

Appendix Papers

Invited Paper on Sustainable Public Land Recreation

The Sustainability of Outdoor Recreation and Tourism: Findings from a Survey of Forest Service Managers

by Patricia L. Winter, Kelly Bricker, and Jeremy Schultz¹

Outdoor recreation and tourism represents a major service by which the public identifies with and better understands natural resources, even to the extent that it can foster environmental stewardship (for example, see Winter and Chavez 2008). Yet, myriad threats to recreation and tourism exist which need to be addressed. Addressing these threats can be facilitated through application of a sustainability framework. Sustainability, including sustainable recreation and tourism, must consider three dimensions: economic, social, and environmental. These dimensions are interdependent and a balance between them is essential to sustainability (UNEP and UNWTO 2005).

To better understand current perceptions, barriers, facilitators, and surrounding concerns related to sustainable recreation and tourism, a study was conducted through a national survey of Forest Service management personnel. The survey results provide insights into issues surrounding the idea of sustainable recreation and tourism, and suggest opportunities for furthering agency efforts in this area.

Methods

This web-based survey of resource managers with recreation management duties in the Forest Service was conducted in 2009. Survey items were derived from a sustainable operations survey completed by the first author (Winter 2008), from concepts explored by Cottrell and others (see Cottrell and Vaske, 2006; Cottrell, Vaske, Shen, and Ritter (2007), and from items of particular interest, such as perceived impacts and responses to global climate change.

We gathered names from directories, email lists, and direct contact through phone and email to verify appropriate personnel to include in our study. We aimed for a census of managers with primary recreation-management duties at the regional, forest, and district level. Temporary and seasonal personnel were excluded, as were most classified as recreation technicians. Each employee was sent up to three emails requesting their participation in an online survey. A total of 872 employees were contacted by email and 433 usable surveys were received, resulting in a 50.5 percent response rate. (Some of the employees were dropped from the response rate calculation because of an incorrect address, they were no longer in a recreation management position, or email inboxes that were not accepting

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messages through the duration of the study). Response rate, though varied by forest and district, was similar across the U.S. when examining Forest Service regions involved.

General Attitudes towards Sustainability

The majority of respondents strongly agreed that they have a professional responsibility to practice sustainable operations (business practices that reduce environmental footprint such as recycling and green purchasing) (72.4 percent), that sustainability is important in the area they manage (71.1 percent), and that it warrants additional investment (62.5 percent). They were also likely to agree that Forest Service operations are part of the sustainable tourism industry (68.0 percent). Sustainability was of personal concern to most respondents (90.4 percent).

Respondents were in less agreement that sustainability is a Forest Service priority (47.5 percent agreed). Most felt Forest Service resources were inadequate to cover demand for recreation and tourism (82.0 percent), and lack of resources was a common concern expressed in open ended remarks by respondents. For example, one respondent wrote “The Forest Service budget/workforce on our unit can't supply a quality recreation experience for the public.”

Components of Sustainability

Ratings of items important to sustainability reflect an understanding of the broader components of sustainability discussed above. For example, the majority rated environmental impacts (97.4 percent), increased environmental appreciation (95.0 percent), economic impacts (91.4 percent), increased appreciation of surrounding communities (80.1 percent), and improved health for the recreating public (77.1 percent) as important considerations in sustainability.

Partnerships and collaboration were explored related to sustainable recreation and tourism, including relationships with community residents, volunteers, outfitters, concessionaires, and businesses. A majority (70.7 percent) agreed that partnerships are relied upon to provide recreation and tourism in the area that they manage. However, less than one-third (30.5 percent) agreed facilities are developed in cooperation with local businesses. The majority (79.8 percent) have volunteers assisting with management. Most (84.5 percent) agreed that community residents should have an opportunity to be involved in recreation and tourism decision-making. About half (50.2 percent) felt that there is good communication among parties involved in the policy and decision making surrounding recreation and tourism.

Actions Taken to Ensure Sustainable Operations

The majority indicated the following actions as routinely practiced or in place to some degree in the area they manage: recycling at headquarters (84.4 percent)(append. fig. 1), vehicle reservation/sharing system (69.5 percent),

recycling in the field (63.5 percent), use green products (59.0 percent), reduce number of fleet vehicles (54.3 percent), and partnering with the local community to develop recreation and tourism opportunities (53.5 percent). Some of these represent narrow majorities and opportunities for increased sustainability efforts.

Areas of potential growth were also indicated, in that a number of actions were *not* chosen by a majority as routinely practiced or in place to some degree. Those close to, but less than majority practice included having hybrid vehicles in the fleet (49.6 percent), education and interpretation informing visitors about environmentally important issues (43.3 percent), and partnering with business to identify and develop recreation and tourism opportunities (43.1 percent). The opportunity to increase the proportion of managers using transportation management is evident, where 14.1 percent indicated they address transportation management with a bus or shuttle system in high use areas.

Opinions on Global Climate Change

A force that may impact the future of recreation and tourism on agency managed lands is global climate change. A majority (59.4 percent) suggested climate change is of personal concern related to Forest Service managed lands. However, some respondents felt that climate change was not occurring based on open ended comments, for example, one respondent wrote: “Climate change (human caused) is a myth and a political hoax.” Others felt that if climate change was occurring, it would not make a difference in recreation. Among those who felt there may be impacts, anticipated impacts involved an increase in wildfire risk and changes in vegetation, and geographic displacement or movement of recreation opportunities. A majority agreed that the Forest Service should take specific actions to address the impacts of climate change including reducing climate-changing gasses (78.4 percent), anticipating the effects (68.9 percent), and educating visitors (61.1 percent). Other suggested actions including investment in educational programs, designing buildings around sustainability guidelines, encouraging non-motorized recreation, leading by example for the public, and investing in more science to examine the impacts and how to manage them.



Figure 1—Most respondents practiced a number of sustainable behaviors in the office and field, including recycling.

Additional Areas of Primary Concern to Respondents

Further efforts towards sustainable recreation and tourism can be made although it is helpful to understand areas of greatest concern to managers so that these concerns, when appropriate, can be understood through their relationship to sustainability measures. Issues facing respondents' management areas that were of greatest concern included a lack of resources (especially funding and personnel), unmanaged use, increased use, and agency relationship with the public. Sustainability measures that speak to these concerns may be more readily adopted than those seen as independent of these pressing issues. For example, use of more

efficient hybrid vehicles might result in significant fuel cost savings allowing those funds to be allocated to other needs. This would encourage a more rapid adoption of fleet changes.

A set of items that queried reasons for environmental concerns included impacts on others (labeled altruistic concerns); impacts on the ecosystem (labeled biospheric concerns); and to less of a degree, impacts on self (for example, changes in lifestyle, labeled egoistic concerns)(append. fig. 2). Schultz and Zelezny (2003) have demonstrated the importance of addressing broader appeals towards environmental issues than a purely biospheric focus. Multiple concerns and perspectives can drive behavior and serve as motivators. Framing appeals to sustainability might benefit greatly from this approach, and seems aligned with the broader sustainability paradigm as discussed at the beginning of this paper. For example, a core component of the sustainability paradigm involves consideration of community, including collaboration with communities in planning and delivery of recreation and tourism opportunities. A compelling basis for this collaboration might be improved opportunities for youth (an altruistic basis), as well as the enhancement of agency-public interactions (egoistic such that job-related conflict may be reduced).

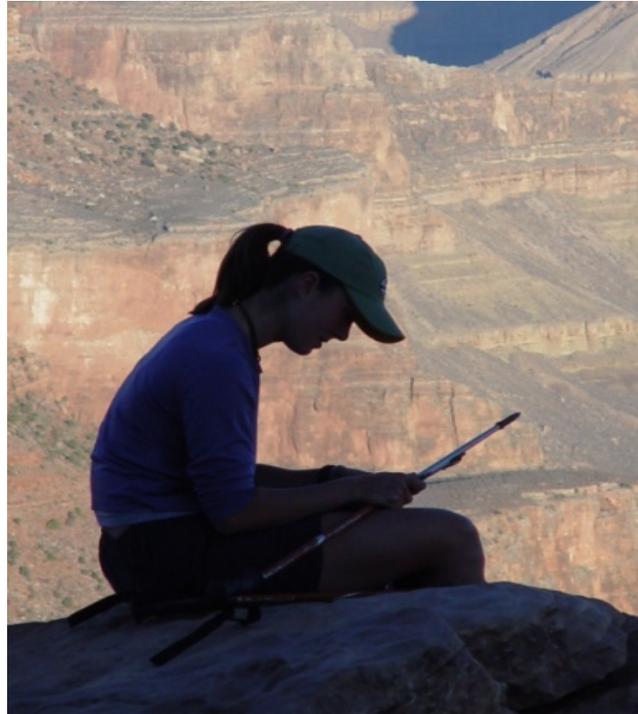


Figure 2—Sustaining the ability to contemplate in the canyonlands. Photo by Nate & Kelly Bricker



Figure 3—Educating the future. Photo by Nate & Kelly Bricker

Discussion

This paper examined management perspectives on sustainable recreation and tourism. Sustainability appeared to be a shared concern among respondents, and was viewed as a responsibility. Global climate change received a mixed response, with a slight majority expecting impacts on recreation and tourism. Expected impacts and how to address them were quite varied and suggest an opportunity for further research and dialogue. However, a minority viewed sustainability as an agency priority. Discussions of resources and capacity seemed to surround this view, where personnel and funding were offered as barriers to efforts in the areas respondents managed. Central in many responses was the importance of having the agency take a lead role in sustainability and the value of educational efforts (append. fig. 3). It also seems that educational efforts aimed at illuminating the tangible costs and myriad benefits of sustainable recreation and tourism efforts could help guide further sustainability efforts in the agency. It may be that a number of efforts, when shown to result in measurable gains and benefits, could be viewed as warranting investment.

Agency personnel also indicated that costs and benefits might be considered from a broader benefit perspective to include direct ecosystem or cultural enhancements. Partnering with community groups, volunteers, organizations, and local businesses, seems to be another route for enhancing efforts surrounding sustainability, and is an essential determinant of sustainability. Further understanding of any barriers to partnering with local businesses might be of help in the continuing development of approaches to sustainability in the agency. It may be that public agencies have specific constraints that make them unique in their best approaches to sustainability. Of interest may also be an agency-wide approach that embraces indicators of sustainability and provides a grounded feedback loop to inform the many active stages of development across Forest Service recreation and tourism.

Invited Paper on Trust in Land Management

The Intersection of Trust and Recreation Management

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A portion of this paper was originally presented at the 20th International Conference of the International Association for People-Environment Studies, Rome, Italy, July 28-August 1, 2008.

The management of public land as venues for a wide variety of outdoor recreation interests is a highly complex professional field. Understanding of the relationship between the visitor, general public values, the natural resource base and the politics of management policies requires training, experience and savvy. Recreation planning for forest, park, preserve, wilderness, and wildlife habitat public lands is multi-dimensional and include an understanding of recreationist values and behaviors in nature-based settings; a mix of social science discipline (e.g., psychology,

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social psychology, sociology, anthropology, economics and other social sciences); and natural sciences discipline applications (e.g., biology, ecology, forestry, wildlife management, hydrology, soils, climatology and geology). (The original paper submitted by Dr. Winter has been reduced in length to fit publisher's guidelines, but can be obtained upon request to smou@fs.fed.us.)

Introduction

Trust involves expectations about another's intentions or behaviors. Trust has been presented as an essential component of land management because it greatly influences how public citizens and agency managers interact (see Winter and Cvetkovich and Cvetkovich and Winter 2007). Drawing from a series of studies we conducted in the last few years, this paper examines the role of trust in outdoor recreation resource management. Each study included has approached trust through the "salient values similarity model". This model suggests that perception of similarity of values between self and another helps predict existence of trust (Cvetkovich and Winter 2007; Earle and Cvetkovich 1995). Our summary of studies provides an overview of findings, notes some extensions of the similarity model, and points to some implications for outdoor recreation management.

Methods

The studies summarized employed a range of qualitative and quantitative methods including on-site visitor surveys (Winter and Cvetkovich 2000), mailed surveys following an onsite visitor contact (Winter 2006; Winter and Knapp 2008), focus group discussions with self-administered surveys (Cvetkovich and Winter 2002, 2003), and multi-state telephone surveys (Cvetkovich and Winter 2004; Winter and Cvetkovich 2007, 2008a, 2008b). Participants in these inquiries included recreation visitors, individuals within communities of interest and of place, high school students, and residents of the southwestern U.S. (Arizona, California, Colorado, and New Mexico). This mix of methods and respondents is important because it is more reliable than single studies or methods.

Findings

Across our studies a common set of findings emerged. First, we found through assessment of open-ended comments on surveys and in direct discussions that participants weighed agency actions in light of their own salient values regarding management of natural resources (Cvetkovich and Winter 2003). When people see agency actions as aligning with their values, they perceive that the agency has similar values (Cvetkovich and Winter 2002). Using later data from surveys this hypothesis regarding value similarity was confirmed. However, we also found that perceived similarity may still emerge if members of the public believe the agency actors share their values, but that extenuating circumstances preclude actions aligned with those values (Cvetkovich and Winter 2004, 2007; Winter 2006; Winter and Cvetkovich 2008a and b). For example, a member of the public may believe that an individual in a land management agency shares their opinion that certain areas should be kept open for recreation use. However, when the area has to be closed to protect endangered species, and recreational opportunities have to be found elsewhere, an awareness of the factors leading to closure offer a sense of legitimacy for the decision to close. In such

cases, we have ample evidence that trust can be maintained (see for example Cvetkovich and Winter 2007). It is important to note that in any case myriad values may be imbedded in the determination of similarity. Moreover, these values tend to be more specific than general, particularly when it comes to public-agency relationships.

Perceived similarity of values is of interest because of its significant association with trust and distrust. Our studies have demonstrated that perceived similarity of values is usually a significant predictor of trust, such that those who believe they share values with the agency are also likely to trust that agency (Cvetkovich and Winter 2003). In the opposite direction, those who believe they do not share values with the agency are likely to distrust the agency (Cvetkovich and Winter 2007).

Exploring the role of trust and salient values similarity has revealed a number of findings of importance in recreation management. For example, we found that trust and similarity of values is significant in the prediction of approval of management practices designed to protect threatened and endangered species (Cvetkovich and Winter 2003). Trust has been especially important for the exploration of more intrusive management practices, such as limiting or banning recreation access in sensitive areas (Winter 2003; Winter and Knap 2008). It should also be noted that similar values and trust have often exceeded the predictive power of a number of socio-demographic variables that might be expected to be determinants of public response to agency initiatives, including gender, education, racial and ethnic group, and income level (see for example Winter, Palucki and Burkhardt 1999).

More recent explorations of variations by gender within communities of color revealed a pattern of distrust among groups with typically greater social advantage (White and Asian males), an important finding that challenges the predominate view that disadvantaged populations are more likely to distrust managing agencies (Winter and Cvetkovich 2007; Winter and Cvetkovich 2008b). Across a number of studies we have found a tendency towards trust rather than distrust in the Forest Service related to a number of management issues (Winter and Knap 2008). We have also reported some exceptions to this trend, for example in a community with a history of conflict with the agency (Winter and Cvetkovich 2000). However, since trust is specific, rather than general, and is aimed at judgment about particular actions (for a clear demonstration of this see Langer 2002), and likely varies with personal experiences surrounding an issue, we suggest caution in assuming that the public trusts the Forest Service in the majority of recreation resource management matters. In spite of this admonition towards caution in making assumptions about trust levels, we also feel that the reverse assumption that publics do not trust the Forest Service is just as likely to be erroneous.

Part of the distance between our findings and those of others may lie in methodological differences. In particular, some of the differences may be accounted for by how trust is measured (Pidgeon, Poortinga, and Walls 2007; Winter and Cvetkovich 2004). However, one key finding is that qualitative methods, such as interviews, focus group discussions, and public comment records, may be more likely to lead to a conclusion that the public distrusts the Forest Service. This is likely due, at least in part, to a human tendency to spend more time considering negative than positive information. For example, negative information is typically more salient in in-depth discussions and individuals are more likely to pursue the underlying meanings of this information. However, pairing quantitative and

qualitative inquiries of the same individuals shows that in spite of a mix of both negative and positive remarks on open ended items, with a tendency to consume more space with the negative remarks, quantitative measures of trust levels on these same issues show majority trust rather than distrust (Pidgeon, Poortinga and Walls 2007; Winter and Cvetkovich 2004). This is important in the examination of trust in agency land management. While distrust is important and its implications well worth the attention they have been afforded, a fair assessment of the balance between trust and distrust is also important in examining issues of shared concern.

The research findings above point to the importance of similar values in trust. They suggest that agencies should clearly communicate values underlying decisions affecting recreation resources. Agencies may need to invest more in clear communications about their core values and mission. These communications can occur in a variety of ways such as web presence, print materials, radio and television, messages through key community networks, and direct personal contact. The building of direct personal relationships with the public is a key component of maintaining trust. However, not every member of the public is interested in, nor requires, direct agency contact to trust the Forest Service. In fact, some publics prefer to trust the agency to fulfill its mission while they deal with personal matters of greater urgency such as health care or education (Winter and Cvetkovich 2008b). Once values are clearly outlined and similarities identified, an agency can benefit by considering and perhaps aligning with those core values (Cvetkovich and Winter 2007). If an agency must take action deemed inconsistent with core values, it is valuable to communicate the reasons for that inconsistency (Cvetkovich and Winter 2007; Winter and Cvetkovich 2008a). For example, a local national forest district may agree that multiple use and recreation access are important, but may have to close an area to protect an endangered species.

A number of recommendations regarding trust have been offered elsewhere, but it is unclear how they apply to the diverse situations and publics in outdoor recreation management. Susskind and Field (1996) highlighted some problems with oversimplification of trust in agency-

public interactions. Public expectations may vary across circumstances, even for some of the most straight-forward ones such as demonstrating fairness (see for example Kasperson, Golding and Tuler 1992) or objectivity (see for example Renn and Levine 1991). Perceptions of what constitutes 'fair' and 'objective' might vary considerably across situations, groups, communities of interest, communities of place, and individuals. Some evidence suggests that



Archival photograph in 1957 of entrance sign to the Tonto National Forest (From the TNF website). The sign is on the "Apache Trail" highway, near Mesa, Arizona. The Superstition Mountains are in the background. (Photo by D. O. Todd)

evaluations of fairness and objectivity are related to trust. In the absence of longitudinal data it is difficult to know which comes first, although trust seems to be the core judgment (see Cvetkovich and Nakayachi 2007). It might also vary considerably based on perceived personal impact and personal cost. Losses to oneself might be of greater concern than losses to another.

Implications for the Future

Trust and similarity of values will remain an important consideration in agency-public interactions. Research has lent some insights, including the additions of value-action consistency and legitimacy of inconsistency. The addition of the diversity-focused work has added value to the exploration of the role of trust in recreation management, particularly because the nation continues to expand in cultural diversity (Winter and Cvetkovich 2008b).

However, the dynamics of trust building and maintenance need further examination. For example, the impacts of varying approaches (such as techniques for communication and collaboration) need to be tested rigorously across a mix of methods and populations. Longitudinal studies are needed to lend insight into the short- and long-term impacts on trust of varying approaches practiced in management. Only with extended research can we be confident that our recommendations for managers are well founded. We also need to understand when trust becomes less important in agency-public interactions; and which factors may surpass the importance of trust. For example, direct personal experience and knowledge have been offered as mitigating influences in the study of trust. It has been asserted that for some publics distrust is solidly entrenched and unlikely to change. In these circumstances it is also important to offer management strategies that allow for mutually satisfactory outcomes for agencies and publics. This may be an especially important contribution to our dialogue about trust and management, given the clear specificity of trust surrounding sets of issues. In a management toolbox a suite of recommendations and approaches that can be tailored to diverse publics across varied situations, geographic settings, cultural backgrounds, and historical relationships offers far more power than a rigid, standardized guide would offer.

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