

# RIVERS AMONG US: LOCAL WATERSHED PRESERVATION AND RESOURCE MANAGEMENT IN THE WESTERN UNITED STATES

BY MICHAEL HARRINGTON AND CHRISTOPHER A. HARTWELL

## Executive Summary

Watershed resource management initiatives are benefiting from a new perspective in state and local environmental management that emphasizes:

- Problem solving as opposed to punishment;
- Balancing competing interests and goals;
- Compliance flexibility;
- Private-sector incentives; and
- Local, decentralized decision making.

One or more of these elements have contributed to the success of noteworthy watershed cases:

- In California's Feather River basin in 1985, a concerned history teacher named John Schramel gathered a coalition of anglers, business owners, government officials, and environmental activists around his dining room table. Schramel formed the Feather River Alliance (FRA) as a means of restoring some of the local creeks and watersheds.
- In Idaho's Henry's Fork basin in the summer of 1993, a sediment spill from Island Park Reservoir threatened the health of the river's famed trout. This spill motivated the Henry's Fork Foundation and the Fremont-Madison Irrigation District to put aside their differences and pledge to work together to restore and enhance watershed resources where needed.
- By the end of the 1980s, local organizations, concerned that the continuing development and subdivisions along Montana's Blackfoot River threatened their rural way of life, formed the Blackfoot Challenge to discuss new approaches to management of the river.
- In Montana's Upper Clark Fork River basin, a neutral third party, the Northern Lights Institute, stepped in to coordinate a voluntary agreement allowing the basin's water users and managers to develop a basin-management plan.

Several lessons can be gleaned from these watershed-management initiatives:

- *Local Priorities, Local Knowledge:* Volunteer projects only work when the volunteers set the priorities. A “top-down” approach is likely to be inappropriate. The impetus for change must come from those directly affected by the watershed. Only local players will know local preferences, and these may differ from those promulgated in state capitals or in Washington, D.C.
- *Legalized Local Authority:* A way of enabling local interests is through legislation. In the case of the Upper Clark Fork River, the environment for bringing groups together was created through legislative means. Rather than following a predetermined set of values imposed from above, the principle of balancing competing goals is set forth in state law.
- *Private Conservation Incentives:* Where water law limits the use of water for environmental purposes, establishing instream flows as a “beneficial use” opens up opportunities for leasing or trading of water rights by current users.
- *Broad-based Involvement:* The major actors involved in a watershed must all be included in any attempt to formulate a management plan. Round table discussions, town meetings, and public notices are an important way to spread the word and insure that all interested parties are represented. Repeated interactions help to diffuse distrust and allow groups with opposing interests to learn the other’s point of view.
- *Organization:* Having a staff (or even just one person) whose sole task is to coordinate the players involved makes it easier to resolve conflict and initiate projects. Some level of formal organization also helps in procuring funding sources.
- *Funding Sources:* Generating funding from within provides incentives for users to protect their investment, and makes it more difficult for an outside entity to encroach on local priorities. One such mechanism is through watershed user fees charged to adjacent landowners and other users. Other approaches suggested for financing these projects outside of grants include fees imposed on downstream users and imposition of per-acre-foot surcharges.
- *Avoiding Political Disputes:* With so many disparate interests involved, there is bound to be friction over specific policies. Watershed groups should seek to unite, not divide over particular projects and problem-solving efforts. This does not suggest that debates should be stifled; rather, it suggests that watershed groups should remain publicly neutral on potentially divisive issues and be selective in the issues they do choose to tackle.
- *Incremental Success:* Achieving initial small successes can be critical for the success of a watershed group. These successes build a foundation for further, more elaborate cooperation in the future.
- *Publicity:* Once success is achieved (or even before), it’s important to get the word out, and let the community know what the group is up to and what improvements have been made. A newsletter, fact sheet, or even some form of membership can communicate these details.

While each of the initiatives explored in this study had logistic or political problems, by relying on a more decentralized system, taking advantage of local concerns, and utilizing incentives for involvement, these watershed initiatives represent a major step towards more cooperative, results-focused environmental policy that incorporates local values, local knowledge, and enhances private stewardship.

## Part 1

# The Challenge of Watershed Management

One of the most obvious and intractable difficulties in managing many environmental problems is that they respect no borders. Air, water, and wildlife are natural resources that often make otherwise isolated communities interdependent. Watersheds are a prime example of this interdependence, as they encompass areas that cross national, state, and legal boundaries.

Water resources present a special problem for management, as they are critical to communities for economic, social, recreational, and biological reasons. A variety of downstream industries such as farming, ranching, and recreation depend on water resources for their operations. Residential areas also rely on water supply and quality to sustain their communities and lifestyles, and depend on proper management of water resources to mitigate the effects of droughts and floods.

This study explores several watershed resource management initiatives from a new perspective in state and local environmental management. This new perspective emphasizes:

- Problem solving as opposed to punishment;
- Balancing competing interests and goals;
- Compliance flexibility;
- Private-sector incentives; and
- Local, decentralized decision making.<sup>1</sup>

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<sup>1</sup> Lynn Scarlett, *New Environmentalism*, Policy Report 201 (Washington, D.C.: National Center for Policy Analysis, January 1997). See also Alexander Volokh, Lynn Scarlett, and Scott Bush, *Race to the Top: The Innovative Face of State Environmental Management*, Policy Study 239 (Los Angeles: Reason Public Policy Institute, February 1998).

**Part 2**

# What is a Watershed?

A watershed is an area of land from which all the incoming water drains to a common destination, such as a stream, pond, lake, river, wetland, or estuary.<sup>2</sup> Watersheds can be as small as a few acres that run off into a farm pond. They can also be large enough to encompass several states, such as the Colorado River basin that flows through four western states, or the Mississippi River basin that flows through most of the central states. Smaller watersheds are frequently nested within larger watersheds as streams and ponds empty downstream into larger rivers and lakes.

Watersheds are intricately balanced natural ecosystems. Many problems in watersheds result from changes in the environment wrought by nature or man-made development and include flooding, drought, degradation of farm land, and pollution. Point-source pollution is easily identified at its source—whether it be a smokestack, a particular firm’s effluent, or an entire industry’s waste-disposal practice. In contrast, nonpoint-source pollution originates from various dispersed sources, such as agriculture, forestry, mining, development, and transportation development through the building of roads and railroads.

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<sup>2</sup> Definition from “Clean Water in Your Watershed: A Citizens Guide to Watershed Protection,” Terrene Institute, #2, 1993; reprinted in *The Watershed Source Book* (Colorado: University of Colorado, Natural Resources Law Center, 1995).

## Part 3

# Water Rights and Local Control

The problems of water resource management are complicated by arcane and inconsistent laws pertaining to water rights. Water-rights legislation exerts economic incentive effects on resource use and management, and these incentives may be at odds with environmental policy goals.<sup>3</sup> A general summary of the development of water-rights legislation across the western states illustrates some of the problems facing current efforts at local watershed management.

Water rights initially evolved from English common law under the Doctrine of Riparian Rights.<sup>4</sup> Under this doctrine, land proprietors have equal rights to the use of water flowing adjacent to their properties, according to the natural flow, without diminution or alteration. This water right can only be held by riparian owners, must be shared coequally among all other riparian owners, and prohibits the alteration or diversion of the stream.

This law, originally developed in areas of abundant rainfall and navigable waters, was unsuited to arid areas where water scarcity was paramount, such as the American West, where the doctrine would also have prohibited diversion of water for irrigation projects. Another limit of this doctrine was the correlative rights clause, which had two important stipulations:

1. In the event that the demand for groundwater exceeded the supply, all overlaying owners were to reduce their use on a coequal basis.
2. In cases where supplies exceed the reasonable needs of overlaying landowners, water could be put to nonoverlaying uses.<sup>5</sup>

The correlative-rights clause would have required the frequent transfer and sharing of rights with an expanding number of users. As a result of these problems, western pioneers either rejected or modified the clause. The pioneers relied more on spontaneous watershed governance to deal with the gap in water laws, effecting local solutions by groups that were “self-motivated, spontaneous, and self-contained.”<sup>6</sup>

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<sup>3</sup> The following discussion is summarized from several excellent reference sources on water-rights law: Donald J. Pisani, *Water Land and Law in the West* (Lawrence, KS: University Press of Kansas, 1996); David H. Getches, *Water Law in a Nutshell* (St. Paul, MN: West Publishing Co., 1984); and Robert G. Dunbar, *Forging New Rights in Western Waters* (Lincoln, NB: University of Nebraska Press, 1983).

<sup>4</sup> “Riparian” refers to the areas immediately adjacent to rivers or streams.

<sup>5</sup> This definition is taken from Terry L. Anderson (ed.), *Water Rights: Scarce Resource Allocation, Bureaucracy, and the Environment* (San Francisco: Pacific Studies in Public Policy, 1983).

<sup>6</sup> Karl Hess Jr., ecologist, interview with the authors, March 3, 1999.

Starting in California with the Gold Rush, western legislatures adopted a competing doctrine called the Doctrine of Prior Appropriation, which has become the basis of most water-rights statutes in the western states.<sup>7</sup> This doctrine has four basic principles:

1. The right of use can be acquired by appropriation;
2. The one first in time is the one first in right;
3. The appropriation must be for some beneficial use, or the right ceases;
4. The owner of the right may divert or alter the flow if others are not injured by such change.

Prior appropriation established water as a commodity with distinct property rights based on seniority. Without these principles, the capital needed to transform the West into a region of dams and canals might not have been raised. However, the Doctrine of Prior Appropriation had its own limitations—the “use it or lose it” stipulation, combined with the difficulty of selling or transferring those rights for remuneration, created perverse incentives to consume excessive amounts of water to maintain the right. Users had little incentive to save water or to divert usage for conservation purposes. This inadvertent outcome has incited strong criticism and aroused the ire of environmental activists and other public-interest advocates.

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<sup>7</sup> The doctrine of prior appropriation has been adopted predominantly in the arid states, including Alaska, Arizona, Colorado, Idaho, Montana, Nevada, New Mexico, Utah, and Wyoming. Twenty-nine eastern and southern states retain the doctrine of riparian rights while the remainder have hybrid systems that adopt prior appropriation while preserving existing riparian rights. These hybrid states are California, Kansas, Mississippi, Nebraska, North and South Dakota, Oklahoma, Oregon, Texas, and Washington.

## Part 4

# Watershed-based Approaches

The interdependence of upstream runoffs and downstream tributaries and basins, all connected by a continuous moving body of water, makes watershed boundaries a practical and logical unit of analysis for the management of water resources. Unfortunately, these watershed boundaries do not often correspond with politically defined resource-management units based on state, county, municipal, tribal borders, or private property. Political, social, and legal problems are common when water resources fall under multiple jurisdictions and owners.

Efficient and effective environmental management requires that the information regarding environmental changes and problems quickly reaches the relevant decisionmakers. Achieving this alignment between decision-making authority and environmental problem boundaries is a central challenge of environmental management. Some of the approaches discussed here accomplish this by facilitating the flow of information upward and by devolving control downward. To a great extent this is what watershed initiatives have attempted and succeeded in doing in two ways: by improving the coordination of information between local groups and federal and state agencies, and by devolving much of the decision-making, administrative and monitoring control, and implementation tasks down to the local level.

Traditional watershed regulatory approaches have suffered from a one-size-fits-all approach, with the U.S. Environmental Protection Agency (EPA) imposing a national standard for water quality without taking into account local needs or preferences. Even though the Clean Water Act itself specifically states that “federal agencies shall cooperate with State and local agencies to develop comprehensive solutions to prevent, reduce and eliminate pollution in concert with programs for managing water resources,” more often than not the federal solution has dominated state and local ideas.<sup>8</sup>

The inherent characteristics and problems of watersheds and watershed-management efforts suggest that grassroots initiatives offer a more results-focused, decentralized approach to environmental policy that respects private landowner rights and concerns. To illustrate this premise we will discuss the development and experience of watershed initiatives in several western states enacted over the past decade, including:

1. Feather River, California—The Feather River Alliance and the Coordinated Resource Management Group
2. Upper Clark Fork River, Montana—Northern Lights Institute
3. Henry’s Fork, Idaho – Henry’s Fork Watershed Council
4. Blackfoot River, Montana—The Blackfoot Challenge

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<sup>8</sup> The delineation of responsibilities is spelled out explicitly in U.S. Code, Title 33, Section 1251 (g). For a discussion on the state-federal relationship in enforcing the Clean Water Act, see Terry L. Anderson and Donald R. Leal, *Free Market Environmentalism* (San Francisco: Pacific Research Institute, 1991).

## Part 5

# Private-sector Involvement: The Feather River Approach

The citizens who accrue environmental costs and benefits of watersheds are primarily those who live on and use the land and resources in question—the local people who drink the water, fish in the streams, and irrigate farm fields with water resources.<sup>9</sup> Thus, the private landowner, business proprietor, and local resident have the greatest incentives to manage resources efficiently and successfully for the long-term health of the community. This is not to say that each participant has the same objectives and goals, but they should have the greatest motivation to converge on some policy approach and to implement actions in the most efficient manner. But do local groups have adequate means to implement chosen management strategies? Private-sector initiatives, by working with concerned groups and helping to finance improvements to watersheds, offer an important implementation option.

In California's Feather River basin in 1985, Pacific Gas and Electric (PG&E) discovered that 250,000 cubic yards of silt was piling up behind its dams. This excessive sedimentation had reduced reservoir capacities and damaged power-generation equipment, increasing the cost of producing electricity. PG&E originally planned to follow standard operating procedure and hire a dredging company to remove the silt. But a concerned history teacher named John Schramel, county supervisor of Plumas County, proposed that the money earmarked for the dredging be put to use in erosion-abatement programs instead. Gathering a coalition of anglers, business owners, government officials, and environmental activists around his dining room table, Schramel formed the Feather River Alliance (FRA) as a means to restore some of the local creeks and watersheds.<sup>10</sup>

The Feather River Alliance example stands out as a way to get private industry involved in a wider watershed-based cooperative effort. Before the Feather River Alliance was proposed as an alternative, PG&E was negotiating an \$80 million dredging contract to clear out the excessive sedimentation in its reservoirs.<sup>11</sup> But this would have been only an expensive temporary solution to the problem, “an awfully expensive Band-Aid.”<sup>12</sup> The alliance offered the possibility of addressing upstream sources of the problem at Red Clover Creek (albeit over a much smaller area than the dredging operation would have covered), at less cost while creating local jobs. PG&E agreed to give the fledgling group a trial run in the Red Clover Creek, and the

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<sup>9</sup> Of course, the costs of watersheds affect more than just those in a particular area. One of the justifications for federal regulation was that it protected against “communities that often let their waste flow down the watershed to others.” Correspondence with DeWitt John, National Academy of Public Administration, March 26, 1999.

<sup>10</sup> Herbert E. McLean, “Come Back Cool Stream,” *American Forests*, vol. 100 no.3-4 (March 1994), p. 17.

<sup>11</sup> *Ibid.*

<sup>12</sup> *Ibid.*



FRA, financed by PG&E and the California Department of Fish and Game, created four check dams to combat the sedimentation. These were accomplished with a PG&E grant of \$35,000 per year and a U.S. Forestry Service grant of \$15,000 per year.

The Red Clover Creek project was a success, as the dams helped to trap sediment during severe flooding in 1986. The transformation of the landscape was also a dramatic accomplishment:

*On Red Clover Creek, a series of underwater barriers designed to catch sediment has transformed a barren range riddled with sagebrush into a wet meadow lush with wildflowers and waist-high grasses, geese, herons, and sandhill cranes.<sup>13</sup>*

The environmental impact of the Red Clover Creek project was more apparent than the economic benefit, however, as Jim Wilcox of the Plumas Corporation noted:

*The project was real site-specific, and there are difficulties extrapolating from these results. It wasn't the ideal research project, and I think PG&E overplayed the benefits. But the real goal [of the project] was to get the whole initiative going, to act more or less as a catalyst.<sup>14</sup>*

In this respect, the project was a success, as it led to institutionalizing the local approach to solving problems. The Feather River Alliance was on its way.<sup>15</sup>

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## A. Moving Towards An Institution

The Coordinated Resource Management Group (CRMG) grew out of the Feather River Alliance and is the institutional basis for local community involvement in protecting the watershed. Evolved from the ad hoc group motivated by John Schramel's enthusiasm, the CRMG is a professional organization with a salaried and dedicated staff. The CRMG's mission focus exemplifies the new approach to watersheds:<sup>16</sup>

- *The CRMG works on the cumulative watershed effects on water quality, desertification, and reductions in biodiversity on public and private lands.*
- *The CRMG uses education, innovative restoration technology, and demonstration projects to encourage cooperation and participation, rather than regulatory approaches.*
- *The CRMG realizes that enlightened self-interest and a long-term investment horizon are necessary attributes for achieving solutions that are economically and environmentally sustainable.*

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<sup>13</sup> Jane Braxton Little, "A Watery Issue: Water Supply in California," *American Forests*, vol. 103 no. 1 (January 1, 1997), p. 14.

<sup>14</sup> James Wilcox, Project Coordinator, Plumas Corporation, interview with authors, September 14, 1998.

<sup>15</sup> Jane Braxton Little, "The Feather River Alliance," *Chronicle of Community*, vol. 2 no. 1 (Autumn 1997), pp. 5-14.

<sup>16</sup> The Feather River Coordinated Resource Management Group, Organization Profile, Fact Sheet #1, January 1997.

- *The CRMG works on solutions which can be monitored for ecosystem recovery using ecological function and succession criteria.*
- *The CRMG works on solutions where monitoring will influence long-term sustainable management strategies for restored resources.*

The key words outlining the organizational objectives of this watershed initiative (and of initiatives in general) are *participation* and *cooperation*, made possible because of shared interests. The aim of participation is to foster a climate of political inclusion and control over the process of water resource management utilizing nonregulatory means. The commitment to participate is voluntary, and therefore participation is most beneficial to those individuals with long-term interests in the watershed community. This commitment over time increases the stakes of participants in the organizational process, which strengthens the long-term continuity and permanence of the organization.

Wide participation by community members also insures comprehensive and balanced representation of interests in the planning and decision-making process. Participation and inclusion facilitate cooperation and convergence on important issues by establishing an open and fair forum for negotiation and building trust. This cooperation can be contagious, as was the case with the Feather River Alliance. The proof that such an undertaking could work spurred the formation of similar groups, such as the Quincy Library group, described as “an equally odd alliance of environmentalists, elected officials, and timber industry officials, who took their name from the only neutral place they could originally agree to meet.”<sup>17</sup>

The Quincy Group also sought to enhance the local economy while focusing on environmental protection, utilizing many of the same tactics that the Feather River group had pioneered.<sup>18</sup> By blazing the trail in consensus building, the Feather River Alliance set an example for other resource groups to emulate.

## B. Building a Bridge to Cooperation

One of the basic foundations of cooperation and consensus is trust. Trust among negotiating parties can be enhanced by familiarity bred through frequent interaction and the long-run convergence of resource-management objectives. Building trust is also facilitated by face-to-face contact through local institutions, such as the intimacy of John Schramel’s kitchen table meetings.

A major obstacle to breeding this familiarity and trust is the high transaction cost in getting individuals together and having them agree on a course of action. Especially in the case of the Feather River, it seemed nearly impossible to clear a spot on everyone’s calendar for regular meetings, much less to reach the consensus that the group required for action. The Feather River Alliance and the Coordinated Resource Management Group conceded that, in the early stages of the groups’ activity, the problem of reaching a consensus may have hampered progress. In the case of Greenhorn Creek, where the Feather River Group recreated the natural meanders of the stream to control erosion and improve the fishery, Jim Wilcox, project

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<sup>17</sup> Little, “The Feather River Alliance,” p. 11.

<sup>18</sup> The Quincy Library Group ran into problems, however, when outside organizations such as the Natural Resources Defense Council and The Wilderness Society objected to some of the group’s decisions. This shows that responsible environmental management initiatives, while based on local initiatives and knowledge, can still draw the ire of national groups. Source: Quincy Library Group web site, [http://www.qlg.org/public\\_html/bill/nrdc01.htm](http://www.qlg.org/public_html/bill/nrdc01.htm).

coordinator for the Feather River Group, noted that: “We spent six months pounding those cobbles on Greenhorn Creek and haggling over design parameters.”<sup>19</sup>

Yet reaching consensus was not an insurmountable obstacle. With the benefit of over twelve years of work on the river, Wilcox states that the consensus process has gotten “quite a bit easier because of the trust that’s been established.”<sup>20</sup> Repeated interactions among the participants involved has reduced the time needed to achieve a consensus. Furthermore, in terms of opportunity costs, Wilcox notes:

*It would take a year for a good-sized project from beginning of design development to [reach] the point where it’s ready to start building (that’s the shortest time frame), but what we found is if you don’t [build a consensus] it’s gonna take a year or more in the public review process. Most people are amazed that we can put together a project within a year and half, including permits. Some of it can be cumbersome, some of it can be quite direct, but because of history of the CRM[G], the directness is recognized for. . . a desire to have the best possible project on the ground.<sup>21</sup>*

The Feather River CRMG structure includes three main committees: the Executive Committee, Management Committee, and Steering Committee. The Executive Committee handles policy guidance and dispute resolution. The Management Committee administers projects. The Steering Committee approves projects, reviews program status, and interacts with private landowners. All decisions made by the Steering Committee require a consensus before any project is undertaken. Approved projects are supported by Technical Advisory Committees made up of resource specialists, landowners, and anyone with a specific economic interest in the site. Implementation and funding requests are coordinated by the local, nonprofit economic development corporation, the Plumas Corporation. This institutional structure is fairly elaborate, reflecting more than twelve years of collaborative efforts.

These institutional rules, norms, and structures have established a procedural process and continuity to watershed-management efforts on the Feather River. Sometimes the most obvious and simple precedents are the most important: the Feather River Alliance began in 1985 with an ad-hoc meeting where one of the few goals participants could agree upon was to meet again. And they did, again and again, until they established a permanent organizational presence with long-term goals and widespread community support.<sup>22</sup>

## C. If Only the Money Flowed Like Water...

The Feather River case touches on a major theme in the continued success of watershed initiatives: mainly, where does the funding come from? Most watershed initiatives to date have been funded by a consortium of government and private grants. The Clean Water Act provides for several grant programs administered through the U.S. Environmental Protection Agency (EPA). These include nonpoint-source grants (section 319); state revolving loan funds (section 604b); watershed planning grants (section 604b); and national estuary program grants (section 320). In addition, a large number of state environmental agency grants are available. Typically, watershed groups will secure pilot funding from the EPA or a state agency and then develop additional outside sources of funding for continuing operations. But funding resources are only

<sup>19</sup> “From Gridlock to Solutions in Plumas County,” *Chronicle of Community*, vol. 2., no. 1 (Autumn 1997), p. 12.

<sup>20</sup> James Wilcox, Project Coordinator, Plumas Corporation, interview with authors, September 14, 1998.

<sup>21</sup> Ibid.

<sup>22</sup> Little, “The Feather River Alliance,” p. 7.

limited by the imagination of fund raisers.<sup>23</sup> Corporate sources, such as PG&E and Patagonia, have supported watershed efforts for the economic benefits accruing to core business interests. The Yakima River Watershed Council and the Santa Monica Bay Restoration Project have raised funds from membership and community contributions. A typical erosion-control project such as the Greenhorn Creek Trout Habitat Enhancement Project under the Feather River Alliance secured financing from three federal agencies, seven state agencies, one county agency, two business firms, and numerous landowners. The project was funded for a total of \$406,050. This type of funding is largely secured through a grant application process that is neither obvious nor familiar to most grassroots organizations. To this end, the growing use of the Internet as an information resource is a boon to watershed initiatives. The Internet, with its wide reach and minimal cost, is a natural medium for grassroots information sharing.

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But funding is not always an easy task for watershed-management projects. The Feather River Alliance case highlights the difficulty of watershed groups in obtaining backing for their efforts. The grant approach to funding is usually on a project-by-project basis and lends an ad hoc air to some watershed groups. According to Leah Wills, an economist with the Plumas Corporation and the coordinator of the CRMG, “The Feather River Alliance has no strategic plan on a landscape scale, due to the fact that each project requires a separate grant application with no assurance that it will be funded.”<sup>24</sup>

While PG&E has contributed over \$1 million since 1985 to the Feather River, no private corporation or state agency has guaranteed long-term funding. Indeed, PG&E itself is starting to question the continued financial support of the CRMG, simply because it is difficult to measure the impact that they are making on PG&E’s operations.<sup>25</sup>

Several approaches have been suggested for financing these projects outside of grants, including fees imposed on downstream users and imposition of per-acre-foot surcharges.

Another often-cited solution is the imposition of taxes, rather than fees, where revenues raised from one source (such as a gasoline or cigarette tax) are utilized for watershed-management programs. Taxes are a heavy-handed instrument, however, as they remove the link between the costs and benefits of running a watershed and the people involved. With internal funding mechanisms (such as user fees), those that actually derive benefits from the watershed are charged for usage, rather than those who may reside miles and counties away. Tying watershed-management initiatives to user fees also forces the managers of those initiatives to operate under a hard budget constraint: every project the group undertakes must be measured in terms of the benefit it will bring for its cost. Finally, funding that is internal to the watershed provides a degree of autonomy from federal and even state decision-making entities. Rather than having federal hands

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<sup>23</sup> DeWitt John of the National Academy of Public Administration has noted that it’s generally easier to find funding for the planning stage of watershed initiatives, while it’s more difficult to procure dollars for implementation. Correspondence with the author, March 26, 1999.

<sup>24</sup> Little, “A Watery Issue: Water Supply in California,” p. 14.

<sup>25</sup> Steven Nevares, Pacific Gas and Electric, interview with the authors, September 14, 1998.

on the purse strings, directing priorities, the watershed groups can decide for themselves what their community needs.

One of the most promising innovations for financing draws on incentives provided to property owners if these restoration projects are undertaken. If upstream work can reduce downstream flooding, “that freedom from flooding... would be worth money to property owners.”<sup>26</sup> Seen as a form of insurance, property owners would thus be charged a small amount to protect their lands from flooding. This approach would also avoid a mandated and regulatory solution and allow some owners to opt out of the insurance scheme. Those that did join would be financing the work of groups such as the Feather River Alliance.

## D. Spreading the Message

Fulfilling the need for education and information is an important function of watershed organizations. Education about environmental issues is one of the key building blocks to devising broad-based and balanced solutions to actual problems. Watershed organizations accomplish this by providing a forum for the exchange of site-specific information or data-gathering and public discussions. Most watershed organizations have an administrative staff to report on proceedings and debates of the councils through newsletters and informational brochures. Public lectures and local news releases stimulate community interest and participation. Visibility is a crucial factor in the success of a watershed council’s efforts to mobilize local resources and remain viable. One of the keys to the Feather River Alliance’s success was that it had a paid program coordinator from the outset, a person who could devote all of her time to disseminating information and organizing meetings. Leah Willis, the Feather River Alliance’s coordinator, is credited with being “the glue that held [the Alliance] together in the early days.”<sup>27</sup>

## E. Lessons

The Feather River Alliance and the Coordinated Resource Management Group illustrates how local initiatives can involve people from many different walks of life and solicit participation from the private sector. While the long-term viability of the CRMG is in some doubt (due to funding challenges), the projects that it has undertaken to date have reduced erosion and actively involved the community in protecting watersheds in ways that incorporate multiple interests and take into account specific local circumstances.

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<sup>26</sup> “Who Pays for Watershed Work?”, *Chronicle of Community*, vol. 2, no. 1 (Autumn 1997), p. 14.

<sup>27</sup> John Schramel, quoted in “From Gridlock to Solutions in Plumas County.”

**Part 6**

# Decentralized Decision Making

A major stumbling block in watershed maintenance is the regulatory overlap that has accumulated over the past 30 years. Public agencies at the federal, state, county, and local municipal levels regulate, manage, and enforce environmental policies and laws, often with very little vertical or horizontal coordination. To give an idea of how widely dispersed federal regulatory decision making can be, some of the federal agencies involved in environmental decisions include the Bureau of Land Management, the Army Corps of Engineers, the Bureau of Reclamation, the Fish and Wildlife Service, the Forest Service, the Natural Resources Conservation Service, the Environmental Protection Agency, the Farm Services Agency, the Department of Agriculture, and the Office of Geological Surveys. Many of the functions of these agencies are duplicated at the state level with some additional functions fulfilled by departments of conservation, transportation, water resources, environmental quality, and parks and recreation. At the county and local level a plethora of agencies exist according to the particular needs of the community. These include county development commissions, school districts, conservation districts, natural resource councils, tribal councils, irrigation districts, and others.

Multiple jurisdictions can, and often do, create a confusing medley of conflicting policy and regulatory directives. This medley of jurisdictions increases the uncertainty over control and accountability over policymaking and can lead to initiatives at odds with other goals (such as preserving instream flows while at the same time pushing for economic development). Overlapping jurisdictions also create institutional vehicles for conflicting interests. For instance, lobbyists may use a state or federal agency to override dominant local interests. In such cases, outcomes are decided by potentially inconsistent court rulings. Another conflict often arises between state and federal governments over the adjudication of water laws. Both the supremacy and commerce clauses of the U.S. Constitution may override state laws over the usage and property rights of water resources.

The potential for conflict is considerable, and often the result is wasteful and ineffective water resource management and persistent political acrimony. Historically, the policy response has been to subordinate narrow local interests to federal or state legislative directives under the oversight authority of a federal agency, such as the EPA. Dissatisfaction with this approach to water resource management has led to a variety of local, grassroots efforts to create more participation and cooperation. In the Feather River case, a teacher with a vision was able to craft an institution to help his community. Other watershed-based approaches have utilized third parties to bring conflicting parties together.

## A. An Upper Clark Fork in the Road

The Upper Clark Fork River basin in Montana has been heavily utilized over the past hundred years for mining and smelting purposes, and the water was steadily degraded by the impacts of population and development. In fact, 140 miles of the Clark Fork River, from Butte to Milltown, Montana (just upstream of Missoula and just below the confluence of the Blackfoot), make up the largest Superfund site in America.<sup>28</sup> By the mid-1980s, copper and zinc concentrations in the water were high enough to be toxic to fish, and logging operations in the area were causing soil erosion and stripping vegetation from the stream banks.

In 1985, environmental groups pleaded with Montana's Department of Fish, Wildlife, and Parks (DFWP) to initiate conservation efforts to increase instream flows to protect fish and wildlife habitats. The impetus for this plan was a proposal by a paper mill to increase the amount of emissions it was producing through a new surface-water right permit. Worried about the effect this mill would have on the trout populations of the river, the DFWP agreed to put in a claim to reserve these water rights.

The DFWP's conservation effort would have halted all development in the basin, setting aside the water as a nature conservancy. While it was championed by environmental groups, the Montana DFWP's effort incensed irrigators from the area, who saw the state's attempt to mandate instream flow as menacing to their operations; without a supply of water, the irrigators would be put out of business.<sup>29</sup> Furthermore, the Granite Conservation District, an organization of irrigators, had simultaneously applied to reserve water on the Upper Clark Fork for two new storage projects for future irrigation.

The two sides' proposals were mutually incompatible, and the only source of redress was a hearing to determine which proposal would be implemented. Gerald Mueller, the facilitator for the Upper Clark Fork Steering Committee, summed up the situation:

*There's only one avenue other than water rights, short of legislative action, a water-reservation process that allows public agencies to reserve water for future use. We saw it first in the Yellowstone basin, then in the upper Missouri, then for Upper Clark Fork. Other entities than public agencies can also apply to reserve water. [In 1985] the Granite Conservation District applied for this for two new dams. Applications from the Granite District and DFWP were in conflict, and no one knew who was going to win. It was a zero-sum game.<sup>30</sup>*

An earlier hearing on the Missouri River had cost over \$1 million in legal fees only to result in the DFWP's victory. Many agricultural folks were worried that this precedent would be repeated in this dispute and that any legal means of redress they sought would eventually be decided on the side of the public agencies. Seeking to avoid a protracted legal battle, the Northern Lights Institute, a neutral third party, stepped in to coordinate a voluntary agreement allowing the basin's water users and managers to develop a basin management plan.

In order to formulate a management plan that took into account the interests of all the users, a closure of the basin to all new water rights was agreed upon. This suggestion came not from environmental activists but from those who utilized the river in their daily operations: "One of the ag[ricultural] folks suggested there may

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<sup>28</sup> The Clark Fork Pen Oreille Coalition web site, <http://www.montana.com/cfpoc/coalition.html>.

<sup>29</sup> Ibid.

<sup>30</sup> Gerald Mueller, Upper Clark Fork River Basin Steering Committee, interview with the authors, September 15, 1998.

be a way to avoid a contested hearing by closing new rights on the river; some ag folks were willing to think about that, as they thought the basin was already overallocated.”<sup>31</sup>

Don Snow of the Northern Lights Institute explained what happened next:

*That’s when our project began. We entered the uncertainty of this instream flow dispute. We suggested, you guys could fight it out and get a winner-loser situation, where what’s good for the river becomes secondary to whether one of you beats the other. . . . So we got people together, trying to think about instream flows. . . . Could we get instream flows through a voluntary method, not through the onerous burden of a mandate?*<sup>32</sup>

The collaborative approach taken by the Northern Lights Institute placed actual improvements in the environment over the process of obtaining permits or winning legal battles. As a former attorney for the DFWP phrased it:

*I looked back at my 10 years of litigation. Some of our cases went to the Supreme Court. But I felt that all I had accomplished was a pile of papers. Were the resources really in better shape?*<sup>33</sup>

The Northern Lights Institute attempted to reconcile the conflict over instream flows in the Clark Fork Basin in Montana with a groundbreaking proposal. Classifying instream flows as a beneficial use would allow for a mechanism that would spur incentives for prudent water use while maintaining existing property rights structures. This had been done by statute in 1973:

*The problem was that you could not purchase or lease or otherwise transfer old water rights into instream flow rights. The best you could get was a new water right for instream flows – that is, a post-1973 water right (since that’s the date when the state added them as “beneficial uses”). . . . The important, and subtle, point here is that Northern Lights Institute saw the proclamation of instream flows in the Clark Fork to be a futile proposition, since there was no unallocated water in the river.*<sup>34</sup>

The proposal that the Northern Lights Institute floated was a system of annual leasing agreements to the water in the basin rather than the sale of a right. A lease agreement would allow temporary transfer of the old (pre-1973) water rights, a boon to holders of those rights in dry years, when the value of the water would rise. The lease rather than the sale of rights would allay the fears of ranchers and irrigators of losing prior claims to those rights and yet still allow them to be remunerated for conserving water. This would preserve instream flows to maintain wildlife habitats according to (and paid for by) conservation groups or public agencies. It was a strikingly successful compromise for all involved:

*The successful instream flow petition on the Missouri was not merely a victory for “public agencies” (in this case the Montana DFWP); it was at least as much a victory for pro-instream flow environmentalists, of whom there are many in Montana. The instream flow petitions that have been brought forward by DFWP come with a great deal of public support; they are not merely concoctions of a single public agency.*<sup>35</sup>

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<sup>31</sup> Ibid.

<sup>32</sup> Donald Snow, Executive Director, Northern Lights Institute, interview with the authors, January 29, 1998.

<sup>33</sup> Eileen Shore, quoted in Janet Maughan, “Taming Troubled Water: How Meditation Triumphed over Confrontation in Shaping the Future of Montana’s Storied Clark Fork River,” Ford Foundation Report, Summer 1994.

<sup>34</sup> Donald Snow, correspondence with the authors, February 18, 1999.

<sup>35</sup> Ibid.



In order to implement these ideas, the Upper Clark Fork needed to have an institution to bring together conflicting interests and allow them to work together. A Steering Committee was called for in the original Clark Fork legislation, and a 21-member organization charged with drafting the management plan for the basin was appointed by the Montana Department of Natural Resources and Conservation (DNRC).<sup>36</sup> This initial contact among historically antagonistic parties has grown into an ongoing forum, now composed of members from disparate groups such as environmental interests, hydroelectric utilities, ranchers, and farmers. The personal contacts that have emerged through the years of interaction have proven invaluable to finding a solution to the Clark Fork's problems: "It's hard to sue someone you sit next to the first Wednesday of every month, talking over good fishing spots and the threat of real-estate development in the area."<sup>37</sup>

Don Snow succinctly summed up the success of the local approach:

*That was our Clark Fork project, now in its 9<sup>th</sup> year, this group of fellow travelers that turned into a council of 21 members, held together as a cohesive entity for 8-9 years, developed a water management plan for the Clark Fork basin (completely on its own authority), gave this plan to the Montana State legislature, asked for it to be ratified, and the legislature did.*<sup>38</sup>

The management plan was ratified as Montana Senate Bill 434, which identified the following goals:<sup>39</sup>

- To provide for continued planning and management of the waters of the Upper Clark Fork Basin rooted at the local level; and
- To balance all of the basin's beneficial water uses.

This deliberately broad phrasing allows the Steering Committee to use its local knowledge and repeated interactions to find flexible ways to protect the watershed. It also represented a major step forward for watershed management, as it enshrined the principle of balancing competing goals in the state's legislation.

## B. Difficulties and Obstacles

Cooperative efforts such as the Upper Clark Fork's Steering Committee do not come without a price, however, and consensus-building can be very time-consuming. As the National Academy of Public Administration noted in a 1997 report:

*It is time consuming and demanding to sit in a room with adversaries and listen carefully as they explain their current positions and underlying interests. . . . Collaborative processes are particularly hard on citizens and other volunteers who are not paid to participate. The time they spend on the process is often taken away from leisure or from their jobs. Burnout is always a threat to the continuation of a collaborative process.*<sup>40</sup>

<sup>36</sup> Ibid.

<sup>37</sup> Donald Snow, quoted in Maughan, "Taming Troubled Water."

<sup>38</sup> Ibid.

<sup>39</sup> Senate Bill 434, listed in *The Watershed Source Book*, pp. 2-49.

<sup>40</sup> *Resolving the Paradox of Environmental Protection: An Agenda for Congress, EPA, and the States* (Washington, D.C.: National Academy of Public Administration, September 1997), p. 56.

The case of the Upper Clark Fork River Steering Committee clearly demonstrated the time demands placed on local initiatives. Building the social capital needed to complete the management plan was an arduous process, due to the number of actors involved:

*Collaborative decision-making only works when all parties feel it's their last resort. The Steering Committee has been very successful so far. . . . We work to achieve a consensus, and the committee was selected to include reps from entire basin, ARCO, DFWP, all interests involved. But it wasn't easy to develop that relationship.*<sup>41</sup>

It was difficult to involve the public and all the interests engaged as well. As an analyst from the Ford Foundation, one of the organizations that funded the initiative, noted:

*Although there was a great outcry when the DFWP proposed to reserve water rights, it has not been easy to attract the public to the many meetings necessary to draft a complex plan for a large river basin. Ranchers do not work 9-to-5 jobs and citizen and environmental groups rely on harried volunteers.*<sup>42</sup>

The groups did not warm to each other immediately, either. As Bruce Farling, representative of the Clark Fork Coalition put it, “the first few meetings were tense and stiff. No one trusted anyone and there was a lot of posturing.”<sup>43</sup>

After overcoming the initial awkwardness and the pervasive distrust, however, bonds were forged that enabled the group to reach a consensus on the plan. The Steering Committee met monthly throughout this period, and after four years of regular meetings:

*. . . many of the citizens as well as bureaucrats were not unhappy when it became clear that there was less for the Steering Committee to do. While the process itself was valuable and the members valued their experience and believed in the results, they were happy to have some time off.*<sup>44</sup>

The opportunity costs of the plan itself ran high among some ranchers. The original agreement signed by members of the committee in 1991 called for closure of the basin and halting the water-reservation process while a management plan was formulated. This plan was not completed and adopted until 1995, thus forestalling all irrigation and hydroelectric work utilizing the river.<sup>45</sup> Some people in the basin were not willing to forsake their water for this plan:

*This is the last bastion of “this is my water right and you can't touch it.” A lot of ranchers aren't ready to consider the possibility that we can leave some of the water in the stream and still irrigate.*<sup>46</sup>

On the whole, however, the Upper Clark Fork Steering Committee found the challenges it had to deal with could be surmounted within the group, supplanting a regulatory and legal framework with personal interaction.

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<sup>41</sup> Mueller, interview with the authors, September 15, 1998.

<sup>42</sup> Maughan, “Taming Troubled Waters.”

<sup>43</sup> Bruce Farling, representative of the Clark Fork Coalition, quoted in Maughan, “Taming Troubled Waters.”

<sup>44</sup> *Resolving the Paradox of Environmental Protection: An Agenda for Congress, EPA, and the States.*

<sup>45</sup> “Upper Clark Fork River Basin Steering Committee,” Community-Based Watershed Groups of Montana Web site; [btc.montana.edu/scripts/](http://btc.montana.edu/scripts/)

<sup>46</sup> Jo Brunner, retired irrigator, quoted in Maughan, “Taming Troubled Waters.”

## Part 7

# Balancing Competing Goals

Competition over water use is not always a zero-sum game among users, but there are problems of cooperation, consensus building, and negotiation over priorities that must be resolved within the watershed community. This is especially true when there are real conflicts over competing resource uses, as was seen in the Upper Clark Fork. With a plethora of competing interests such as power-generating companies, timber harvesters, mining companies, farmers, ranchers, recreational users, hunting and fishing enthusiasts, scientists and educators, conservation groups, and home developers, to name just a few, getting agreement on any issue appeared to be a hopeless task. In such cases, an institutional structure that can clearly delineate property rights is needed in order to foster cooperation. The issue then becomes a question of where the institutional control will reside—at the federal, state, or local level. There are tradeoffs involved, but grassroots institutions can often facilitate cooperation and consensus (even in the presence of real differences over values and differing interests), while more remote groups often lead to a more adversarial outcome.

Conflict resolution in and of itself should not be the motivating factor for watershed-management initiatives; real improvements to the environment must be seen for these arrangements to be successful. An excellent example of consensus that is making a difference in environmental outcomes comes from Minnesota. The Rahr Malting Company, after much debate and negotiation with the Minnesota Pollution Control Agency (MPCA) and local environmental activists, was allowed to shift its pollution allowances among different discharges, in effect utilizing an internal pollutant-trading system. The company was not allowed to exceed the Minnesota River's pollutant loadings, and so Rahr reduced discharges from its other sources by as much as its planned expansion (the addition of a new wastewater treatment plant) would create. This achieved an overall lower pollution loading than would have occurred under the old system: 1.5 million gallons were to be discharged per day (the same rate discharged under the old system), but concentrations of the parameters that determine oxygen demand (the concern of the MPCA and the environmental activists) were lower; facing the "tightest restriction in the state," the biological oxygen demand limit was set at 12 mg/liter (approx. 150 pounds per day).<sup>47</sup> If the original system had continued, Rahr would have continued to send its treatment to the Blue Lake Facility, where the loading was 25 mg/liter, thus producing higher oxygen demand in the river, harming aquatic life. State involvement in a local effort had played a beneficial mediation role.

Outside intervention into uniquely local conditions and seemingly arbitrary decisions imposed at the federal level add to an unnecessary climate of uncertainty and mistrust of the policy-making process. Private

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<sup>47</sup> Biological oxygen demand (BOD) refers to the amount of oxygen that would be consumed if all the organic particles in one liter of water were oxidized by bacteria and protozoa. It is a measure of the concentration of organic contaminants in the water.

landowners and business owners have often been skeptical of the interventions of government bureaucratic agencies as well as radical environmental groups and vice versa. This wariness has impeded cooperation on both sides of issues and retarded progress towards convergent solutions. A prime example of this wariness occurred in the Upper Clark Fork Steering Committee, where one rancher said he “would shoot any DFWP employee who set foot on his property.”<sup>48</sup>

In another example, in Jefferson County, Colorado, local planning commissioners rejected a U.S. Forest Service proposal to designate portions of the South Platte River to wild and scenic status. This designation would affect water rights without regard to local uses and was perceived by residents as an intrusion of the federal government into local resource management. Some of the comments of the commissioners expressed this sentiment quite clearly. Commissioner Michelle Lawrence said, “As far as I’m concerned, this whole movement from the federal government is to take over our water rights here in Colorado, and I don’t think they should be telling us what to do.”<sup>49</sup>

Commissioner Pat Holloway agreed, saying, “as a fifth-generation Westerner, I feel exactly the same way: (The federal government) can butt out.”<sup>50</sup> Commissioner John Stone added, “The bottom line is having us run this river with local people instead of Washington calling the shots.”<sup>51</sup>

In contrast, at the local level some conflicts result more from misunderstandings than from a fundamental disagreement over environmental policy goals. One activist recalls the adversarial relationship he expected between ranchers and environmental groups over predator issues involving mountain lions in Arizona. However, when the two groups met and agreed to speak of goals and visions, they discovered that their goals were remarkably compatible:

*We talked about what our goals were, what our vision was for the land, for our community, for our quality of life. People that I never thought I would be able to agree with on anything were saying that they wanted the same thing as me. . . . We were building a community, a small community, but one based on trust and respect and shared goals.*<sup>52</sup>

## A. The Henry’s Fork Example

The Henry’s Fork basin of the Snake River in Idaho was once a fantastic habitat for trout, providing a home for some of the best fishing in the northwest. Covering 1.7 million acres and including part of Yellowstone National Park, the Henry’s Fork basin helped to irrigate 235,000 acres of farmland throughout the region. Beyond the utilization of the water itself, the river helped to generate economic benefits for the community through tourism and recreation.

Like many other watersheds in the American west, however, Henry’s Fork had been stressed by demands placed upon it by irrigators and ranchers. Residents generally recognized problems of degradation of the

<sup>48</sup> Quoted in Maughan, “Taming Troubled Waters.”

<sup>49</sup> *Rocky Mountain News*, July 2, 1997, p. 26A.

<sup>50</sup> *Ibid.*

<sup>51</sup> *Ibid.*

<sup>52</sup> Dan Dagget, “More Powerful than Politics,” Keynote Address, Proceedings of the Third Annual State of the Watershed Conference, Henry’s Fork Watershed Council, Rexburg, ID, October 22, 1996.

rivers due to increased population and economic development of the area. Concern over planned development of seven hydroelectric plants spurred the creation of the Henry's Fork Foundation in 1984, a conservation group dedicated to preserving the wildlife in the river.

The focusing event for environmental groups was a disaster on the river in 1984:

*The reservoir got drawn down way too low at the top of the watershed, and an immense amount of silt left the reservoir and went down into Henry's Fork. Now that's one of the largest and purest spring source rivers in the world, a trout fishing paradise, one of nature's finest incubators of coldwater salmon on the planet, and a large portion was now plugged with silt. That was the instigator for the Henry's Fork watershed association. It was [also] a PR disaster for the irrigators.<sup>53</sup>*

This disaster highlighted one of the major threats to watersheds today, and that is the proliferation of nonpoint-source pollution. Because of the interdependent nature of watersheds and the indirect effects of diffuse pollution sources, it is difficult to assign responsibility for nonpoint-source pollution. Thus, nonpoint-source pollution demands a more comprehensive and complex process of watershed management.

So far this study has explored two approaches to watershed management: in the Feather River Alliance, an entirely new organization was formed to bring together disparate groups and institutionalize cooperation. Taking another angle, the Upper Clark Fork Steering Committee was also a new organization, but one that was formed because of the impetus of a third, neutral party. In order to combat nonpoint-source pollution in Henry's Fork, another approach was suggested: utilizing existing structures to coordinate the actions of the relevant parties.

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Conflict resolution in and of itself should not be the motivating factor for watershed management initiatives; real improvements to the environment must be seen for these arrangements to be successful.

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## **B. Maximizing What You've Got**

This coordinating approach to watershed management suggested the marriage of watershed organizations with the traditional, existing institution of the county conservation district. Local conservation districts date from the 1930s when soil conservation was a high public priority to counter the disastrous ecological effects of the Dust Bowl. Nearly 3,000 conservation districts were established and have continued to coordinate efforts to develop locally driven solutions to natural resource concerns. The conservation districts' governing boards, made up of elected or appointed volunteers, funnel public funding and technical assistance to private-land managers. Thus, the existing institution of the conservation district provided a natural partnership for watershed-management initiatives.

Helping to protect the Henry's Fork River seemed to be an ideal opportunity to put this approach into practice. There was a long-standing conservation district in the area, and the need to help conserve the water was generally acknowledged. There remained only one obstacle: the Henry's Fork Foundation's approach

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<sup>53</sup> Snow, interview with the authors.

was adamantly opposed by the Fremont-Madison Irrigation District, which had been protecting the interests of the irrigators for some 60 years. Much as in the case of the Upper Clark Fork watershed, the irrigators and the environmental activists strongly objected to each other's plans for the river.

The lack of cooperation and trust among the conflicting groups was apparent in the manner in which the groups squared off. Janice Brown, executive director of the Henry's Fork Foundation, remembers the acrimonious summer of 1991, when the Henry's Fork Basin Plan was being debated in the Idaho legislature: "It was a bloody battle. There were death threats to people who were trying to support our cause. People were threatened with the loss of their jobs if they supported this environmental effort. No one liked it."<sup>54</sup>

A crisis situation finally reconciled the two groups. In the summer of 1993, following an unusually dry year, a sediment spill from Island Park Reservoir threatened the health of the river's famed trout fishing. This spill forced the Henry's Fork Foundation and the Fremont-Madison Irrigation District to put aside their differences and pledge to work together to restore and enhance watershed resources where needed.<sup>55</sup> As Dale Swensen, manager of the Fremont-Madison Irrigation District said, "I guess you have to let enough blood to get to this point."<sup>56</sup>

The result of this dual effort was the development of the Henry's Fork Watershed Council, an informal committee comprising 60 organizations that has spearheaded management initiatives on the river.

*In the past, we were formidable enemies. Now, once a month, we sit in a circle, begin with three minutes of silence, reflect on why we're together, and then begin frank and open discussion. We abide by certain rules: No personal attacks. Be respectful of one another. Make "I" statements. In this way, we arrive at consensus.*<sup>57</sup>

Staff at the Watershed Council pointed toward the inclusion of many disparate interests as their greatest accomplishment: an ongoing project to restore the Sheraton River was "a shining star for the council; it was very uncontroversial, but it had groups of several different interests that were involved."<sup>58</sup>

As happens with many of the watershed initiatives discussed above, the initial effort to control a specific problem soon expanded to encompass a variety of issues such as water quality, flood control, wildlife conservation, recreational use, and the pace of development. For example, the mission statement of Henry's Fork Watershed Council reflects this expansion:

*The Henry's Fork Watershed Council is a grassroots community forum which uses a nonadversarial, consensus-based approach to problem solving and conflict resolution among citizens, scientists and agencies with varied perspectives. The Council is taking the initiative to better appreciate the complex watershed relationships in the Henry's Fork Basin, to restore and enhance watershed resources where needed, and to maintain a sustainable watershed resource base for future generations. In addressing social, economic and environmental concerns in the basin, Council members will respectfully cooperate and coordinate with one another and abide by federal, state and local laws and regulations.*<sup>59</sup>

<sup>54</sup> David Johnson, "Council Helps Diverse Users Make Peace," *Idaho Falls Post Register*, August 6, 1995, p. A6.

<sup>55</sup> Snow, interview with the authors.

<sup>56</sup> Johnson, "Council Helps Diverse Users Make Peace."

<sup>57</sup> Dale Swensen, director of the Fremont-Madison Irrigation District, Andrus Center/*Idaho Falls Post Register* Conference on the Future of the Snake River, December 3, 1995.

<sup>58</sup> Susan Steinman, Henry's Fork Watershed Council, interview with the authors, December 22, 1998.

<sup>59</sup> "The Henry's Fork Watershed," from {it.}Achieving Results Community By Community: A National Satellite Video Conference{it.}, June 12, 1996, located on EPA web site: <http://www.epa.gov/owow/wtr1/watershed/Proceed/plenary/hfork.html>.

However, mitigation and litigation of conflicts is an ongoing enterprise. An attempt to model a new watershed group in Southfork, Idaho, was based upon the successful Henry's Fork Watershed Council. Conservationists and environmental groups initiated the effort, which incited the opposition of irrigators. These opposition forces encouraged the participation of local residents to counter the environmental activists and take over the council board. In March 1998, a county legislator proposed a bill to strengthen the hands of local interests by requiring that only local residents might serve on a watershed advisory group. This conflict reflects the political obstacles in defining local residency and in establishing control of a watershed that spans several communities, counties, or even states.

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Because of the interdependent nature of watersheds and the indirect effects of diffuse pollution sources, it is difficult to assign responsibility for nonpoint-source pollution.

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### C. Organizing the Balancing Act

*How* watershed management initiatives are organized is just as important as *why*. In the case of Henry's Fork, there were many obstacles:

*Lots of blaming of irrigators, potato farmers running amok, shouting and screaming started. To their credit, though, the folks in Idaho decided they needed to deal with the problem, they needed a system of greater cooperation, better communication, and overall concern for the river . . . it's one of the poster children of watershed work.*<sup>60</sup>

The importance of organizational structure in managing common-access resources such as water was noted by political scientists Elinor Ostrom, James Walker, and Roy Gardner in their work *Covenants With and Without a Sword*. Making the case for local control of resources, they note that individual participants can reach an agreement that is more efficient than an imposed outcome, if the participants "have sufficient information to pose and solve the allocation problems they face. They must also have an arena where they can discuss joint strategies and perhaps implement monitoring and sanctioning."<sup>61</sup>

To insure cooperation and convergence through the reconciliation of sometimes incompatible goals, watershed initiatives have developed a host of institutional mechanisms, such as formal and informal rules and norms, to govern the decision-making process and provide this context. These rules and norms are embodied in explicit institutional structures that establish administrative procedures, insure wide participation and inclusion in the watershed planning and management process, and insure monitoring and cooperative behavior in the group.

There is no set framework for how to organize a watershed institution. The three cases discussed above have featured several variations on a theme: the Feather River Alliance and its successor, the CRMG, created an arena for private-sector involvement in environmental improvement. In both the Upper Clark Fork River and Henry's Fork, warring factions were brought together to solve their common access problem, creating

<sup>60</sup> Snow, interview with the authors.

<sup>61</sup> Elinor Ostrom, James Walker, and Roy Gardner, "Covenants With and Without a Sword: Self-Governance is Possible," in Terry L. Anderson and Randy T. Simmons (eds.), *The Political Economy of Customs and Culture* (Maryland: Rowman & Littlefield, 1993), p. 149.

committees to discuss these strategies and their implementation. The actual group structure can range far and wide, but groups successful in organizing and governing themselves are often marked by the following principles:

1. Group boundaries are clearly defined;
2. Rules governing the use of collective goods are well matched to local needs and conditions;
3. Most individuals affected by these rules can participate in modifying the rules;
4. The rights of community members to devise their own rules is respected by external authorities;
5. A system for monitoring member's behavior exists and is undertaken by the community members themselves;
6. A graduated system of sanctions is used;
7. Community members have access to low-cost conflict-resolution mechanisms.<sup>62</sup>

Henry's Fork Watershed Council is less formally structured than the Upper Clark Fork approach or the Feather River CRMG, but it still reflects a strong working structure. The council is made up of four committees: a Citizen's Group, Technical Team, Agency Roundtable, and Facilitation Team. These committees fulfill certain functional roles in the project-development process. The Citizen's Group oversees the representation of varied interests in agency proposals. The Technical Team provides technical and scientific input to the process, while the Agency Roundtable is a forum for agency coordination and jurisdictional issues. The Facilitation Team attends to the administrative and logistical needs of the council. As foundation President Bill Manlove described the members of the council, "The board will be selecting up to 40 members with a capital 'M', each with a particular expertise to assist in fending off current and future problems."<sup>63</sup>

The Henry's Fork Council also has run into its share of procedural problems. With over 60 organizations represented at every meeting, and the proclamation that "consensus rather than majority rule is critical to the process," the council risks collapsing under the weight of its own membership.<sup>64</sup> Getting such a large number of participants to agree makes for laborious negotiations and long hours; yet, if consensus is reached, the rights and interests of all those involved are respected.

For the most part, the Upper Clark Fork, Henry's Fork, and Feather River cases led to institutions that took on a life of their own, and provide regular forums for exchange of ideas and communication. Yet not every watershed approach has been so formalized. Sometimes, in terms of problem-solving, just having a meeting place for interested members is enough.

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<sup>62</sup> Elinor Ostrom, *Governing the Commons: The Evolution of Institutions for Collective Action* (New York: Cambridge University Press, 1990).

<sup>63</sup> Quoted in "Citizens Hope to Protect Famous Idaho Trout Stream," *UPI Newswire*, December 15, 1984.

<sup>64</sup> David Johnson, "Council Helps Diverse Users Make Peace."



## Part 8

# An Orientation Towards Problem-solving

Most water-resource management efforts that focus on water quality and maintenance of natural habitats use simple, low-tech techniques that are more labor intensive than capital or knowledge intensive. People are the most important input in this process, and voluntarism is one of the more-important characteristics of watershed management. The Feather River Alliance might never have gotten off the ground if John Schramel had not been willing to bring people to his kitchen table. Likewise, without the dedication of the Northern Lights Institute, there might still be bloody battles over the Upper Clark Fork watershed.

Voluntarism often derives from decentralization or localization of efforts. Grassroots public support infuses a sense of responsibility, accountability, and initiative among members of the community who have the most at stake in environmental policy. Participation by a wide range of local interests facilitates the gathering and dissemination of critical information and shifts the focus of watershed management away from punitive measures and compliance towards problem solving.

Several factors favor a local approach for solving problems in watershed management. First, upstream mountain runoffs usually originate in sparsely populated areas with limited economic development, confined to logging, mining, and limited recreation. Downstream, in valleys and meadows, population density and resource use increases, but usually not in a dramatic fashion. For example, the Blackfoot River watershed in Montana encompasses 1.5 million acres but contains a total of only seven separate communities and 2,500 households. The social and community dynamic of relatively small rural communities makes for politics built on personal relationships, where sanctions imposed by an outside agency may retard, rather than facilitate, improvement in the water quality. The politics of cooperation and compromise over resource management require an element of trust that is difficult to engender through a distant federal or state bureaucracy, as in the case of the Upper Clark Fork ranchers' reaction to DFWP employees.

## A. The Blackfoot Runs Through It

The Blackfoot River in Montana achieved the pinnacle of environmental notoriety in 1976 with Norman MacLean's novella, *A River Runs Through It*:

*[W]hen one of us referred to "the big river," the other knew it was the Big Blackfoot. It isn't the biggest river we fished, but it is the most powerful, and per pound, so are its fish. It runs straight and hard—on a*

*map or from an airplane it is almost a straight line running due west from the headwaters. . . . It runs hard all the way.*<sup>65</sup>

The river had long been prized for its fishing and recreational value, as folks came from all over the region for camping and hunting. The Blackfoot also had a long history of industrial use as well, as mining began in the watershed in 1865, and heavy logging activity occurred at the beginning of the 20th century. This extensive use of the river resulted in a steady degradation of water quality, so that by the end of the 1980s the Blackfoot was plagued by sedimentation and heavy metals loadings in the upper reaches of the river. While mining has substantially decreased in the Blackfoot area, operations that have long-since ceased are still a continuing source of pollution. In a prime example, the Mike Horse Mine in the upper reaches had operated from 1919 to 1953 and, after closure, had its contaminated water held behind a dam. In 1975, that dam burst, allowing 100 thousand tons of water that was laden with metal to drain into the Blackfoot and harm the trout population.

Local landowners and organizations, concerned that the continuing development and abandoned mines along the river threatened the river's viability, looked for a solution to the Blackfoot watershed's problems. As the U.S. Department of Fish and Wildlife noted:

*Much of the degraded and threatened habitat occurs on private land. Local landowners were worried about the state of the [River]. . . their concerns centered around losing a rural way of life, as large family ranches are split up and sold off for development purposes. Unsustainable land-use practices, subdivisions and commercial development posed a common threat to both wildlife habitat and rural lifestyles, thus giving everyone motivation and ownership in finding solutions to the problem.*<sup>66</sup>

The local approach had been attempted before in the Blackfoot River Valley, as the late 1960s and '70s saw private arrangements emerge to combat perceived abuses of hunters and river users (boaters and rafters) on private property. The state of Montana helped enforce these agreements, beginning a partnership among the local authorities, small landowners, and the Department of Fish and Game (subsequently renamed the Department of Fish, Wildlife, and Parks).

However, these ad hoc and uncoordinated initiatives were not enough to put a serious dent in the problems that the river faced. An environmental advocacy group, the Montana Environmental Information Center (MEIC), arranged a symposium at Lubrecht State Forest in 1991 to bring together the varied interests, including the federal government (in the guise of the Fish and Wildlife Service, or FWS). This initial contact evolved over the next two years into the Blackfoot Challenge, often meeting in settings as informal as Trixi's Restaurant and Bar in Ovando, Montana.<sup>67</sup> Spurred on by the environmental group Trout Unlimited, the Challenge "brought together people who often can't long remain in the same room: ranchers, environmentalists, timber and mining industry representatives, [and] staffers from state and federal agencies."<sup>68</sup>

The Blackfoot Challenge was formally chartered in 1993 and began its life as a nonprofit organization in 1994. A purely voluntary organization lacking even formal membership rules, the Challenge serves as an information clearinghouse, providing monthly steering committee meetings, fax/electronic mail linkage, and

<sup>65</sup> Norman MacLean, *A River Runs Through It* (Chicago: University of Chicago Press, 1989).

<sup>66</sup> Montana Partners for Fish and Wildlife, "The Blackfoot Challenge," U.S. Fish and Wildlife Service web site, <http://www.r6.fws.gov/pfw/MONTANA/MT6.HTM>.

<sup>67</sup> Ibid.

<sup>68</sup> Duncan Adams, "Interior Wants to Kill a Success," *High Country News*, May 15, 1995, p. 11.

quarterly newsletters sent to some 400 local residents. The modest goals that underline the informal nature of the organization are to:

- Provide a forum for the timely distribution of technical and topical information from public and private sources;
- Foster communication between public and private interests to avoid duplication of efforts and capitalize on opportunities;
- Recognize and work with the diverse interests in the Blackfoot Valley to avoid confrontation;
- Examine the cumulative effects of land-management decisions and promote actions that will lessen their adverse impacts in the Blackfoot Valley; and
- Provide a forum of public and private resources to resolve issues.<sup>69</sup>

The Blackfoot Challenge has succeeded as a means of bringing the federal government and state and local interests together. Receiving some funding from the Partners for Wildlife program of the FWS, the program has been called:

*One of the finest private-land programs around. It's opened up all these avenues [for coordination] with private-lands people who, before, if you even mentioned government, they'd turn around, get in their trucks, and leave.<sup>70</sup>*

The Challenge has received federal recognition as well, as Sen. Max Baucus actually participated in restoring a Blackfoot tributary in 1994. He proclaimed:

*While it was hard work, it produced immediate results. We were pushing dirt rather than paper, and that's how these programs should work. The Blackfoot Challenge demonstrates that the federal government, state government and private landowners can work toward a common good.<sup>71</sup>*

## B. A Challenge to Organize

The organization of the Challenge reflects its informal nature; it is managed by an executive committee of nine members (representing ranchers, government, and industrial interests), operating with a part-time staff. The Challenge lists 300 members, but rarely are all 300 members active at any one time. The organization's strategy also reflects the divergent nature of its participants, as they "strive to remain neutral on contentious watershed issues while promoting discussion and education among the participants and the public."<sup>72</sup>

This neutrality was tested more than once, most notably in the case of the McDonald Gold Project in 1996. Proposed by Seven Up Pete Joint Venture, the project would have built a mine near the river and utilized a cyanide-heap leaching process to extract gold from excavated ore. Environmental interest groups were concerned about the mine's impact on the bull trout population and went public with the charge that the mine's builders did not properly estimate the risks from the venture. Throughout this controversy, the

<sup>69</sup> *The Watershed Source Book*, p. 2-38.

<sup>70</sup> Jim Stone, rancher and chairman of the Blackfoot Challenge, quoted in Duncan Adams, "Interior Wants to Kill a Success," p. 11.

<sup>71</sup> Quoted in Adams, "Interior Wants to Kill a Success."

<sup>72</sup> *The Watershed Source Book*, p. 2-38.

Blackfoot Challenge remained silent, as members fell on both sides of the debate. Rather than publicly risking the disintegration of the organization, the Challenge remained a forum for ideas and discussion, an informal way to air grievances and facilitate cooperation.

Indeed, Jack Thomas, former executive director of the Challenge, pointed out that the most-important aspect of the Challenge’s success is its inclusiveness:

*It wasn’t difficult to get people together, because these people had been working between 5-10 years, everybody had their own niche, but they wanted an umbrella group. So it wasn’t difficult to get people to the table. [But] make sure you’ve got all the players involved, because if you don’t, people think that there’s a hidden agenda. I don’t know exactly how to get around that, because people are gonna bring different agendas no matter what. You need to have everyone involved, though.<sup>73</sup>*

## C. Achievements

While “the project has progressed more slowly than expected,” the Blackfoot Challenge has an impressive track record to this point:<sup>74</sup>

- 300 miles of streams have been restored.
- 2,000 acres of wetlands have been enhanced.
- 70,000 acres of uplands have been enhanced.
- 55,000 acres of perpetual conservation easements have been acquired.
- Erosion has been controlled along 17 miles of roads.
- More than \$5 million has been collected privately for preservation purposes.<sup>75</sup>

The funding conundrum is a pressing issue for Blackfoot as it is for other watershed-management concerns. Just this year, the U.S. Department of the Interior approved \$1 million for the Blackfoot Challenge to purchase conservation easements as part of the Western Montana Project of the FWS. While this may seem to guarantee financial health, only three years ago the Fish and Wildlife Service threatened to cut their funding due to government downsizing. Private conservation groups such as Trout Unlimited, Pheasants Forever, and Ducks Unlimited have taken up some of the slack, but, as in the earlier cases, incentives must be found to bring in investment in the management of the watershed.

Jack Thomas noted that while certain projects of the Challenge may be funded, it is difficult to sustain a watershed initiative beyond project work:

*Funding has been a major problem. There’s a lot of project-type funding out there, but funding in general has been a difficult task. Private foundations and agencies want to fund specific projects, but keeping an Executive Director full time; that’s more difficult to find funding for.<sup>76</sup>*

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<sup>73</sup> Jack Thomas, former executive director, Blackfoot Challenge, interview with the authors, December 21, 1998.

<sup>74</sup> Ibid.

<sup>75</sup> Montana Partners for Fish and Wildlife, “The Blackfoot Challenge,” U.S. Fish and Wildlife Service web site, <http://www.r6.fws.gov/pfw/MONTANA/MT6.HTM>.

<sup>76</sup> Thomas, interview with the authors.

## Part 9

# Compliance Flexibility: The EPA Wildcard

In terms of environmental regulation, control is often concentrated higher up the scale at the federal agency level and filters down to the state, county, and municipality. The rationale given for this hierarchical concentration is a presumed inadequacy of administrative or lobbying resources at the local level or the unequal distribution of those resources, thereby favoring one group over other local interests.

For instance, U.S. EPA has a broad and powerful mandate to regulate certain types of environmental policy. Centralization of authority was partly intended to insure that local interests, such as a real-estate developer or resource industry, were not able to use local political influence to bias policy in their favor. On the other hand, information on many environmental problems and solutions resides at the local level. The incentives and capabilities to generate that information also reside at the decentralized local level. People who live and work in their communities are most aware of changes to the environment just by their daily routines. They know first-hand when local streams change level or local wildlife disappears; they experience the trade-offs and constraints associated with resource-use decisions. The individual citizen, homeowner, or business person is able to perceive the measurable impact of personal efforts and the effectiveness of controls over resource use.

Of course, local initiatives will fail if they are superseded by the federal regulatory structure. A key component of each of the previously discussed watershed initiatives is the compliance flexibility that each organization allows, a flexibility that needs to extend to the federal level to be entirely effective. There is a disincentive for investing time in local watershed management, if, at the end of the day, the EPA or another federal agency can come in and negate the group's work.<sup>77</sup> Thus, compliance flexibility is not just necessary in the context of the group's own decisions, it must also be present in the group's authorizing environment.

In the past, the institutional structure of the EPA prevented an orientation towards watershed management, as funds for efforts had to be "cribbed from other water program areas because budget overseers couldn't understand what watershed management was."<sup>78</sup> Thus, the EPA has sometimes recognized the efficacy of enacting environmental policy through local watershed management and the need to foster cooperation among local groups and public agencies. There has slowly been a shift towards watershed management,

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<sup>77</sup> As noted earlier, the EPA is not the only federal agency with jurisdiction in environmental cases. The Fish and Wildlife Service, Bureau of Land Management, and other agencies also have authority over environmental protection.

<sup>78</sup> Debra K. Rubin, Mary B. Powers, Houseley Carr, and David B. Rosenbaum, "A 'Whole' Lot Of Planning Going On," *Engineering News-Record*, vol. 231, no. 12 (September 20, 1993), p.38.

focusing on local involvement in the process. In addition, the federal EPA has also enlisted considerable resources for the promotion of watershed initiatives at the local level through their Office of Wetlands, Oceans and Watersheds (OWOW), which promotes local watershed efforts using federal financial and informational resources.<sup>79</sup> The goals of this effort are:<sup>80</sup>

- To streamline and simplify the process of watershed monitoring and reporting according to the Clean Water Act (CWA), thereby saving time and money while improving results;
- To provide greater flexibility of compliance;
- To provide financial assistance through CWA grant programs; and
- To foster greater public support for environmental goals.

The program seeks to enlist local resources in the monitoring and implementation phases of the environmental-regulatory process. The program also allows greater flexibility in compliance if a community adopts long-range watershed planning. For example, the Surface Water Treatment Rule requires public water systems to filter their water supplies to remove contaminants. However, if a water supply meets certain source water-quality standards and a watershed program is in place that sufficiently protects against these contaminants, the EPA will allow exemptions from filtration requirements. The EPA reports that over 100 cities and towns have taken advantage of this flexibility to avoid the expenses of filtration, while implementing comprehensive watershed-protection programs.<sup>81</sup>

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## Information on many environmental problems and solutions resides at the local level.

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A good example of an OWOW program is a project in Snohomish County, Washington, where the EPA supported the establishment of the Adopt A Stream Foundation to harness local volunteer efforts to monitor water quality and protect streams and watersheds. The program teaches participants how to gather information and use it to achieve environmental goals. The county water-resource planner who initiated the program uses a four-step business plan based on researching the problem, establishing goals, writing a plan of action, and implementing the plan. It's a model that Thomas Wilson, chief of EPA's northwest water-planning office, said he believes is the way of the future: "The EPA doesn't need to pay consultants \$100,000 to inventory a watershed," he said. "The public can be trained to do it and provide more ears and eyes than the resource agencies could ever have."<sup>82</sup>

EPA programs differ in important ways from the bottom-up organizations detailed above, such as the Blackfoot Challenge and the Henry's Fork Foundation. EPA programs still represent federal priority setting, as the federal government determines the goals and desired outcomes for a watershed, rather than local citizens. The EPA, with guidance from the appropriate state agency, decides what is to be done in a particular watershed and how it is to be done, and then searches for the local knowledge and volunteers to undertake the project. While it is a step towards flexibility (rather than purely mandating change, the EPA is

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<sup>79</sup> Environmental Protection Agency, Office of Wetlands, Oceans, and Watersheds, "Why Watersheds?" web site; [www.epa.gov/OWOW/watershed/why.html](http://www.epa.gov/OWOW/watershed/why.html).

<sup>80</sup> Ibid.

<sup>81</sup> Ibid.

<sup>82</sup> *Seattle Times*, November 16, 1990, p. A1.

taking the time to involve those affected by the changes), the EPA program does not realign decision-making authority.

In fact, the federal approach to watersheds may retard the development of real grassroots solutions, as local groups may be “desperate local people attempting to sidestep the strong arms of the state,” rather than a “long-term, sustainable solution to watershed problems.”<sup>83</sup>

Problem-solving does not mean that every undertaking a watershed management group initiates will be a success. As Karl Hess, a researcher on watershed governance at the local level, noted:

*I am most troubled by the question of failure. For local groups to learn, to be effective, and to be functional communities, they must have the power to fail—without simply being rescued by an all-caring government. I fear that watershed groups are not being encouraged or allowed to take chances.*<sup>84</sup>

Experience with watershed organizations indicates that unless these efforts are initiated at the local level and motivated by local interests they are not likely to be successful. For example, along the Santa Ynez River in Santa Barbara County, California, local farmers had been pleading for county assistance for flood control. In 1994, county politicians, planners, and farmers enlisted the help of the Coastal Conservancy, which agreed on the condition that the problem be considered within a watershed-wide plan. However, the plan was abandoned after less than a year due to lack of local support.

*We realized that we had not done enough groundwork and were proceeding on the mistaken assumption that there was broad support for a watershed plan. On the Santa Ynez, no single problem required watershed-wide attention. The need for planning was apparent only to farmers on the main river channel, and to a handful of others who were losing acreage to unstable stream banks and gully erosion. The fatal mistake we made was in rushing the process and telling the landowners, water districts, and special interest groups that they were going to have to work together and develop a watershed plan. We did not take the time to understand their interests and fears, and we tried to impose a process that was not appropriate for the place and time.*<sup>85</sup>

The problem with the Santa Ynez effort was not that comprehensive watershed planning was unnecessary, but that the initiative failed to draw upon the commitment of interested parties in its earliest stages.

The cases surveyed in this study displayed the compliance flexibility that watershed innovations need in order to take root. The Blackfoot Challenge example shows how there may be a role for federal support for watershed management, but, as the Santa Ynez failure shows, that role is only positive if the local interests themselves have initiated the actions. As Sen. Max Baucus of Montana told the U.S. Senate Environment and Public Works Committee, the commitment of relevant federal agencies to respect the local decisions has been an integral part of its success:

*The Fish and Wildlife Service has been working for years and years [to] try and build up the trust of the people in the area. You have two wonderful people . . . based out of Great Falls, Montana. And they, for a couple of years, would sit down with the local ranchers at the local bars and have beers together just talking things over and gradually, slowly but surely, they'd get the trust of the ranchers and after the*

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<sup>83</sup> Karl Hess Jr., correspondence with the authors, March 4, 1999.

<sup>84</sup> Ibid.

<sup>85</sup> Ibid.

*ranchers, some of the townspeople, and then the state government and all concerned . . . I mention this because this was an example of cooperation. And essentially these people worked on this project because those higher up weren't doing the job. That is, heads of the agencies weren't talking to each other. . . so those down at the lower echelons decided to take it upon themselves just to do it.*<sup>86</sup>

The FWS personnel who took the time to get to know the local ranchers and landowners were helping to build the sort of networks that watershed-management initiatives need to survive.

Experience with the EPA (in terms of implementation) has to this point been mixed for most of the watershed groups. The Feather River Alliance has had “no conflicts” with the EPA, involving state and federal regulators “from day one” in formulating a project.<sup>87</sup> Similarly, the Upper Clark Fork Steering Committee’s biggest obstacles came from *within* the group, reaching a consensus and building the relationships that are needed for long-term management of the watershed. There were not many external constraints impeding the progress of the Upper Clark Fork Steering Committee. In fact, the largest challenge from the federal side was the EPA’s *lack* of interest, as Sen. Baucus explained:

*The EPA was represented on the steering committee, but they didn't participate much. They were more worried about other issues, such as Superfund. Because of this, we didn't reappoint them to the committee.*<sup>88</sup>

Rather than an active intransigence on the part of EPA, inertia seemed to be the largest obstacle for local watershed groups to overcome. However, inflexible federal processes have been cited as a problem for some initiatives: for example, as occurred with the Coos Bay-Coquille River Project in Oregon:

*[There was] a wait of nine months to obtain a permit from the Army Corps of Engineers (which regulates the disposal of dredged and fill material from wetlands) to build an off-channel pond and to spread a few cubic yards of earth removed in the process over a pasture. Project officials could not understand why it took so long to get a permit for such a simple project.*<sup>89</sup>

Often, circumventing federal processes has led to greater improvement than if the rules had been followed strictly. This was evident in Ohio, where the Ashtabula River Partnership, frustrated by the lack of progress on the EPA’s side in cleaning up the river, gathered disparate interests to clean up the Fields Brook tributary themselves.<sup>90</sup> How the EPA and other federal agencies respond to these burgeoning local management initiatives will define watershed management’s success or failure in the coming years.

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<sup>86</sup> Senator Max Baucus, Hearing of the Senate Environment and Public Works Committee, Washington, DC, July 16, 1997.

<sup>87</sup> Wilcox, interview with the authors.

<sup>88</sup> Ibid.

<sup>89</sup> John W. Harman, *Agriculture and the Environment—Information On and Characteristics of Selected Watershed Projects*, U.S. General Accounting Office Report to the Committee on Agriculture, Nutrition, and Forestry, June 29, 1995.

<sup>90</sup> “Polluters, EPA Clean Up Riverbed,” *The New York Times*, AP/Online Index, January 1, 1999.



## Part 10

# Conclusions

New approaches to environmental policy establish a foundation for more effective and efficient policy that better reflects the values of affected individuals. As the preceding discussion indicates, local-area watershed resource-management initiatives are at the forefront of adopting and developing many of the attributes of a more decentralized decision-making approach. By virtue of the grassroots revival of environmental management, water-resource policy is shifting away from an emphasis on regulation, compliance, and punishment to balancing competing values and problem solving. The functions of local watershed organizations do not include enforcement. Thus, the very growth of their influence over policy insures this shift in emphasis away from punishment.

The shift in emphasis has also permitted greater compliance flexibility. Greater flexibility has been an explicitly stated goal of the EPA in the interest of fostering more cooperative efforts to protect the environment. The local-area watershed approach accentuates desired outcomes and measured results in terms of environmental improvement, rather than adherence to rules or methods chosen to reach those outcomes. The focus becomes the watershed resource, not the policy meant to protect the resource. The purpose of the effort, environmental improvement, is paramount; how to get there is fluid and flexible. Greater flexibility towards problem solving is also a natural by-product of the devolution of planning, decision making, and implementation. These tasks are now focused on unique and particular problems of local watersheds and move away from the 'one-size-fits-all' nature of broad policy directives.

The open and participatory nature of these organizations is intended to foster an environment of trust to facilitate cooperation among competing interests. These goals are explicitly stated in the mission statements and by-laws of watershed groups, as illustrated by the Henry's Fork and Feather River examples. Thus watershed organizations bring together a variety of competing interest groups from the private and public sectors to converge on common goals. Consensus-building among local interests is one of the fundamental functions of grassroots watershed efforts.

Consensus-building relies on a nonregulatory approach towards environmental protection and is premised on private-sector decision making and program implementation. Public-private partnerships such as the Feather River Alliance have typified this approach, generating agreement among watershed resource users about management programs and harnessing the financial power of the private sector in a manner that benefits all parties involved. This model can be replicated in many situations. Know Your Watershed, a public-private partnership operating out of West Lafayette, Indiana, supports existing watershed partnerships and helps create new ones. Its goal is to have 2,000 watershed partnerships in the nation by the year 2000. As of mid-1997, it had identified over 1,000. Know Your Watershed supports watershed-to-watershed networking,

technology transfer efforts, and capacity building at the regional, state, and local levels. The group offers a Starter Kit that explains the keys to making watershed groups work.<sup>91</sup>

Finally, the decentralization of decision-making at the goal-setting and planning level is combined with decentralization of implementation because of the project nature of watershed management. The watershed council is primarily a coordinating and consensus-building institution that allocates resources according to relative merit and feasibility. The planning and implementation phases of watershed policy are based on specific project proposals, such as riparian rebuilding or habitat restoration targeted to specific problems and locations. This project focus captures the efficiencies of specialization and expertise in the allocation of resources, while enabling watershed management to retain the modest scale that insures accountability and cooperation.

The success of these watershed efforts will be measured in many ways, including long-term improvements in water quality, the recovery of wildlife habitats, the economic benefits of efficient resource use, and reductions in conflict. These criteria are often difficult to specify and measure and may continue to be a center of controversy in environmental management. However, one of the incontestable benefits of devolution of environmental management is the proliferation of innovations and ideas as more groups take responsibility and participate in watershed management. There is an opportunity to implement ideas as small-scale experiments. Some will succeed, while others fail; but the learning process is an accumulating resource for the future, a resource that is difficult to duplicate with a highly centralized regulatory and policy-making apparatus.

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How the EPA and other federal agencies respond to these burgeoning local-management initiatives will define watershed management's success or failure in the coming years.

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## A Blueprint for the Future

Watershed resource-management initiatives have been a response to the demand for more-effective environmental policy management and resolution of conflict among competing resource users. The approaches of watershed groups reflect the creative intelligence of ordinary people applied to complex and unique problems. By relying on a more-decentralized system, taking advantage of local concerns, respecting existing ownership rights, and utilizing proper incentives for involvement, these watershed initiatives represent a major step forward for environmental policy.

Despite these innovations, some obstacles at the national level may impede the smooth functioning of local initiatives. While the EPA has begun moving towards a more-flexible stance, the mere presence of the Clean Water Act is enough to give pause to groups that want to get involved in clean-up efforts. Questions of pollution liability are large enough to discourage private-mitigation efforts, and the stringent standards of the Clean Water Act may force private groups to allocate their resources in a manner that disregards local needs. More importantly, the EPA's recalcitrance in granting immunity or, worse, its ability to disregard previously negotiated agreements, can crowd out private conservation efforts and force states into following standards

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<sup>91</sup> "Top 10 Lessons on Watershed Management," Environmental Protection Agency, Office of Wetlands, Oceans, and Watersheds Web site, [www.epa.gov/OWOW/watershed/Top10.html](http://www.epa.gov/OWOW/watershed/Top10.html).

that don't meet local priorities.<sup>92</sup> Initiative at the local level must be accompanied by decision-making innovations at the federal level.

Some important factors seem necessary for the success of the watershed-management initiatives themselves:

- *Local Priorities, Local Knowledge:* The watershed-management initiatives surveyed have all been based on grassroots community involvement, with the community and local leaders deciding on what projects to undertake. A “top-down” approach is likely to be inappropriate, as the Santa Ynez example showed; the impetus for change must come from those directly affected by the watershed. Only local players will know local preferences, and these may differ drastically from those promulgated in state capitals or in Washington. For example, the EPA may be concerned about emissions of a certain chemical while local folk are more worried about silt build-up. Given the current system, the EPA has the legal right to impose its priorities. However, volunteer projects will only work when the volunteers set the priorities.
- *Legalized Local Authority:* A way of enabling local interests is through legislation. In the case of the Upper Clark Fork River, the environment for bringing groups together was created through legislative means. Crafting the playing field in a way that discouraged defection, while respecting the wishes of the participants, is an integral part of the coordination process. Senate Bill 434, the cornerstone of cooperation in the management of the Upper Clark Fork, was innovative for its explicit call to “consider and balance all beneficial uses of the water in the Upper Clark Fork River basin.”<sup>93</sup> Rather than following a predetermined set of values imposed from above, this legislation acknowledges that there are competing interests at stake in the river, and an optimal management solution will take these interests into account. Enshrining local action in legislation may be an important step for watershed management groups to take.
- *Private Conservation Incentives:* Where water law limits use of water for environmental purposes, establishing instream flows as a “beneficial use” opens up opportunities for leasing or trading water rights by current users. Through this legal redefinition, the Upper Clark Fork River management forum was able to facilitate leasing agreements.<sup>94</sup>
- *Broad-based Involvement:* The major actors involved in a watershed must all be included in any attempt to formulate a management plan. Round table discussions, town meetings, and public notices are an important way to spread the word and insure that all interested parties are represented. While not every watershed group needs a John Schramel to volunteer his kitchen table, local organizations must be actively involved in identifying and coordinating interested parties, perhaps hosting forums or workshops. As noted in each of the cases surveyed here, there is a corresponding cost to getting all groups together and having them arrive at a consensus, but the time invested at this stage may avert arguments further down the road.
- *Organization:* While there are many examples of informal groups successfully completing projects, it is best to have some modicum of organization, such as a steering group. By having a staff (or even just one person) whose sole task is to coordinate the players involved, it is easier to resolve conflicts and initiate projects. Some level of formal organization also helps in procuring funding sources. Leah Willis's role

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<sup>92</sup> This was dramatically illustrated in the case of Idaho, which had negotiated an agreement with EPA Region 10, only to have these standards discarded when the federal EPA performed an audit in 1998. Interview with Dave Pisarski, Idaho Department of Environmental Quality, January 7, 1999.

<sup>93</sup> Montana Senate Bill SB 434, April 22, 1991.

<sup>94</sup> Of course, a single piece of legislation alone cannot rectify the “decades of subsidies, federal intervention, [and] perverse regulation,” that plague watersheds in the western United States, but it is a step towards codifying local priorities in law. Taken from correspondence with Karl Hess, March 3, 1999.

in the Feather River Alliance, as the “glue that held everything together,” demonstrates the importance of having a dedicated, full-time employee.

- *Funding Sources:* By shifting to a form of user fees, like the instream example in the Feather River, the link between the person who uses the watershed and the money that protects the watershed is kept intact. Other approaches suggested for financing these projects outside of grants include fees imposed on downstream users and imposition of per-acre-foot surcharges. Generating funding from within provides incentives for users to protect their investment, and makes it more difficult for an outside entity to encroach on local priorities.

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Initiative at the local level must be accompanied by decision-making innovations at the federal level.

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- *Avoiding Political Disputes:* Broad-based watershed initiatives should steer clear of political advocacy, much as the Blackfoot Challenge has attempted to do. With so many disparate interests involved, there is bound to be friction within the group over politics. Watershed groups should seek to unite, not divide over particular projects and problem-solving efforts. This does not suggest that debates should be stifled; rather, it only suggests that watershed groups remain publicly neutral on potentially divisive issues and be selective in the issues they do choose to tackle. Consensus should not be the only indicator of success for a watershed-management initiative, however: their efficacy remains their ability to effect positive change in the environment. It is difficult to effect this change with a divisive mood, however, as years of federal legislation have demonstrated.
- *Incremental Success:* Noted by the EPA on their Web site, achieving initial small successes can be critical for the success of a watershed group. A crucial factor for the watershed-management initiatives is setting achievable goals: this can also help with intragroup cohesion, as small victories can be built upon.<sup>95</sup> In the cases examined above, this lesson was exemplified by the Feather River Alliance, which began with a pilot program on the Red Clover Creek. Based on this success, the alliance was able to form an institution, the Coordinated Resource Management Group, and was able to branch out to other watershed projects. This is not meant to suggest failure is avoided at all costs; as Karl Hess noted, failures are instructive.
- *Publicity:* Once success is achieved, it’s important to get the word out. Let the community know what the group is up to, what improvements have been made. A newsletter or some equivalent fact sheet (perhaps even some form of membership or a Web site, as the Blackfoot Challenge has done) can communicate these details.

Each of the initiatives explored in this study had logistical or political problems. But by relying on a more-decentralized system, taking advantage of local concerns, respecting existing landowner rights, and utilizing incentives for involvement, these watershed initiatives represent a major step toward more cooperative, results-focused environmental policy that takes into account local values and local knowledge, and enhances private stewardship.

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<sup>95</sup> EPA Office of Wetlands Web site, <http://www.epa.gov/OWOW/watershed/lessons/index.html>.

# About the Authors

**M**ichael Harrington received his Ph.D. in political science from the University of California, Los Angeles, where he completed his dissertation on unemployment insurance in advanced industrial countries. He also holds an MBA in finance from UCLA. He has worked as a research fellow at the Milken Institute, as a research assistant at UCLA and as an independent consultant in the Los Angeles area for various venture capital firms. This is his first policy study with the Reason Foundation.

**Christopher A. Hartwell** is an environmental policy analyst at Reason Public Policy Institute, and is project manager for RPPI's State Innovations Project, which examines the continuing trend towards state and local-based environmental management. He is the author of RPPI policy study 253, *Simplify, Simplify: Alternative Permitting at the State Level*, which examines the development of permitting innovation across the United States. Mr. Hartwell received his B.A. in political science and economics from the University of Pennsylvania and his Master's of Public Policy from Harvard University.

Prior to his work at RPPI, Mr. Hartwell was at the Harvard Institute for International Development (HIID), where he was involved with environmental economics in the Czech Republic, editing an economics textbook for researchers at Charles University in Prague. Mr. Hartwell has also worked at the German Ministry for Economics in their European Department and at the U.S. Department of Labor.

# Other Related Studies

*Race to the Top: The Innovative Face of State Environmental Management*, by Alexander Volokh, Lynn Scarlett, and Scott Bush, RPPI Study No. 239.

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