

Chapter 1

Why Watersheds

Everybody lives in a watershed. Watershed is the term describing the landscape of a particular river system component - be it creek, stream, or rushing river - viewed from ridgetop to ridgetop - in other words, the area that ultimately drains into a lake or river. A watershed encompasses the landforms, vegetation, habitat, biological systems and communities (including human!) that lie within its boundaries. The Sierra has 24 significant watersheds, according to the Sierra Nevada Ecosystem Report, each with its own network of smaller tributary watersheds.

We've all heard it said before, but it bears repeating: watersheds are our lifeblood; they are the circulation system of the earth. They provide the connection between different elements of the ecosystem. And since everything is interconnected, impacts to any part of the system affect the rest of the system. For solutions to be truly effective, then, they must be designed with the larger system in mind. That's why it is no longer enough to "save" a particular stretch of river. Resource managers and river activists are realizing they must look beyond just the river corridor and address surrounding land uses and other elements that contribute to the condition of the river.

Sierra Watershed Units

West Side:

Upper Sacramento

Feather

Yuba

American

Cosumnes

Mokelumne

Calaveras

Stanislaus

Tuolumne

Merced

San Joaquin

Kings

Kaweah

Tule

Kern

Caliente

East Side:

Eagle Lake

Honey Lake

Truckee

Carson

Walker

Mono Basin

Owens

Mojave

Source: *Sierra Nevada Ecosystem Project Report*, 1996

A little history on the word Watershed

In England, *watershed* meant the parting or separation of waters. It was the *boundary line* along the ridge that separated rainfall into one creek versus another. In the U.S., we call this the divide, the watershed divide. In the U.S., *watershed* means the total surface of the land over which water flows, not just the divide (although literary types still use "watershed" to mean significant dividing point). It is an *area of land* which drains water, sediment and dissolved materials to the channel of the creek. In Europe, they use the word catchment area or drainage basin.

Source: Peter Warshall, "Learning the Watershed Lingo," *River Voices*, Summer 1994

“There is a phenomenal resiliency in the mechanisms of the earth. A river or lake is almost never dead. If you give it the slightest chance... then nature usually comes back.”

Source: Rene Dubos 1981, from *Working at a Watershed Level*, CSU-Chico Foundation

Unfortunately, as the 1996 Sierra Nevada Ecosystem Project report so vividly points out, watersheds are the most altered and impaired parts of the ecosystem in the Sierra. Dams, ditches, flumes, roads and other structures have changed the shape, flow, temperature and quality of our rivers and streams. Such manipulation of our streams for water supply, irrigation, transportation, hydropower, waste disposal, mining, flood control, timber harvest, recreation, and other uses has degraded watersheds throughout the state, but especially in the Sierra, according to the *Summary of the Sierra Nevada Ecosystem Project* (SNEP) report.

Changes in the watershed impact the physical, chemical and biological processes occurring in the stream corridor. Stream systems normally function within natural ranges of flow, sediment movement, temperature, and other variables, in what is termed *dynamic equilibrium*. When changes in these variables go beyond their natural ranges, due to human or other disturbances, dynamic equilibrium can be lost. [*Working at a Watershed Level*, CSU-Chico Foundation]

To help address some of these variables and the changes that are taking place in the ecosystem, agencies and environmental groups have begun looking more seriously at restoration needs in our watersheds. *Watershed restoration* is typically defined as: activities planned and undertaken to help the watershed function better - especially those aimed at re-establishing natural structure and chemical, physical and biological functions in order to restore the watershed's dynamic equilibrium.

WHAT IS A WATERSHED APPROACH?

Most people are familiar with the river corridor approach of using special state or federal designations, such as Wild & Scenic, to protect publicly-owned stretches of river from inappropriate development; establishing river parkways or greenways along river corridors; conducting urban river restoration projects; or working with agencies on river corridor management plans.

But as Christopher Brown notes in his article, “The Watershed Approach,” in the Winter 1997 issue of River Network's *River Voices* newsletter, changes over the past two decades have

set the stage for a new way of looking at how we take care of our river systems. He asks us to consider the following:

- Conservation groups and government agencies have brought forward the indisputable scientific knowledge that our river systems are deteriorating.
- Massive floods have been more frequent and more damaging throughout the nation, underscoring the need for comprehensive planning. The floods have also raised public awareness about the interconnectedness of rivers and their watersheds. As we continue to build and rebuild in floodplains, flooding becomes an increasing problem.
- Restoration of damaged natural areas, including wetlands and streams, not simply protection of healthy habitats, has become a much higher national priority than ever before.
- The approach of taking a “systems” view of resource issues and seeking holistic solutions (rather than resource-by-resource solutions) is not only recognized as ideal but, increasingly, as the norm. Whether for water quality or Wild & Scenic values - the river corridor protection approach has just not gotten the job done.
- With escalating costs and government downsizing, we have realized that the government cannot do it all. The property rights movement has often blocked federal initiatives, making local solutions the most politically viable.
- In the past couple of years, “customer service” has been the byword in the federal government; the government is now to be in service to the public, with the public, in many cases, expected to lead.
- The paradigm for decision making for public resources has shifted dramatically, from agencies holding hearings and announcing decisions, to collaborative planning with early inclusion of stakeholders.
- The adage that “we all live downstream” has become increasingly difficult to ignore.

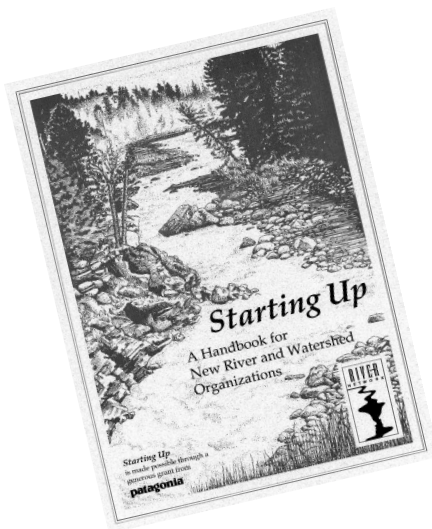
According to Brown, all these factors lead to the inescapable conclusion that everything is interconnected, and that solutions to environmental problems need to be “inter” in every respect: *interdisciplinary*, *interjurisdictional*, and *interactive*. These factors have also led to a change in river conservation from the corridor approach to the watershed approach.

Another River Network resource, the *Starting Up* manual for new river and watershed organizations, defines the watershed approach as a systematic process of watershed conservation or restoration that:

- recognizes that watershed components are interrelated, and that the health of each component is dependent on that of the others;
- similarly recognizes the interrelationships between watershed health, human health, and the economic health and quality of life of the communities within the watershed;
- identifies needs, sets priorities, and develops plans of action on the basis of reliable information and clear methodology;
- makes consistent efforts to identify, involve, and work constructively with watershed stakeholders (individuals and entities interested in the outcome of a watershed conservation, restoration or management effort) in all phases of watershed assessment, planning, implementation and program evaluation processes.

Many different types of groups can and should play a role in a watershed approach, according to Don Elder in his article “The Role of the Local River Advocacy Organization in Developing a ‘Watershed Approach’” [River Network web page]. Until recently, the key players in river protection and restoration were the local river advocacy organizations. The Alliance has a number of these river groups as members, including SYRCL (the South Yuba River Citizens League), the Truckee River Habitat Preservation Group, the Tuolumne River Preservation Trust, the Central Sierra Watershed Coalition and the Clavey River Preservation Coalition.

But as the larger watershed movement starts taking hold, these individual river advocacy groups can and are becoming an important part of a more collaborative, multi-stakeholder-based



process. This process is leading to the development of watershed councils, the idea being to build consensus among a wider spectrum of users and stakeholders within the watershed for actions needed to protect or restore watershed health.

Individual advocacy organizations still work to protect and enhance their individual rivers; they still represent the “voice” of the river. But they are also coming to the table with other stakeholders in the watershed to initiate better communication, build consensus, resolve disputes, forge partnerships and find more productive ways to solve problems in the watershed.

WHY WATERSHED COUNCILS?

Watershed councils are typically made up of people with an interest in the sustainable management of the resources and conditions in the watershed where they live, work and play.

Watershed councils have their roots in the Coordinated Resource Management and Planning process (CRMP), which began in Nevada and Oregon in the 1950s as an outgrowth of the Soil Conservation Service (now the Natural Resources Conservation Service). The process was subsequently introduced to California in the 1960s. Coordinated resource management and planning is a process that allows for direct participation of everyone concerned with natural resource management in a given geographic area, according to the *California CRMP Handbook*, prepared by the California CRMP Technical Advisory Council.

The philosophy behind the CRMP process is that the people who live, work and recreate on a given piece of land are the people most interested in and capable of developing and implementing plans for its use. Face-to-face communication among all interested groups and individuals solves the inevitable conflicts that arise from the mixture of diverse interests and goals.

Experience has shown that people with diverse viewpoints who voluntarily meet and work together as a planning team will find common ground as they interact with each other. Through discussion, landowners, users and resource managers learn to understand and respect each other’s viewpoints. The end result is constructive problem-solving through cooperative resource planning.

A watershed council can be defined as a locally organized, voluntary, non-regulatory group established to assess the condition of the watershed and build a work plan to implement enhancement and protection activities within the watershed.

It is this same broad-based approach that makes a watershed council different from the more traditional river advocacy group. Whereas the CRMP is a planning process, a watershed council is an organization whose goal is to engage representatives from the broad range of community interests in identifying shared values and developing and implementing actions that reflect those values.

Such watershed council groups usually look at past and present conditions in the watershed, identify desired future conditions, and develop a plan of action for achieving those conditions for present and future benefit of the watershed and its communities. All of this is done with the realization that benefits from sound watershed management transcend individual ownerships and political boundaries.

“What holds people together long enough to discover their power as citizens is their common inhabiting of a single place,” writes Daniel Kemmis in his book *Community and the Politics of Place*.

“Watershed consciousness and bioregionalism is not just environmentalism, not just a means toward resolution of social and economic problems, but a move toward resolving both nature and society with the practice of a profound citizenship in both the natural and the social worlds. If the ground can be our common ground, we can begin to talk to each other (human and nonhuman) once again.”

-- Gary Snyder, “Coming Into the Watershed,” *A Place in Space*

Issues in watersheds tie together, requiring wider input and expertise across jurisdictions. Watersheds don’t respect political confines like county lines or private - public land boundaries. Therefore, all the players affected need to be part of the decision-making and solution process. By bringing the different stakeholders together from the beginning, the hope is to avoid the us-versus-them attitude that has stymied river conservation and protection efforts in the past. We are all players in the watershed and, together, we can develop practical, locally based solutions that can preclude the need for “big government” mandates.

WHY FORM ANOTHER ORGANIZATION

Why would we want to create yet another organization in our community when we already have an environmental group working on river issues, you might ask. Well, there are a number of reasons. But mostly it comes down to accountability and credibility.

Watershed issues are generally larger than people can reasonably tackle in a sustained fashion as ad hoc volunteers; so it helps to establish a formalized way for people to work together, plan and take action on watershed issues. If you are going to be making decisions and implementing actions that affect other people, you need some kind of accountability. This accountability comes through a.) the involvement of many different stakeholders, b.) some sort of organizational structure and decision-making process that assures people their interests are being represented, and c.) the guarantee that people will treat each other with respect and civility. And organizational accountability is critical when it comes to seeking funding!

Citizen activists can try to work in partnership with existing organizations or within agency structures. But the situation is somewhat analogous to two people trying to find a house together. If one moves into the home of the other, there are likely to be struggles over old habits, ownership, and “what’s mine/what’s yours.” These kinds of conflicts, whether real or perceived, can be intimidating and off-putting to the newcomer. But if the two people find a home that is new to both of them, they are likely to avoid some of the turf battles that would otherwise strain the relationship.

So it is with collaborative efforts like watershed councils. The agencies, water districts and commercial users have been managing different elements of the watershed’s resources for a long time. Now citizen activists - environmental groups, neighborhood associations, homeowners, and other interested individuals - want to get involved and, indeed, have a lot to offer. ***But unless they can come together under the umbrella of a new group and share the sense of ownership and responsibility equally, there is likely to be trouble.***

“If a wide range of people will join in on this [watershed council] effort – people from timber and tourism, settled ranchers and farmers, fly-fishing retirees, the businesses and the forest-dwelling new settlers – something might come of it.”

— Gary Snyder, “Coming into the Watershed,” *A Place in Space*

Even though it means being involved with yet another group, there are definite advantages to forming a watershed council. Collaborative watershed groups provide an important opportunity for improved coordination, both among the agencies with jurisdiction and management authority in the watershed and, just as importantly, between those agencies and the public. This kind of cooperation and coordination may prove harder to achieve if participants are locked into the “accepted” way of doing things. With the creation of a new entity - the watershed council - the agencies and other players have a new framework for working together without having to be constrained by any single organization or individual’s mandate, mission, or history in the watershed.

For more information on start-up funding, see Chapter 7.

In California we have another strong reason to come together to form separate watershed councils - and that’s funding. Between state and federal government programs like CalFed, Proposition 204, EPA, EQIP, and others, as well as recent commitments by private foundations to fund watershed-based work, there is suddenly quite a lot of money available for well-organized watershed groups. Most of these funding programs, however, require applicants to demonstrate widespread community support and involvement as well as a long-term commitment to watershed health and restoration work. This is often best demonstrated through the creation of a watershed council that brings together the key players needed to assess watershed needs and pursue funding and actions to address those needs.

The watershed council offers a new form of accountability - one in which the key players work together upfront so decisions are not made in a vacuum nor in direct conflict with the needs and desires of any of the major stakeholder groups. Most watershed councils emphasize shared power, shared leadership, sharing information and responsibility. That’s where the accountability comes in. No single organization or entity can unduly influence an outcome.

An adjunct to the enhanced coordination offered by watershed councils is the one-stop communication forum such an organization offers. New ideas get vetted before the full body of stakeholders, exposing them to constructive criticism and creative

thinking from the outset, which helps to avoid roadblocks and setbacks later in the process. This helps make government agencies and individual stakeholder groups more efficient and capable of taking advantage of more opportunities for good work in the watershed.

In a November 1998 keynote address to the 5th Annual Henry’s Fork State of the Watershed Conference in Ashton, Idaho, Dr. Ed Weber of Washington State University presented a helpful chart showing how different sources of accountability operate. Although he was speaking specifically about the Henry’s Fork group, the same principles can apply to other groups, as well.

Source of Accountability	How it works
Inclusiveness	All have a right to participate once they accept the norms governing participant behavior.
Civility/respect for others	Each participant has equal worth and is afforded equal opportunity to influence decisions.
Integrity/honesty in communication and action	Necessary for success of community-building goal and good faith bargaining required to solve problems.
Participant acceptance of dual role as community member and representative of particular interest	Obligates participants to take a broader view of problems affecting the watershed. Commits participants, especially government agency personnel, to do whatever is necessary to help their neighbors solve community-based problems within the rules provided by their legal mandates.
Commitment to balanced mission and holistic [watershed] approach	Lack of tolerance for pattern of decisions only benefiting one particular segment of the community or one element of the mission statement.
Trust as obligation	Given voluntary dynamic, participants accept the obligation to follow through on public commitments, voluntarily negotiated and agreed to.

The chart speaks to accountability within the group and within the watershed community. When it comes to the concern some people have about locally based solutions being pursued at the expense of regional, state or national interests, it is precisely this degree of representation that assures accountability across the board. Such criticism of locally based decision-making is an easy out for those who feel their interests are being threatened in some

way. But as long as your watershed council has regular representation and involvement from the regional, state and national agencies and organizations, those interests should be represented on equal terms with the interests of the local community.



CHAPTER 1 - KEY CONTACTS/REFERENCES/RESOURCES

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