

ABSTRACT

The Role of Information Sources in Watershed Management

The current shift towards more community-based resource management and greater public involvement means managers and scientists will be working more closely with the public. A better understanding of which information sources citizens trust and pay attention to seems essential for developing long-term solutions. We surveyed landowners and watershed council members in the South Santiam watershed in Oregon to determine which information sources citizens found useful and trustworthy to provide information about watershed management. Our findings indicate that many landowners had little experience with information providers in the region. Personal experience was by far the most useful source of information. The most trusted information providers were the university Extension Service, university scientists, Oregon Department of Fish and Wildlife, and Oregon Department of Forestry. The least useful sources were the National Marine Fisheries Service and the Oregon Department of Environmental Quality, while the least trusted were the mass media and environmental groups. We also found that watershed council members tended to find most information sources more useful and trustworthy than did other landowners.

Introduction

Community-based resource management is rapidly gaining ground as a powerful management strategy across the United States and throughout the world. In the United States, the public's frustration with bureaucratic government decisions along with a call for greater citizen involvement has led public agencies to adopt more collaborative, bottom-up, community-based planning approaches (Griffin 1999; Kenney 1999; Walesh 1999). The traditional DAD (decide, announce, and defend) model often employed by public resource agencies is no longer very effective (Walesh 1999). In this era of social change, many citizens expect to have an active role in decision making along with federal, state, and local authorities. The proliferation of watershed councils and similar place-based community groups, as well as formal state-wide strategies such as the Oregon Plan for Salmon and Watersheds, is an example of this shift away from centralized bureaucracy to more localized resource management.

Managing watersheds successfully over the long term will depend on cultivating the good will, stewardship values, and participation of citizens (Priester and Kent 1997). These in turn, are heavily influenced by people's overall awareness of the issues and their trust in the organizations providing leadership. Achieving the trustworthy relationships people prefer will require the provision of information that is credible and relevant to private landowners' concerns. This article examines where landowners and watershed council members in the South Santiam watershed in Oregon get information on

management issues, including which sources of information they find useful and which they trust to provide them with reliable and credible information. It also examines the relationships between various sociodemographic characteristics and information source usefulness and trust ratings. These data provide a better understanding of whom citizens listen to regarding watershed management and which agencies and organizations they may be willing to work with on stream protection and enhancement projects.

Background

Severe declines in wild Pacific salmon runs (*Oncorhynchus* spp.) led Oregon's Governor John Kitzhaber to spearhead an effort to curtail salmon decline and restore salmon to sustainable and productive levels. The 1997 Oregon Plan for Salmon and Watersheds represents a new way of restoring natural systems; contrary to many endangered species recovery plans, it relies on cooperation and coordination among government agencies, tribal authorities, private organizations, and individuals rather than just regulatory efforts (State of Oregon 1997). Designers of the Oregon Plan recognized that government alone could not restore salmon to the Pacific Northwest. Much of the streamside land in Oregon is in private ownership; consequently, management activities on public lands will not be enough to protect important resources like salmon and water quality. Large-scale landscape-level improvements will also depend upon conservation and restoration activities by private landowners and community groups.

A central feature of the plan is the combination of scientifically sound management with local

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watershed-based outreach and action through watershed councils. The watershed councils' role is to bring varied interests together to form common goals for the ecological and economic sustainability of watersheds (State of Oregon 1997). Two primary objectives of these local councils are: 1) the formation of partnerships among landowners, community groups, and management agencies, and 2) giving local citizens a voice in managing local resources.

This shift towards greater public involvement and community-based resource management means public land managers and research scientists will be working more closely with citizens. An atmosphere of trust is crucial to working with private landowners, especially on voluntary conservation activities such as those emphasized in most watershed initiatives. The level of trust citizens have in various information providers is especially important given the complexity and technical nature of most natural resource problems. Many citizens—even those that are relatively knowledgeable about watershed management—sometimes have difficulty judging the accuracy of information; thus, they often base their judgments on the level of trust they hold for the information provider (Steel et al. 1992-93). If the source is not credible, the public is unlikely to respond to the new information regardless of its accuracy (Brunson and Steel 1994; Moore 1996). Overall, public acceptance of land use decisions is strongly linked to the credibility of the resource professional or management agency involved (Shindler et al. 1999).

The pressure is on public management agencies to consider property owners in decisions and to establish cooperative working arrangements for watershed stewardship. With time constraints and limited resources, managers must make good choices about how and where to invest their outreach efforts. Understanding which information sources people trust and pay attention to appears essential. In addition, if community-based groups are the wave of the future, as many people believe (Getches 1996; Riebsame 1996), it is important to understand the differences between those directly involved in these groups and the general public.

Management Setting

The South Santiam River is a tributary of the Willamette River in the eastern Willamette Valley, with its headwaters in the western slopes of the Cascade Mountains. The South Santiam basin is primarily rural, only the city of Lebanon has a population over 10,000. The region faces multiple watershed management challenges. Spring chinook salmon (*Oncorhynchus tshawytscha*) and winter steelhead trout (*O. mykiss*) were listed recently as threatened species under the Endangered Species Act (ESA). Several stream segments are listed on

the Oregon Department of Environment Quality's 303(d) list for water quality violations related to stream temperature and fecal coliform bacteria. In addition, the local economy was hit hard during the late 1980s and early 1990s by technological changes in the timber industry and decreased timber sales on public lands because of conflicts over logging old growth and the ESA listing of the northern spotted owl.

The South Santiam Watershed Council (SSWC) was formed in 1995, primarily to bring people in the watershed together to improve local awareness and provide education about watershed enhancement, restoration, and protection. The council serves as a forum for landowners, managers, and users to discuss local problems and find solutions. At the time of this study, the SSWC had 55 members representing a wide range of businesses, government agencies, and private interests. The council has developed an active water quality monitoring program, completed a watershed assessment (Bischoff et al. 2000), sponsored various watershed tours, and partnered with various government and private entities on several stream and riparian restoration projects.

Study Design

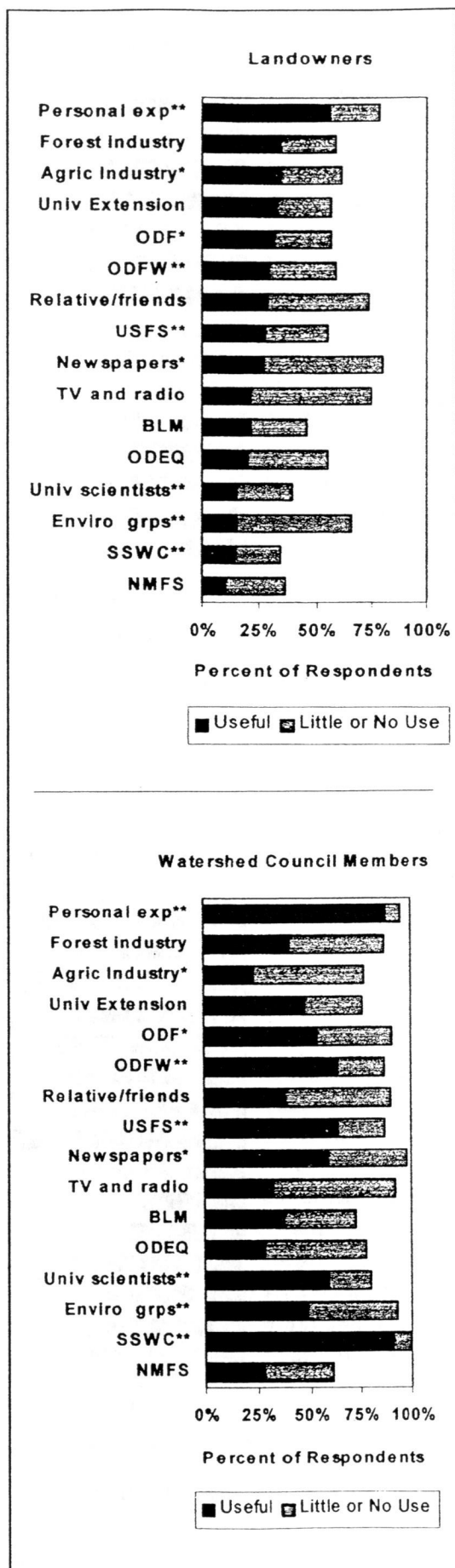
This study examined public opinions about the usefulness and credibility of information providers. It also compared the opinions of landowners in the South Santiam basin with members of the SSWC, who also are mostly landowners in the basin. A mail questionnaire was developed based on an assessment of research literature and management experience, observation of watershed council meetings, and exploratory interviews with landowners in the basin. The survey was conducted in the spring of 1999 using a modified version of the "total design method" (Dillman 1978; Salant and Dillman 1994). An initial questionnaire packet including a personalized, hand-signed cover letter, questionnaire, and postage-paid return envelope was mailed to each member of the sample in early March. Two follow-up packets were sent at four-week intervals to those who had not responded.

For the survey of general population landowners, a random sample of 450 individuals was drawn from the Linn County property tax database. Selection criteria required that survey participants be private landowners who resided in the watershed—absentee, public, industrial, and corporate landowners were excluded from the sample. Of the 450 questionnaires mailed, 13 were undeliverable and 255 were completed and returned for an adjusted response rate of 58%. Throughout the rest of this paper, these respondents will be referred to as landowners.

Questionnaires also were sent to all 55 members

Figure 1.
"How useful have these information sources been to you?" Landowner and council member ratings of usefulness of information sources (Useful = useful and very useful ratings, and Little or No Use = not useful and slightly useful ratings). No basis for opinion responses were excluded from the analysis. Chi-squared was used to test for differences between landowners and watershed council members.

* $p \leq 0.05$
** $p \leq 0.01$



of the SSWC, 1 was undeliverable, and 43 were completed and returned for an adjusted response rate of 80%. This group of respondents will be referred to as council members. While most council members are landowners in the watershed, 10 who completed questionnaires do not own property but are representatives of agencies, organizations, or businesses in the watershed.

Profile of Survey Respondents

We surveyed participants on several demographic characteristics—amount of acreage owned, age, gender, whether they were retired, years of residence, education level, income, and whether they owned streamside property. Landowners and council members were similar on the first four characteristics. Almost half of both groups owned over 10 acres, with the remaining respondents distributed relatively equally among the categories of owning from less than an acre to well over 50 acres. The majority of both groups were over 48 years old, with about a quarter being over 65. Approximately two-thirds of all the respondents were male and slightly over a third of both groups were retired.

Landowners and council members differed on the remaining demographic characteristics. On average, the landowners have lived in Linn County significantly longer than watershed council members ($p = 0.000$, independent sample t-test). Watershed council members had significantly higher levels of education ($p = 0.000$, independent sample t-test) and income ($p = 0.022$, independent sample t-test), and were significantly more likely to own streamside property ($p = 0.022$, independent sample t-test).

Usefulness of Information Sources

To better understand where the public turns for useful information about watershed management, we asked respondents to rate the usefulness of 16 information sources on a four-point Likert-type scale (1 = not useful, 2 = slightly useful, 3 = useful, and 4 = very useful). Useful sources were defined as those the respondent pays attention to and believes provide good information about watershed management. To help ensure that lack of contact was not confused with low usefulness, a "no basis for opinion" category was also provided. Chi-squared analysis was used to compare the ratings of landowners and council members. Only those respondents who had an opinion about the usefulness of the various information providers were included in the statistical analysis.

Landowners and council members varied somewhat on how they rated the information providers (Figure 1). Personal experience was the only source rated as useful by a majority of both groups. In gen-

eral, relatively few landowners found the other information sources of use. Only the forest and agricultural industries and university Extension Service were rated useful by a third or more of the landowners. Of particular note is that only 14% recognized the watershed council (SSWC) as a useful information source.

In contrast, council members' ratings were generally higher. Six providers—the U. S. Forest Service (USFS), Oregon Department of Forestry (ODF), Oregon Department of Fish and Wildlife (ODFW), university scientists, newspapers and the SSWC—were recognized as useful sources by more than half of the respondents, with the university Extension Service (48%) and environmental groups (49%) nearly at the same level. For each of these providers, except the university Extension Service, council member ratings were significantly higher than those given by landowners.

It is also important to understand which information providers are judged of little or no use. A majority of both groups rated television and radio as not particularly useful. Over half the landowners also found information from newspapers and environmental groups of little value, while most council members rated information from the agriculture industry and their relatives and friends of little use.

The high percentage of "no basis for opinion" responses may help explain the relatively low usefulness ratings for certain sources. Over 40% of the landowners lacked an opinion about the usefulness of the majority of the information providers. Particularly noteworthy is the number of landowners without an opinion about information from the SSWC (64%), the National Marine Fisheries Service (NMFS) (63%), and university scientists (60%). Council members, on the other hand, appear much more familiar with these information sources. Nevertheless, many had no opinion about information from the NMFS (39%), Bureau of Land Management (BLM) (28%), and university Extension Service (25%).

Trust in Information Sources

To better understand which sources landowners trust to provide them with credible information about watershed management, we asked respondents to rate their level of trust in 15 information sources on a five-point Likert scale ranging from distrust completely to trust completely, with a neutral midpoint. Chi-squared analysis was used to compare the ratings of landowners and council members.

In general, trust ratings were higher than usefulness ratings. The majority of both groups trusts state agencies (ODF and ODFW), the university Extension Service, and university scientists (Figure 2). The finding that 90% of watershed council members trust the Extension Service and university scientists is particularly noteworthy. Most council members also trust the key federal agencies in the region (USFS and BLM),

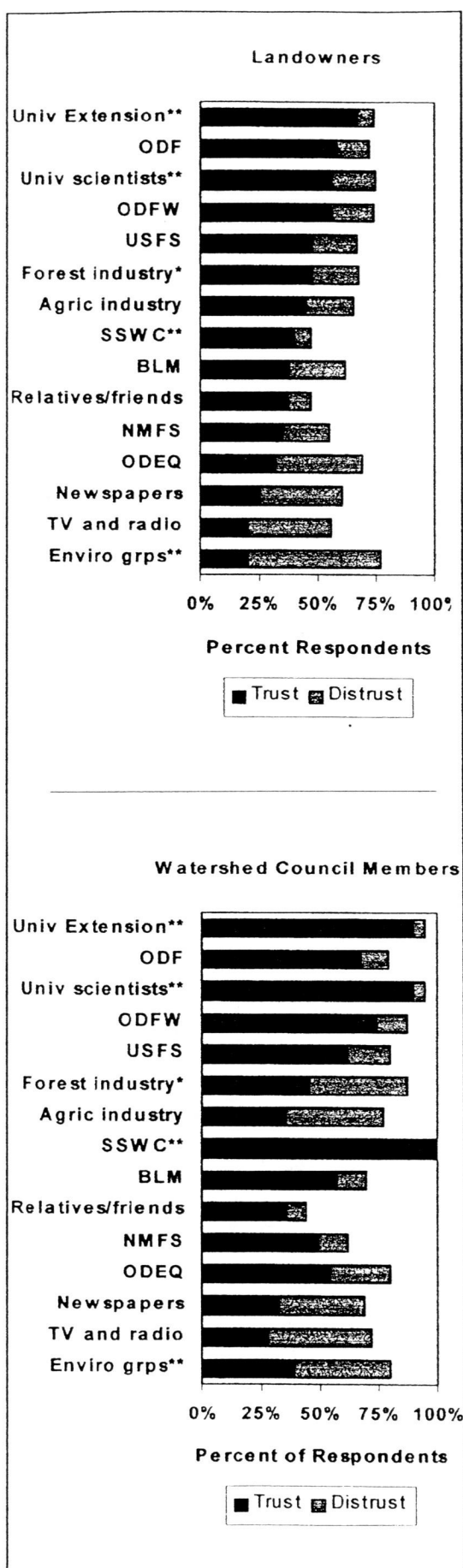


Figure 2.

"Who do you trust to give you credible information about watershed management issues?" Landowner and watershed council member ratings of trust in information providers (Trust = trust somewhat and trust completely and Distrust = distrust somewhat and distrust completely). Neutral responses are not shown. Chi-squared analysis was used to test for differences between landowners and watershed council members.

* $p \leq 0.05$

** $p \leq 0.01$

the Oregon Department of Environmental Quality (ODEQ), and their own watershed council (SSWC).

At the other end of the spectrum, a moderate number of respondents in both groups indicated distrust of environmental groups, television and radio, and newspapers. ODEQ was also distrusted by 37% of the landowners, while many council members distrusted the forest (41%) and agriculture (41%) industries. On the contrary, few landowners or watershed council members distrusted the university Extension Service, university scientists, ODF, ODFW, or the SSWC. Lastly, landowners tended to be more neutral, or perhaps more undecided, than watershed council members about their trust in many of these information providers.

Associations with Respondent Characteristics

Research suggests that respondent sociodemographic characteristics (e.g., age, gender, education, income, and group membership) are often associated with particular attitudes and opinions about policy options and management practices (e.g., Van Liere and Dunlap 1980; Arcury 1990). We used correlation analysis (Kendall's tau b) to determine if these attributes were associated with opinions about usefulness or trust of information sources among this sample.

Opinions about the usefulness of information sources were correlated with several sociodemographic characteristics (Table 1). Watershed council members and respondents with higher levels of education rated information from university scientists, SSWC, environmental groups, ODFW, newspapers, and personal experience more useful.

However, council members considered information from the agriculture industry of little use. Females found university scientists, SSWC, ODEQ, and the mass media more useful; however, they were less likely to find personal experience useful. Conversely, respondents who owned large parcels of land and longer term residents favored information from industry groups and tended to rate information from ODEQ and the mass media as not particularly useful. Longer term residents were also skeptical about information from environmental groups and the SSWC.

Similar associations were found regarding trust. Level of education, council membership, female gender, acres owned, years of residence, age, and being retired were all correlated with trust in information providers (Table 2). Watershed council members and respondents with higher levels of education were more trusting of the SSWC, university affiliates, ODEQ, environmental groups, and BLM. In addition, council members tended to distrust the agriculture industry. Females tended to trust federal agencies, state agencies, the mass media, and environmental groups. In contrast, those who own larger parcels of land had lower levels of trust in the ODEQ, environmental groups, BLM, NMFS, and the mass media. Longer term residents distrusted university scientists, ODEQ, environmental groups, USFS, NMFS, and ODFW but trusted industry groups and relatives and friends.

Discussion

This project examined citizens' opinions about the usefulness and credibility of watershed management information from some of the region's main

Table 1:
Bivariate correlations
(Kendall's tau b) between
respondent characteristics
and usefulness of
information sources.

	Level of Education	Council Membership	Female Gender	Parcel Size	Years of Residence	Age	Retired	Income
University scientists	0.258 ^b	0.305 ^b	0.194 ^a	ns	ns	-0.156 ^a	ns	ns
South Santiam Watershed Council	0.224 ^b	0.560 ^b	0.197 ^a	ns	-0.216 ^b	-0.166 ^a	ns	ns
Environmental groups	0.222 ^b	0.295 ^b	ns	ns	-0.266 ^b	ns	ns	ns
Oregon Dept. Forestry	0.214 ^b	ns	ns	0.177 ^b	ns	ns	ns	0.160 ^a
Oregon Dept. Fish and Wildlife	0.199 ^b	0.216 ^b	ns	ns	ns	ns	-0.149 ^a	ns
Oregon Dept. Environmental Quality	0.179 ^b	ns	0.189 ^a	-0.159 ^a	-0.169 ^b	ns	ns	ns
Bureau of Land Management	0.162 ^a	ns	ns	ns	ns	ns	ns	ns
Newspapers	0.143 ^b	0.170 ^b	0.143 ^a	ns	ns	ns	ns	ns
Personal experience	0.119 ^a	0.232 ^b	-0.182 ^b	ns	ns	ns	ns	ns
U.S. Forest Service	ns	0.245 ^b	ns	ns	ns	ns	ns	ns
National Marine Fisheries Service	ns	ns	ns	ns	ns	ns	ns	ns
Forest industry	ns	ns	ns	0.160 ^a	0.221 ^b	ns	-0.149 ^a	ns
Agriculture industry	ns	-0.155 ^a	ns	0.163 ^a	0.265 ^b	ns	ns	ns
University Extension	ns	ns	ns	ns	ns	ns	ns	0.190 ^b
TV and radio	ns	ns	0.168 ^b	-0.213 ^b	-0.116 ^a	ns	ns	ns
Relatives and friends	ns	ns	ns	ns	ns	ns	ns	ns

ns = not significant

^asignificant at $p < 0.05$ (2 tailed)

^bsignificant at $p < 0.01$ (2 tailed)

information providers. It also compared the opinions of watershed council members with those of landowners and examined the correlations between sociodemographic characteristics and usefulness and trust ratings. Several important points emerge from these findings.

First, there appeared to be little recognition of information sources and their usefulness, or little contact between the public and the agencies and organizations working on these issues. Few landowners in the South Santiam basin currently receive much information about watershed management that they described as useful. This may be because watershed management is simply not a salient issue for many landowners (i.e., they may not be looking for information). Evidence for this is reflected in their lack of opinion about many of the information providers in the region. If building greater understanding and appreciation for the protection of stream zones is a goal of resource organizations, these findings suggest an apparent need to increase outreach efforts.

Although citizens' opinions about the usefulness of information and the credibility of organizations involved in watershed management issues vary substantially, several useful points emerge. One is the low regard with which the mass media is viewed. Typically, newspapers, television, and radio are rated as important, reliable providers of information (Steger et al. 1988; Shindler et al. 1996; Smith et al. 1997); however, these new data provide evidence of recent disenchantment with these popular sources. Although usually the most accessible forms of information, natural resource organizations may wish to reconsider these outlets.

Environmental groups also were distrusted and considered of little use by the majority of landown-

ers. This was not particularly unexpected; other studies in Oregon related to forest management and salmon restoration have found similarly low levels of interest in information from environmental groups (Shindler and Reed 1996; Smith et al. 1997). The reasons for this are not clear, although conflicting ideology is likely to be one factor. The South Santiam watershed experienced intense conflict between environmental groups and the forest industry over the spotted owl listing in the early 1990s. Given the region's heavy economic dependence on the forest industry, it is likely this controversy left many residents—even those not directly involved in the forest industry—with bitter feelings towards environmental groups. Further exploration of this relationship and the methods used by local environmentalists may be useful in explaining the attitudes of citizens toward them.

On the other hand, two state agencies (Department of Forestry and Department of Fish and Wildlife) as well as university representatives (Extension Service and scientists) were trusted by most respondents (with significantly higher ratings by SSWC members). While few landowners rated information from these sources useful, this may only be because of lack of exposure to these groups and what they have to say. The strength of their credibility may mean that landowners would be receptive to increased outreach efforts from these agencies and individuals.

Not surprisingly, council members rated their own watershed council as both highly useful and trustworthy. This finding illustrates the importance of personal experience, which we will discuss in more detail shortly. In addition, council members found the U.S. Forest Service very useful and trustworthy. This may demonstrate that interaction

Table 2.
Bivariate correlations
(Kendall's tau b) between
respondent characteristics
and trust in information
sources.

	Level of Education	Council Membership	Female Gender	Parcel Size	Years of Residence	Age	Retired	Income
South Santiam Watershed Council	0.275 ^b	0.435 ^b	ns	ns	ns	ns	ns	ns
University scientists	0.205 ^b	0.209 ^b	ns	ns	-0.100 ^a	ns	ns	ns
Oregon Dept. Environmental Quality	0.194 ^b	0.121 ^a	0.204 ^b	-0.133 ^b	-0.168 ^b	ns	ns	ns
University Extension	0.180 ^b	0.191 ^b	ns	ns	ns	ns	ns	ns
Environmental groups	0.125 ^a	0.169 ^b	0.223 ^b	-0.162 ^b	-0.250 ^b	ns	ns	ns
U.S. Forest Service	0.110 ^a	ns	0.150 ^b	ns	-0.093 ^a	-0.131 ^a	-0.127 ^a	ns
Bureau of Land Management	0.103 ^a	0.118 ^a	0.142 ^a	-0.102 ^a	ns	ns	ns	ns
National Marine Fisheries Service	ns	ns	0.138 ^a	-0.160 ^b	-0.154 ^b	-0.129 ^a	ns	ns
Oregon Dept. Forestry	ns	ns	0.115 ^a	ns	ns	ns	ns	0.38 ^a
Oregon Dept. Fish and Wildlife	ns	0.110 ^a	0.211 ^b	ns	-0.103 ^a	ns	ns	ns
Forest industry	ns	ns	ns	ns	0.168 ^b	ns	ns	ns
Agriculture industry	ns	-0.114 ^a	ns	ns	0.189 ^b	ns	ns	ns
Newspapers	ns	ns	0.194 ^b	-0.113 ^a	ns	ns	ns	ns
TV and radio	ns	ns	0.208 ^b	-0.109 ^a	ns	ns	ns	ns
Relatives and friends	ns	ns	ns	ns	0.115 ^a	-0.107 ^a	ns	ns

ns = not significant
^asignificant at $p < 0.05$ (2 tailed)
^bsignificant at $p < 0.01$ (2 tailed)

helps improve opinions about credibility and usefulness. Most council members also rated BLM and ODEQ as trustworthy; however, neither of these groups was rated as particularly useful. An increase or refocus of outreach efforts could increase the usefulness of information from these agencies.

Second, personal experience is important. Both watershed council members and landowners found personal experience to be one of the most valid sources of information. This corresponds with findings from numerous studies throughout the United States where personal experience and evaluation greatly influenced public judgments about land management practices (e.g., Peters et al. 1997; Rhoades et al. 1999). In the Pacific Northwest, citizens are being asked to support many critically debated strategies such as ecosystem management, adaptive management, watershed management, and landscape level management. This proliferation of new strategies and terms has caused citizens to become more cautious with their support (Shindler et al. 1996); many people are waiting to see how well these ideas are carried out before offering approval. A central factor of success for any of these approaches will be the public's observations of how policies are established and direct personal experiences in their implementation (Stankey and Shindler 1997; Stein et al. 1999). Watershed councils and other community-based groups provide an opportunity for citizens to gain this highly valued, on-the-ground personal experience. As a minimum, these groups are important in that they create a forum to discuss information and ideas, and over time, can increase trust and cooperation among participants (Moore 1996; Duram and Brown 1999).

For example, while the SSWC is currently relatively unknown in local communities, nearly half the landowners indicated that they trust the council and only a small fraction voiced distrust. The council may hold promise as a means to increase public awareness, foster understanding, and provide experience in watershed management decision-making. One advantage of groups like the SSWC is that members are fellow landowners, and citizens may be more inclined to trust and work with their peers than agency staff or scientists.

Third, it is clear that there were significant differences between watershed council members and landowners. While this is not surprising, it is important to further explore these differences and the possible explanations behind them. Watershed council members in this study were more familiar with watershed information providers and found sources of information more useful and trustworthy than did landowners.

While this research did not explore what motivates citizens to participate in watershed councils, it is clear that attentiveness to watershed issues is one factor that distinguishes council members from

other landowners. Council members voluntarily come together to discuss watershed issues and attempt to solve problems. This willingness to become involved in managing water resources may be related to the higher levels of education held by council members and their greater likelihood of owning streamside property.

Participation in the watershed council increases contact between information providers and landowners and this interaction may be a factor in building trust among these groups (Moore 1996; Rhoades et al. 1999). In addition, it is likely that the awareness and experience gained through council membership, higher levels of education, and owning streamside property all aid members in understanding and using information from the various information providers.

Lastly, longer residence time and larger parcel size were consistently associated with low usefulness ratings and distrust of many of the information providers. Only industry groups were viewed favorably in both categories by longer term residents and those with larger properties. Interestingly, neither negative nor positive associations were found with university sources nor in the amount of trust placed in the SSWC. Landowners who own large tracts of land and who have been in the area for a long time may influence members of their community and thus could be important participants in any watershed conservation movement. Agencies and organizations wishing to engage these landowners may want to consider different forums for reaching them, notably through industry groups, local universities, or the SSWC.

Summary


The rise in collaborative, community-based resource management means that managers and scientists will be working more closely with the public. Understanding where people get information about watershed management is essential because citizens are an integral part of long-term solutions. We examined which information sources citizens' in the South Santiam watershed found useful and trustworthy to provide information about watershed management. We found that few landowners currently receive much information about watershed management that they consider useful. Personal experience was one of the most useful sources of information for all respondents; while the university Extension Service, university scientists, Oregon Department of Fish and Wildlife, and Oregon Department of Forestry were among the top five most trusted sources for both landowners and watershed council members. The National Marine Fisheries Service and the Oregon Department of Environmental Quality were at or near the bottom of the usefulness ratings for both

council members and landowners, while the mass media and environmental groups were among the least trusted for both groups.

We also found several significant differences between council members and landowners. Council members were more familiar with most information sources and found most sources more useful and trustworthy than did other landowners. In addition, council members tend to have higher levels of education and income and are more likely to own streamside property than other landowners in the basin.

Findings from this study provide a better understanding of where citizens look for information about watershed management issues, which information sources they trust, and which agencies and organizations they may be willing to work with on watershed conservation issues. Agencies and organizations that were trusted by a large portion of

the respondents may wish to increase or refocus their outreach efforts to provide information that is both more accessible to the public and more relevant to their concerns. Those with lower trust and usefulness ratings may wish to look into ways to improve their image in the eyes of the public, or reconsider whether public outreach and information provision are the best ways to use their limited time and resources.

The success of collaborative, community-based resource management will largely depend on landowners' willingness to participate. Willingness to participate, in turn, is heavily influenced by people's overall opinions of and trust in the organizations providing leadership. Achieving the balanced and trustworthy relationships people prefer will require the provision of information that is both credible and relevant to private landowners' concerns. 

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