

Relationships to Place in Wildland Resources Management: Developing an Effective Research Approach

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Abstract—This paper describes an approach to understanding human relationships with public lands and considering those relationships in the decision making process. This understanding is based on segmentation analysis to identify groups of local residents that have similar relationships to place (RTP) with a public wildland. The research described in this paper uses a mix of quantitative and qualitative methods to describe local relationships to place and the salience of management issues to people living in proximity to public wildlands.

People's perceptions of places are variable and dynamic. People may ascribe intense emotional meanings to special places like public wildlands, and these intense feelings reduce the likelihood of collaboration and compromise in the allocation of scarce resources and opportunities. It is apparent that the relationships between Yakutat, Alaska, residents and the Situk River are complex, imbedded in history and culture, and include perspectives involving identity, tradition, subsistence, and livelihood—issues that greatly differ from those found among non-local visitors to the Situk River. This RTP research approach evolved with a desire to more fully account for the types of issues relevant to the local population—at a level of complexity that goes beyond what is typically considered in recreation visitor studies.

Although the importance of relationships to place is gaining recognition, applying understanding about the public's relationships with wildland places as a form of public input to management decisions has been slow to find mainstream application because planners tend to focus on more traditional and well-defined criteria. This paper presents ways to convey information to managers and stakeholders, and describes a structured approach for considering RTP in future research.

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Relationships Between the Public and Public Wildlands

There is growing interest in understanding relationships between the public and public wildlands. Traditional resources on public lands, such as timber, minerals, grazing, watersheds, and developed recreation increasingly compete with the needs and desires of a public that is becoming more interested in non-consumptive existence and amenity values of these places. Managers must understand the public's relationships to wildland places in order to ensure these values are considered in multiple-use resource debates. An interest in understanding and enhancing relationships between the public, public lands, and the managers of those lands, derives from the view that increased understanding of public views and desires will enhance honest and meaningful involvement of the public and contribute to more balanced, integrated and equitable management decisions (Kruger 2003).

Human-place relationships are central to human organization and they influence attitudes and beliefs about those places; for example, opinions regarding conflict and management of a public wildland place are related to the types of experiences and expectations associated with that particular place. A focus on human-environment relationships as a planning approach is gaining recognition in social science assessments used to inform public land management decision makers (Beckley 2003; Kruger 2003). Yung and others (2003) see promise in the study of place for gaining understanding of diverse interests in natural resource conflict and management decisions. Place attachment, as a measure of relationships to place, has been used for understanding recreation and resource management issues in both developed and wilderness landscapes (Eisenhauer and others 2000; Kyle and others 2004; Williams and others 1992; Williams and Vaske 2003).

Although the importance of relationships to place is gaining recognition, applying understanding about the public's relationships with wildland places as a form of public input to management decisions has been slow to find mainstream application because planners tend to focus on more traditional and well-defined criteria. Williams and others (1992) critique typical resource planning that emphasizes traditional economic values, along with a growing awareness for ecological values, while failing to recognize the full range of

values associated with places, including emotional, symbolic and spiritual ties. Williams and Vaske (2003) identify the start of a paradigm shift from traditional resource management policies that emphasize commodity values toward a greater emphasis on understanding subjective, emotional, and symbolic meanings of specific places or landscapes. Beckley (2003) concludes that both community attachment and recreation-site attachment studies have been too narrowly defined to clarify factors of influence, and calls for understanding types and intensity of attachments to place with consideration for the broad spectrum of users who live, work, and play in a geographic place.

Borrie and others (2002) considered the importance of relationships between the public and public lands using a model guided by the principals of relational, public purpose marketing. That research resulted from a call by the Chief Operations Officer for the U.S. Forest Service to apply principles of private-sector marketing to provide satisfying outdoor recreation products and services for the public and to charge fees to recover the costs of those services (Pandolfi 1999). Borrie and others (2002) developed a relational marketing approach. They argued that this was more appropriate in public land management than a conventional transactional marketing approach, which is typified by a discrete transaction with a customer, having a distinct beginning, short duration, and sharp ending. In contrast, a relational exchange builds from previous agreements, is longer in duration, and reflects an ongoing process. Watson and Borrie (2003) feel that this approach is a more appropriate view of 'customer service' in public lands management, developing and fostering a relationship between stakeholders and the places that have been established on their behalf on public lands. They view the role of the public land management agency as stewards of that relationship. They concluded that segmenting groups based on differences in relationships to place is a useful approach to facilitating better communication and understanding between managers and the general public.

Relationship to Place: A Research Approach _____

A place perspective reminds us that the values and meaning of places are greater than the sum of their attributes—it recognizes human relationships to place and acknowledges that special places do not have ready substitutes for many people (Brown and others 2002). A person's relationship to place refers to the set of attitudes, beliefs, and behaviors they associate with a particular place, along with the contextual and dynamic bonds they form with the place over time. Relationships are shaped by unique characteristics and experiences of the individual, as well as numerous external factors that operate at multiple scales of influence. A partial list of the factors of influence on relationships to public wildland places that are relevant to informing management decisions would include the geography and physical environment, predominant local culture, livelihood activities associated with the place, management history, traditional

and emerging activities, ongoing experiences, and history of uses that occur there. Consideration should also include the political and economic forces, exerted through media and governance that attempt to influence place meanings and the public's RTP. In conceptualizing the link between the public and public lands as ongoing, dynamic relationships this research seeks to improve understanding of how variations in relationships to place influence conflict, preferences for conditions, and opinions about appropriate management of public wildlands.

The RTP Research Approach

The RTP research approach for assessing views about resource management issues held by residents of communities near public wildlands can be conceptualized in five steps (table 1). The five steps of this approach were developed for the case study described below through a history of research on relationships to public lands (for example, Borrie and others 2002; Brod and Christensen 1998; Watson and others 2004). The approach builds on work by Brod and Christensen (1998), who developed understanding of differential support for tourism development on and off a Montana Indian reservation using factor analysis, logistic regression, and measures of place attachment similar to those used in the current study; on the work by Borrie and others (2002), who segmented the public in Oregon and Washington based on measures of their relationships with managers and activity participation on National Forest lands in the two-state region; and on research by Watson and others (2004), who developed depth of understanding about jet boater relationships to place with the Salmon River through qualitative interviews before conducting a quantitative survey to generalize this understanding about activity and place.

Case Study Example _____

This RTP research approach was applied in a case study conducted in the community of Yakutat, Alaska, that focused on management issues on the nearby Situk River. The Situk River is at the northern end of southeast Alaska, and flows just 25 miles (40 km) in length, almost entirely within the Tongass National Forest. It originates in the Russell Fiord Wilderness and ends in the Gulf of Alaska. The Situk is one of the most productive wild fisheries in Alaska, with large runs of steelhead, chinook, sockeye and coho. The fisheries provide for subsistence, commercial, and recreation uses. The Situk's growing worldwide reputation as an exceptional sport fishery, along with its ease of access, are contributing to an increase in tourism, economic development, and population growth in the local community of Yakutat. Yakutat has an ethnic mix of primarily Tlingit Indians and Caucasians, and is a traditional fishing community of about 700 people. The Situk River, Yakutat Resident Study (Christensen and Watson 2006) examined relationships to place between residents of Yakutat, Alaska, and the Situk River. It also assessed residents' perspectives on use, conflict, and management issues on the river.

Table 1—The five steps of the RTP research process used in the Situk River, Yakutat Resident Study, 2006.

RTP Research	
1. Problem Definition	<ul style="list-style-type: none"> a. Conduct a planning effort on public wildlands that includes understanding, involving, and considering all stakeholders in the decision. b. Provide opportunity to build on knowledge about the RTP research process and to improve the use of results in future planning efforts. c. Interview resource managers and planners to determine information needs. d. Conduct a background investigation of relevant historical documents, media articles, meeting notes, previous research, public comments, etc.
2. In-Depth Understanding	<ul style="list-style-type: none"> a. Conduct interviews with community members and local leaders to understand their RTP with the wildlands and their concerns about management. b. Conduct interviews with local experts to develop understanding of important RTP components and local terminology. c. Analyze qualitative interviews to identify emergent topics and range of opinions, and to develop depth of understanding. d. Document the researchers' understanding gained from the qualitative process. Include reviews by managers to refine the interpretation and understanding.
3. Generalizable Understanding of Local Community	<ul style="list-style-type: none"> a. Develop a survey questionnaire based on knowledge gained in steps 1 and 2. Include reviews by managers to refine the instrument. b. Conduct a survey of a statistically generalizable sample of the population of residents in the local community. c. Factor analyze questionnaire items to identify underlying RTP dimensions. d. Cluster analyze respondents using their scores on multiple RTP factors to develop community segments. e. Assess interactions between a respondent's membership in a particular RTP segment and their preferences for conditions and management.
4. Application of Research	<ul style="list-style-type: none"> a. Develop a comprehensive research report documenting qualitative and quantitative results. Include reviews by managers to refine the product. b. Develop an executive/community summary of important results. c. Present and interpret findings and results to managers and the community. d. Continue dialogue, interaction, and advising on research application and monitoring.
5. Evaluation, Improvement, and Broader Generalizability	<ul style="list-style-type: none"> a. Obtain formal evaluation by managers and stakeholders involved in the process. b. Conduct follow-up interviews with managers—focus on application and improving the approach. c. Identify broad lessons learned with possible applicability beyond the local case study. d. Design future case studies to build on current knowledge.

The RTP Approach Applied _____

Step One, Problem Definition

The Yakutat resident study developed understanding of complex relationships to the Situk River through a series of

increasingly structured data collection phases (Steps 1—3 of the RTP research approach listed in table 1), beginning in step one with informal interviews with managers to determine their perspectives on information needs. This scoping was supplemented with review of documents including planning meeting notes and transcripts, news articles, and written public comments.

Step Two, Increase In-Depth Understanding

The background investigation led to step two, which involved conducting and analyzing semi-structured interviews with purposefully sampled community residents. The objective of the purposeful sample was to obtain a wide range of perspectives. Eight qualitative interviews were conducted in the community, with each being recorded and transcribed for analysis. The respondents were asked about their history in Yakutat and their relationships to the Situk River in terms of: what the river means to them, why it is important to them, the types of activities they have done on the river, and other benefits they receive from the river. They were then asked to reflect on other people's uses of the river, and their preferences for conditions. Finally, they were asked about the management agencies, how management could be improved on the river, and whom they felt would benefit and lose from these management decisions.

The qualitative interviews were evaluated for emergent topics, both to develop depth of understanding about local relationships to the Situk River and to identify the range of categories among relationship topics covered in the interviews. Final coding of the transcriptions by emergent topics was facilitated using QSR NVivo qualitative analysis software. The emergent topics were identified and coded as they occurred in the text, with the development of categories guided by the review of literature and local background information, the researcher's personal experience in the community, and the study objectives (Berg 2004; Spradley 1979). The perspectives from these interviews were instrumental in designing the locally relevant quantitative survey that came next.

Step Three, Develop General Understanding of Local Community Perspectives

A survey questionnaire was developed based on the information and themes that emerged from the previous steps. It was administered to a statistically representative sample of the local community. The survey was designed to account for RTP complexity since the set of relationship indicator variables were 'localized' using knowledge gained from the qualitative interviews. The RTP-related questions were designed to measure three types of self-reported characteristics: behaviors, values, and attachments. Each of the characteristics were measured with multiple items: 1) behaviors were measured as past or present participation in 14 recreation, subsistence, and commercial activities along the Situk River; 2) values were measured as the importance of the Situk River for providing various types of

tangible and intangible benefits; and 3) attachments were assessed as the level of agreement with 12 items describing different types of attachments to place for the Situk River and the local community of Yakutat. The three sets of items were also informed by previously tested measures used in other research on recreation, place, community attachment, and local effects of tourism (for example, Borrie and others 2002; Brod and Christensen 1998; Christensen and others 2004). In addition to assessing components of RTP, the survey questionnaire also asked respondents to indicate their concerns and preferences for resource conditions and management options. The questionnaire was administered randomly, door-to-door to a relatively large sample of 220 adult Yakutat residents in the spring of 2005.

The analysis of the questionnaire data was conducted using SAS statistical software, and required a series of statistical tools including: 1) missing value imputations on variables to be used in subsequent modeling to prevent loss of incomplete case data; 2) factor analysis of the individual RTP items to identify a set of more complex underlying constructs; 3) cluster analysis of respondents' factor scores to identify segments of the community with similar complex mixes of RTP characteristics; 4) descriptive analysis of respondent characteristics within RTP segments; and 5) testing for significant differences and predictive ability in preferences for conditions and management of the Situk River across the segments using forms of ANOVA and logistic regression with finite population corrections. The overall quantitative analysis followed the multi-stage decision process described by Hair and others (1998).

Results

Factor Analysis

The quantitative survey measured a number of items within three general types of RTP characteristics, and the items were factor analyzed to identify underlying dimensions within the general characteristic types. Figure 1 shows the categories that were identified from the factor analysis of the Yakutat resident survey data. The analysis identified two factors within each of the three general categories. For activity participation, respondents generally showed similar response patterns across traditional types of activities and across recreational types of activities. Looking at the recreational activity participation factor, for example (fig. 1), if a Yakutat resident respondent indicated that they participated in recreational or personal fishing on the Situk River in the past year they were also likely to indicate that they participated in non-motorized floating/boating on the river in the past year. Similarly, resource values represented two dimensions: items regarding family/cultural values and those indicating recreation, personal or environmental values. Attachments to place separated into two dimensions representing emotional and economic items.

Cluster Analysis

The second statistical tool used in the quantitative analysis phase of the RTP research approach was cluster analysis

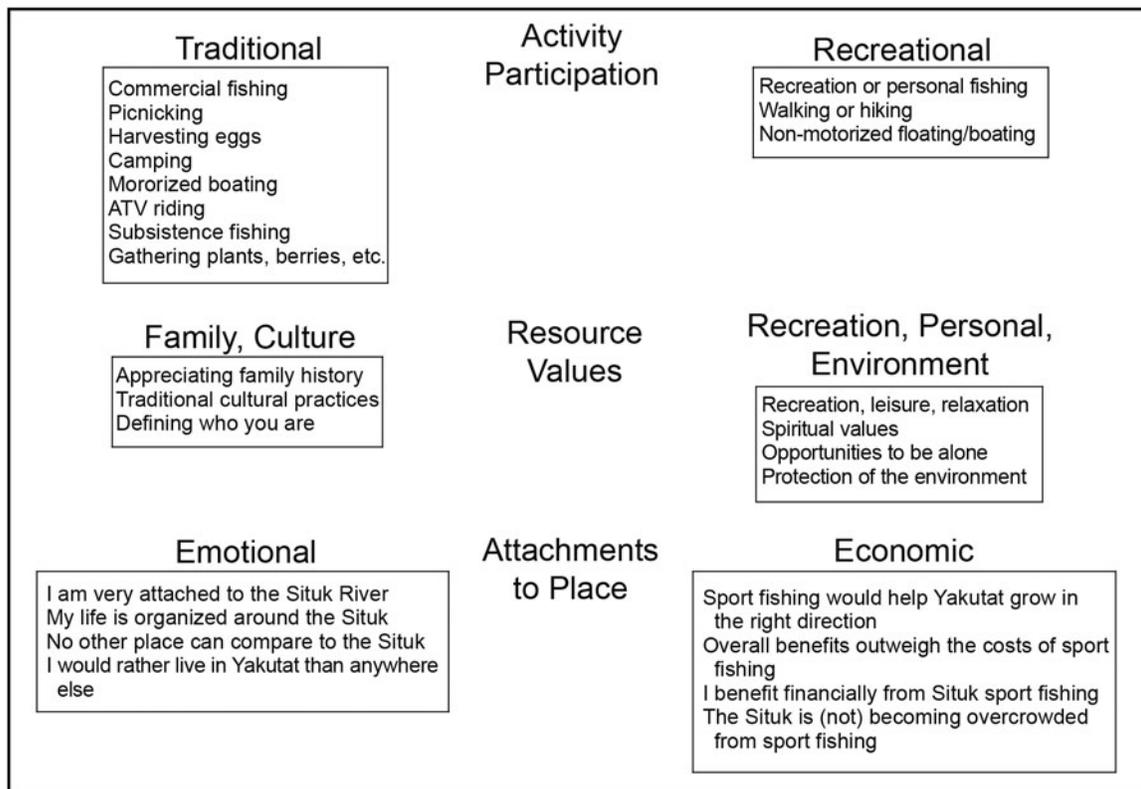
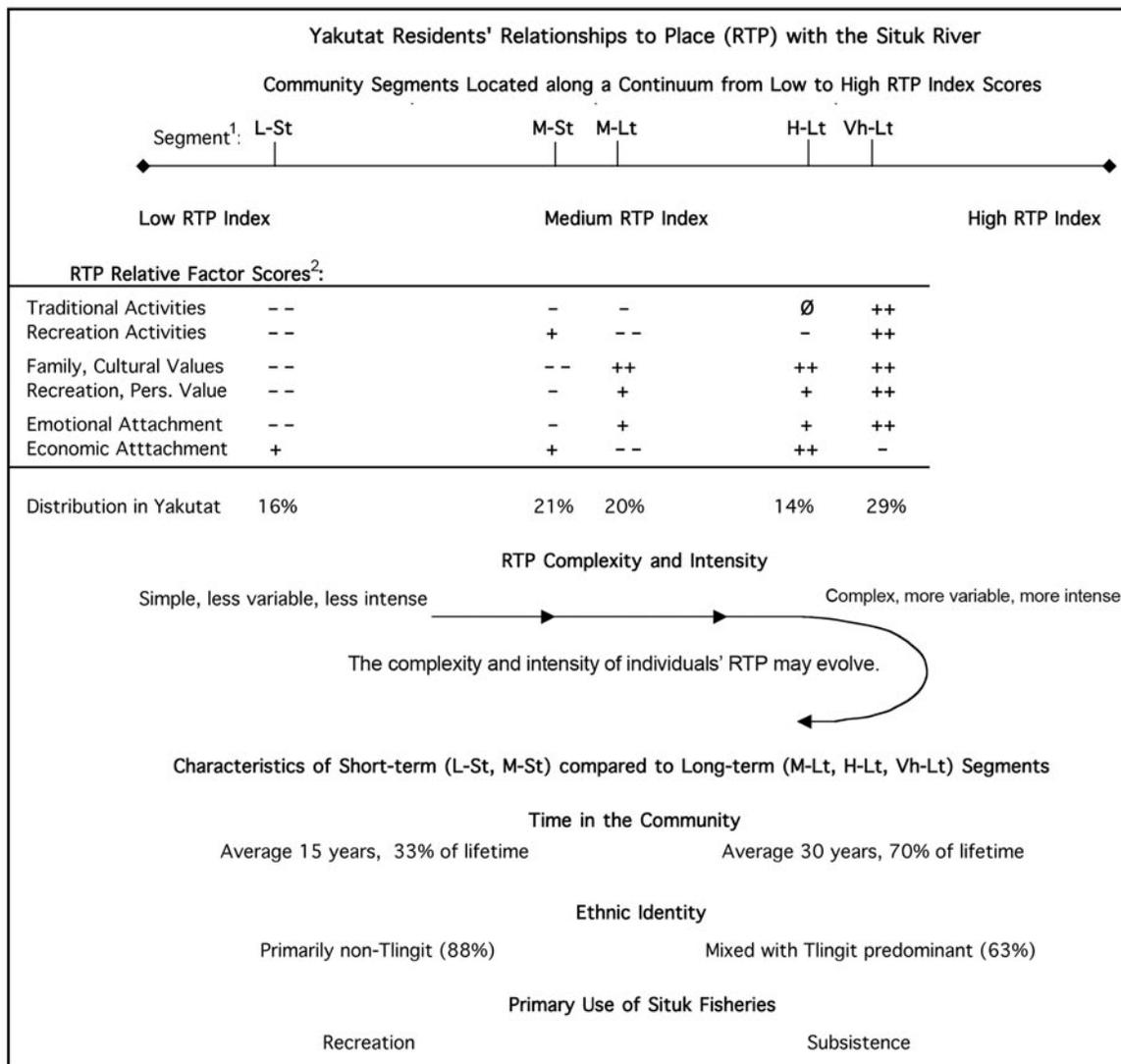


Figure 1—Six relationships to place factors identified using common factor analysis of questionnaire response items within three general category types; The Situk River, Yakutat Resident Study, 2006.

to segment Yakutat respondents based on their scores on the six RTP dimensions found in the factor analysis (fig. 1). Cluster analysis is a common market segmentation statistical tool. It identifies segments of respondents that have similar characteristics across a set of items—in this case the characteristics of residents’ RTP with the Situk River. Through cluster analysis we identified a five-segment solution to represent Yakutat respondents based on their RTP response patterns.

Figure 2 summarizes the five clusters, identified in the figure by the labels L-St, M-St, M-Lt, H-Lt, and Vh-Lt. The five clusters were given abbreviated labels to aid in keeping

track of their characteristics. These labels do not reflect the complexity of the RTP within the segments, but provide a simple way of organizing them in memory. The segments and their labels, in order of ascending relationship intensity scores, include: Low intensity, short-term residents (L-St); Medium intensity, short-term residents (M-St); Medium intensity, long-term residents (M-Lt); High intensity, long-term residents (H-Lt); and Very high intensity, long-term residents (Vh-Lt). The Relationship Intensity index scores for L-St members were substantially below average, those for members of M-Lt were about average, and those for Vh-Lt members were substantially above average.



¹Segment Labels

- L-St: Low intensity, Short-term segment
- M-St: Medium intensity, Short-term segment
- M-Lt: Medium intensity, Long-term segment
- H-Lt: High intensity, Long-term segment
- Vh-Lt: Very high intensity, Long-term segment

²Relative Scale

- Low
- Below Average
- ∅ Average
- + Above Average
- ++ High

Figure 2—Characteristics of the five segments identified in the cluster analysis of RTP factors; The Situk River, Yakutat Resident Study, 2006.

Below the continuum in figure 2 is a table indicating the average relative scores given by each of the five segments to each of the six RTP factors. Segment L-St scored all of the RTP factors low other than economic attachment. Notice that the two ‘average’ segments, M-St and M-Lt, had different types of relationships to the Situk River as indicated by their scores on the six RTP factors. For example, members of the M-Lt cluster felt that family and cultural values are very important, but they had a low economic attachment to place. In contrast, members of segment M-St, with a similar overall relationship intensity score, had high economic attachment to the river and they rated family/cultural values very low. This illustrates the importance of understanding the complexities of relationships to place rather than focusing too narrowly on the composite index score or any single aspect of the relationship to inform management decisions. Segments H-Lt and Vh-Lt also had similar index scores but showed important differences in the types of RTP they had with the Situk River (here the greatest difference is reflected in relative scores on recreation activity participation and levels of economic attachment). The remainder of figure 2 shows some of the other characteristics that tended to vary across the Situk River, Yakutat resident RTP segments. These characteristics indicate a tendency toward a dichotomy in the community between the two segments of short-term residents (L-St and M-St) and the three segments of long-term residents (M-Lt, H-Lt, and Vh-Lt).

Opinions About Management

One of the primary benefits of the RTP research approach for managers and stakeholders may be the increase in their understanding about how citizens’ views on management issues differ across complex types of relationships like those described above and illustrated in figure 2. The Yakutat Resident, Situk River survey included a number of questions regarding management options for the river. Table 2 shows statistically significant levels of support and opposition for these management options across the five RTP segments. The difference in opinions about management options found across the segments indicates the ability of the RTP research approach to help clarify understanding of complex and contentious issues. These results suggest that cultural, community, and individual forces are all connected to forming opinions about appropriate solutions to wildland resource issues.

The table shows wide agreement on some management options, such as all segments being supportive of encouraging catch-and-release fishing and opposing decreases in subsistence and commercial fisheries. Table 2 also shows variation in opinions across the RTP segments in ways that suggest the important influences of RTP on opinions and preferences for managing public wildlands. Segments M-St and Vh-Lt, the two primary segments of Yakutat residents that currently sport fish on the Situk, show different levels

Table 2—Support and opposition for options to address resource management concerns; The Situk River, Yakutat Resident Study, 2006.

Management options for the Situk River: (n=219)	Yakutat Community RTP Segments				
	L-St	M-St	M-Lt	H-Lt	Vh-Lt
Designate campsites with reservations	Support		Support		
Encourage catch-and-release fishing	Support	Support	Support	Support	Support
Prohibit motors > 10hp above weir	Support	Support	Support		Support
Stage boat launches at Nine Mile			Support		
Prohibit jetboats above weir		Support	Support		
Daily boat limit above weir	Support	Support	Support		
Daily limit on guided use		Support	Support		Support
Daily limit on nonguided rec use		Oppose	Support		
No upstream motor above weir during peak		Support	Support		
Prohibit all motorized boating above weir			Support		
No sport fishing below lower landing			Support		Support
Decrease sport fishing bag limits		Support	Support		Support
Decrease subsistence harvests of fish	Oppose	Oppose	Oppose	Oppose	Oppose
Decrease commercial harvests of fish	Oppose	Oppose	Oppose	Oppose	Oppose

Individual t tests with finite population corrections and Bonferroni corrections for multiple comparisons found the items indicated with 'Support/Oppose' to differ significantly from 'Neutral or No Opinion' at $p \leq 0.05$.

Measured on the scale: -2 'Strongly Oppose,' -1 'Oppose,' 0 'Neutral,' 1 'Support,' and 2 'Strongly Support.'

of support for management intervention, with the segment of newer residents (M-St) being more supportive of implementing management regulations than the segment of long-term resident sport anglers. Segments L-St and H-Lt, the segments with predominant economic attachments to the river tended to be less supportive of management options overall, while segment M-Lt was the least economically attached and the most supportive of management intervention.

Segment M-Lt is interesting in a number of ways. Segment members showed relatively low current activity participation levels, yet appeared to be highly concerned about resource conditions. Members of this segment, representing about 20 percent of the community, had fairly strong emotional attachment to the river compared to other residents. Although they had relatively low current participation rates in Situk River activities, respondents in segment M-Lt had the highest past participation rates in these activities. They were among the oldest respondents and were the segment that had lived in the local community the greatest percentage of their lives. This group would include many of the Tlingit Tribal elders whose opinions are highly respected in the community, and it is likely that management must address their concerns before city and tribal government stakeholders will support a collaborative management plan. The characteristics of segment M-Lt respondents provide evidence of evolving relationships with public lands, where the dominant components of a relationship change over time, but where the relationship itself remains important.

Evaluation of the Research Application

As this study includes multiple goals for generalizability to the population of Yakutat residents and for generalizability to similar planning processes implementing an RTP research approach, it is important to evaluate the research itself following its implementation. The study included several methods of evaluation for content and effectiveness as a form of public participation to inform management decisions. The intent of the evaluations are to increase the relevance of the research and to better understand the RTP approach and its outcome by assessing whether managers and stakeholders feel that it could facilitate public input, mutual understanding, and acceptance of management solutions—a set of criteria supported in the natural resource planning literature.

Shindler and Neburka (1997: 19) found that for “local people, natural resource planning success was largely measured by the extent to which their own ideas and concerns were given serious consideration and the agenda was not driven by federal agency politics or national debates.” McCool and Guthrie (2001) identified research showing seven dimensions across two major categories (product oriented and process oriented) to be indicators of successful public participation in messy natural resource planning situations where there are conflicting goals and scientific disagreement. On the product side, these indicators include the development of a plan and measures of the social and political acceptability of the plan. Measures of process-oriented success include opportunities for learning, building a sense of ownership

in the solution, building interpersonal relationships, and feelings of being heard.

The criteria identified by McCool and Guthrie (2001) for assessing the benefits of a public participation process are supported by others who have described the benefits of public participation in natural resources decisions, especially within social assessments and collaborative planning (for example, Cortner and Moote 1999; Haynes 2005; Kruger and Shannon 2000; Shindler and Neburka 1997), and these criteria were used as a guide for evaluating the RTP approach to informing the Situk River planning process. The process-based criteria identified by McCool and Guthrie (2001) are especially important in this RTP approach evaluation as definitive planning outcomes will take much longer to unfold.

In addition to including manager review of research instruments and documentation throughout the research steps, a formal evaluation was conducted in step 5 to assess the likely benefits of this research. McCool and Guthrie’s (2001) effectiveness dimensions, along with effectiveness of influencing trust in management, were incorporated into an evaluation form that was administered to the managers and stakeholders ($n = 7$) following presentation of the Situk River, Yakutat Resident Study results. The evaluations are a starting point for implementing ongoing feedback between science and application. A focus on improving effectiveness of the research will provide an insightful tool for continued improvement of the RTP approach during future case study applications.

Table 3 shows the criteria evaluated by the Situk managers ranked in terms of their perceived effectiveness. All of the seven elements that were evaluated by the managers and stakeholders were seen as positive contributions of the RTP research approach to the Situk River planning effort. Improving acceptability of the plan and increased understanding of the community were seen as the greatest benefits of the RTP approach while improved trust and cooperation were seen as the least effective aspects of the approach.

Conclusions

Public land managers must adapt to more complex demands for public resources by developing planning models that better consider diverse public interests. The Situk River, Yakutat Resident RTP Study demonstrates an approach to information collection that goes beyond consideration of recreation experiences and opportunities and setting attributes, as is most typical of the Recreation Opportunity Spectrum (ROS) approach, to consider complex local relationships with wildland places. As we increasingly recognize competing demands for public resources, it is apparent that public interests in lands protected for their wildland values often go beyond onsite recreation experiences.

Peoples’ perceptions of places are variable and dynamic. People may ascribe intense emotional meanings to special places like public wildlands, and these intense feelings reduce the likelihood of collaboration and compromise in the allocation of scarce resources and opportunities. In the early stages of this overall Situk River social science research it became apparent that the relationships between the local residents and the Situk River were complex, imbedded in history and culture, and included perspectives involving

Table 3—Managers' evaluation of RTP research effectiveness as a form of public input; The Situk River, Yakutat Resident Study, 2006.

Evaluation of relationship to place (RTP) research effectiveness by Situk managers: (n = 7)	Effectiveness Rank
RTP information will improve the management plan's acceptability in the local community.	1
RTP information helps the managers better understand the local community.	2
RTP information will improve the management plan.	3
Consideration of RTP information will improve the community's sense of ownership in the solution.	4
Consideration of RTP information will improve the community's feelings of being heard in the planning process.	5.5
RTP information will improve understanding and cooperation among local residents in the community.	5.5
Consideration of RTP information will lead to improved trust between the community and managers.	7

identity, tradition, subsistence, and livelihood—issues that greatly differ from those we found studying the visiting recreationists (Christensen and others 2004). The Situk River, Yakutat Resident Study (Christensen and Watson 2006) evolved with a desire to more fully account for the types of issues relevant to the local population—at a level of complexity that goes beyond what is typically considered in recreation visitor studies.

A growing interest in conceptualizing the link between the public and public lands as ongoing, dynamic relationships reflects increasing awareness of the public's complex interactions with public wildlands that have not been well accounted for in traditional recreation planning models, which focus on onsite activities, thus possibly ignoring other important aspects of relationships. While a focus on providing a spectrum of recreation opportunities is useful for many wildland planning situations, other situations, such as those with diverse local interests in the wildlands, may benefit from a focus on a spectrum of relationships between the public and their shared common lands. In the case of planning for the management of the Situk River, these two approaches may complement each other. A traditional focus on recreation settings and experiences may be satisfactory for evaluating concerns of recreation visitors (Christensen and others 2004), while a relationship to place focus more appropriately accounts for concerns of local residents (Christensen and Watson 2006).

As researchers working with managers of public wildland resources, we need to recognize and understand these important relationships, and develop ways to incorporate this understanding of complex relationships between humans and special places into meaningful conflict resolutions and more acceptable resource allocation decisions. Management solutions receiving the most support in messy natural resource planning situations may be those that open the line of communication, increase mutual understanding, and encourage cooperation among the stakeholders. Social science may facilitate that interaction. Applying social science through a relationship to place research approach uncovers the types of shared values and goals that ultimately bring stakeholders together to develop cooperative solutions. In this way the RTP research approach may effectively influence policy aimed at resolving conflict in public wildland management.

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