear in the Pastoral Reflection. Several of the persons attending that conference decided to continue meeting each month, forming the Caring for Creation Network. Their monthly meeting on July 20, 2000, which I observed, was attended by more than 20 persons of several protestant and catholic churches as well as others without church connections who met to visit, share food, engage in prayerful reflection, and discuss their upcoming activities. During the meeting they watched a video by local filmmakers on mining in Kenya and discussed whether they could appropriately sponsor a public showing of the video. The discussion revealed ongoing tension about whether the Network was itself to become an environmental advocacy group or to remain a faith-based support group to energize the members for their environmental activism in other organizations. The value of the latter was that members would not have to be in agreement on environmental priorities and tactics to be able to support each other against burnout in whatever venue each of them might choose for their advocacy work. They also might be more effective at enlisting others from their congregations if they avoided being labeled or stereotyped by advocating positions indiscriminatel. This is a fundamental question faced by all coalitions. On this occasion, at least, they opted for advocacy, deciding to sponsor the video and risking the prospect of being labeled as anti-mining.

The most ambitious activity of the Caring for Creation Network to date is the organization of a conference, “Spirit, Commerce, and Sustainability,” held September 22-24, 2000, at the Missoula Holiday Inn. The conference keynote speakers were authors Paul Hawken (Natural Capitalism), Alan AtKisson (Believing Cassandra), and Janine Benyus (Biomimicry), the Rev. Nancy Wright of Seattle’s Earth Ministry, and Nick Palmer of Ford Motor Company’s enterprise, THINK. Small-group breakout sessions were led by local business people, academics, and nonprofit and religious leaders.

Pulling together such a conference, with advance registration of 250 and a full house of 350 for keynote lectures, was a stunning accomplishment for a small and recently formed group, still feeling its way toward defining its mission. Although the initiative came from the Network, carrying it out would have been impossible without the joint efforts of more established, co-organizers: Women’s Voices for the Earth, the National Center for Appropriate Technology, and the Montana Association of Churches. Bryony Schwan, Executive Director of WVE, and Kathy Hadley, Executive Director of NCAT, made a key contribution by assigning interns funded by their organizations to do the advance work on the conference. None of the conference sessions dealt specifically with the Superfund site, but as groups met on the final morning to plan practical activities to follow up from the conference, one of the groups put Superfund site
activities on their agenda. Out of the conference came a re-formulation of alliances and a
determination to strengthen links with the faith communities around issues of sustainability.

More directly relevant to Clark Fork, the coalition PLACE has been formed in the past year. The
acronym stands for People from Labor, Agriculture, Communities of faith, and Environmental
organizations. The first meeting was in December 1999. At the June 2000 meeting, officers were
elected and bylaws approved, formalizing the organization of PLACE enough to be able to move
toward hiring a staff person and applying for grants.

River activists and labor union staff first began talking about forming a coalition in 1995, when
remediation alternatives for Butte Streamside Tailings were under public discussion (Curran
1996:313-315, and Hadley and Egan, interviews of July, 2000). There was not enough lead time
then, they discovered, to get grants that would allow them to hire a labor economist to examine
the differences in job creation possibilities between different remediation alternatives before a
Record of Decision was issued. Next time a remediation decision was due they determined to
organize well enough in advance to be able to have this analysis done by a consultant. They knew
that, in general terms, the more money that is spent the more employment is generated, but it is
never that simple. Different remediation alternatives create different kinds of jobs, requiring
different skills, jobs that are more likely to go to local or outside people. Training programs may
be needed.

Environmental organizations were at first reluctant to play the jobs card, i.e. a better cleanup will
provide more and better, (if not long-term) employment. But Butte has a proud labor history and
neither the ecological or public health issues in Superfund cleanup seemed to be resonating
broadly with the public, so these leaders felt that it was time to reconsider their tactics.

It was environmental groups, including the Montana Wildlife Federation, the Clark Fork
Coalition, and Trout Unlimited, along with the Helena staff of the AFL-CIO who initiated the
formation of PLACE. Kathy Hadley and Pam Egan had the connections that made it easy to
broaden environmental and labor representation. Now they needed to bring in additional faith
communities and, particularly difficult, to enlist participation from agricultural organizations. It is
still very early to see what the significance of PLACE will be, for the organization had not yet
had a public meeting or made its existence widely known by the time when fieldwork for this
project was conducted in July 2000. At the outset, John Hart represented both the Diocese of
Helena and MAC—making another connection to the Pastoral Letter and its concern with
economic justice as well as ecosystem wellbeing.

**Lessons learned**

It may seem premature to speak of the legacy of Superfund sites whose remediation is still many
years from completion. Indeed, some major decisions about how that remediation will take place
have not yet been made. How will the Berkeley Pit water be treated? To what extent will tailings
be removed from the flood plain of the Clark Fork, where future meandering of the river may
erode them? Will the Milltown Dam and/or sediments be removed or left in place? Despite these remaining issues, there are already ways in which it is appropriate to speak of the legacy of this Superfund complex.

The Clark Fork Superfund sites will leave a legacy of research on the environmental effects of mining and their remediation that should be useful in mining sites around the world. That research is continuing and, it is to be hoped, will also contribute to workable solutions for problems presented by acid mine drainage and streamside tailings. Certainly there are no quick fixes for cleaning up large and complex mining sites where the science is not yet fully understood.

Another legacy of the Clark Fork sites is the model for meaningful public involvement in decision-making that it offers—though the Montana experience may not easily be generalized to other sites. Montana has the added advantage for meetings and site visits that the EPA staff is based in Helena, as are the state officials. They can reach any of the Clark Fork sites in less than two hours pleasant drive—unlike many Superfund sites, where travel budgets are more of a barrier (interview with Fox, Hamilton, and Hillery, July 31, 2000). The models that the EPA uses for participation most likely to be effective in white middle class communities. Montana EPA staff members are justifiably proud of the level of constructive community involvement that has characterized the Clark Fork sites. In the 1996 Master Plan they indicate the stages of each project where public input was sought, going far beyond the minimal public comment period required by legislation. Their openness to public input was, in turn, spurred by demands from the public (particularly the Clark Fork Coalition and MESS) to have that opportunity.

It is also clear that communities of faith and inter-faith organizations have not been as prominent a presence in the community interest in the Superfund process here as they were in Love Canal or Memphis. The Catholic Church was involved minimally early on, through funding an agency involved at Milltown. Subsequently communities of faith were largely silent, finding voice only recently through the coalitions currently being built. Opportunities for consistent involvement slipped by. Why was this so? The reasons are rather different in Butte/Anaconda and Missoula.

Butte and Anaconda were hit by massive economic dislocation with the closing of the mine and smelter. The churches were overwhelmed throughout the 1980s with the needs of displaced workers and responded constructively to those needs with a wide range of social programs from food banks to job training. They helped to form the Butte Community Union to empower the poor and unemployed (Curran 1996, pp.105-107). In the absence of a clear articulation of the concept of eco-justice that would encompass both, economic justice took priority over environmental justice. The religious community was simply not paying much attention to the Superfund environmental issues that surrounded them.

It is only recently that scholars have begun to come to grips with the issues that make ‘jobs vs. trees’ a false reading of the situation of the Northwest, and their ideas have yet to be widely discussed or popularized. One step toward attaining this new integration of economic and ecological justice was the dissemination of the Pastoral Reflection on the Columbia Watershed. Another was the free distribution at the sustainability conference in Missoula of the book Green-Collar Jobs: Working in the New Northwest, a publication from Northwest Environment Watch in Seattle that presses for changes in the economy that preserve environmental quality (Durning
As these ideas of sustainable economy gain wider currency, it will become easier for social justice organizations to integrate environmental concerns into their work.

In Missoula the failure of communities of faith to take a formal role in Superfund issues is more to be seen as stemming from the sense that the environmental organizations do not need their help. The existence of numerous, active environmental organizations and the low level of religious affiliation led to a specialization (and compartmentalization, for those individuals active in both religious and environmental groups). Montana People's Action, the social justice organization that helped the Milltown residents identify their water problem, dropped any involvement with Superfund issues, as staff indicated, “Because the Clark Fork Coalition was taking care of that.” Had the Missoula churches been more formally involved, the Clark Fork Coalition might have possessed more effective bridges across the class and cultural divide from Missoula to Deer Lodge, Anaconda, and Butte. Unlike the environmental organizations, the religious denominations do have structures that link these communities.

A final aspect of the legacy of the Clark Fork site that is still playing itself out is the model that it presents for building coalitions between environmental organizations, labor unions, and communities of faith. Coalitions are not unique to Montana, of course, as the case study on Love Canal demonstrated, but in Montana there is an especially strong history of communities of faith and the labor unions building coalitions around various progressive issues. The various environmental organizations have worked together well in coalitions around issues such as stopping the proposed McDonald mine on the Blackfoot River. They frequently share resources, including office space in Missoula. The usefulness of even broader coalitions that incorporate communities of faith may become apparent as the new coalition PLACE develops to address the remediation of the Clark Fork sites.

**Summing up**

Religious organizations played relatively little role in the first two decades of the Clark Fork Superfund sites in site identification and the assessment and communication of risk. The only exception that the research for this case study uncovered was the funding of a group involved in site discovery at Milltown, where grant from the U. S. Catholic Conference funded the social justice work of Montana People's Action. The text of the case study has touched on several reasons why communities of faith did not participate to any apparent extent for such a long time. One obvious factor is that Montana is a secular place, a place with a low level of religious affiliation. Statewide, the percentage of the population affiliated with a church in Montana is about half that of Tennessee or New York, where the other two case studies are located. This does not tell the whole story, however, for Butte and Anaconda are ethnic Catholic blue-collar towns, resembling Niagara Falls or Buffalo in religious participation more than they resemble the rest of Montana.
The potential for the involvement of religious organizations in environmental concerns in Western Montana was present all along and has now begun to emerge in the public discussions surrounding Superfund remediation. What makes this possible now, when it did not happen in the 1980s? In part it is the timely influence of a few visionaries in the Montana religious community: Professor John Hart coming to Carroll College from earlier work in the Midwest, Claudia and Gary Brown with the other founding members of Caring for Creation in Missoula, Mary Kay Craig, a Catholic laywoman returning home to Butte after several years away and going to work for the Clark Fork Coalition.

While the emergence and influence of local religious leaders is easily enough traced, what is harder to evaluate is the extent to which broader, nation-wide trends of the 1990s also paved the way for building coalitions between environmentalists and faith communities at the local level. About the same time that the Pope and the U. S. Bishops issued major statements on the environment in the early 1990s, the mainline Protestant denominations did likewise. In 1994 the National Religious Partnership for the Environment was formed as a coalition of Catholic, mainline and evangelical Protestant, and Jewish organizations. All of the participating groups developed materials on environmental justice for their congregations and parishes (Hessel 1996; Shibley and Wiggins 1997; Somplatsky-Jarman, Grazer et al. 2000). In preparing these materials, church leaders grappled with the concepts of "eco-justice," reconciling the goals of economic and environmental justice, or "sustainable economy." They could not abandon their concerns for the poor in pursuit of purely environmental goals. Enough of this eco-justice material seems to have filtered down to the parishes of western Montana to help create a climate for discussions of environmental stewardship. Finally, by the end of the decade, environmental organizations had also begun to see religious organizations as potential coalition partners on many issues, and they were prepared to reach out to the churches (Johnson 1998; Lowry and Swartz 1999).

Interfaith coalitions are unlikely at this late date to become the most important players in the public discussion of remediation of the Clark Fork Superfund sites. But it is probably not too much to expect that they may broaden participation in that discussion and add some new voices. Because these new participants are not already polarized between established environmental activists and their entrenched opponents they may be able to contribute to achieving consensus on remediation.
Resources
The following people, along with others who remain anonymous, must be thanked for their hospitality and their help in understanding their communities and the Superfund sites in them, though I alone bear the responsibility for any errors and failures to understand.

Rev. Barbara Archer, Butte
Kay Beck, Powell County Commissioner
Bob Benson, CFR-TAC
Claudia Brown, Caring for Creation Network
Mary Kay Craig, Butte
Nina Cramer, Montana Action
John Driscoll, Butte
Pamela Egan, AFLCIO
Bob Fox, USEPA, Helena
Kathleen Hadley, Executive Director, National Center for Appropriate Technology
Prof. John Hart, Carroll College
Tom Hatch, Powell County Commissioner
Pam Hillery, USEPA, Helena
Father Jim Hogan, Christ the King Church, Missoula
Gail Jones, Powell County Commissioner
Don Judge, AFLCIO
Warren McCullough, Montana Dept. of Environmental Quality
Mike Morris, Trout Unlimited and NCAT
Peter Nielsen, Missoula County Dept. of Environmental Health
Sister Kathleen O’Sullivan, Caring for Creation Network
Tina Reinicke-Schmaus, former president, MTAC
Bryony Schwan, executive director, Women’s Voices for the Environment
Tracy Stone-Manning, Executive Director, Clark Fork Coalition

Phil Tourangeau, environmental consultant to Grant-Kohrs Ranch
Prof. Vicki Watson, Environmental Studies, University of Montana
Peter Werner, Montana Dept of Environmental Quality
Betty Whiting, Montana Association of Churches
Scott Williams, USEPA, Helena
Rev. James D. Wilson, St Johns Lutheran Church, Deer Lodge
**Web sites**


Anaconda Old Works golf course as a Superfund success story

Berkeley Pit Education Committee Pitwatch Newsletter past issues
[http://members.nbci.com/berkeleypit/](http://members.nbci.com/berkeleypit/)

Clark Fork Pend Oreille Coalition [http://www.clarkfork.org](http://www.clarkfork.org)
Columbia River Pastoral Letter Project
[http://www.columbiariver.org/index1.html](http://www.columbiariver.org/index1.html)
Montana Peoples Action [http://mtpaction.org](http://mtpaction.org)
Rocky Mountain Elk Foundation [http://www.rmef.org](http://www.rmef.org)
Trout Unlimited [http://www.tu.org/](http://www.tu.org/)

Newspapers:
Montana Standard (Butte) [http://www.mtstandard.com/index.html](http://www.mtstandard.com/index.html)
References


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1. The Superfund process is concerned with remediation, correcting the conditions that pose a threat to public health and the ecosystem. This does not mean restoring the environment to what it was before the damage occurred, although natural resources damage suits allow the injured party to make a claim for restoration. 'Cleanup' is a casually used term, and it will be used occasionally in this report, but it should be kept in mind that it is not entirely appropriate for Superfund remediation. Superfund remedies often leave the contaminants in place while ensuring that they do not continue to migrate into groundwater. Most so-called cleanup simply moves toxic substances from one place to another rather than de-toxifying them.

2. The CERCLIS sites are listed on the internet on the USEPA web site, as are NPL sites, along with a description of each site at the time it was listed and the Record of Decision for each site and additional information about the program. <http://www.epa.gov/superfund/sites/index.htm>

3. The cut-off point of 28.5 was chosen arbitrarily near the beginning of the Superfund program because it was the number that would produce an initial list of 400 sites to be remediated, from among those that had been examined and scored.

4. The term "community of faith" appears frequently in these pages as the most inclusive term for local congregations meeting in churches, synagogues, temples, and mosques, along with larger groupings of such congregations into denominations and inter-faith councils, and para-church organizations formed for special purposes such as religiously-based environmental groups. Many people would not think of a local church congregation or parish as a "religious organization" but would reserve that term for these other organizations. This report is concerned primarily with organizations, not with individually held religious beliefs and values.

5. The annotated bibliography gives many examples of this rationale. See for example (Granberg-Michaelson 1984; Ball 1997; Dewitt 1998; Drake 2000)

6. The formation of Community Advisory Groups and provision of Technical Assistance Grants to enable them to get expert help did not effectively begin until about 1989. In two of the case studies covered by this project, no such groups were formed. Three of them were formed in the area covered by the Montana case study (one at each of 3 of the 4 Superfund sites that comprise the Clark Fork complex). The USEPA Community Involvement and Outreach Center used five case studies to evaluate Community Advisory Groups in a 1996 study (United States. Environmental Protection Agency. Office of Emergency and Remedial Response. Community Involvement and Outreach Center. 1996).

7. Indeed it was not possible to visit the headquarters of any of the EPA regions involved in the project -- Region 2 in New York City, Region 4 in Atlanta, and Region 8 in Denver. However, it was possible to visit USEPA offices and speak with staff in Helena and Niagara Falls, and to use library resources at the Washington DC and Chicago offices when travelling for other purposes.
A February 1997 report of the USEPA listed 60 mining and mineral processing sites on the NPL at that time (United States Environmental Protection Agency 1997). Subsequently several additional mining sites have been added. Regarding the cost of remediating such sites, a study using the Resources for the Future 1992 database of NPL sites estimated the average remedial action cost of the mining sites to be $170 million, in comparison with an average of $29 million for landfills and $13 million for manufacturing facilities.

Some faculty have been active participants in public comment on Superfund remediation. The recent removal of a liberal arts professor from his department headship has been interpreted as a reprisal against his environmentalist stance, most recently opposing cyanide heap leach gold mining (Missoula Independent, May 11, 2000; Montana Standard, April 8, 2000). This constraint is in sharp contrast to the University at Missoula which tolerates activism in all faculty and positively expects it in Environmental Studies faculty (Watson, interview, September, 2000).

Note the confusing fact that the city of Deer Lodge is not in Deer Lodge County. Politicians of an earlier era split the agricultural northern half of Deer Lodge County off to form Powell County, leaving Anaconda in the small remaining rump of Deer Lodge County, which has virtually no place to go now for further development other than the Superfund site.

More recently ARCO was purchased by BP Amoco. The merger formed the world's second largest oil company after Mobil-Exxon (Missoulian, March 30, 1999; May 3, 2000). This does not affect ARCO's liability under Superfund law for Anaconda's past mining pollution. Obviously the oil company's already deep pockets are now even deeper, and the ability to pass remediation costs on to the public through higher gasoline prices is further enhanced. Their competitor Mobil-Exxon's liability for the Exxon Valdez oil spill, including more than $2 billion in cleanup costs plus more than $5 billion in punitive damages, vastly exceeds BP Amoco's likely liability at the Clark Fork.

Part of the interest in researching this site for this project stemmed from the author's study of the parallel involvement of another American oil company, Amoco, in the Ok Tedi mine of Papua New Guinea at about the same time (Townsend and Townsend 1996).

Non-technical accounts of the environmental issues at Butte and other hard rock mines in the West are found in (Dobb 1996; Watkins 2000).

Nearby examples include the Midnight Mine, a Superfund site on Spokane Indian lands in Washington, related to uranium mining, and the natural resources suit of the Coeur d'Alene Tribe in Idaho related to mining pollution from Silver Valley, which includes the Bunker Hill Superfund site.

A Missoula journalist has castigated the ATSDR for this failure to provide public health assessments for the Clark Fork sites (Tuholkses 1993). However, in more recent years, when an established procedure and format have governed ATSDR public health assessments, still none of these full-scale assessments are available for any of the Clark Fork sites. Public health assessments done since 1993 are downloadable from the ATSDR web site, but none are posted from sites in Montana.

Statistics on the incidence of cancer, rather than mortality, would be useful, but if they were available for Silver Bow County they would not be trustworthy, because, according to state health officials interviewed by Curran (Curran 1996, p. 245-246), the Butte hospital did not report cancer statistics properly for several years.

The number of projects has changed over time as the EPA has completed interim cleanups and some sites and consolidated the work at others. The 1990 Master Plan identified 28 operable units (United States. Environmental Protection Agency. 1990). The 1996 updated Master Plan (United States. Environmental Protection Agency. 1996) identified 22 "projects," of which construction was complete at seven, construction was underway at five, and investigation or design were in progress at eight. Two were on hold--Butte non-priority soils and the active mine area, where work would not be initiated until mining ceased.

Numerous newspaper accounts and residents of Kellogg, Idaho, (telephone interviews, April, 2000) also refer to their Bunker Hill Superfund site as the largest in the country. It would certainly surpass the Clark Fork if the EPA succeeds in addressing the extensive lead contamination throughout the 1,500-square-mile Coeur d'Alene River Basin, as it has been considering. State agencies and politicians are resisting the broadened scope of Superfund
activity, while a small grassroots group, the Silver Valley People's Action Coalition, and the Coeur d'Alene Tribe want more extensive cleanup of mining pollution. The matter is currently before the EPA's national ombudsman, Robert Martin (High Country News, Vol 32, No. 16, August 28, 2000). Community involvement at the Bunker Hill Superfund site was studied in 1993 by an anthropologist who interviewed members of the Silver Valley Chapter of the Idaho Citizens Network, the Superfund Task Force, and other residents (Cellarius 1995).

Montana Power is headquartered in Butte. The company chose to get out of the energy business and transform itself into a telecommunications company, based on its successful subsidiary Touch America, a fiber-optic and wireless network. Having sold its other dams and power generation facilities to PPL Resources of Pennsylvania in 1999, Montana Power announced the sale of its electric and natural gas distribution network to NorthWestern Corp., a South Dakota company, on October 2, 2000. That purchase included the Milltown dam (Montana Standard, October 4, 2000). NorthWestern immediately announced its intention to keep the Butte operations intact when the transfer occurs in 2001 (Missoulian, October 3, 2000).

In 1998 the bull trout was named to the Endangered Species List through an environmental lawsuit that involved the Missoula-based Alliance for the Wild Rockies (Missoula Independent, Vol. 11, No. 35, August 14, 1998, archived on-line at http://www.everyweek.com/Archives/News.asp/no=202 and accessed on 9/1/00). The West Slope affiliated of Trout Unlimited also joined with Clark Fork Coalition in the campaign for dam removal. Their opposition to the dam is also based on the observation that introduced pike thrive in the reservoir waters, gobbling up young trout. The reservoir is critically located at the junction of the Blackfoot and Clark Fork Rivers.

Earthquake concerns are reflected in some of the public opinions expressed about Superfund decisions such as the letter of April 28, 1994 on file in the Administrative Record, Helena, from Barbara Archer and Thomas Tully to R. Forba. Also, the Clark Fork Pend Oreille Coalition presented the USEPA with an Alternate Plan and Rationale for Berkeley Pit and Mine Flooding Operable Unit dated June 30, 1994 that expressed concerns about the margin of safety for earthquakes and other catastrophic events. More recently, Jack Kambich, a member of the local Conservation District Board and (unsuccessful) primary candidate for U. S. Senate, has publicly expressed concerns about the stability of the Yankee Doodle Tailings empoundment (letter of May 18, 1999, and documents on file at Butte-Silver Bow Public Library).

The Catholic Campaign for Human Development has served as a funding source for other organizations seeking environmental justice for economically depressed communities, including recently one in Kellogg, Idaho, at the Bunker Hill Superfund Site, another mining site.

Arco, which has no products for sale in western Montana, is a constant advertising presence on television in Butte. Similarly, faced with the prospect of paying for cleaning up PCBs from the Hudson River, General Electric mounted a huge anti-dredging publicity campaign in upstate New York.

Despite its name, that reflects its origin as a coalition of groups, it has not continued to develop as a coalition but has become an individual-membership organization. Its full name, the Clark Fork Pend Oreille Coalition, includes the Pend Oreille, the lake in Idaho into which the Clark Fork flows before joining the Columbia River (interviews with Peter Nielsen, former Executive Director of CFC, and Tracy Stone-Manning, current Executive Director, July, 2000).

Kathy Hadley, the executive director of the National Center for Appropriate Technology, headquartered at Butte, is the sister of Lois Gibbs, who is the executive director of the Center for Health, Environment and Justice (formerly called Citizens Clearing House for Hazardous Wastes), based in Falls Church, Virginia. They come from a family of six who grew up on Grand Island (between Buffalo and Niagara Falls, New York). Kathy describes the differences between them by referring to her own childhood delight in and "spiritual connection" with nature in contrast with Lois's fear and disgust at bugs and caterpillars (interview, July, 2000). As adults, they are in frequent communication, she says, and are especially able to share their common experiences as directors of national non-profit agencies. Kathy Hadley's husband Wayne, a fisheries biologist, is mentioned extensively, and appreciatively, in Lois Gibbs' account of Love Canal as her mentor (Gibbs and Levine 1982). When they moved to Montana from Western New York in 1980 because of their mutual love of the outdoors, the Hadleys thought that they were escaping toxic wastes. Their young son had frequently stayed at the Gibbs' house adjacent to Love Canal for day
care. Wayne's state employment requires that he speak less openly than Kathy about Superfund issues, however, his research helped clarify the role of tailings in fish mortality.

The measure of religious adherence used throughout these case studies is the data reported in Churches and church membership in the United States, 1990. This standard reference source presents membership figures as reported by the denominations themselves and compares them with U. S. Census data.

Superfund is predominantly a public health program, aimed at reducing health risks. Environmental concerns (natural resource damages) served as a basis for EPA's cleanup goals at only 21 of 145 sites in one study sample (Hamilton and Viscusi 1999).

No meeting was held during this period in the Diocese of Helena, where turnover in bishops has been high and vacancies frequent in the past decade.