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Monitoring the Relationship Between the Public and Public Lands: Application to Wilderness Stewardship in the U.S.

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Abstract—*Stakeholders in wilderness, and other public lands, have varying opinions on how well the land management agencies reflect their values and respond to their needs in management, and they therefore vary in their level of commitment and attachment to these places and the activities that occur there. Establishing baseline measures and monitoring indicators of the relationship between the public and wilderness lands can provide efficient evaluations of many management activities. Examples include protection of traditional relationships for indigenous people, and the enhancement and protection of relationships between the resource and both local and distant populations of stakeholders.*

Most social science monitoring by wilderness managers in the U.S. has focused on either visitors' perceived quality of experiences or a small set of commonly used indicators of threats to those experiences (Watson and Williams 1995). Measures of satisfaction, perceptions of crowding, number of encounters with other visitors while traveling and at campsites, perceptions of recreation visitor impacts to soil and vegetation, and other commonly used social science indicators imply a customer orientation between the agency and the public. The primary evaluation of how well public land managers are doing in their stewardship responsibilities is reflected through the quality of these transactions. That is, public land managers have been judged by their ability to provide particular conditions utilized during a visit.

Recent research has, however, suggested that stewardship responsibilities may also be evaluated through indicators of the relationship that is created, protected or restored through public lands management activities (Alessa and Watson 2002, Shroyer and others 2003). This approach, described as public purpose marketing by Borrie and others (2002a) and Watson and Borrie (2003), emphasizes understanding relationships, in addition to monitoring transactions, as the primary stewardship responsibility of public land managers. The purpose of this paper is to describe why wilderness monitoring programs should include protocol for monitoring relationships between people and wilderness.

Public Purpose Marketing

Watson and Herath (1999) surmised from recent research on public lands recreation fees that support for fees is strongest when the fees are to be used for the public purpose of the place visited. For instance, visitors to the Desolation Wilderness in California most support use of fees to maintain or restore wilderness conditions (Vogt and Williams 1999). Also, in a national sample of U.S. residents, less than half supported fees for providing restroom facilities on any public lands (Bowker and others 1999). Winter and others (1999) found that the level of trust people had in the administering agency was the most significant predictor of general attitudes towards, and amounts respondents were willing to pay for, daily and annual recreation passes. This research suggests that many things besides what the visitor encounters on a single visit influences how the visitor evaluates management policies. Borrie and others (2002a) suggested a focus on the relationship between the public and public land as a guide to marketing in the public sector. This relational framework can also guide monitoring to determine success in stewardship of relationships with wilderness.

Relational Marketing

For the purposes of marketing in the public sector, a focus on relationships between the managing agency and the public as primary stakeholders (both customers and partners) has been proposed as a feasible and appropriate conceptual framework (Borrie and others. 2002a, Watson and Borrie 2003). A transaction with a customer is said to have a distinct beginning, short duration, and sharp ending (Dwyer and others 1987). A relational exchange, on the other hand, builds from previous contacts, is longer in duration and reflects an ongoing process. When providing services for the public through the development of programs on public lands, the more appropriate view of "customer service" would probably be the development or fostering of a relationship between the members of the public and the places that have been established on their behalf as public lands, such as wilderness.

Morgan and Hunt (1994) emphasize theoretical and empirical research on commitment and trust as the primary indicators of successful relational marketing. Support for public agency actions also depends on confidence in efforts that recognize responsibility to current and future generations and efforts to meet the public purpose (legislation or policy mandates), versus vested-interest demands (Watson and Borrie 2003).

Anderson and Narus (1991) acknowledge that not everyone desires the same relationship with a producer of goods or services. They suggest that an organization may need to pursue both transactional and relational marketing simultaneously, and that customers may exist on a continuum of transactional to collaborative exchanges. In the public sector, however, members of the public are, by definition, involved in a collaborative relationship with the stewardship agency taking responsibility for implementation of public policy. While we are suggesting that a collaborative relationship exists for all people, we do acknowledge that the level of commitment or involvement with the services provided by an agency and the level of trust instilled among members of the public may vary substantially. Relational marketing suggests that a focus on understanding variation in trust, commitment, and personal values will be paramount in developing and implementing public policy to meet the mandates or purpose of public lands (Garbarino & Johnson 1999, Morgan & Hunt 1994, Moorman, and others 1993, Watson 2000).

Trust

Trust is widely viewed as an essential ingredient for successful relationships (Berry 1995, Dwyer and others 1987). Trust is one of the underlying foundations of any form or action of government. Without trust, public agencies operate with weakened mandate and support. The public grants the right for any public organization to operate. Putnam (2000) found that trust and engagement in the public arena go hand in hand. Conversely, if communities believe they are not fairly and truthfully represented there is great potential for withdrawal of political and social support (Miller 1974).

Until very recently, studies of trust in organizations or institutions were virtually unknown (Earle and Cvetkovich 1995). Two dominant views of trust for organizations have emerged recently, however. The more traditional view is that trust is based on confidence in competence, objectivity, fairness, consistency or predictability and caring, or the perception of good will. In recognition that this traditional view requires a generally unattainable level of knowledge of complex social systems, Earle and Cvetkovich (1995) suggest an alternative view: people judge the similarity of values they hold to those expressed by an organization. Trust is then quantified in terms of perceptions of shared values, direction, goals, views, actions and thoughts (Winter and others 1999).

Commitment

Another strong influence on relationships between organizations and stakeholders is level of commitment, which is defined by Gundlach and others (1995) as having three components: 1) an instrumental component or <u>level of investment</u>, 2) an attitudinal component or level of psychological <u>attachment</u>, and 3) a temporal dimension or length of time of the <u>commitment</u>. Interestingly, in an application to wilderness, Williams and others (1999) found that more trips to wilderness, more trips to Desolation Wilderness, and residing closer to Desolation Wilderness (suggesting high temporal commitment, high investment and high attachment) all tend to be associated with weaker support for camping fees at Desolation Wilderness by visitors there. Commitment varies with evaluation of this particular policy and understanding commitment can help us understand public response to this policy.

Social responsibility and public values

Even in corporate America, the concept of social responsibility can take on a new emphasis in development of products and in research on customer attitudes

(Drumwright 1994). The adoption of non-economic criteria in customer decision making (criteria other than price, or relationship between price and quality) has led to greater understanding of how some purchase decisions pose social dilemmas and prompt moral reasoning (Drumwright 1994). Samli (1992) also describes social responsibility in the private sector and those who want to make a profit but who also care. In the public sector, it is mandated that the government agency respond to stakeholders and the public purpose of the places and resources it manages.

In the public sector social responsibility is a mandate in the delivery of services and carrying out of the legislation and policy that guide a public agency. Recent research on wilderness visitors (Glaspell and others 2003, Patterson and others 1999) and local communities (Watson and others 2004, Whiting 2004) suggests there are many aspects of relationships people have with wilderness beyond the ones specified in the Wilderness Act. The public purpose of these areas often extend well beyond what is officially described in legislation and policy, but falls within the responsibility of the public land manager for stewardship. More information about the meanings and values people ascribe to these public lands can help public lands management respond to all stakeholders.

A Framework for Marketing and Monitoring

The use of marketing principles by public land management agencies poses both a threat and a promise to the people who depend on wilderness for pleasurable outdoor experiences or have deep relationships with wilderness. The most serious threat is from a focus towards on-site experiences as a transaction between the agency and a visitor, and the temptation to focus too much on measures of on-site satisfaction and repeat visitation as an indicator of success in meeting the public purpose of those places. Although it has been previously suggested that "… the goal of government … service agencies is to provide satisfaction to their client groups, which is exactly the same goal pursued by private sector organizations" (Crompton and Lamb 1984, p. 37), we suggest that marketing or monitoring focused on a simple transaction with the public as a customer is too narrow. Not only are there methodological concerns with satisfaction measures, they may yield little information on the quality of the visitor experience or on relationships with the public lands (Borrie and Birzell 2001). Instead, a focus on the relationship between the public and those public recreation land management agencies, with emphasis on trust, commitment, social responsibility, and public values should be a guiding principle when employing marketing principles and developing monitoring protocols in the public sector.

Applications to Wilderness: Aspects of Relationships to Monitor

Following the conclusions of Shroyer and others (2003), we suggest that all potential wilderness values are likely not received by all people at all places. Nor should we expect them to be. Not only is there no such thing as the 'average camper' (Shafer 1969), but a diversity and multiplicity of values are an important feature of protected areas (Borrie and others 2002b). There are multiple types of relationships with wilderness, commonly ranging from neighboring communities to urban residents to recreation visitors, and extending to international communities and future populations (Shroyer and others 2003).

The following sections describe research efforts aimed at measuring and monitoring the previously described dimensions (trust, commitments, and public values) for the relationship with wilderness.

Trust

Monitoring the levels of trust that the public has in wilderness managers requires an understanding of the underlying components of trust. Initially, the public must feel that managers fairly understand and represent their values and norms of behavior. Secondly, the public must be willing to allow managers to operate on their behalf. And lastly, the public needs confidence in the managers ability to produce suitable results. Without these levels of trust, the agency has little license to operate.

A recent research project has been initiated to measure levels of trust held by residents of the wilderness-proximate Bitterroot Valley of Montana towards the U.S. Forest Service (Watson and others 2004). Using a telephone survey, three components/precursors of trust (shared norms/values; contingent consent; and expectation of outcomes) were measured and used to classify residents into high- and low- trust groups. Significant differences were found between high- and low- trust groups, for example, based on length of time resident in the valley, proximity to wilderness and forest boundaries, and whether or not they live in the wildland-urban interface.

Establishing this baseline measure of trust and its underlying components provides an opportunity to judge future relationships between the public and the wilderness managers. The changing composition of high- and low- trust groups will be indicative of whose relationship to government is strengthening and whose is weakening. In addition, overall levels of trust among residents can be indicative of the perceived success of management initiatives. And finally, the relative change in levels of the underlying components of trust can be used to identify areas needing attention in order to improve relationships with the public.

Commitment

Level of investment (and return)

People invest in wilderness and wilderness yields an investment to communities surrounding it. Some special provisions in wilderness legislation were aimed at pre-existing uses of land and water resources. Without these acknowledgements, many of those areas would not have been included in the National Wilderness Preservation System or the added units would have been much smaller. While economic values associated with these "non-conforming" uses are hard to associate with wilderness designation, they nonetheless do originate within the National Wilderness Preservation System.

Other local economic benefits have been found to accrue from outfitted and guided uses, and nearby service industries (hotels, motels, restaurants, etc.) that are used by wilderness visitors before or after a wilderness visit. Because these businesses are substantially in the service industry, there is substantial contribution to local economies. There is also a small contribution to local economies from sale of retail goods to wilderness visitors. Loomis and Richardson (2001) estimate that wilderness users spend a total of about $30 per each day of a wilderness visit.

Power (1996) has found other economic benefits to local communities from wilderness designation, and those come in the form of increased tax revenue originating from increasing property values of communities with high natural amenities. High quality natural environments draw people and businesses to an area. Power (1996) suggests that wilderness protection does not impoverish communities, but rather it protects the economic future of communities by preserving high quality natural environments that are increasing in demand across the nation. Florida (2004) similarly describes how quality of place, including quality of the natural environment, attracts members of the 'Creative Class' including scientists, engineers, architects, educators, artists, musicians, and other knowledge-based professionals to a community. Florida suggests that it is this class who will be the engine for future economic growth and prosperity. Place he says is "the key economic and social organizing unit of our time" (2004, p. xix).

Attachment

There has not been a great deal of research to document the more emotional relationships with wilderness. Clayton (2003) offers a definition of environmental identity as a "sense of connections to some part of the nonhuman, natural environment based on history, emotional attachment, and/or similarity, that affects the ways in which we perceive and act toward the world" (p. 45) Williams and others (1992) explored emotional and symbolic attachment to place among wilderness visitors, and concluded that describing visitors' attachments to wilderness places can capture the connections between people and geographic areas directly. This direct type of indication of a relationship is much more preferable than more indirect indicators such as use and user characteristics.

There are many different forms of attachments to wilderness, some of which are long held traditions or representations of heritage. While the Wilderness Act was most likely referencing activities like horse packing, canoeing, and camping, historical activities may or may not be referred to today as traditional. In addition to the activities of hunting, fishing, and gathering (berries, mushrooms, medicinal plants, etc.) of indigenous and other rural people of Alaska, there are other historic attachments to wilderness.

Relationships to wilderness mean more than just a single transaction or visit. Indeed, in the Frank Church – River of No Return Wilderness, a study of jet boat users on the Salmon River, a use allowed under the Central Idaho Wilderness Act of 1980, revealed respondents who resented being called visitors to the area (Watson and others 2004a). Instead, deeply rooted historical bonds cause them to organize their lives around this place. Respondents acknowledged that their ability to do physically demanding activities in this wilderness may diminish over time, but their interest in spending time where they have enjoyed all their lives will not, and jet boats were seen as a means to having this experience (Patterson 1999).

Other emotional values often lie at the heart of relationships with wilderness lands. The Qikiktagrugmiut expressed the emotional values they attach to the Western Arctic Parklands Wilderness (Whiting 2004) as including spiritual, emotional and physical health and humility. In Ravalli County, Montana, local residents expressed an emotional attachment to the Bitterroot Front because of its unique physical features that they have easy access to (Gunderson and others 2004). This wilderness landscape was also found to create identity for the people who live there. The documentation of all these attachments (emotional, symbolic, traditional, and historical) is necessary for a full accounting of the management of wilderness lands.

Temporal commitment

Watson and others (1991) suggested that some of the key indicators of temporal commitment may be measures of past experience in wilderness and at the particular place. Commonly used measures of past experience which differentiate among current wilderness visitors (Watson and Cronn 1994) include the number of years a person has been going to wilderness, the number of trips they have taken and the number of trips they normally take per year. At a specific place, it is common to ask about the number of previous visits and the length of time since the first visit.

In a rare attempt to understand the temporal relationship between a population of visitors to a place, instead of case studies which commonly focus on only users during a study time frame (usually the summer heavy use season), Watson and others (2004a) considered the whole population of jet boat users on the Salmon River in the Frank Church – River of No Return Wilderness in Idaho. Insight from this population provided understanding of displacement and substitutions past visitors have made as use and the resource changed over time. While levels of temporal commitment may remain relatively constant, the form and location of visits change.

Public values

Two approaches for the monitoring of public values towards wilderness and other protected areas are current. Borrie and others (2002b) and Johnson and others (2004), for example, have taken psychometric, survey-based methods, while Shroyer and others (2003) and Williams (2000) have adopted a more social constructionist, interview-based approach. Both strive to identify the qualities of wilderness that are most important to, and valued by, the public. Managers have a responsibility to understand and map these values, partially as a demonstration of a commitment by the agency to the public.

In Ravalli County, Montana, a project to understand local values associated with the Bitterroot Front (which is dominated by the Selway-Bitterroot Wilderness) found descendants of white settlers expressing strong traditional or historic values associated with this landscape (Gunderson and others 2004). But these places also have historical value to the Salish-speaking (indigenous) people who were removed to the Flathead Indian Reservation. In Alaska, research was recently initiated to obtain a better understanding of the local values the native Inupiaq people of Kotzebue (the Qikiktagrugmiut) attach to the Western Arctic Parklands Wilderness. From interviews with those in the village currently active in hunting and gathering activities on these lands, Whiting (2004) described the economic values of self-sufficiency and survival (personal and family). The Qikiktagrugmiut described these traditional values as identity (personal and community), traditional way of life, and personal growth.

Public values of wilderness extend well beyond the boundaries, with many off-site benefits. For example, there are local economic benefits associated with agricultural uses of water originating within wilderness. While there are many negative ecological effects of disturbing the hydrologic connectivity of wilderness watersheds (Pringle 2001), there are also some positive economic benefits from impoundments within wilderness (Cook 2003). In the Bitterroot Valley of Montana, an area which is classified as a high desert environment, the annual precipitation is only 12.3 inches. Since the mid-1800s, agriculture has been a highly productive industry in the valley. In the late 1800s and early 1900s, farmers constructed dams in the Bitterroot Mountains, in what is now the Selway-Bitterroot Wilderness. The dams capture the spring runoff from snow melt and store it until late summer for irrigation purposes. In the Bitterroot Valley, the area's groundwater supply would not sustain the county's population levels without the additional water added to the groundwater from irrigation (Finstick 1986). Therefore, these wilderness dams not only sustain local agriculture, they are crucial to the growing suburban development and quality of life there. The available groundwater is an important contributor for not only domestic uses such as drinking and bathing, but also for recreation, residential sprinklers, and livestock watering.

Conclusions

Visitors to wilderness have a variety of types of relationships with wilderness. If we are interested in these relationships and acknowledge our mandated responsibility of stewarding these relationships, we need to monitor indicators of it to understand how we are doing. Historically, wilderness research has focused on stewardship of the transactions people have with the wilderness resource, mostly those who travel as visitors to these places. Methods have been developed to monitor visitor perceptions of resource conditions, of their reaction to social conditions encountered, and obtain reactions to interactions with managers of the areas and their policies. Only recently was it seen that many evaluations of wilderness policy are rooted in larger contexts than just individual visits to a wilderness.

Local communities are not excluded from consideration in the primary values of wilderness listed in the original Wilderness Act, though sometimes they feel that way. Studies of local resident and visitor reactions to wilderness recreation fees revealed that these reactions were most closely related to the level of trust the public had in an agency's ability to manage an area within the public purpose designated for that place (Borrie and others 2002a). And, in post-fire assessments of social impacts at the community level in the Bitterroot Valley in 2000, a major issue expressed by the public was the lack of trust in the agency's ability to make decisions that reflect local values. Local community members felt that decisions were made according to policies developed elsewhere, that outside organized groups were forcing decisions on agency managers that were not reflective of local values, or that even some agency decisions made locally were made by temporarily assigned managers from elsewhere and that they did not understand local values associated with wild lands.

The Qikiktagrugmiut of Alaska worry that someday their relationships will become the one described in the Wilderness Act, that of "a visitor who does not remain" (Whiting 2004). Jet boat users on the Salmon River have relationships with the wilderness resource that extend well beyond the time wilderness protection was extended to these lands and waters, going much longer and deeper than most recreational visitors. And the people who live in Ravalli County, Montana, are who they are partly because of the Wilderness which is so accessible to them.

A new era of stewardship is facing us, with not only expectations of stewarding our public lands, but also deeply cognizant of our role in stewarding the relationship between the public and public lands. Local communities are vocal in their assertion that we need to understand the values they receive from wilderness and other lands and demonstrate to them that we consider these values in making decisions, while also meeting the primary intent of the legislation and policy that guide us in our management decisions.

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