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UNDERSTANDING THE COMMUNITY ECONOMIC AND SOCIAL IMPACTS OF OREGON'S WATERSHED COUNCILS

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Executive Summary

Introduction

One of the most significant junctures in resource management in recent years has been the emergence of "community-based natural resource management" (CBNRM). Unlike traditional, top-down models, CBNRM entails local, place-based projects, programs, and policies that have the goal of advancing a healthy environment and economy at the community level.

Oregon has been in the vanguard in putting CBNRM into operation. To take a key example, Oregon's watershed councils are seen nationally as pioneers in CBNRM, using an approach to environmental stewardship that integrates regulation with incentives and voluntary action at the local level. While stressing environmental outcomes, law and policy explicitly recognize that healthy watersheds and natural habitats are essential for thriving communities and strong economies.

The purpose of this study is to investigate the economic and social effects of watershed council activities on Oregon's communities – the non-environmental side benefits that might accrue as they go about their basic mission of promoting and implementing programs to restore, maintain, and enhance watersheds watershed enhancement work.

- Economically: Beyond OWEB's council support grants, which provide basic administrative support to watershed councils, how much additional funding do watershed councils draw into communities? What is the contribution of the watershed councils' spending to the local economies of Oregon?
- Socially: Do watershed councils serve as catalysts to enhance individuals' and communities' capacity to engage in issues beyond watershed functioning?

To address these questions we studied all watershed councils that received OWEB council support grants during the study period July 1, 2001 – June 30, 2004 (the last biennium and the first half of the current biennium).

Findings

Direct Economic Impacts on Local Communities

OWEB's watershed council support grants provide some basic administrative support to enable watershed councils to function – to pay the salary of a coordinator and run an office. OWEB also provides grants for other watershed activities. This study sought information about the impact of basic support grants on local economies. How much additional funding do watershed councils draw into communities, and what is the overall contribution of watershed councils' spending to local economies?

- On average, during the study period, for every $1 in watershed council organizational support invested by OWEB, councils brought an additional $5.09 directly into local communities for watershed projects.
- Using a conservative multiplier, during the study period, the typical watershed council was responsible for $268,072 in local economic activity each year.
- Eighty-five percent of watershed restoration work contracted out by watershed councils went to local contractors in the county where the work was being done.

Watershed Councils and Community Social Capacity

The aim with the social portion of the study was to try to understand if and/or how watershed councils serve as catalysts to enhance individuals' and communities' capacity to engage in issues beyond watershed functioning. Interviews and case studies covered subjects such as use of volunteers, outreach activities, and collaboration.

- The overall average number of individuals estimated to have volunteered in their watershed councils was 212. There were volunteers in all age groups, from grade school to retirement age.
- Outreach activities helped communities in four general categories: 1) Building relationships and creating trust among the council, private landowners, and other watershed partners; 2) Bringing more citizens into the decision making, planning, and implementation process; 3) Community capacity building; and 4) Public education and awareness of watershed issues
- All watershed councils engaged in collaborative activities with local county and city governments to carry out their activities. Many also listed an array of federal, state, and tribal partners as well as private sector and non-profit-organization partners.
- Several councils were involved in collaborations across watersheds, which resulted in monetary and other resource efficiencies.

Important Contributions

The study asked respondents about the most important contributions of their watershed council to the local environment, economy, and democratic processes.

Contributions to the Health of the Local Watershed

- **On-the-ground projects** to open up fish habitat, improve water quality, and restore wildlife habitat.

- **Processes of community education and dialogue** that created a better-informed public and a community with greater awareness of their relationship to the watershed and watershed issues.
- **Assessment and monitoring** of watershed environmental conditions.

Contributions to the Local Economy

- Increasing compliance with environmental laws
  - **Reduces the possibility of and fear of fines and other sanctions**
  - **Helps retain working farms and ranches in the watershed**
- Water quality improvements, fish barrier removal, habitat restoration, and trail construction **create new opportunities for tourism and recreation, which in turn create business opportunities**
- Improving water quality and stream flows and reducing erosion **increases the viability of the natural resource and agricultural economies**
- Various improvements in watershed health **protect and enhance property values, increase amenity values, and increase the long-term viability of communities.**

Contributions to Democratic Processes and Decision Making

- Providing a forum where citizens feel comfortable discussing difficult or contentious issues, and bringing new people into the process.
- Serving as a vehicle for empowering citizen participation.
- Providing information for decision making outside the watershed council itself.

Conclusion

The primary function of watershed councils has been, and will continue to be, enhancing and maintaining the health of Oregon's watersheds. The extent to which watershed councils recognize their potential to contribute to the economic health and social capacity of local communities – in addition to the watershed health contributions they make – is not clear. However, these findings suggest that if watershed health, economic health, and social capacity are all approached with greater awareness, watershed councils have the potential to contribute to their watershed communities on multiple levels through their watershed enhancement activities.

UNDERSTANDING THE COMMUNITY ECONOMIC AND SOCIAL IMPACTS OF OREGON'S WATERSHED COUNCILS

Introduction

One of the most significant junctures in resource management in recent years has been the emergence of "community-based natural resource management" (CBNRM). Seldom mentioned prior to the 1990s, CBNRM entails local, place-based projects, programs, and policies that aim to "meld ecology with economics and the needs of community in pursuit of symbiotic sustainability."[1] The emergence of CBNRM has led Cortner and Moote to speculate that the United States is entering the first resource management paradigm shift since the end of the 19th century.[2] And Wondolleck and Yaffee state that "we are in a period that is as significant as the period one hundred years ago when President Theodore Roosevelt, Gifford Pinchot and others invented a set of principles for management of public resources."[3]

As with so many developments in public policy, Oregon has been a leader in CBNRM. To take a key example, Oregon's watershed councils are seen nationally as pioneers in CBNRM, through an approach to environmental stewardship that integrates regulation with incentives and voluntary action at the local level. Specifically, according to ORS 541.353, it is the policy of the state of Oregon that: a) voluntary programs initiated at the local level to protect and enhance the quality and stability of watersheds are a high priority of the state; b) state agencies are encouraged to cooperate with local watershed protection and enhancement efforts and to coordinate their activities with one another and with local, regional, tribal, and federal governments, as well as private landowners; and c) state agencies are encouraged to foster local watershed planning, protection, and enhancement efforts before initiating action within a watershed (emphasis added).

Appropriately, the monitoring and evaluation of the activities of Oregon's watershed councils stress environmental outcomes. At the same time, however, ORS 541.353 states that "the long-term protection of the water resources of this state, including sustainable watershed functions, is an essential component of Oregon's environmental and economic stability and growth" (emphasis added). Moreover, the Oregon Watershed Enhancement Board (OWEB), the major source of funding and technical assistance to watershed councils, declares that its vision is "to help create and maintain healthy watersheds and

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[1]/ Weber, E. 2000. A New Vanguard for the Environment: Grass-Roots Ecosystem Management as a New Environmental Movement. *Society and Natural Resources*, 13(3), p. 238.

[2]/ Cortner, H., and M.A. Moote. 1999. *The Politics of Ecosystem Management*. Washington, DC: Island Press.

[3]/ Wondolleck, J.M., and S.L. Yaffee. 2000. *Making Collaboration Work: Lessons from Innovation in Natural Resource Management*. Washington, DC: Island Press, p. xi.

natural habitats that support thriving communities and strong economies" (emphasis added).

Thus, in addition to environmental outcomes it is useful to also examine the community-level economic and social outcomes that may be occurring as a side effect of the conservation activities of Oregon's watershed councils. The findings of such an assessment are of interest to several audiences: to watershed councils, in planning and conducting their work; to OWEB, in designing its funding priorities and technical assistance activities; to the state legislature, in carrying out its oversight function; to policymakers outside the state who are watching with interest Oregon's CBNRM efforts; and to scholars of natural resource policy and management.

Research Questions

This study looks beyond the councils' basic mission of promoting and implementing programs to restore, maintain, and enhance watersheds. It seeks to determine if there are other, non-environmental side benefits to Oregon's communities that accrue from watershed enhancement work and to shed light on what happens that otherwise might not happen as a result of the activities of watershed councils.

- Economically: Beyond OWEB's council support grants, which provide basic administrative support to watershed councils, how much additional funding do watershed councils draw into communities? What is the contribution of the watershed councils' spending to the local economies of Oregon?

- Socially: Do watershed councils serve as catalysts to enhance individuals' and communities' capacity to engage in public issues beyond watershed functioning?

Methodology

This study examined the period July 1, 2001 – June 30, 2004 (the last biennium and the first half of the current biennium). The study population was all watershed councils that received OWEB council support grants during the study period. That population consists of 58 councils, including umbrella councils.

To address the two research themes, we sought financial and social data from each watershed council. The **social data** were collected in two ways. We used a semi-structured questionnaire that covered topics such as volunteer opportunities, outreach activities, members' involvement in other community organizations, collaborative activities at the local and regional level, and major accomplishments.

We e-mailed the questionnaire to the 58 councils in the study population, with a request that a leader in each watershed council—coordinator, director, or similar position – schedule time for a telephone interview to respond to it. Forty-five leaders completed the questionnaire via phone interview. In three instances, staff returned the completed survey

but did not schedule time for a telephone conversation. In ten other cases the questionnaire was not completed despite multiple requests for participation. This yielded a response rate of 83%. The interviews lasted an average of about one hour.

In addition to the surveys, the researchers conducted face-to-face, in-depth interviews with five watershed council coordinators, onsite when possible. These interviews were carried out to gain a deeper understanding of the variety of ecological and cultural (including economic and socio-political) contexts in which watershed councils operate – understanding that cannot be captured in a telephone survey. The settings included an urban council, a coastal council, and rural councils in southwest, northeast and southeast Oregon, reflecting different landscapes, communities and watershed issues.

The **economic data** were collected from three sources.

- Our questionnaire, completed by 48 watershed councils, included three items about the contracting practices of watershed councils.
- OWEB provided information on council support grants for those same 48 councils, as well as other OWEB grants to them (excluding small grants, which often seem to be pass-through monies for private landowner projects) for the period July 1, 2001 – June 30, 2004.
- Of the 48 watershed councils that completed the questionnaire, 34 provided us with information regarding outside hard dollars the councils received – funds from grants, not in-kind contributions –during the period July 1, 2001 – June 30, 2004.

Two limitations must be noted with this methodology. First, as with all studies based on self-reporting, there are unavoidable variations in respondents' understanding of the meaning of specific questions. For example, answers might reflect different interpretations of who to include as "volunteers," of what to count as a "collaboration," or what qualifies as "outside hard dollars."

Second, our respondents were not randomly chosen. We intentionally selected people to interview who have a close relationship with watershed councils around the state. Without their "insider" status they would not have the necessary knowledge to provide expert responses to our questions. So, while our respondents are very well informed about watershed council activities and their effects, it must be borne in mind that they are not neutral observers.

Acknowledging these limitations, our task as researchers is to take every precaution to ensure that any interpretations or predispositions that might be held by the respondents do not creep into our analysis.

Findings

We begin with a report of our analysis of the economic data collected on watershed councils. We then turn to our social findings, beginning with the survey and following with the in-depth interviews.[4]

Direct Economic Impact on Local Communities

OWEB's watershed council support grants provide a percentage of basic administrative support that enables watershed councils to function – to pay the salary of a coordinator and run an office. This study sought information about the impact of basic support grants on local economies. How much additional funding do watershed councils draw into communities, and from what general sources? Also, what is the overall contribution of watershed councils' spending to local economies?

Survey Findings: Contracting Practices of Watershed Councils

To provide some context for understanding their financial contributions to local economies, in our questionnaire we asked about watershed councils' contracting practices.

We first asked respondents to estimate their relative use of contractors, in-house staff, and volunteers to carry out projects.

- Every watershed council used volunteers for at least some of their projects. The range was from 2% to 100%, with an average of 32.3% of projects per council being carried out by volunteers.
- Forty-two percent of watershed councils reported using in-house staff or crews to complete some projects. Among those using in-house staff, the range was from 5% to 70%, with an average of 28% of council projects being carried out in-house.
- All but one of the respondents reported that their watershed council uses contractors for at least some of their projects. The range among those using contractors was from 1% to 90%, with an average of 60%.

We then asked those who use contractors to estimate what percent of their contract work goes to local contractors. The range was from 35% to 100%, with an average of 85%.[5]

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[4]/ The survey included questions about the contribution of watershed councils to the local economy, beyond their direct dollar impact. Those findings are described in the section reporting the survey findings.

[5]/ We told respondents to define local as within the county. This definition was used in a previous study of watershed councils, which found that 80% of OWEB grant funds to watershed councils are spent locally (that is, within the county) [Bonner, K. and M. Hibbard (2002). *The Economic and Community Effects of Oregon Watershed Enhancement Board Investments in Watershed Restoration*. Ecosystem Workforce Program, University of Oregon].

Finally, we asked respondents if their watershed council gives preference to local contractors in its selection criteria. Seventy-three percent said that they did so, either formally or informally.

In sum, then, much of the work of watershed councils is being carried out by local contractors.

Local Economic Impact of Watershed Councils

The hard dollar impact of watershed councils on the economies of the local communities in which they are embedded is of significant interest. Using the figures supplied by OWEB and the watershed councils themselves, we estimated the impact in two ways.

Funds Leveraged

To calculate how much additional funding is being leveraged by OWEB's watershed council support grants, we used a three-step process.

- OWEB supplied us with figures for watershed council support grants and for other OWEB grants during the study period to the 48 watershed councils that participated in our interviews. Using the following approach we calculate that **every council support grant dollar leveraged $1.37 in additional OWEB support**.
  - » Total council support grants = $4,017,387
  - » Total other OWEB project grants = $5,508,726
  - » 5,508,726/4,017,387 = $1.37

- Thirty-four of the 48 participating watershed councils supplied us with figures for "outside" grants they received during the study period. Using the following approach we calculate that **every council support grant dollar leveraged $3.72 in outside funding.**
  - » $10,579,315 (total reported outside grant support)/34 = $311,156 (average outside grant support)
  - » $4,017,387 (total watershed council support grants)/48 = $83,696 (average watershed council support grant)
  - » $311,156/$83,696 = $3.72

- Thus, on average, during the study period **every OWEB watershed council support dollar generated an additional $5.09 ($1.37 + $3.72 = $5.09)** for the local economies of the communities in which watershed councils operate.

Community Economic Impact

The average community economic impact of watershed council activities was estimated by the following formula:

Total watershed council hard dollar funding x .8 local capture x 1.7 multiplier/34, where

- total hard dollar funding is the sum of OWEB and "outside" dollars received by the 34 watershed councils that supplied data
- The 80% "capture" figure is from Bonner and Hibbard[6]
- The multiplier of 1.7 is a conservative estimate[7]

- $20,105,428 x .8 x 1.7 = $27,343,381/34 = $804,217
- $804,217/3 = $268,072

During the study period, **the typical watershed council <u>created $268,072 of local economic activity</u> each year**.

Watershed Councils and Community Social Capacity

To reiterate, our aim with the social portion of the study was to try to understand if/how watershed councils serve as catalysts to enhance individuals' and communities' capacity to engage in issues beyond watershed functioning. To shed light on that question, in the survey we asked about watershed councils' use of volunteers, their outreach activities, their participants' involvements in other community organizations, their collaborative activities at the local and regional level, and their major accomplishments. In the in-depth interviews we tried to understand the variety of contexts in which watershed councils operate.

Survey Findings

Our questionnaire called for both quantitative and qualitative responses. Thus, some answers have been tabulated and presented as percentages; in other cases general themes have been identified and discussed.

<u>The Role of Volunteers</u>

Oregon's watershed councils are premised on a model of self-organization at the local level, through extensive use of volunteers. To help understand how the use of volunteers works, we asked respondents to provide a head count of the number of volunteers used

[6]/ Bonner and Hibbard (2002) found that 80% of OWEB grant funds to watershed councils are spent locally.

[7]/A multiplier is an estimate of the ratio of the direct, indirect and induced effects to the initial change itself. In this case, it is the ratio of the direct, indirect and induced effects to the watershed councils' locally captured hard dollars. The multiplier effect varies with the type of economic activity involved. Public service expenditures have multiplier effects on the local economy in the range of 2.0 – 2.5 (see, e.g., Pozdena, R. (1997) *Power to the Student: An Alternative to Higher Education Funding Increases*. ECONorthwest Portland, Oregon for Cascade Policy Institute Portland, Oregon; or *Medicaid: Good for California's Economy*; Families USA Publication No. 03-102, 2003). However, smaller communities generally have smaller multiplier effects; since they are less economically self-sufficient, more money leaks from them to larger urban areas. For this study we have therefore estimated a multiplier somewhat under 2.0.

during the study period (Figure 1a). We chose a straight head count rather than the number of volunteers by activity in order to avoid multiple counting of the same individual.

Figure 1a
Number of Volunteers by Quartile

	Range	Average Number	Median Number
1st Quartile	0-50	32	40
2nd Quartile	70-165	125	130
3rd Quartile	170-239	202	200
4th Quartile	250-1,200	455	340

The overall average number of individual volunteers that respondents estimated for their watershed councils was 212. There was a tremendous range however, from none to 1200. In the lowest quartile the range was from none to 50, with an average of 32. This is a stark contrast to the highest quartile, in which the range was from 250 to 1200, and the average was 455.

In addition to headcount, survey respondents were asked to estimate the percentage of their volunteers that fall into various age groups (Figure 1b).

Figure 1b
Percent of Volunteers by Age Group

	Retired Age	Working Age	College Age	High School Age	Junior High School Age	Grade School Age
percent of WCs using volunteers from this age group	90%	100%	55%	83%	48%	48%
Range of volunteers in this age group	0-85%	5-85%	0-30%	0-90%	0-75%	0-50%
Average percent of volunteers in this age group	22%	37%	6%	21%	7%	7%

Watershed councils make the most extensive use of high schoolers, working age people and retirees for their volunteers. There is no real pattern, however. There is a wide range within each age group. For example, one watershed council reports that 90% of its volunteers are high schoolers and they use almost no retirees or working age people; another reports that 85% of its volunteers are retirees and they use almost no high

schoolers; at yet a third council more than 85% of the volunteers are junior high and grade schoolers, with almost no adult volunteers.

The differences by age group are probably a result of the kinds of activities different watershed councils use volunteers for. Respondents were asked to indicate on a check-list various activities for which they used volunteers during the study period (Figure 1c).

Figure 1c
Uses of Volunteers

Activity	Percent Using Volunteers for this Purpose
Educational events	79%
Watershed Restoration Projects	75%
Monitoring	69 %
Planning/Assessment	69%
Outreach	66 %
Office staffing	33%
Other	17 %

Under "other" activities, one respondent mentioned using volunteers to attend city council meetings; another cited providing public testimony, fundraising, and stakeholder identification; and a third respondent listed database development for mailing lists and website redesign.

Overall, then, it seems that volunteers are most commonly used for the core activities of the watershed councils, environmental education, on-the-ground work, monitoring, and planning and assessment. They are used less often in support positions.

Outreach Activities

There are a variety of possible tools that watershed councils might use to inform the local community about their presence and to engage individuals and organizations in their activities. We provided a number of categories for outreach tools and asked respondents to indicate any that they had used during the study period (Figure 2a).

"Other" outreach activities included e-mail bulletins, websites, tours, mentoring high school students, and production of a video.

Two thirds or more of the respondents reported using several of these tools. Interestingly, 40% do not have a brochure, and only about half reported that they had put on a workshop or educational event during the study period.

Figure 2a
Use of Outreach Tools

Type of Activity	Percent
Press Release	69%
Brochure	60%
Newsletter	64%
Workshop	48%
Educational Events:	
K-12 only	17%
Adult only	0%
All ages	50%
Public Presentations	67%
Issue Presentation at Council Meetings	64%
Booths/Displays	73%
One-on-One/Small Groups	58%
Other	33%

When we asked them to list the two or three outreach tools they use most frequently, respondents mentioned press releases, issue presentations at council meetings, and newsletters most often (Figure 2b).

Figure 2b
Most Frequently Used Outreach Tools

Outreach Tool	**Number of Times Mentioned**
Press releases:	22
Issue presentation at Council Meetings	22
Newsletter	20
Presentations	12
One-on-One and/or small groups	9
Educational events	7
Booths/displays	6
Workshops	4
Brochures	3

The reasons given for using press releases, issue presentations and newsletters were that they are cost effective. Respondents report that their councils have easy access to local newspapers, making press releases an effective way of reaching the community. One respondent stated that the council can generally expect to get front-page coverage as a

result of a press release. Another noted that the council can rely on the local paper to print whatever they send in. In one instance, a respondent noted that press releases that are turned into newspaper articles are helpful in reaching people who may not be on the council mailing list.

Discussing presentations at council meetings, one respondent commented that they provide a captive and receptive audience when the presentation is the result of an invitation. Several respondents stated that council meetings are quite well attended as people appear to be interested in hearing guest speakers and obtaining information on different watershed issues. They mentioned that they get inquiries from landowners about having projects carried out on their property as a result of presentations/discussions at council meetings. On the other hand, one respondent mentioned that their council meetings do not necessarily reach that many people; therefore, having a newsletter gives broader coverage.

Newsletters were often mentioned as an effective way of reaching people in the community. Furthermore, one respondent noted that the council can get anything it wants into their newsletter.

As the culmination of our questions about outreach activities we asked respondents to provide three or four examples of the outcomes from using the different outreach tools. Our aim was to try to understand the link between outreach strategies and watershed councils' place in their local communities.

We organized the responses into four broad categories:

1. Building relationships;
2. Bringing more citizens into the decision making, planning, and implementation process;
3. Community capacity building;
4. Public education and awareness of watershed issues

These categories are interlinked in important ways. Education, for example, adds to trust building and increases community capacity for problem solving. Enhancing community capacity for problem solving can, in turn, create awareness of the potential for partnership building to solve local problems. With the interlinkage in mind, examples from any one of the following category narratives could easily be transferred to other categories.

1. Building relationships. Respondents offered several insights regarding one-on-one and small group discussion as a way to build trust between the council and private property owners. As a result of trust building, or along with it, councils have been able to create cooperative partnerships. For example, one respondent described ways that one-on-one discussions help forge partnerships and develop cooperative relationships for implementation of specific projects. Another stated that small group discussions provide opportunities to find new people to work with and new ways for people to work together. Yet another talked about one-on-one and small group discussions as the best way to understand property owners' concerns and find ways to directly address them – as a

means to build trust and improve working relationships among landowners and the council.

Such partnerships between the councils and private property owners have had a snowball effect. According to one respondent, property owners with projects on their land are likely to call on their neighbors and encourage them to likewise apply to have restoration, water use efficiency, or other projects carried out.

Outreach efforts have led to other organizations calling on the watershed council for help with regard to riparian management, water quality, erosion, and other watershed health issues and projects.

2. Bringing more citizens into the decision making, planning, and implementation process. Much of the work of watershed councils depends on the efforts of volunteers. Respondents almost universally mentioned that volunteer recruitment is an important facet of every outreach tool they use.

3. Community capacity building. Promoting residents' identity with their watershed and educating them about watershed issues can help build community capacity for problem solving at the local level. In this regard, watershed councils can make significant contributions to their communities.

Increased capacity takes various forms. Respondents highlighted numerous projects that were outcomes of outreach efforts. As councils work with community and government partners, local technical expertise increases as does the repertoire of strategies available to address problems. Learning to collaborate with various partners – leveraging knowledge capital as well as financial capital – also expands capacity as different perspectives and shared dollars are brought to bear for developing locally appropriate solutions to natural resource problems.

Respondents also talked about increasing community capacity through the growth of technical knowledge, using outreach strategies such workshops or through monitoring or other data gathering and analysis.

4. Increasing public education and awareness of watershed issues. Providing information for residents about the particular issues in a given watershed is an important aspect of the work of watershed councils. In a typical comment, one respondent mentioned that the council tries to have at least one presentation at each council public meeting. There is an effort to make the presentations educational and to invite someone to speak on local issues. As a result, meetings have the reputation for being good places to show up and get information. In a similar vein, another respondent spoke about council public meetings being an impartial forum where controversial issues can be aired safely. The council has established itself as a trust building entity in the community.

Various respondents talked about outreach efforts such as workshops, public meetings, issue presentations, and council meetings leading to local citizens becoming more informed about watershed health issues. One coordinator captured the attitude of many

by commenting that while the levels of education and awareness were difficult to quantify, they were nonetheless an important outcome of various outreach tools.

Involvement with other Organizations

Watershed councils help develop community capacity as a result of the ways they become imbedded in the network of natural resource and other civic organizations in their local community. Council members and other active participants who are involved in other organizations serve to "cross pollinate" perspectives, ideas, information, and organizational skills.

In an effort to begin to understand the ways watershed councils fit into or enhance local civic networks, respondents were asked to estimate what percent of their members and active participants were involved in other civic or community-building organizations in two categories: those focused on natural resources, and those without a natural resource focus (Figure 3a).

Figure 3a
Watershed Council Members/Active Participants
Involvement with other Organizations

	Organizations with Natural Resource Focus	**Organizations without Natural Resource Focus**
Estimated Range of Percent of Members and Active Participants Involved with Other Organizations	10-100%	10-100%
Estimated Average Percent of Members and Active Participants Involved with Other Organizations	64%	62%

There was a notable spectrum of other organizations in which members and council participated. A sampling of organizations with a natural resource focus included a variety of "friends of"-type organizations, typically concerned with a particular stream or river. In addition, respondents mentioned the Rocky Mountain Elk Foundation; various fly fishing and commercial fishing organizations; nationally organized conservation organizations such as the Izaak Walton League, the Sierra Club, and the Nature Conservancy; garden and birding clubs; and a range of other organizations.

The array of organizations which did not have a natural resource focus included churches; community foundations; arts organizations; local chapters of national service organizations such as the Shriners, Rotary, Lions, Kiwanis, and Soroptomists; the Red Cross and United Way; the Oregon Oldtime Fiddlers Association; and others.

Collaboration at the Local Level

Developing collaborative capacity is an important aspect of community problem solving. Like many other areas of public concern, resource planning and management increasingly involves collaboration because of overlaps in organizational jurisdiction, an array of administrative and regulatory requirements, and financial, technical and knowledge resource constraints. We asked about ways watershed councils might be collaborating to form local networks to help design and carry out their projects and activities.[8]

The questionnaire was designed to identify collaborative partners in three categories: government, civic and non-profit organizations, and private-sector organizations. The percentage of partners in the different categories provides a snapshot of the extent to which a wide spectrum of collaborative partnerships has developed to this point. The following tables display the percentage of survey respondents who identified a variety of partners in the three categories. Organizations that accounted for less than five percent in any of the categories are not displayed.

Government Partners. The bulk of local collaborative partners are government entities (Figure 3b). This is perhaps predicable as governments shoulder much of the administrative or regulatory responsibility for natural resource management. Moreover, government is an important landowner in much of Oregon.

It is noteworthy that 100% of responding watershed councils are collaborating with their local governments and that the 17% who report collaborating with tribal governments represent half of those with a tribal entity in or near their watershed.

Figure 3b
Government Collaborative Partners

Oregon State Agency/Organization	% of Respondents Listing Agency as a Partner
Department of Agriculture	31%
Department of Environmental Quality	44%
Department of Fish and Wildlife	73%
Department of Forestry	46%
Department of State Lands	6%
Department of Transportation	10%
Department of Water Resources	23%
Oregon State University/Extension	17%

[8]/ For purposes of this study, collaboration is defined as cooperative relationships for solving problems or designing and carrying out activities that no single organization could accomplish on its own.

Figure 3b
Government Collaborative Partners (continued)

Federal Agency/Organization	% of Respondents Listing Agency as a Partner
Forest Service	46%
Bureau of Land Management	40%
Environmental Protection Agency	12%
NOAA Fisheries	19%
Fish and Wildlife Service	33%
Bureau of Reclamation	5%
Army Corps of Engineers	7%
Natural Resource Conservation Service	17%
Other Governments/Entities	**% of Respondents Listing Agency as a Partner**
County and City Governments	100%
Soil and Water Conservation Districts[9]	52%
Tribes	17%

Private Sector Organizations. Responses that included private-sector, or business, partners reflect a variety of understandings across watershed councils of what is meant by collaboration. 44% of respondents mentioned businesses that were helpful to their council activities through donations of administrative and technical assistance, technical training, office space, food for events, project supplies, and debris disposal from clean-up events. The types of businesses mentioned included wood products companies (the most frequently mentioned), engineering firms, professional associations, resorts, utility companies, and environmental services firms.

But when asked to elaborate on the nature of their collaborative roles it was apparent that many of the businesses were not actively engaged in joint planning and project implementation. Nevertheless, the responses demonstrate an awareness of the extent to which businesses help watershed councils carry out various aspects of their missions.

Civic and Non-Profit Organizations. The spectrum of non-governmental public-sector organizations that exist as potential partners is far larger and more varied than government agencies. Such organizations may operate at the local, regional, state, and/or national levels. Examples are local community foundations, local chambers of commerce, and churches; local chapters of national and international organizations such Rotary or Trout Unlimited; state organizations such as Water Watch; and so on. The range is too varied to display under individual names; therefore, percentages in the following table are organized by general categories (Figure 3c).

[9]/ The figure for soil and water conservation districts appears to be low. Most respondents mentioned SWCDs at one time or another during the interview. It may be that some respondents omitted to mention them in answer to the specific questions about collaborative partners because many watershed councils are administratively linked to SWCDs.

Figure 3c
Civic and Non-Profit Collaborative Partners

Type of Organization	% of Respondents Listing Organization as a Partner	Examples
Environmental groups or recreational groups with environmental interests	69%	Nature Conservancy, various fishing groups, Izaak Walton League
Economic Development groups	10%	Chambers of commerce, community development groups
Civic Organizations	46%	Lions Club, Community foundations, Church groups, Volunteer firemen
School and Youth Groups	27%	Boy Scouts, Boys and Girls Club

Regional Collaboration

In addition to local collaborations, community-based natural resource management may also entail the need for organizations to collaborate at the regional level, because watersheds and watershed issues often cut across political boundaries and may entail data gaps, differing interest group needs, and differing institutional requirements that need to be reconciled. We therefore included questions aimed at trying to get a picture of the extent to which watershed councils are involved in regional collaborations.

We first asked whether councils had been involved in planning and/or carrying out watershed projects and/or activities that included watersheds adjacent to their own. In some cases, the respondent was an umbrella council that coordinated activities for smaller councils. Of 48 survey participants, 30 (62.5%) reported being involved in planning and/or carrying out watershed projects and/or activities that included watersheds adjacent to their own; 13 (27%) said they were not; four were umbrella councils; and one respondent who returned a written survey did not answer the regional collaboration questions.

Of the four umbrella councils, two reported that some of the watershed councils under their umbrella had independently carried out projects and/or activities across watersheds, and two reported that none had done so.

Respondents not from umbrella councils who said they had been involved in cross-watershed projects and/or activities were asked to provide names and examples of collaboration in four categories: other councils, government agencies, civic or non-profit organizations, and business or other private-sector organizations. Two examples of sub-basin planning surfaced among the responses to the question:

- The Walla Walla Watershed Council is actively collaborating with Washington State on a number of issues of concern on both sides of the state line in that area.

- Eight councils in the Rogue basin formed the Rogue Coordinating Council, an organization with a mission to "promote the success of member councils in watershed protection and restoration, encouraging activities that transcend individual watershed boundaries."[10]
- Several council representatives listed work with small grant teams. Small grant teams bring together representatives from various entities to make grant award decisions; however, projects are carried out on a local basis without coordination across watershed boundaries.

Regional collaboration projects involving sub-basin planning efforts have involved stream enhancement and weed management, education, a native plant co-op, and coastal salmon recovery plans. According to one respondent, collaborating across watersheds results in greater efficiencies for all participants. For example, a crew in one watershed that had a specialized skill set brought their specialization to another watershed, saving time that would otherwise have to be spent on training a crew for the second watershed. To take another example, collaboration allowed different watersheds to share helicopter time for log placement in different streams, saving money. On a less tangible note, one respondent pointed out that the public likes to see organizations working together. There is the potential for "public capital" as a result of regional collaboration.

Collaboration typically involves both public- and private-sector organizations. Those interviewed were asked if their regional collaborative projects involved partners in three general categories: government entities, non-profit or other public organizations, and organizations in the private or business sector (Figure 3d).

Figure 3d
Regional Collaborative Partners

Type of Organization	% of Respondents Listing Organization as a Partner	Examples
Governmental	53%	All state and federal resource management agencies listed elsewhere; USEPA; tribes; soil and water conservation districts, economic development organizations
Non-Profit or other Public-Sector	26%	Surfrider Foundation, EcoTrust, Nature Conservancy, fly fishing organizations
Private Sector	8%	Timber and agricultural businesses

[10] /<www.restoretherogue.org/docs/rbcc_minutes_7_28_03.pdf>.

Important Contributions

The questionnaire was designed to elicit information in three interlinked topic areas: the primary function of watershed councils, which is the health of the watershed; the side effect of economic contributions to the local economy; and the side effect of enhancing democratic processes in the local community.

Contributions to the Health of the Watershed. When asked to mention the two or three most significant contributions their council had made to the health of their watershed over the last there years, respondents were quite voluble. This is to be expected since watershed health is the fundamental purpose of their organizations. Their responses can be organized around three themes.

- **On-the-ground projects** to open up fish habitat, improve water quality, and restore wildlife habitat were mentioned by 89% of respondents.
- **Processes of community education and dialogue** that created a better-informed public and a community with greater awareness of their relationship to the watershed and watershed issues were mentioned by 57% of respondents.
- **Assessment and monitoring** of watershed environmental conditions were mentioned by 30% of respondents.

Contributions to the Local Economy. Council projects and activities aimed at improving watershed health have produced benefits in local economies. The direct dollar impact was discussed in an earlier section of this report. We are also interested in less direct ways the work of watershed councils might serve the economic interests of communities. Respondents were asked about contributions their councils might make to the local economy beyond bringing in grant dollars. Their responses were complex and it is not possible to quantify them. They are nevertheless significant and it is important to try to capture them.

- **Strategic implementation of projects** geared toward enhancing the health of the watershed has had the added advantage of increasing compliance with environmental laws, removing the possibility of fines and other sanctions and helping to retain "working landscapes" in the watershed. Several respondents mentioned fencing and riparian buffer projects that helped landowners avoid fines under S.B. 1010. Another project led to an out-of-court settlement between local irrigators and the USFWS that might otherwise have resulted in an enforcement action.
- **New opportunities for tourism and recreation** have been created through projects such as water quality improvements, fish barrier removal, habitat restoration, and trail construction. Enhancing the recreational attractiveness of communities for hiking, fishing, kayaking, and the like have created business opportunities that draw dollars to the local economy.
- Improving water quality and stream flows has **increased the viability of the natural resource and agricultural economy along with protecting human health and the continued existence of fish and wildlife in communities** by reducing erosion, increasing crop yields, and reducing the need for labor inputs.

- All of the above improvements in watershed health have **protected and enhanced property values.** As well, many respondents pointed to **increased amenity values** that contribute to the **long-term livability** of communities.

Contributions to Democratic Processes and Decision Making. As previously noted, Oregon's watershed councils are premised on a model of self-organization by volunteers at the local level. The implication is that conducting activities targeted at watershed health through this organizational form might also contribute to the overall problem-solving capacity of the community.

We have already seen that most watershed councils make extensive use of volunteers, and that the people active in watershed councils are also active in many other community groups – in groups that are concerned with natural resource issues as well as those that have their focus elsewhere. To help us understand this behavior more thoroughly we asked respondents to tell us two or three ways their watershed council has contributed to enhancing local democratic processes in their community.

- **Providing a forum** where citizens feel comfortable discussing difficult or contentious issues, and bringing new people into the process were each mentioned by several respondents. Some noted that watershed council activities had enlarged the scope of organized stakeholder groups involved in planning and implementation; one answered in particular that the watershed council has been "a forum for a lot of long-time residents to have their voices included." Other respondents emphasized the watershed councils' openness regarding public comment and participation for planning purposes.

- Watershed councils serve as **a vehicle for empowering citizen participation.** Various respondents mentioned ways their councils had worked with city, county, and state officials in a variety of ways. One said that "the watershed council talks directly with governmental bodies" and has an influence on what they know, what they work on. Another commented that "there are always two sides to every story and the watershed council ensures that both sides are heard."

- Most broadly, respondents saw watershed councils as providing **grounding for participation in decision making outside the watershed council itself.** This happens when watershed councils provide training and experience in leadership and facilitation, when participants work to understand the perspectives of people whose views diverge from their own, and when they try to build consensus around specific decisions. One respondent specifically pointed out that participants carry the lessons they learn from participating in council processes with them to other organizations they may be involved with.

Major Accomplishments. To wrap up this section, we asked respondents to reflect on all the contributions of their watershed council and name two or three major accomplishments achieved during the study period.

On-the-ground work – either general projects such as tree planting or specific projects within a specific watershed – was the second most frequently mentioned type of accomplishment.

The most commonly mentioned accomplishments involved educating and engaging the community in one form or another.

- Many respondents felt strongly that their council's work had done a good deal to inform people about watershed health. Along the same lines, several mentioned that the councils had helped bring people together to learn not only about watershed health but to learn how to engage in dialogue in new ways. One respondent, for instance, talked about people in the community being able to hear one another's viewpoints without the traditional conflict model of interaction. Others talked about how using the consensus model had helped people learn a new way of going about making decisions.

- Building trust was also mentioned several times. Answers took several forms: sometimes the increase in trust was between the council and the community and sometimes it was among different interest groups in the watershed. In another instance, it was between local residents and government organizations.

- More than once, someone referred to the emergence of "win-win" and other creative solutions to watershed problems, such as implementation of projects that protected a local river *and* increased property values. One person who was interviewed stated that it was "exciting to see people think in positive rather than in regulatory terms."

Case Studies

In addition to gathering data through the surveys, we conducted unstructured (open-ended) interviews with coordinators of five watershed councils. As noted above, we wanted to gain a deeper understanding of issues that arise because of the different ecological and cultural (including economic and socio-political) contexts in which watershed councils operate – understanding that cannot be captured in a telephone survey. Our major criterion for selecting councils was their success in engaging the public. We also wanted to capture the variety of operating environments that might affect council structure, process, and projects – urban, rural, coastal, and inland settings; geographic scale; predominant land ownership type (private or public); and the ways people in the different settings relate to the watershed resources, such as irrigation, grazing, timber, and recreation.

Building Trust and Credibility Through Structure and Process

The initial level of trust regarding watershed councils has been highly variable. Several of the councils reported that they were originally perceived as an environmental group trying to muscle out traditional resource-based work. Through robust outreach, a different perception was established. Ongoing relationship work of this sort has proven essential to assuring that council actions are understood to be directed at protecting and enhancing overall watershed health rather than supporting one interest group over others. The need to allow for flexibility regarding structures and processes to match local issues, needs, and cultures cannot be overstated. Those interviewed considered the membership

and structure of the board, as well as the process used to build a relationship with the local community, essential to establishing credibility. While planning made sense as a first step in some instances, putting projects on the ground as a way to gain community trust and support has been paramount in other settings.

The Siuslaw Watershed Council, running inland from the coast near Florence and headquartered at Mapleton was recognized in 1996 and later became a 501(c)(3) organization. It has built and increased support in the watershed by approaching project prioritization using a matrix of two values: ecological and social capital. By overlaying those values, restoration areas are prioritized to best focus the energy of the council toward positive outcomes (both with the community and within the ecosystem). The council recognizes the potential ineffectiveness of using staff, volunteer, and partner time and energy on areas with good restoration potential but an unresponsive or skeptical land owner; or likewise, on areas with proactive land owners but offering little significant benefit to overall watershed health. This strategy is paying dividends as the council has built a reputation for being accommodating as well as possessing the necessary skills to help land owners implement successful watershed enhancement projects. The benefit of focusing significant attention on social relationships has been the ability to complete high-value projects over the long term.

In contrast, the Johnson Creek Watershed Council operates in a highly urbanized setting. Local communities are not dependent on resource extraction or agricultural production; rather, the impacts on water quality of past and future urban development are the focal points of the Johnson Creek WC's activities. In addition, the Johnson Creek WC has the challenge of coordinating and collaborating with five urban jurisdictions, two counties, and two soil and water conservation districts.

Johnson Creek, with its headquarters in Milwaukie southeast of Portland, had its beginnings in a "friends of" group which formed in the 1980s to address refuse in Johnson Creek. The group subsequently evolved into an OWEB and locally recognized council and organized as a 501(c)(3) organization in 2001. According to its strategic plan, the council is working to become a community asset and help inform the public about how to frame its relationship to the watershed. The council has created a regional tool bank, providing equipment such as shovels, tarps, and wheelbarrows for a variety of projects. It currently occupies a building that has the potential to house other similar organizations and has resources available to students to do research as well as project work.

To increase its overall effectiveness for its particular setting, the council is working to recruit board members with skills that can benefit the organization in addition to filling stakeholder positions – for example, a nursery grower who also has accounting skills, or an attorney who may be associated with a stakeholder group. This is a well-tested strategy used by many non-profit organizations to increase the overall effectiveness of the board and organization by adding professional skills to the dedication members bring to the council's mission and activities.

The Applegate Watershed Council, headquartered outside of Jacksonville, is a subgroup of the Applegate Partnership, which formed in the early 1990s to address federal timber management issues. The partnership and council share the same board of directors. A 501(c)(3) organization, the Applegate Watershed Council was formed specifically to deal with watershed issues on private property in the Applegate watershed. There is another distinct difference between the partnership and council in that the partnership functions primarily as a facilitative entity while the council is project oriented.

Catastrophic wildfires have been a significant problem in southwest Oregon. The council has enlarged its focus to help the partnership work with communities on catastrophic wildfire prevention and planning in addition to the council's focus on a variety of watershed enhancement projects, as catastrophic wildfires can have significant adverse effects on stream and forest ecology.

The Owyhee Watershed Council, headquartered in Ontario, covers nearly 11,000 square miles in three states—Oregon, Idaho and Nevada. It was established as an OWEB and locally sanctioned council in 2001. During a scoping process to determine support for a council, citizens in the Owyhee watershed indicated that they did want such an organization and that they wanted the council to reflect watershed, and not state, boundaries.

Citizens in the watershed were vocal about their distrust of any agency-dominated organization. Agency participation and advice has been through a technical advisory committee. Although Clean Water Act or Endangered Species Act regulatory requirements inevitably drive some decisions, locals believe that they have greater control over decision making, which has helped the council establish legitimacy. To build trust and credibility, the council made the strategic decision to begin with on-the-ground projects rather than a planning process. Watershed needs are split among primarily ranching and farming interests. Through projects such as helping irrigators improve water quality and water use efficiency and working with ranchers on riparian fencing and off-site water development, the council has demonstrated its ability to help communities maintain their traditional economy and has gained support for its actions directed at enhancing watershed health.

Water availability for irrigation as well as flood control and water quality have been important local issues for the Walla Walla Watershed Council, which is headquartered outside of Milton-Freewater. The Walla Walla watershed reaches across northern Oregon into Washington State, and a series of bi-state cooperative efforts have taken place to address water rights and Endangered Species Act issues. The Walla Walla is another council that began with a "friends of" effort—in this case, irrigators interested in restricting Forest Service logging practices that might increase flash flooding. When the council was established in 1994, its board was expanded to include tribal, timber, dry land agricultural, urban, environmental and recreational interests. The council has a self-perpetuating board and is organized as a 501(c)(3) corporation.

The Walla Walla watershed has a history of legal battles over water rights going back to the 1930s; therefore, one objective of the group has been to function as a forum for

conflict resolution. In the late 1990s, the area was faced with potential federal enforcement actions regarding endangered fish species, and the council became part of an effort to ward off Endangered Species Act sanctions through cooperative design of a Habitat Conservation Plan among interests in Oregon and Washington. The council is very much involved in project implementation; however, it is also seen by citizens as well as state and federal agencies as a forum for input, information and negotiation on resource management issues.

For the different councils, sensitivity to local needs and flexibility in finding ways to meet those needs have done a good deal to establish the councils as partners with the technical abilities and collaborative skills to help citizens find locally appropriate solutions to a variety of watershed issues.

Building Partnerships and Networks

An important source of the success of the councils who participated in these extended interviews has been their ability to find ways of increasing collaborative efficiency by establishing and strengthening relationships with agencies and other organizations, and by building effective networks. Carrying out projects often involves collaboration with other agencies to make the most of available technical expertise, data, and financial resources. As well, all councils provided examples of the benefits of establishing networks of collaborative partnerships.

The Applegate watershed coordinator pointed us to the Rogue Basin Coordinating Council as an example of a basin-wide council network that has produced collaborative efficiencies. Eight councils in the Rogue Basin, including the Applegate Watershed Council, established the coordinating council to support one another through sharing resources, technical information, and, in some cases, grant-writing capabilities for projects that cross watershed boundaries. The Applegate has also established good working relationships with state and federal agencies for a variety of resource management objectives.

The Walla Walla Watershed Council is a partner in several bi-state coordinating committees to address issues such as water quality monitoring, water use efficiency and habitat conservation planning to benefit communities in both states highly dependent on irrigation water to maintain local economies. The council was very deliberate in its early actions to find ways it could be of service to state and federal agencies for both technical help and public conflict resolution.

The Owyhee Watershed Council is still quite new, and it covers an immense geographic area. It has had to deal with significant organizational challenges in coordinating activities across three states with very different institutional approaches to watershed management. Work is underway to establish and maintain a network among the three states in order to help ranching and farming communities retain their traditional economies as well as to manage recreational opportunities through contributions to watershed health.

As with most watersheds, Johnson Creek crosses political boundaries. In this case, several urban jurisdictions are involved. The Johnson Creek Watershed Council cooperates across jurisdictions for action planning and is a partner in an interjurisdictional committee which focuses on monitoring.

The Siuslaw Watershed Council was a co-recipient of the Theiss International RiverPrize in 2004, along with other participants in a network of partners concerned with the Siuslaw watershed. The prize was awarded to the Siuslaw River Basin Restoration Partnership, which also included the Siuslaw Soil and Water Conservation District (a local special district), the Siuslaw Institute (a local non-profit), and the Siuslaw National Forest. They were honored for their achievements in river restoration and partnership within the watershed. Partners in the Siuslaw network include a mix of state and federal agencies, governments, and districts, as well as non-profit organizations, timber companies, and other private landowners.

Each of the councils interviewed has significantly different demands with respect to creating and sustaining networks that can add to partners' capacities to design and implement watershed enhancement projects. In each case, the councils demonstrated creative and strategic ways of meeting those demands.

Emphasis on Education

Education is a significant activity for the different watershed councils. Holding workshops, special events, and designing and carrying out educational activities for various school grades and adults all contribute to community knowledge about, and concern for, watershed health.

The Johnson Creek Watershed Council uses education and outreach to help people think about their relationship to the watershed. It is the vision of the council that the building it now occupies will be developed to, among other things, provide classroom space for student research and learning about water issues. It is located on the creek, and the Johnson Creek Watershed Council hopes to be able to use its creek access for learning opportunities in a manner that also reinforces the council's vision of becoming a community asset.

The Walla Walla Watershed Council is currently emphasizing project implementation; however, it also continues to provide student learning experiences in science and math using a variety of watershed issues. The council also sponsored development of an educational mural at a local park in Milton-Freewater featuring a watershed environment with a variety of aquatic oriented inhabitants.

The Owyhee Watershed Council produced a video depicting the history of the area and the stewardship practices now in place. The council has established an annual Fifth Grade Field Day which is a sort of outdoor school for children in the region. There are 15 teaching stations including rivers, dams, irrigation systems and water quality testing sites. Field Day activities emphasize place-based education to help increase the understanding

that everyone lives in a watershed and to encourage students to learn about the diverse areas and uses of their watershed.

The Siuslaw works with schools and non profits in the basin to coordinate field-based learning for students. The council hopes to develop connections with the University of Oregon and Oregon State University to utilize "student capital" while providing research and learning opportunities for those interested in the sciences and environmental studies.

The Applegate River Watershed Council is a partner in two educational programs: Salmon Watch and Kids and Bugs. Salmon Watch, a statewide education program organized by Oregon Trout to teach middle and high school students about salmon ecology, concentrates student learning on the salmon life cycle and habitat issues. Kids and Bugs involves both students and adults for the purpose of learning about local populations of macroinvertebrates as stream health and water quality indicators.

As the above reporting indicates, educational events and programs that take advantage of place based issues to inform citizens and raise awareness of watershed health issues has been, and continues to be, an integral watershed council activity. It is an effective way to bring together local citizens and provide opportunities for learning about stewardship and creating solutions for various watershed issues.

Volunteers and Staffing

The in-depth interviews confirm the survey responses, that watershed councils are highly aware of and sensitive to the contributions of volunteers to the success of council projects and activities. In many instances scarce financial resources make it necessary for councils to rely on volunteers when added staff might better help them reach their full potential. We did not specifically ask about staffing; however, those councils with added staff mentioned that having additional paid personnel has helped them achieve a variety of objectives.

Four of the five councils interviewed have paid staff in addition to the coordinator. In general they come from a variety of natural resource management backgrounds and have specific technical skills. Having such skills contributes to the councils' abilities to work effectively with resource management agencies as well as other entities and individuals to design and implement projects on both public and private lands. One council representative mentioned having staff for communication and outreach as well as program and events coordination, all of which helps with education and citizen interaction.

It is probably safe to say that none of the councils would choose to reduce their use of volunteers even if they had such a luxury. However, as one interviewee pointed out, some work is inevitably left undone because at some point it becomes unfair and unrealistic to ask volunteers to spend additional work and personal time on behalf of the council.

Case Study Conclusion

The councils which were selected for in-depth interviews constitute a purposive sample designed to investigate the depth and breadth of community engagement in Oregon's highly variable geographic, economic and social settings. What emerges is a high degree of creativity and sensitivity regarding how to organize in appropriate ways for involving local communities in natural resource problem solving. Outcomes might be different, and perhaps not as productive, if councils were required to organize under a one-size-fits-all formula for structure and process.

What the councils demonstrate in common is a clear understanding of the need for network development to achieve collaborative efficiencies among partners, essential in an era of declining financial and human resources.

Adequate resources for education will continue to be important for raising awareness and knowledge levels among adults and students regarding how they think about their watersheds and the potential for improved stewardship.

Volunteers have been a mainstay for bringing people into the process of learning about watershed issues and helping councils realize a wide range of accomplishments. In certain instances, however, the ability to have additional paid staff would likely help councils achieve objectives while still providing ample opportunities for volunteer participation and learning.

Summary and Conclusions

This study sought to understand the social and economic impacts of Oregon's watershed councils in the local communities in which they operate.

Economically, we sought data regarding how much additional funding watershed councils draw into communities beyond council support grants from OWEB, and what contribution watershed councils' spending makes to the local economies of Oregon.

We estimate that:

- **each OWEB council support dollar brings an additional $5.09 into the local economy; and**
- **a typical watershed council is responsible for $268,072 in local economic activity each year.**

Socially, we asked if watershed councils serve as catalysts to enhance individuals' and communities' capacity to engage in issues beyond watershed functioning.

Watershed councils are premised on Jeffersonian ideals of bottom-up citizen involvement in issues of concern to them and their communities. This is confirmed by the number and age range of the citizen volunteers active in the typical watershed council, the types of activities in which they are engaged, and the ways their involvements carry over into

other aspects of their civic life. Two thirds of the people active in watershed councils are also active in other community organizations, both organizations involved with natural resource issues and those involved with other community concerns.

Organizationally, watershed councils have no formal authority. They depend on collaborations among landowners, government agencies, and the like to carry out their on-the-ground projects. Our findings indicate that they have been quite effective in developing cooperative relationships, even among entities that have had a history of acrimony.

In the absence of formal authority, the basic tools of watershed councils have been education, trust-building, and dialogue. These tools are transferable to many other arenas of public and civic life, and participation in the local watershed council is reported to be an important source of skill building in effective citizenship. **The answer to the study question about the social impact of watershed councils is YES; watershed councils do serve as catalysts to enhance individuals' and communities' capacity to engage in issues beyond watershed functioning.**

A Final Observation

The primary function of watershed councils has been, and will continue to be, enhancing and maintaining the health of Oregon's watersheds. The extent to which watershed councils recognize their potential to contribute to the economic health and social capacity of local communities – in addition to the watershed health contributions they make – is not clear. However, these findings suggest that if watershed health, economic health, and social capacity are all approached with greater awareness, watershed councils have the potential to contribute to their watershed communities on multiple levels through their watershed enhancement activities.