

CHAPTER 5: ANIMAS RIVER STAKEHOLDERS GROUP

Silverton, Colorado

Prepared by Chrissy Coughlin

The Animas River Stakeholders Group illustrates a collaborative group that convened in response to the threat of Superfund designation. This group is empowered to work with the framework of a set of diverse interests to locate and evaluate sources of metal contamination, to determine potential improvement and to prioritize sites for remediation. Water degradation in the area is thought to be largely attributed to past mining practices in the Animas basin. Although the group has made progress, it is still in the information gathering stage and many feel its true success remains to be seen.

Interviews:

Bill Simon, Coordinator of the Animas River Stakeholders Group, (2/24/99)

Carol Russell, Environmental Protection Agency, (3/23/99)

Chris George, Local representative, owner of a local ski-lodge, (3/9/99)

Fred Clark, Landowner-seasonal resident, (3/12/99)

Gary Broetzman, Former facilitator, Colorado Center for Environmental Management, (2/4/99)

Greg Parsons, Colorado Water Quality Control Board-CO Department of Health, (3/2/99)

Larry Perino, Mining representative-Sunnyside Mine, (3/10/99)

Mike Black, Local environmentalist, (3/25/99)

Peter Butler, Member of the Colorado Water Quality Commission, (3/1/99)

Rich Perino, San Juan County Commissioner, (3/18/99)

Steve Feran, Mining representative, (3/8/99)

PART I: BACKGROUND

Origin and Issues

Silverton Colorado is an old mining town nestled in the spectacular San Juan Mountains in the Southwest region of the state of Colorado. Boasting a population of roughly 1,500 during the summer season and 750 in the winter, the economy, once fueled by mining operations, currently thrives primarily on tourism and recreational opportunities. Silverton is also located in San Juan County and in the more than 700 square mile Upper Animas watershed. The watershed is formed by three tributaries that join in Silverton and form the Animas River (ARSG webpage, 1999). The Animas River flows for about 100 miles where it meets with the San Juan River in New Mexico (CCEM, 1998). The area of concern, however encompasses a 200 mile radius above the town of Silverton and the site of 400 abandoned mines. To the distant eye, this area seems pristine and untouched. It is, in fact, home to one of the most severely impacted areas in the United States. Up until 1934, mills in Silverton dumped mine

tailings directly into the river and ranching practices such as sheep grazing greatly contributed to the pollution of the river. It is also within this 200 square mile area that the town of Silverton and San Juan County faced the daunting possibility of becoming designated a Superfund Site in the early 1990's.

Superfund designation has been a challenge to the residents of the Animas Basin for a couple of reasons. One reason is that most landowners who own these mining sites, either no longer reside or never resided in the Animas Valley. Indeed, although 83% of the land in San Juan County is federally owned, most of the abandoned mining sites are located on private lands and the majority of the owners of these sites are absentee landowners (Parsons, 1999). Moreover, because the Mining Act of 1872 allowed people to purchase land for little to nothing as long as their intent was to mine the land, many did mine the land, but then left it in its current state and moved on without leaving behind documentation of their future whereabouts. Although local efforts have been made to locate these landowners, not much success has been made. The other reason is that although mining has the unavoidable potential to pollute the land, valley residents have not historically spent a great deal of time worrying about the effects of mining activity until the late 1980's. The consequence of this situation, according to Bill Simon, coordinator of the Animas River Stakeholders Group (ARSG), is that: "There is not any one person you can, therefore, point a finger to as to who is responsible."

Indeed, Silverton currently struggles with the transition from a community with a strong mining heritage to a community that currently fights to preserve its historic mining pits and buildings and that must focus on a clean river so to attract the largest percentage of tourists possible to fuel the economy. Local county commissioners, for instance, have all worked for Sunnyside mine at some time resulting in strong alliances with the mining companies. Moreover, the San Juan Historic Society currently has a strong presence in the Silverton community and fights hard to avoid the removal of these historical sites that bring in substantial revenue to the area and fuel the regional economy (Parsons, 1999). Regardless of history and tradition, the water quality of the Animas Basin was not considered clean by the government officials and it was time get to the root of the cause of the degrading water quality of the Animas River. The question was how to do so.

In early 1993, the Water Quality Control Division (WQCD) of the Colorado Department of Public Health and Environment, under the leadership of Greg Parsons, recognized the need for broader public involvement in addressing water quality issues in the Animas Basin. A collaborative approach was felt to be the most appropriate means of addressing concerns over mining contamination (Simon, 1999). Concern in the Animas basin centered on water quality issues, its effect on aquatic populations, and its relationship to mining activity. However, although water quality in the upper basin did, indeed, not meet surface water quality standards for cold water fisheries due to a combination of releases from both historical mining activities and natural contributions, some still claimed that natural causes were the primary cause. Nonetheless, after interviewing various mining, federal land management, local government, environmental, and related interests regarding their views on mine-related contamination in the Basin and their interest in participation in a collaborative process, a collaborative approach was received favorably and the Animas River Stakeholders Group (ARSG) was formed in February 1994 (CEEM, 1995).

Early Stages

Two political forces, the State Water Quality Control Board and the Superfund Program, drove the initiation of the ARSG. The primary driver was the State Water Quality Control Program, which, in the early 1990's, designated this area of Colorado as one of the most deteriorated stream segments in the state (Broetzman, 1999). Seriously elevated levels of toxic metals had just about wiped out aquatic life throughout many segments in the upper part of the watershed with contamination and came from the following sources: current (in the process of closing down) and historical mining sites, as well as natural contributions (CCEM, 1998). The State Water Quality Control Program felt that with both the threat of the area's designation as a Superfund site and local sentiment firmly imbedded in the fact that they did not want the federal government making their decisions for them, a clean-up strategy must be developed around active participation from the local residents.

As the group tackled the issue of water quality standards, it became apparent that local residents did not want any tightening of standards. Rather, they preferred to work through the process as a group and figure out what they could reasonably accomplish (CCEM, 1998). The Water Quality Control Commission then agreed to a three-year deferral of standards and classifications but did set numbers for the Brown trout and gave the group a general target for which to aim. According to Parsons, the group said: "Well, we got what we asked for--now we have no choice but to produce."

Bill Simon states: "The commission empowered ARSG to make improvements and come up with a basin wide plan with two primary goals in mind: 1) To develop the information necessary to set appropriate standards and classifications; and 2) To demonstrate remediation ongoing right now and to develop a remediation plan for the basin so that standards and classifications could be maintained within the Clean Water Act." The group spent the next three years monitoring the 400 abandoned mining sites. They are now in the process of formulating an overall plan looking at data from key individual sites and prioritizing them in order to accomplish the most in the shortest amount of time.

Organization and Process

By 1994, the Animas River Stakeholders Group was a functioning entity although it started off on shaky ground primarily due to local distrust towards the state, EPA, and environmental groups. As an indication of this lack of trust, Gary Broetzman was asked by the County Commissioner, in the initial stages of the group: "Do the crazy environmentalists from that crazy town downstream [Durango] have to participate?" By mid-1994, however, the group had decided upon a mission statement, goals, and organizational structure of the group.

Mission Statement

"To improve water quality and habitats in the Animas River through a collaborative process designed to encourage participation from all interested parties."

The group does this through an extensive collection and analysis consolidation of the chemical, physical, and biological components necessary to assess the impacts of contamination on aquatic life and habitat throughout the basin.

The group also reached consensus on the following goals and objectives:

According to Gary Broetzman, "The group just brainstormed them a number of times. There were a number of interests who wanted to quantify things while others did not. So they decided to improve water quality but not to quantify it. It was a give and take until everyone could shake hands."

Goals

- To monitor the water quality and aquatic habitats of the Animas River and its tributaries and provide access to the public of this information.
 - ♦ Determine which parameters presently limit aquatic life and habitats
 - ♦ Determine levels of reduction of those parameters necessary to substantially improve aquatic life
- To analyze all water quality information within the Upper Animas watershed to determine the extent and effects of metal contamination from natural, geologic processes and historic mining, and to identify major source locations.
- To determine the feasibility of remediation of sites discovered to be major contributors of metals or related contaminants.
- To use information from monitoring and feasibility determinations to develop a basin wide remediation plan consisting of cost estimates, possible technologies and probable candidate sites.
 - ♦ To reduce metal concentrations in the Animas River to a level which will maximize aquatic life while maintaining costs acceptable to the general public
 - ♦ To remain flexible allowing prioritization of sites to change in response to technological developments, availability of funds, owner cooperation, regulatory changes, and other factors which may be beyond the control of the Stakeholders Group
- To encourage private and public entities to reduce the amount of contaminants entering the Animas River from abandoned mine sites through the following means:
 - ♦ Educating the public concerning environmental issues involved
 - ♦ Assisting in the development of cost effective remediation technologies
 - ♦ Encouraging the implementation of demonstration technologies

- ◆ Assisting in the procurement of funds necessary to attain the goals and objectives of the group, including funds for voluntary site remediation
- To affect changes in current regulations and permitting procedures which would encourage voluntary approaches to remediation (ARSG webpage, 1999).

Prior to each remediation effort the group policy encourages that each remediation project be reviewed by the San Juan County Commissioners for possible historic impacts. The commissioners have a county historical review committee, which provides comments and recommendations.

Organizational Structure

The group was initially facilitated by Gary Broetzman of a Denver-based group called the Colorado Center for Environmental Management (CCEM). Greg Parsons of WQCD figured that since CCEM, had both the capability of working under a grant from the Department of Energy and was not a stakeholder, that they would be in a strategic position to bring in money and time to the Animas basin. Together they would develop a collaborative process as a means to educate people about the data collected from 1991-93 and to use this data to find solutions. In 1996, CCEM turned over responsibility for coordination and management of the stakeholder group to the local community (Broetzman, 1999). Bill Simon, a local resident and scientist and researcher by trade became the current coordinator. A selection committee chose him from an applicant pool of over 35 people (Simon, 1999).

ARSG has no formal membership. Any interested person is allowed and encouraged to participate. The group meets once a month at the Silverton Town Hall. It is also not a 501(c3) and is therefore devoid of a Board of Directors. The group prefers its loose structure. As Bill Simon states, "We have intentionally chosen to not become incorporated. We feel strongly that having a Board of Directors would be a negative thing to do. Although challenging at times, nobody has ultimate authority within the group. We perceive ourselves as a mass. The overlying theme is public involvement at all levels otherwise we feel it will not work. Participants have to feel confident that the group is working in the public's best interest."

ARSG does use smaller workgroups to handle specific issues and activities. These workgroups meet more frequently as specific issues arise. Bill Simon notes that, "although these groups are open to the public, we try to limit the number of people who sit actively on those. We figure out who has strengths in what category. The workgroups can produce recommendations to the Stakeholders Group at large and then the stakeholder group decides whether or not to implement a program or to review that data." In early 1999, there are four public open workgroups focused on remediation, regulation, monitoring, and feasibility that produce recommendations to the larger group. ARSG then decides whether or not to implement that program or to review that data. The monitoring and feasibility groups are the most active and easiest to maintain. Other short-lived workgroups form as needed and then terminate (Simon, 1999).

Participants

ARSG consists of approximately thirty-five active members. Members include local government representatives from San Juan County, the City of Durango and the town of Silverton. Local landowners, local mining companies such as Echo Bay-Sunnyside Gold Mining, Silver Wing, and Gold King, the San Juan Historical Society, environmental organizations such as Friends of the Animas and River Watch, the general public, and the Southern Ute Tribe make up the remainder of local and regional interests. State Government representatives include Southwest Water Conservancy District, Colorado Department of Health, Colorado Division of Minerals and Geology, Colorado Division of Wildlife. Federal agency representatives include the U.S. Forest Service, U.S. Bureau of Reclamation, U.S. Bureau of Mines, U.S. Geological Survey, U.S. Bureau of Land Management (BLM), U.S. Environmental Protection Agency (EPA) (University of Colorado Natural Resource Law Center, 1996).

Funding

Funding and technical support for the group has been provided through Clean Water Act Section 319 non-point source funds, and EPA Headwaters Mine Waste grant, in-kind support from various federal agencies (USBR, BLM, USFS, USGS), a local water conservation district, local mining interests, a resource conservation and development district, and local students (CCEM, 1998). More recently, the group has received monetary donations from local contributors (Broetzman, 1999).

Outcomes¹

The Animas River Stakeholders Group has achieved a number of outcomes as part of a three-step process for watershed protection. These include the creation and consolidation of river monitoring data, feasibility and site characterization, as well as implementation and assistance with remediation activities.

- **Consolidating river monitoring data:** ARSG has not only developed a very extensive monitoring program to determine the chemical and biological condition of the streams throughout the watershed, they have developed and consolidated a database as well. The group has characterized all sources of leading including natural background sources. The watershed contains hundreds of abandoned metal loads. Water-quality data is being collected by numerous Animas River Stakeholders Group (ARSG) participants, some of which include:
 - ◆ A local student River Watch program
 - ◆ The U.S. Geological Survey
 - ◆ The Colorado Division of Minerals and Geology
 - ◆ Sunnyside Mine - Echo Bay
 - ◆ The U.S. Bureau of Reclamation
 - ◆ U.S. Bureau of Land Management
 - ◆ The U.S. Forest Service

¹ Information in this section is taken from ARSG webpage.

- ◆ The U.S. Environmental Protection Agency
 - ◆ The Colorado Division of Wildlife
- **Evaluating feasibility of cleanup actions and site characterization:** The ARSG evaluates sites throughout the watershed for feasibility of cleanup, researching the processes that work best in this area and to prioritize those sites for possible cleanup through a basin-wide, cost-effective remediation plan in cooperation with land owners. The stakeholders approach this task with an emphasis on the preservation of both cultural and naturally significant sites. Characterization of the basin will conclude in one year according to Bill Simon, the group's coordinator.
 - **Implementing and assisting with remediation activities:** Sunnyside Gold is conducting remediation of both of its properties as well as several other sites in the area. Sunnyside Gold, has cleaned up several sites in the Upper Animas Watershed. The remediation is part of a negotiated settlement with the State of Colorado that includes plugging and flooding the Sunnyside Mine. Gold King Mines put in diversions around three dumps and capped one. Other stakeholders have also led the way in implementing cleanups on their own properties.

Other outcomes

- Development of a method to assess not only the existing conditions for the streams through a limiting factors analysis but for potential aquatic life conditions for the streams through a limiting factors analysis that they have determined the biological potential for the streams. According to Bill Simon, "These efforts will focus their remediation efforts on specific constituents that limit aquatic life."

PART II: CHALLENGES AND OPPORTUNITIES

Why Collaboration?

Members of the Animas River Stakeholders Group have chosen to collaborate for a number of reasons:

- To avoid Superfund designation
- To empower local individuals

To avoid Superfund designation

Whether the Silverton area be designated a Superfund site was neither received favorably by locals and nor deemed practical for people like Greg Parsons of the Colorado Water Quality Control Board who felt local involvement to be pivotal to the success of cleaning up the basin. He also felt Superfund designation to be unrealistic given the institutional structures in place. In his words: "In addition to being counterproductive, a massive regulatory sweep of the area would not be realistic given the fact that state regulatory agencies do not have the resources to handle these problems." Peter Butler concurs: "The state regulatory agencies just do not have

the resources to handle these problems...and the only other way to handle it would be for the EPA to come in under Superfund." Bill Simon, the group's coordinator shares both insights and adds: "Dealing with abandoned mine issues is something new as it applies to the Clean Water Act. It is also a very contentious issue. We have the most severely impacted area in the U.S.... but because of Superfund and the possibility and the enormous negative implications it would have on our (tourist) area, I got involved. They came to me and wanted to know how to get everyone to the table."

To empower local individuals

Area residents see involvement in the collaborative process as a way to empower themselves and to best enable the community to participate in the decision-making process at both state and federal levels. In the words of county commissioner, Rich Perino: "...That is why I am involved, to see what is going to happen to the county. We really have no control and EPA keeps threatening." Local resident involvement has been difficult in some respects but in others it has helped the individuals become more comfortable with the process. Chris George speaks about his increased faith in the group. "For two years I avoided contact with the group and wanted to wait it out and see which way the wind was going to blow. I really did not care for what I had seen in Leadville and for the style of the EPA. But I finally decided to attend with the distrust of a Vietnam Veteran, have built up trust, and now have faith in the system. I hope this group is making history and it will be the way we do business. Although I can not speak for all landowners, the Stakeholders Group is the only intelligent answer to these problems" (George). And in the words of mining manager, Larry Perino: "I thought it was in everyone's best interest. It is better to be involved that to be on the sidelines."

Alternatives

Those interviewed offered a number of thoughts about what would have likely happened in the basin without the Animas River Stakeholders Group:

- Superfund designation
- Lack of interagency coordination
- Little local involvement

Superfund designation

The most obvious alternative to collaboration, according to landowners, mining representatives, and agency representatives alike is Superfund designation. Most landowners refer to it as the "monster." Indeed, The Upper Animas Basin was very high on the EPA's list for potential sites to designate as Superfund sites and the possibility for site designation still remains. In the words of Peter Butler, former representative of the Friends of the Animas River and current member of the Colorado Water Quality Control Commission: "There would have been more impetus for the EPA to designate the area as a Superfund site using Superfund money and I think it would have been disastrous. There is already a great deal of antagonism in the area towards government agencies and to be honest, I am not sure that they [government agencies] know what ought to be done."

Lack of interagency coordination

Several participants highlighted the fact that there little interagency coordination taking place in the basin and that agencies would even discredit each other's data. Mining representative, Steve Feran states that the Stakeholders Group has been a way to facilitate agency coordination. He notes: "We have really tried to coordinate the agencies. If we did not have the group tackling these issues, there would have been litigation plain and simple and a great deal of these issues would not have been answered as thoroughly."

Little local involvement

Greg Parsons highlights what he feels would have taken place without the formation of the ARSG: "WQCD would gather data, show up in front of the Water Quality Control Commission and argue with parties who had enough money to be represented by lawyers and had an interest in terms of being represented. We would have had a few fights with Sunnyside Gold and a few comments from the County but it would have been a battle. The battle would have been between us and the mining company, not the people who live in the valley. They would have had no say."

Advice

Those interviewed offered several suggestions for others considering whether and how to initiate a collaborative process. Advice includes advocating an open process, seeking public input, encouraging coordination and information sharing, and keeping an informal group:

- Peter Butler speaks to the issue of information sharing and coordination: "First of all it is important to provide a forum for agency cooperation. Another important role of the group is to provide data/information that everyone has access to rather than agencies just doing it on their own and being confronted with debates over which information is the most accurate."
- Greg Parsons stresses using public input as much as possible: "There is a big piece of public input that can best be served through collaborative processes. It is a means for agencies and citizens alike who are affected to weigh out approaches to problems."
- Bill Simon speaks to the mechanics of the group: "Make sure that everyone is at the table. Make the process all-inclusive. When you make mistakes, put them aside and move on. When I see an issue that cannot be resolved, I do not push for the issue to be resolved. We move on as a group and come back to the issue later on when we have had some distance from it."
- Steve Feran also speaks to group mechanics: "Have an informal group. This is very important. It is a group where everyone is equal and nobody is allowed to laugh at anyone else."
- A landowner offers a different perspective: "Make sure that you have a problem to start with. If you try to fund a project when there is really not a problem, it becomes political. In our case, projects such as with the instance in Howardsville where tailings that were

removed ended up damaging the stream for about 2.5 miles downstream, projects that have been done have actually harmed the river rather than helped it."

Ensuring Sufficient Representation

Ensuring sufficient representation has been a problem for ARSG from the beginning. A town proud of its mining history, it has been difficult to convince people to collaborate. Indeed, for many, collaborating is admitting to failure to take care of the natural resources in the basin. The following challenges have resulted:

Challenges

- Lack of landowner representation
- Uncomfortable environment for participation
- No trust with agencies

Lack of landowner representation

All people interviewed recognized the need for greater landowner representation (both local and absentee) in the Animas River Stakeholders Group. The issue of lack of representation has improved since the initial stages of the group, although the group remains agency dominated and has had a difficult time breaking out of this mold. Some landowners also indicated a lack of trust with both state and federal agencies.

Uncomfortable environment for participation

County Commissioners have been present throughout the process, but it has been difficult to get other citizens to come to the meetings. As Greg Parsons puts it, "They saw it as a bunch of bureaucrats getting together to decide our future so they did not see their place. The idea of a collaborative approach was something that was a little distant to them. They did not feel any empowerment and if they did show up, they felt technically overwhelmed." Nevertheless, as Carol Russell and Fred Clark both mention, it is their own decision as to whether or not they show up. With an open process, it is their own choice. You can't force it." Larry Perino also adds: "Although there could be greater landowner representation, nobody is excluded. That is important."

Peter Butler addresses the issue of absentee landowners in the Basin. He states, "A vast majority of the mining claim sites up in the Animas Basin are not owned by people around here, they are owned by people all around the country. A lot of people own sites that they have never seen. We have made a couple of mailings to people and have obtained county records of people but that does not always reach everybody." He also speaks to the landowners who still remain in the valley. "Distrust has subsided a bit but there are still landowners who come to the meetings and are disruptive. There is definitely an anti-government sentiment in this area. They are also afraid of the potential liability. Many people feel that government has come along and created a problem."

Carol Russell also speaks to the issue of absentee landowners: "One of the bigger challenges of the group is the summer-time residents. They go away for six months, come back, and are

anxiety ridden over the sweeping changes that the group has made without knowing the full context of those decisions. Generally, when they are away, they do not keep up with the group.”

Bill Simon, while aware of poor landowner representation, also feels that environmental representation is lacking as well. “The environmental faction is poorly represented in Colorado, in general, and the ones that are there are overworked. This is an ongoing problem. Fortunately, in the case of the Animas, the mining interests have not taken advantage of this. They could be in much more control of this process but I think that it is a good sign that the miners feel that the miners have gotten a fair opportunity. Nonetheless, environmental representation could be better.”

Lack of trust with agencies

Many participants do not trust state and federal agencies. In the words of Chris George, “One of the challenges of the group is that it has been difficult to develop a sufficient amount of trust on the part of landowners in working with agencies. We have everything to lose, for instance, while agency representatives will still have bread and butter on the table and will be able to send their kids to college. When we come to the table it is a crapshoot. They can ruin a guy like me overnight.”

Strategies

Participants in the Animas River Stakeholders Group try a variety of strategies for dealing with the challenges of representation, including these:

- Active recruitment
- Loose group structure
- Educational forums

Active recruitment

As coordinator of the group, Bill Simon addresses the concern of ensuring adequate representation through active recruitment of participants. It takes knowing your community so that he knows who to go to and when to maintain balance. He states: "When it gets out of balance, I try to find somebody or some group from the other side of the fence to come to a meeting and put forth the other side of the issue."

Loose group structure

Another strategy that has been adopted by all group members is to focus on keeping the process loose. Those interviewed feel that the loose structure has fostered greater involvement because someone feels that he or she can jump in at anytime. Larry Perino points out: "This has resulted in a slower process, but that it has been worth it."

Educational forums

The group also conducts a library series, which serves as a friendly non-intimidating forum to educate locals and out-of-town laypeople about the issues in the Animas Basin as well as the

activities of the Animas River Stakeholders Group. Each talk centers on a given issue and serves to clarify information discussed at the Stakeholder meetings. Although this series might not directly result in a greater community attendance record, these series are informative and provide a way for residents to learn about the issues without having to be at the meetings. Bill Simon points out that these meetings were very successful for the first year and a half and states: "The thought was, and still is, that people may be interested but may not want to participate in the political debate that stakeholder meetings encourage. Then too, the meetings tend to be focused on so many issues, acronyms are used extensively, and are dominated by state and federal representatives, whose involvement, although necessary, is not your local community friendly environment." He also notes that they are scheduled for this summer and will be scheduled right before the meetings so that people can leave if they want to.

Advice

Those interviewed offered several suggestions for others considering the issue of ensuring sufficient representation such seeking local input, keeping agencies in check, contacting politicians, knowing your community/constituency, and providing financial incentives for local participants:

- Carol Russell states: "Agency representatives have to must realize the importance of local input. Someone from DC telling a farmer, for instance, how to grow his wheat just does not work. At the same time, in order to protect the environment, people living in that environment have to care what exists around them or it will not work. It cannot be done from afar. Local residents must also have the ability to offer input and have say about decisions. Luckily each of our laws, has come a long way when it comes to public participation."
- Fred Clark suggests putting a check on the agency representatives. "Try to get the local property owners and local county government to get their act together and make sure that these government agencies do not go overboard. That is their tendency. They try to overplay the situation to justify their actions. The only thing that you can do is to counteract this and come back with the truth. Once you get this empowerment, more folks will come to the table."
- Rich Perino suggests that there are benefits in contacting to try to get them involved to see that there is fair and equitable representation of stakeholders at the table. "I went to McGinnis' [politician] office in Durango and said that someone needs to supervise the EPA and keep them under control."
- Bill Simon feels that it all goes back to the coordinator. "He/ she has to know their constituency/community. They need to know who to go to when they need to maintain that balance. Sometimes I may only go to a person once. I went and grabbed a guy from the Mineral Policy Center and boy did people shutter. But that is what I wanted them to do. I did not want them to think that they were operating in a vacuum and that the Mineral Policy Center was not looking over their shoulder at what they were doing. He never spoke a word but he was there and was very effective."

- Mike Black suggests financial incentives: "At these meetings it really ticked me off that I was one of the only people not getting paid. My advice is to provide citizen resources. Commitment of time and energy is not going to work out in the long term without providing these resources."

Accommodating Diverse Interests

The Animas River Stakeholders Group welcomes diverse interests and actively encourages everyone to bring their concerns to the table. Indeed, the reason it was created in the first place was through the realization that there was going to be a lot of concern at the local level about any desire to clean up the valley. Greg Parsons, key initiator of the idea of forming the collaborative group, felt that "instead of just collecting data and dumping it somewhere it would be better to get a sense of what the data meant to the public and try to approach it collaboratively and hear everyone's side."

Clearly diverse representation has slowed the process down, but, at the same time, as noted by Greg Parsons, it has also enhanced decision-making: "The compromises that we find in the valley are still within acceptable boundaries. Both monitoring and projects have been the right choices environmentally. I have not seen collaboration made up of poor choices." Bill Simon states: "I would rather have those guys who are weirdos at the table than for them to be looking from the outside in. They will be disruptive, slow the process, down. Let it slow down! Let it come to grinding halt. The diverse representation that slows down the process is what also helps get through the issues ultimately."

Although working collaboratively has its benefits, it also has confronted some challenges as well. They include:

Challenges

- Impatience
- Developing and maintaining trust
- Differing approaches to management

Impatience

Bill Simon speaks to the challenge of impatience by some group members. "Our biggest challenge is time. Everybody expects action. In our case we have 120 years of mining related damages and people want action right away. The challenge is in keeping the greater community patient and letting this process run its course."

Developing and maintaining trust

One of the bigger challenges to the group is convincing some that there is indeed an environmental problem in the Basin. For this reason, it has been hard to develop trust between agency representatives and local residents. As one participant states: "There is so much mineralization in the mountains, rocks, and streams, that you just can't do anything about it." Another participant spoke about tests conducted on baby fish three years ago where they were

put in plastic bags full of water from the Animas River. None of the fish died which further reinforced the participant's belief that Superfund designation was just another way for agencies to justify their budgets. He also mentioned the gold medal fishing in Durango and that the fishing there would not be of that caliber if there were such a problem.

Carol Russell points out the challenge she faces in trying to assuage participant's fears of Superfund designation given this lack of trust. One aspect of this powerful law, she highlights, is the degree of certainty that it will provide to landowners. For instance, it deals with the issue of liability. "There are some parts that you want and some parts that you don't but very few people in the Animas Basin see it this way."

Differing approaches to management

Some participants feel that agency management practices are not sensitive to local needs and are wasteful. Some participants, for example, tend to look at agency representatives particularly the EPA) as "the people from Washington" who are not in tune with local traditional natural resource management practices. One EPA representative even received a death threat.

Peter Butler speaks to the challenge of overcoming the local perception that government agencies are wasteful. "A lot of us feel that they have wasted a lot of money in that there are a lot of scientists running around to get money to do their little project that does not even wind up telling you anything. At the same time we do get a lot of money and resources coming in our direction."

Strategies

Members of the ARSG adopt the following strategies for dealing with the issue of accommodating diverse interests:

- Provide forums for information sharing, education, and addressing concerns
- Encourage after hours interaction
- Force action

Provide forums for information sharing, education, and addressing concerns

ARSG uses what they call a library series that serves as a friendly non-intimidating forum to educate locals and out-of-town lay-people about the issues in the Animas Basin as well as the activities of the Animas River Stakeholders Group. Although these are also used in part to get more people on board, they have also proven useful in assuaging participant fears that certain issues are not being brushed under the rug but rather are being explained to the community as a whole.

Encourage after hours interaction

ARSG meetings can run up to twelve hours, participants spend time together after hours and often grab a pizza or a beer. Getting to know each other after hours has been a way to get to know people and not just their interests.

Force Action

One reality of the Animas basin has been to use the threat of Superfund designation as way to convince people that it will serve them well to work together to provide management alternatives.

Advice

Group members offer the following advice accommodating diverse interests. They fall under the following themes of leadership, trust, local involvement, meeting structure, and issues:

- Peter Butler believes it all starts with proper leadership and relationship building: "You need to start out with a paid facilitator and someone who can handle the administrative tasks such as getting mailings out. Secondly, the group must do things together beyond the 12 hour enclosed meetings. Get out into the field as much as possible. Go out to lunch, dinner, or have a beer together."
- Carol Russell offers advice on something she, in hindsight, wishes the group had spent more time doing: "Build up more trust before the formal formation of the group. If you structure it right and build trust at the beginning, it will go a long way. In our case, too many people had little to no idea what was going on. More time should be spent identifying leaders and spokespeople within the community. Time should also be spent figuring out who will need a greater amount of persuasion to come to the meetings."
- Fred Clark speaks to the issue of local involvement. "Get property owners and the county government to attend the meetings and listen to what these folks [agencies] are going to do. Make your own decisions and then get up and fight for them."
- Larry Perino highlighted to the positive effect that meeting structure could have on an effective process: "Keep the meetings open. Do not turn anyone away. Make sure that all groups are represented, but limit the control and input of any one group. We have been lucky because we do not have any rabid interests on either side. The more rigid people there are, the less likely that the process will work out."
- As the coordinator, Bill Simon emphasizes the importance of working only on the issues on which you have consensus. "If you do not have consensus on an issue, do not push it. If you can't resolve them, don't. Move on." He adds: "You have to have patience. None of these issues came to be in a short period of time."

Dealing with Scientific Issues

Issues

The issues that fall under the umbrella of the Animas River Stakeholders Group include the following: Water quality issues as a result of mining activities and natural causes, threat of designation of the area as a Superfund site, brown trout. Mining sources include adits (mining tunnels), dumps, and tailings piles. These contribute to elevated metal loadings of zinc, copper, iron, aluminum, manganese, lead, and cadmium (CCEM, 1998).

Efforts of the Animas River Stakeholders Group built upon water quality data that was collected between 1991 and 1993. WQCD was facing a triennial review of water quality standards in the basin in September 1994 by the State Water Quality Control Commission. It

was the job of the Stakeholders group to think about what to do with the data. According to Greg Parsons, former non-point source coordinator for the Water Quality Control Division, "samples were collected from over 200 locations in the Upper Basin. From that monitoring, we gained the knowledge of where the generalized sources of loading were in the basin and what we thought was the potential to see some remediation to try to improve water quality."

Greg Parsons commented on the broad expertise of the local community: "One of my primary reflections with the Animas River Stakeholders Group is that I never anticipated that I would walk into a town this small and find the level of expertise involved. Their knowledge of the scientific and technical features of mining were very high obviously because it was a mining community that loved being a mining community. It was not a mining community that dreaded its past or its future. The people that lived there were very involved in wanting to be miners. Engineering, metallurgy, chemistry...what that meant was that there was a tremendous knowledge base from which to draw upon potential solutions."

The majority of those interviewed feel that scientific information has been adequately gathered. Indeed the system that the group has set up is systematic. There are challenges, however to adequately managing the scientific issues. They include:

Challenges

- Different perceptions of the nature of the problem
- Agency motives and integrity
- Verification of information
- Balancing the discussion

Different perceptions about the nature of the problem

Some people in the Animas basin have different perceptions of the nature of water quality degradation. In fact, some do not even feel that there is a problem at all. This is challenging for agency representatives who are trying to bring local residents up to speed about the scientific issues involved. Carol Russell states: "I find it difficult to argue with those at the table who simply say, 'there are fish there and you people from Washington can't tell me there aren't.' In this case no matter what the data says, they are not going to believe you."

Agency motives and integrity

Many residents do not trust the motives of government agencies. They feel that they are at liberty to pick and choose with which studies they will move forward. Some even feel that particular projects that agencies have headed up, instead of improving various sites have actually made them worse off. The following concern illustrates local concern of the motives and integrity of the involved agencies: "We have found that when some of the studies done have not been politically correct, we just do not hear from them and we find someone else who has taken their job. It is obvious that the agencies feel that they have to find something that is wrong in order to justify their work." He goes on: "A couple of years ago an aquatic scientist from Colorado State University did a study where he used day old rainbow trout. Rainbow trout are most susceptible to damage from metals. He demonstrated that these little trout lived in all of the flowing areas of the Animas River. He ended up needing another seven to eight

thousand dollars to complete the study, but conveniently, his funding was cut off and given to someone else. Again, a lot of us feel that the Denver EPA simply needs projects to justify budgets. Unfortunately the Animas River has become one of them."

Verification of information

Participants also feel that agencies tend to invalidate the findings of other agencies. With regard to interagency relations, one participant states that the EPA does not want to recognize the back ground data compiled by the USGS. With regard to site restoration, Rich Perino, the County Commissioner, is going to start charging the agencies road impact fees because "they are ruining our county roads. In addition to tearing up our historic mining sites, they are tearing up the roads in the process." And in the words of Chris George, "I do not see anything sinister, but I have seen a certain unwillingness of people at certain levels to not be happy with the data."

Balancing the discussion

Several participants have complained that meetings are often conducted using scientific language and acronyms that are intelligible to those with a less scientific background. Many participants, therefore, often choose to stay away from meetings because they feel like it is waste of their time given that they understand very little and could not voice their feelings and concerns.

Strategies

Members of the ARSG adopt the following strategies for dealing with scientific issues:

- Use work groups
- Avoid jargon or acronyms

Use work groups

ARSG divides into working groups that include people who are more familiar with specific issues such as mining tailings, chemistry of water quality, etc. They will obtain outside help to get a better understanding of an issue in some instances, but usually there is enough knowledge and expertise within the group. In addition to having set protocols, the group has a monitoring workgroup responsible for collecting all data and ensuring its quality. The various studies that are conducted are followed by presentations to the group as a whole. According to Bill Simon, "Everyone in the basin has to use the same quality control and assurance. It is all uniform raw scientific information that is gathered. You always run into obstacles such as data that does not make sense or a problem at the lab, but we use what we can. The challenge is really with interpretation." County Commissioner Rich Perino adds, "the USGS has done a really good job at collecting the background data."

Avoid jargon or acronyms

The use of jargon or acronyms by agency representatives and others with scientific backgrounds directly resulted in decreased incentive for others to actively participate in the group. Mike Black speaks to the complexity of science involved: "I was not understanding the

chemistry. The science was too complicated. You need to make it so that it is understood by everyone."

Advice

Several members offered the following advice such as educating participants, getting everyone to the table, using local talent, and having good data:

- Fred Clark takes the issue of local involvement a step further: "Make sure that the entire group understands what the studies are about so that actions taken can be justified. The county governments and property owners must understand so that they can take appropriate actions if necessary. Although most of the presentations it takes a real effort to really get into it."
- Peter Butler offers the following advice: "Make a conscious effort to get everyone involved when obtaining scientific information. Get everyone in on the ground floor as terms of how you are going to conduct the study, collect the data, and what it is going to represent."
- Greg Parsons speaks to the issue of data: "Have really good data to support your assumptions." Secondly, he concurs with Carol Russell's comments about the opportunities inherent in local knowledge: "Utilize the talents of the local residents. People like Steve Feran and Larry Perino were able to bring in a high level of technical skill and were involved in the both the scientific and technical end of designing studies."

Accommodating Diverse Capabilities

Although there are a range of diverse capabilities in the ARSG, the group has benefited from the fact that it is an entirely open process. There is a tremendous amount of knowledge that exists in the basin and the historic insight that residents are able to provide is invaluable. The group has come to realize, however, that another important factor regarding differing levels of knowledge, power, resources and skills has to do with personalities. One participant commented that things could change quite dramatically, however, when they get to the point where they start recommending standards.

Larry Perino sums up the reality of the situation: "The squeaky wheel gets the grease. The ones that speak up get heard the most and those people are probably the ones who are either the most knowledgeable on the subject or have most at stake. It is part of the democratic process. Nonetheless, the group makes a real effort not to intimidate anybody or to not listen to anybody. But sometimes someone is not happy. That is going to happen."

Participants highlighted the following challenges. Both directly relate to agencies:

Challenges

- Distrust in agencies
- Technically overwhelmed

Distrust in agencies

There are still those who in the Animas Basin who do not believe in the motives of government. While this sentiment is not pervasive, those who tend to feel this way are often the most vocal. Chris George for instance, makes the following observation: "If some guy way down on the totem pole has data that conflicts with agency policy, that guy could get fired or his data get shelved."

Rich Perino, who strongly distrust agency motives, has an additional complaint about agencies: "I am tired of the agencies blaming Congress for the Clean Water Act. They blame Congress for designating this a test site. That should not have been done without consulting the San Juan County government and residents because they ended up hurting the property owners."

Technically overwhelmed

Many participants feel that, consistently, meetings are too technical putting them at a disadvantage when it comes to decision-making time. In the words of Mike Black, a former participant and representative of regional environmental groups including Friends of the Animas: "I went to meetings for the first couple of years and then it was taking up too much of time. The meetings were getting too technical anyway. It seemed like the chemists took over. It also seemed like they were spending a lot of time and money on studies and that the studies were not all that necessary."

Strategies

Members of the ARSG adopt the following strategies for the issue of accommodating diverse capabilities. To date, not a great deal has been done to handle this issue:

- Use educational forums
- Encourage after hours interaction

Use educational forums

Forums for information sharing and education like the library series is a way for those who care about what ARSG is doing to participate in a less intimidating setting. It is the hope that after attending the library series or workshops that individuals will be more motivated to attend the general ARSG meetings and take a more active role.

Encourage after hours interaction

Like helping to accommodate diverse interests, after hours interaction is a way for group members to let down their guard and really get to know other participants-not just what they stand for. Socializing with agency representatives has been a way for some to get to know the person as a human being rather than just the agency representative.

Advice

Several members offered the following advice and reflections about how to best accommodate diverse capabilities. They fall under the themes of partnering, setting groundrules, writing letters, and being fair:

- From the environmental standpoint Peter Butler offers the following advice. "Usually the way it works is that the groups that have money and resources are going to be industry. Environmental groups can get more leverage if they work with government agencies. There are a lot of people in the governmental agencies that are real sympathetic to environmental standpoints. They may not say so publicly, but they will tell you an awful lot if you buttonhole them in a corner or sit down at lunch with them."
- Larry Perino offers the following advice: "Set ground-rules at the beginning such as mutual respect. Another word of advice is to participate! If you do not you will definitely not get heard. Your ideas will be ignored if nobody is aware of them."
- Fred Clark suggests letter writing as a positive communication technique: "When you are frustrated but feel that you need to collect your thoughts and think about what you are going to say, I suggest writing a letter. If there is something in which I do not agree with the EPA, then I write them a letter so that they have a record of it and so do I. That way they can respond at the next meeting."
- Greg Parsons sums up a number of points: "Treat people fairly. Approach meetings from a positive perspective. Give people an opportunity to voice opinions and respect each other (while realizing that this takes quite a bit of discipline)."
- Gary Broetzman states that it is important that the ideas come from the locals and that agencies should be prepared to take more of a backseat role. "That way you create local ownership and commitment to the process. In our case, you would not be able to draw upon and tap into that capability into the solution if you did not use them as an integral part of the solution."

Insights specific to this case

Challenges

Trust

One of the biggest challenges to the Animas River Stakeholders Group is lack of local trust towards the government agencies. Given the fact that there are several valley residents who do not feel that there is an environmental problem or feel that water quality degradation is a result of natural causes, the task of developing trust is somewhat monumental. Indeed, some local residents feel that the EPA is going to ruin the valley in their effort to take steps to improve water quality. These same residents also feel that they know their valley better than any outside

agency ever could. What is even more intriguing, is that these skeptics include people of substantial power in the area, including the current County Commissioner and member of ARSG. This dynamic may make it difficult for the group to achieve success when the group is really put to the test.

Abandoned mining site issue

The abandoned mining site issue is an interesting challenge for a number of reasons. First, as explained above, has to do with the issue of absentee landowners. Second, pertains to the role of mining companies relative to their obligations to clean up past mining sites. The third reason has to do with the role of the Department of Reclamation with its obligations as an agency to handle active sites as opposed to abandoned mining sites. The Department of Reclamation has a severe shortage of staff resources to let alone handle active mining sites let alone abandoned sites. These three factors culminate into a situation where there is no organized management plan for effectively handling abandoned mining sites like the ones in the Animas basin. Sunnyside mine is currently picking up their site as well as several other sites, although not until after much prodding from agencies like the EPA.

Preponderance of agency representatives

Although most participants voiced concerns of an imbalance of agency representatives to that of local representatives, in the initial stages of the group, concerns remain that this imbalance still exists. This seems to be fueling local skepticism as to the motives of agency representatives and is certainly resulting in local frustration. Common complaints are that meetings are "over the heads" of laypeople due to its technical nature. The other effect of using technical lingo is that, in addition to being complicated for locals, meetings are viewed as boring. This makes meetings more of a burden for residents to attend as often and for as long as the meetings run.

Is anything really getting done?

Several participants stated that although the threat of Superfund exists, not much has been accomplished since the formation of ARSG and that there needs to be someone present who is forcing the issue. The concern is founded upon the original studies that were conducted in the basin in the early 1990's. Mike Black ties in this lack of accomplishment to the Clean Water Act: "You have got this Clean Water Act and other legislation in the state and it should be followed. You still need a big hammer over everyone's head to see that something actually gets done."

Sources:

Animas River Stakeholders Group, *Animas River Stakeholders Group*. Retrieved January 9, 1999 from the World Wide Web: <http://www.waterinfo.org/arsg/>.

Colorado Center for Environmental Management, *Animas River Collaborative Watershed Project: 1995 Status Report*, Denver: 1995.

Colorado Center for Environmental Management, *Community-Based Environmental Decision-Making for Western Watersheds*, Denver: 1998.

University of Colorado Natural Resources Law Center, The Watershed Source Book: Watershed-based Solutions to Natural Resource Problems, Boulder, CO, 1996. pp. 2.197-2.199.