Aligning Identity: Social Identity and Changing Context in Community-based Environmental Conflict

by

Todd A. Bryan

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Doctoral Committee:

Associate Professor Julia M. Wondolleck, Chair Professor Jane E. Dutton Professor Steven L. Yaffee Professor Linda L. Putnam, University of California at Santa Barbara © Todd A. Bryan 2008

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List of Abbreviations

CASPO California Spotted Owl (Assessment Report)

CRS Congressional Research Service
EDR Environmental Dispute Resolution
EIS Environmental Impact Statement

ESA Endangered Species Act

FPW Friends of Plumas Wilderness GAO General Accounting Office HCA Habitat Conservation Area

ISC Interagency Scientific Committee

MUSY Multiple Use and Sustained Yield Act of 1960

NEPA National Environmental Policy Act
NFMA National Forest Management Act
NRDC Natural Resources Defense Council
OMB Office of Management and Budget
OTA Office of Technology Assessment
PG&E Pacific Gas and Electric Company

PILT Payments in Lieu of Taxes
QLG Quincy Library Group
SOHA Spotted Owl Habitat Area
SPI Sierra Pacific Industries
USFS United States Forest Service

Abstract

This research follows the "timber wars" in the Sierras of northern California from 1984 through 1996, including the formation of the controversial Quincy Library Group. Using a case study approach, the research explores the longstanding divisions between environmentalists, loggers, and the U.S. Forest Service and the role that social identity and social context play in perpetuating an intractable conflict and then helping to transform the local conflict as the social, economic, political and ecological context surrounding protagonists changed. Social identity theorists argue that individuals possess multiple social identities that become salient in different contexts or as context changes. Such identities exacerbate differences and can, when threatened, lead to intractable conflict and to common pool resource dilemmas characterized by "tragedy of the commons" situations. The research explores the use of identity and characterization frames by disputants in the context of the local timber and the way frames change, leading to the transformation of the conflict and the emergence of a new conflict at the regional and national level. Using a process theory framework, the research findings support the argument that external directional forces created conditions necessary for the recognition of a common fate, common identity, and positive interdependence between loggers and environmentalists, and for cooperation and collaboration to transcend hostility and conflict. Transformation of the longstanding conflict resulted from a probabilistic process between adopted leaders on both sides of the conflict in which a common identity and superordinate goal were framed by one side and, over time,

accepted by the other. The research has relevancy for identity-based environmental and natural resource conflicts and public policy processes in which multiple users are competing for scarce resources or in which tragedy of the commons situations exist.

Chapter I Introduction

"Hey, Mr. Cunningham... Hey, Mr. Cunningham... How's your entailment gettin' along? Don't you remember me, Mr. Cunningham? I'm Jean Louise Finch. You brought us some hickory nuts one time, remember? I go to school with Walter. He's your boy, ain't he? Ain't he, sir? He's in my grade, and he does right well. He's a good boy, a real nice boy. We brought him home for dinner one time. Maybe he told you about me, I beat him up one time but he was real nice about it. Tell him hey for me, won't you?"

In Harper Lee's classic story *To Kill a Mockingbird* (Lee 1960), Atticus Finch's young daughter Scout admonishes Mr. Cunningham to remember her, while innocently empathizing with his impoverished situation. The scene occurs in front of the County jail where Atticus is standing watch over the jail's occupant, Tom Robinson, a black farmhand accused of raping a local white woman. A somber mob has assembled to take Tom from the jail and lynch him before he goes to trial. Mr. Cunningham, whom Atticus is helping through his entailments, is among the mob. Scout, her older brother Jem, and their friend Dill, have located Atticus sitting in front of the jail next to a lamp that he brought from home. As a standoff develops, Scout, Jem, and Dill push through the crowd and run up onto the porch. Angry at disobeying his orders, Atticus implores the three to go home. While Jem is standing his ground, Scout surveys the crowd for a familiar face. She notices a discomforted Mr. Cunningham, who is avoiding her gaze. Reluctantly, he acknowledges her: "I'll tell him you said hey, little lady... Let's clear out. Let's get going, boys."

Scout's words diffused the tension and altered the dynamics of the conflict, at least for the time being. But what actually changed? What prompted Mr. Cunningham to acknowledge Scout and disperse the mob? Why did the men follow? I argue that a

change occurred when the crowd's collective identity was forced to shift from angry white mob to neighbors and community members who share a common fate. Scout's words did not so much reframe the conflict itself but reframed mob members' identities, reminding them that in spite of racial divisions, they were bound together, aligned if you will, in common suffering and dignity, defined by their place in society, their place in time, and their location. The story unfolds in a small southern town in the 1930s, a time and place of not only abject poverty but of stark racial distinctions. As Lee (1960, p. 5) writes, "A day was twenty-four hours long but seemed longer. There was no hurry, for there was nowhere to go, nothing to buy and no money to buy it with, nothing to see outside the boundaries of Maycomb County."

Harper Lee's powerful story illustrates my research and provides a departure from conventional wisdom. If identities can substantively shift, defusing tensions and altering the dynamics of conflict, then it might be wise to study this phenomenon in more detail, and in actual settings. The settings with which I am primarily concerned involve environmental and natural resource conflicts at local and regional levels, and those having "common pool resource" characteristics (Ostrom 1990). Common pool resources include a wide range of resources that may be used in common by more than one person, thus comprising a "common pool from which individuals might draw products or benefits" (Stein and Edwards 1999, p. 539). Common pool resources can be governed under four basic management regimes: 1) open access, where rules and regulations are absent, 2) public property, where public access is controlled by the state, 3) private property, where rights are owned by the individual, and 4) common property, where a set

of rules and a system of organized collective action is present to govern access to, allocation of, and control over the resource (Stein and Edwards 1999).

Common pool resource conflicts are of particular interest because they are characterized by "tragedy of the commons" dilemmas (Hardin 1968) in which multiple resource users, acting rationally and independently, collectively deplete a resource.

Common pool resource dilemmas occur as users weigh the benefits of extracting one more unit of value from the resource against the costs of doing so, which are spread among all resource users. The result, according to the theory, is inevitable resource depletion since common pool resource dilemmas share the key feature of the "subtractability" of benefits as access to the resource increases (Becker and Ostrom 1995; Dolsak and Ostrom 2003; Kollock 1998).

In Hardin's view (1968), resource depletion was inevitable unless resource users discovered appropriate mediating structures. Hardin argued that public resources, like public grazing lands, are more susceptible to tragedy of the commons problems because multiple resource users have little incentive to voluntarily restrict their use. In fact, if they do they simply leave more for others to exploit. And, since there is often relative anonymity among users, exploiters may go unchecked (Kollock 1998). Common pool resource dilemmas are among the most complex and difficult problems facing resource managers today and in the future. Yet they are not devoid of hope.

Since Hardin first drew attention to the tragedy of the commons, policy makers, natural resource managers, and environmental activists have been trying to prevent its occurrence. Interestingly, while most interpreters of the theory advocate either increased government regulation or increased privatization of resources (Bish, 1977), Hardin

himself (1968, p. 1247) called for "social arrangements of responsibility" wherein users collectively accept what he termed "mutual coercion, mutually agreed upon," adding that he was not talking about "arbitrary decisions of distant and irresponsible bureaucrats" but mutual coercion "by the majority of the people affected." The often overlooked component of his idea is that mediating structures are created through a process of deliberation and agreement that renders them binding and mutually enforceable (Bryan 2004). Ostrom (1990) makes this point in her discussion of alternatives to Leviathan control on the one hand and free-market privatization on the other. Instead, Ostrom advocates a consensual, binding contract among resource users that commits them to "a cooperative strategy that they themselves will work out" (p. 15).

In a similar vein, Johnson (2003) asserts that since tragedy of the commons problems are derived from resource users acting independently, one's individual decision to voluntarily restrict his or her own use to sustainable levels, regardless of what others do, will "typically have no reasonable chance of achieving their objective" (p. 272). This is because common pool resource dilemmas require collective action. Unilateral action may temporarily reduce access to or consumption of the resource, however,

...where one's life or livelihood is derived from use of the commons, personal sacrifice to preserve the commons tends to be self-eliminating, as the scrupulous users lose their livelihood to the ignorant, the unscrupulous, or to those who reasonably doubt that all will voluntarily reduce their use (p. 274).

Johnson adds that individual use of the resource is not the problem:

This is not a problem in which every individual act is harmful and the total of all of these harmful acts is dreadful. Rather, individual acts are harmless in themselves, but harmful in aggregate (p. 273).

Johnson concludes, appropriately, that from an ethical perspective, one's moral obligation in the face of a common pool resource dilemma is to "work for a collective agreement that could avert a potential tragedy of the commons" (p. 283).

Since Hardin's publication, researchers have discovered various situations where the tragedy has been successfully averted (Acheson 1988; 2003; Ostrom 1990) and have expanded on his thesis. These findings hold relevance for this research, primarily with respect to the convergence of social identity theory, social dilemma research, and the application of collaborative and negotiated approaches to resolving environmental disputes. Such approaches, because of their potential to influence social identity, may be the most promising avenue for achieving the social arrangements that Hardin described, thus averting the tragedy and moving society towards a more sustainable relationship with the natural world.

While common pool resource conflicts offer a particular challenge, they are part of a growing number of environmental and natural resource conflicts in our society today. Environmental and natural resource conflicts are thought to be deeply rooted in competing values – the protection of natural resources on one hand and the pursuit of economic and social goals on the other (Ostrom, 1990; Susskind and Weinstein, 1980). As Susskind and Weinstein (1980, p. 311) note,

Almost every effort to protect or enhance environmental quality is perceived as a challenge, at least at the outset, by groups or individuals whose economic self-interest – or political beliefs – are threatened. Similarly, almost every attempt to promote economic development or technological innovation is viewed as a potential insult to the quality of the natural environment or a threat to the delicate 'ecological balance' upon which we all depend.

Considerable resources have been devoted to environmental conflict in the last quarter century, yet many of these disputes remain largely unresolved (Bacow and Wheeler,

1984; Bingham, 1986; Wondolleck and Yaffee 2000). Kriesberg (1993), Coleman (2000), Caton Cambell (2003), and Burgess and Burgess (1996) refer to these kinds of persistent conflicts as "intractable" because they appear to defy resolution, even though they recognize them as dynamic and potentially resolvable.

Conventional wisdom holds that intractable conflicts are characterized by substantive differences over the distribution of resources (Hammond and Grassia, 1985; Lewicki et al., 1997), incompatible goals (Klar et al., 1987) and/or conflicting interests and positions (Fisher and Ury, 1981) that persistently thwart agreement. However, more recent research suggests that intractability may result from identity-based differences (Brewer, 2001; Coleman, 2000; Northrup, 1989; Rothman, 1997), which manifest themselves in such things as group affiliations, ideologies, power differences, and organizational structures. As Lederach (1997) contends, roughly two-thirds of the intense armed conflicts in the world today result from identity-based differences, primarily of religious, ethnic, and political origin. Hunter (1989) draws similar conclusions about environmental and natural resource conflicts.

Unfortunately, the nature of environmental and natural resource conflicts and the conventional procedures we currently use to address them – protracted litigation and administrative appeals of regulated activities – seldom lead to their resolution (Bacow and Wheeler, 1984; Bingham, 1986; Susskind and Weinstein, 1980). Moreover, while these approaches have helped level the playing field in most situations, by creating and strengthening laws that provide checks and balances on the free-market system and its externalities, it is unclear the extent to which such procedures have either resulted in greater protection for natural ecosystems and at-risk populations or solved complex

problems (Susskind and Weinstein, 1980; Tenbrunsel et al., 1997). Some even argue that our reliance on strict standards and command-and-control procedures have resulted in the opposite effect (DeLong, 2002; Holling and Meffe, 1996; Huber, 1999). Take, for instance, the following reflection from a former oil worker regarding the proposal to drill for oil in the Alaska National Wildlife Refuge: "Rightly or wrongly, regulation tends to cause adversarialism—a feeling I know all too well. It leads to circumvention if not outright corruption" (Masiel 2004, 89).

Ironically, increased use of litigation and administrative appeals, and the relative success of such procedures in upholding environmental laws and policies, has spawned a new interest in alternative forms of resolving environmental conflicts (Bacow and Wheeler, 1984; Bingham, 1986; Susskind and Cruickshank, 1987). Due in part to concerns that litigation and administrative appeals were resulting in win-lose outcomes that seldom solved the problem, and in part to perceptions that such procedures were both inefficient and costly, a handful of individuals began experimenting with what is now widely known as environmental dispute resolution, mediation, and negotiation (Bacow and Wheeler 1984; Bingham 1986; Wondolleck and Yaffee 2000).

Environmental dispute resolution (EDR) – the process of voluntary negotiation among disputing parties – contained the possibility for actually resolving conflict, resulting in legitimate joint solutions and avoiding costly and protracted legal battles. However, while the practice of EDR has grown considerably over the last two decades, adversarial and confrontational approaches to managing environmental and natural resource conflicts are still the norm. Nevertheless, EDR continues to show great promise

for resolving some intractable conflicts (Bacow and Wheeler 1984; Bingham, 1986; Talbot, 1983; Wondolleck and Yaffee, 2000).

Moreover, environmental dispute resolution appears to be part of a larger social movement directed towards greater participation among diverse stakeholders bounded by a common physical and social environment (Cortner and Moote, 1999; Wondolleck and Yaffee, 2000). Under the guise of such concepts as strong democracy (Barber, 1984), communitarianism (Etzioni, 1993), civic engagement (Putnam, 2000), and civil society (Bell, 1989), citizens are increasingly stepping across ideological, social, and political boundaries to engage in place-based problem solving. In the environmental and natural resource arena, Wondolleck and Yaffee (2000) describe how various forms of "collaboration" among diverse stakeholders are overcoming barriers, resolving conflict, and addressing pressing environmental and ecological problems.

The differences between EDR and collaboration appear to be subtle, albeit important. While both employ a process of interest-based negotiation (Fisher and Ury, 1981; Gray, 1991), EDR is generally a *reactive* response to existing and heated conflict while collaboration is a more *proactive* response to anticipated conflict. Moreover, EDR tends to be a short-lived process designed to address a pressing dispute while collaboration is more often an ongoing relational process designed to manage multiple issues (Gray, 1991; Wondolleck and Yaffee, 2000).

Along these lines, one of the more dynamic if less studied phenomena that has spontaneously emerged over the last decade is community-based collaborative natural resource management (Bernard and Young, 1997; Cortner and Moote, 1999; Wondolleck and Yaffee, 2000; Yaffee et al., 1996). Combining alternative dispute resolution and

collaborative principles with democratic, communitarian, and civic ideals, numerous adhoc collaborative groups have overcome significant local conflicts in an effort to move their communities towards a more economically, socially, and ecologically sustainable future (Bernard and Young, 1997). Familiar community-based groups such as the Quincy Library Group (CA), the Applegate Partnership (OR) and the Malpai Borderlands Group (NM) have evolved in part to address long-standing and bitter natural resource conflicts at the local level (Brick et al. 2001). Moreover, citizens have initiated such groups out of a growing frustration with centralized "one size fits all" policies of federal land management agencies, and from an emerging perception that community-based solutions can best integrate economic, social, and ecological concerns (Bernard and Young, 1997; Brick et al. 2001).

Community-based groups, however, are not without controversy, which stems in part from the fact that most of the communities that have initiated them are surrounded by public lands that are managed by federal agencies pursuant to acts of Congress. As such, community-based groups, even when their composition reflects national interests, represent only one element in multiple-use public land policy and administration.

Federal laws and policies such as the National Environmental Policy Act (NEPA) and the National Forest Management Act (NFMA) have well-established procedures for involving the broad public in agency decision-making (Vig and Craft, 2000; Wondolleck, 1988). Community-based groups, critics argue, are simply attempts to circumvent these procedures (Coggins, 1996; 2001; McCloskey, 1997). Such groups counter that they are not intent on circumventing environmental laws and policies but are simply better informed and equipped to deal with complex land management issues, are in a better

position to monitor and steward land management activities, and have more at stake in the outcome of public lands decisions (Wondolleck and Yaffee, 2000).

The controversy raises significant questions about how natural resource management decisions are to be made; the role of local communities, industry, and environmentalists in decision-making; and what "hat" professional resource managers should wear in decision-making processes (McCloskey, 1997; Wondolleck and Ryan, 1999). The controversy also raises important questions concerning the ability of national and regional interest groups, particularly environmental organizations, to participate effectively at the local level; the capability of resource-dependent communities to balance environmental protection with economic prosperity; and the ability of group members to overcome significant ideological barriers. The controversy has even rekindled fundamental Jeffersonian and Madisonian debates over the ability of "the people" to self-govern (Kemmis, 1990). Nevertheless, the former and current federal administrations have extensively touted collaborative approaches to decision-making affecting natural resources and the environment.

Studies are emerging that address the breadth of community-based collaborative resource management groups (Cestero, 1999; Coughlin et al., 1999; Duane, 1997; Wondolleck and Yaffee, 1994; Wondolleck and Yaffee, 2000; Yaffee et al. 1996). Most of these studies compare such groups across certain relevant and observable variables. While these studies shed light on similarities and differences among operating groups, there has been no empirical research to date designed to gain an understanding of the underlying dynamics that enabled group members to overcome significant ideological and social conflict and agree to collaborative action. This research attempts to fill that

gap by exploring one controversial community-based collaborative group and its deepseated conflict in great depth and over a long period, including the dynamic context within which the conflict unfolds.

The research argues that dramatic and complex changes in the context surrounding the conflict may create conditions that enable social identities among key protagonists in the conflict to "align" in such a way that intergroup conflict is transformed into cooperation and collaboration as common identities among protagonists become salient. Further, such alignment is facilitated by the salience of a common fate as the community and the surrounding landscape emerge as a socializing construct, which results from the changing context. The research draws heavily from social psychological research on social identity and social categorization theory as well as research on social identity and conflict and the role of identity in common pool resource dilemmas.

The research applies social identity theory to a complex and dynamic natural situation, rather than the more common experimental setting. Further, the research builds on social identity and self-categorization theory by more fully exploring the role of context in social identity salience, and how contextual dynamics can influence social identity salience, resulting in new interpretations of the conflict and novel forms of organizing. More specifically, while previous experimental research has focused on a shift in identity salience resulting from a new context, this research explores how the surrounding context, when studied longitudinally, can shift around disputants, causing salient social identities to align in ways that allow cooperation to transcend confrontation. In addition, the research more fully explores the role that leaders play in transforming

conflicts by framing a common identity and common goals, and by creating a common space for adversaries to step into when they cross identity-based boundaries.

The research is particularly relevant to the fields of environmental dispute resolution, natural resource policy and planning, and common pool resource dilemmas where tragedy of the commons problems are likely to occur. In each of these arenas, as Susskind and Weinstein (1980) argue above, conflict among people with competing motives and values commonly prevents them from working together to solve complex social, economic, and ecological problems, often resulting in protracted litigation and gridlock. In contrast, we know from following EDR and collaborative resource management case studies that voluntary and negotiated processes can lead to mutually acceptable solutions to such problems. From these case studies, we now know many of the guiding principles and processes that facilitate collaborative outcomes (Wondolleck and Yaffee, 2000). However, we are still at a loss as to how disputants are able to transform seemingly intractable environmental and natural resource conflicts. What changes occur among disputants that facilitate transformation? What changes occur within the context surrounding the conflict and how do protagonists interpret and act on those changes? This research addresses these questions head on.

I began the research by posing the open-ended question, "What changes when difficult environmental conflicts are transformed?" As I began my research in this grounded way, I had few specific ideas or hypotheses about what I would discover. My thoughts ran from changes in power that alter disputants' choices and alternatives, to changes in disputants' underlying interests, to changing perceptions of the problem or of each other. The conflict I chose as a case study can be explored from these perspectives

and others. However, as I waded through newspaper articles describing the local conflict and its profound transformation, I began to observe that the way disputants used "we" and "they" in their narrations of the conflict changed significantly.

Further research into this previously intractable conflict began to reveal that social identities of the key protagonists in the local dispute appeared to change as the conflict transformed, and that changing identities appeared to be a factor not only in the transformation of the localized conflict, but also in the creation of a new conflict at a regional and national scale. This was most notable when comparing the early stages of the conflict with the most recent stages, almost 15 years apart. While there were other changes, this one in particular was intriguing because it appeared so unlikely given the contentious history of the conflict. How could such acrimonious behavior be "transformed" into voluntary cooperation and collaboration? Many observers were equally puzzled and astounded by this dramatic turn of events. Working from this initial observation, I began to notice that disputants' identities appeared to be connected in some way with the conflict and its resolution. It also appeared that common identities with community and place seemed to supersede identities associated with ideology and interest. As a result, I arrived at the following research question: "What role does social identity play in the transformation of a community-based environmental conflict?"

Every journey requires a road map and this journey is no different. Chapter II explores the theoretical grounding for a social identity approach to understanding conflict, cooperation, and common pool resource dilemmas. Social identity theory provides a lens through which the case study can be understood as a set of complex cognitive processes operating at the level of the social group. When conflicts are played

out between groups, a social identity lens can help us understand the cognitive processes and how these processes contribute to the perpetuation and resolution of difficult conflicts. Chapter III describes the methodology used in the research, including the use of disputant "frames" to observe and track changes in social identity over time, the analysis of frames using a "document analysis" approach, and the use of "process theory" to explain behavioral change that does not follow a causal relationship. Disputant frames were selected due to the wealth of documented data wherein disputants framed social identities in playing out the conflict. Document analysis was used to categorize frames so as to document changing patterns. Process theory was selected to account for situations where conditions exist that are necessary for behavioral change to occur, as well as the probabilistic processes that *may* lead to their occurrence.

Chapter IV provides a case study of the controversial Quincy Library Group (QLG), including a history of the local "timber wars," their transformation, and the emergence of a new conflict at the national level. The QLG case is the often-told story of the conflict and its resolution from a "rationalist" perspective. The story will be retold from a social identity perspective in a later chapter. Chapters V and VI offer a descriptive analysis of the data, focusing on identity and characterization frames during two phases of the conflict respectively. Chapters V and VI rely on document analysis techniques to determine base line identity and characterization frames during the first phase of the conflict and to demonstrate emergent patterns of change in the second phase.

Chapter VII describes the dramatically changing context surrounding the QLG case and the external directional forces acting upon it. Context is a critical component of social identity theory and provides a basis for understanding the self-selection of social

identities and their ability to change, with changing context. Chapter VIII uses a process theory framework to make sense of and explain the frame changes that are observed in the analysis. Process theory focuses on the conditions necessary for behavioral change to occur, the external directional forces that align the conditions and actors, and the probabilistic processes that trigger behavioral change. Chapter VIII provides a retelling of the QLG story from a social identity perspective. Finally, Chapter IX returns to the research question, explores the relevancy of the findings for environmental conflict management and public policy; the contribution of the research to the fields of social identity theory conflict management theory, and common pool resource dilemmas; and the limitations of the research.

This research takes a decidedly specific approach to looking at one deep-seated environmental conflict and its transformation at the local level. It was decided early in the study to select and follow a specific theoretical framework. Preliminary research on the QLG case led to the selection of social identity theory as a framework because of the way disputants' collective identities appeared to change as the conflict was transformed. As the study demonstrates, social identity theory provides an important lens through which we can make sense of this and similar conflicts, especially where collective or group identities are salient in the discourse, and where identities may prevent parties from even coming to the table. Where "we" and "they" are implicit or explicit lines of demarcation regarding resource allocation or access, social identity theory provides an important and critical lens for understanding. Unfortunately, public policy makers, conflict managers, and participants tend to focus on the substantive dimensions of such conflicts, and the

seemingly rational choices of disputants, and tend to overlook the identity-based nature of such conflicts. This research hopes to shine light on that blind spot.

Chapter II Social Identity: Conflict, Cooperation, and Common Pool Resource Dilemmas

In this chapter I develop a theoretical foundation for the research question, as well as an argument for a social identity approach to environmental and natural resource conflict. I also explore the role that social identity plays in particularly tricky challenges that characterize many natural resource conflicts – common-pool resource dilemmas.

Social Identity

To begin, I am drawing a theoretical distinction between identity and social identity theories, and am following the latter theoretical perspective that recognizes social identity in the context of group memberships or *social categorizations* that individuals choose for themselves and in which others concur (Tajfel and Turner, 1986). Tajfel (1972) first introduced the concept of social identity and defined it as "the individual's knowledge that he belongs to certain social groups together with some emotional and value significance to him of this group membership" (p. 31). Brewer (1991) defines social identity as "categorizations of the self into more inclusive social units that depersonalize the self-concept, where I becomes we" (p. 476). According to Abrams (1992), an individual's social identity can be made up of simultaneous identifications with many different groups. A group or social unit in this sense is "a collection of individuals who perceive themselves to be members of the same social category, share some emotional involvement in this common definition, and achieve some degree of social consensus about evaluation of their group and of their membership in it" (Tajfel

and Turner, 1986, p. 15). By this definition, a group is not limited by size or proximity.

Turner (1991) contends that the social group, and not the individual, is the basic unit of society and thus explains the conformity to group norms and roles as conditions of membership. Accordingly, individuals define themselves in terms of their social group memberships and affiliations and then "enact roles as part of their acceptance of the normative expectations of in-group members" (Turner et al., 1994, p. 460). An individual's role is thus subsumed within the concept of the group, rather than the other way around. Turner et al. (1994) argue that shared social identity "gives rise to the emergent, psychologically distinctive processes of group life" and provides an explanation for "how human individuals are able to act as other than and more than just individual persons" (p. 460). Further, and particularly relevant to this research, Turner (1987) contends that "the general process underlying mutually co-operative intensions and expectations is the extent to which players come to see themselves as a collective or joint unit, to feel a sense of 'we-ness', of being together in the same situation facing the same problems" (p. 34). Shared social identity makes it possible for group members to produce shared knowledge and shared understanding about ways of thinking and acting that are situationally appropriate (Turner 1991).

In her *optimal distinctiveness* theory, Brewer (1991) suggests that social identity derives from a "fundamental tension" between human needs for validation and similarity on the one hand and contrasting needs for uniqueness and individuality on the other.

Group membership balances this tension by enabling humans to be "the same and different at the same time" (Brewer 1991, p. 477). Similarly, Brewer and Gardner (1996) suggest that individuals need to define themselves not only internally, in terms of a

unique self-concept, but as an "extended" sense of self, which is developed through "immersion in relationships with others and with larger collectives" (p. 83). The authors make a further distinction between relational identities, which are based on personalized bonds of attachment, and collective identities, which are based on impersonal bonds derived from identification with a symbolic group or social category.

A definition of social identity also requires some form of *social comparison* between one's own group and other relevant groups such that "any behavior displayed by one or more actors toward one or more others... is based on the actors' identification of themselves and others as belonging to different social categories" (Tajfel and Turner, 1986, p.15). Similarly, Turner (1999) refers to social identities as self-categorizations that define the individual in terms of "shared similarities with members of certain social categories in contrast to other social categories" (p. 12). Brewer (2000) contends that group identity arises from "categorical distinctions between those who share some attribute, experience or label and those who do not" (p. 119). Moreover, once individuals establish social identities, they almost immediately began to perceive themselves as different from members of other groups, often evaluating their group more positively.

Tajfel (1972) referred to this phenomenon as the *minimal group paradigm* because it was observed under conditions absent of substantive intergroup difference or conflict. Tajfel's minimal group paradigm occurs when mere group membership and identification creates perceived similarities among in-group members and differences between in-groups and out-groups, which in turn can lead to corresponding stereotyping, discrimination, and prejudice (Tajfel and Turner, 1986), as well as conflict (Brewer, 2001; Kelman, 1997; 2004; Rothman, 1997; Tajfel and Turner, 1979). The consequences

of social categorization and comparison, according to Hogg and Abrams (1988), is the accentuation of both the perceived similarities among in-group members and the perceived differences between in-group and out-group members. These similarities and differences fall out along the lines of attitudes, beliefs, values, behavioral norms and other characteristics that are relevant to the category (Taylor and Moghaddam, 1994).

Further, Foddy and Hogg (1999) argue that the process of self-categorization actually generates group behavior. Through it, the self is "assimilated to the contextually salient in-group prototype which both describes and prescribes cognition, affect, and behavior" (p. 312). It also sets up the process of social comparison. The authors use an example similar to the current research to make this point: "categorization of self as a conservationist, particularly in contrast to loggers, would make salient beliefs about environmentally sensitive behaviors, and influence evaluations of both the ingroup and the outgroup" (p. 312). They further argue:

Self-categorization is thus responsible for self-definition as a group member, and is seen to be the basis for normative behavior, conformity, differential intergroup behavior, ethnocentrism, ingroup bias and stereotyping. Because groups furnish social identity... they not only tell us who we are and how we should think, feel, and act; but prescribe our worth in relation to other people and other groups (p. 312-313).

As alluded to above, social identity theory is further distinguished by the role that *social context* plays in self-categorization (Hogg et al., 1995; Tajfel and Turner, 1986; Turner et al., 1994). Social context provides the frame of reference, social reality, or domain that informs or activates a particular social categorization (Brewer, 1991). Turner (1987) contends that there is a functional relationship between self-categorization and context and suggests that the salience of a given social category will depend on its "fit" with an environmental reality. It follows that individuals hold distinct and

contextually responsive social identities within a relevant social context (Hogg et al., 1995). Turner et al. (1994) further suggest that social identity is always context dependent; the individual, they argue, "gains identity from being placed in context" (p. 458). Context may also include the larger and more complex environment in which the individual functions. For example, Ethier and Deaux (1994) explored the effects on social identity from a change of environment, where social identities among newly enrolled Hispanic students in a predominantly Anglo university changed as a function of their new environment and thus, "no longer exist as the person has known them" (p. 244).

Further, social identities are not fixed and absolute properties of individuals but are "relative, varying, context-dependent properties" (Turner et al., 1994, p. 456). Turner and his colleagues define four such properties: the salient *level* of self-categorization, from the individual to the increasingly inclusive group; the distinction *among* relevant categories, determining which social identities are salient; the *meaning* of a category, how people perceive or judge a social identity and its "content dimensions" in comparison to relevant others; and the relative *prototypicality* of group members within a category, or the typical or representative group member in a given context. All vary, often dramatically, with context.

Turner et al. (1994) further argue that variability in self-categorization is not arbitrary but is closely related to variation in social context. Self-categorizations are "social representations of the individual-in-context in that they change with the context, not just with attributes of the individual" (p. 458). Social identity varies in order to better represent the individual's changing relationship to reality. The self, they argue, "is not a relatively fixed mental structure but the expression of a dynamic process of social

judgment. The particular self-categories that emerge in different contexts are variable products of this judgmental process" (p. 458). Similarly, Brewer (1991) argues that social identity is expandable and contractible across different domains, resulting in transformations in the definition of self. "When the definition of self changes, the meaning of self-interest and self-serving motivation also changes accordingly" (p. 476).

Consistent with the idea of contextual responsiveness is the notion that social identities are both stable and fluid. On one hand, Deaux (1993) suggests that social identities are "reasonably stable categories of membership to which a person claims to belong, together with sets of personal meanings and experiences linked to the identities" (p. 6). Deaux recognized that each category contains a context or domain in which "its influence is most likely to be evident" (p. 9). For example, Deaux (1991) found that adults commonly claimed approximately seven social identities, which remained relatively stable over the life of her study – approximately one year. As social realities shifted, respondents were able to move from one salient social identity to another. "Equipped with a set of stable identities," Deaux (1991) concluded, "individuals have some latitude as to what identity will come to the forefront. At any given time, in any given interaction, one identity may be more prominent than others, guiding behavior and influencing the sequence of events" (p. 84).

Deaux (1991) argues that both internal forces, such as the number of interactions one has that are "defined in terms of that identity," and external forces, such as "strong situational demands," as well as more subtle actions and cues, influence what social identities are likely to emerge (p. 85). Moreover, individuals do not simply cast about in a sea of influences but, instead, "approach situations with particular goals in mind and

then consciously choose which identity or aspect of self to depict" (p. 86). Harre (1979) adds that people are neither wholly autonomous nor wholly dependent on social context, but instead have "relative autonomy" with respect to their response to a given set of circumstances. On a more strategic level, research on self-verification theory (Swann, 1983) suggests that individuals may also select a context or social reality that supports a particularly important social identity.

On the other hand, despite forces for stability, there are countervailing forces for fluidity. Deaux (1991) recognizes three ways in which social identities can change or shift in response to changing context – in the *meaning* of the identity, in its relative *importance*, or as an entirely *new or abandoned* identity. In the first, Deaux argues that an individual may reassess the meaning associated with a particular social identity rather than change the category itself. In the second, Deaux suggests that an individual may reassess the importance or salience a particular identity holds relative to other choices. In the third, Deaux contends that the individual may actually change the category, either by forming a new identity or by abandoning an existing identity.

Social identity theorists have made attempts to categorize the range of social identities claimed by research participants and are beginning to focus on the study of particular social categories. Using cluster analysis and multidimensional scaling, for example, Deaux and colleagues (Deaux, et al., 1995) identified five broad categories that captured representative social identities among survey of respondents – relationships, vocations and avocations, political affiliations, stigmatized groups, and ethnic and religious affiliations. Also relevant to this research is the work of Hogg and Terry (2000) and others on social identification in an organizational context. Hogg and Terry define

organizational identity as "units or divisions within organizations, professions or sociodemographic categories that are distributed across organizations," along with the organizations themselves (p. 122).

In addition, in an earlier study Deaux (1993) described situations in which a geographical or environmental context provided the basis for social identity and recognized the work of Proshansky and others (Proshansky, 1978; Proshansky et al., 1983) in defining "place identity." Particularly relevant to this research, place identity is also consistent with Mathews (1983) research on common social identities among neighbors and community members, and is linked to the relationship between a group of individuals and a place, region, or physical environment (Lalli 1992; Wulfhorst 2000). Rural sociologists Lee et al. (1990), for example, discuss three definitions of *community* including a) "a human settlement with a fixed and bounded local territory," b) "a local social system involving interrelationships among people living in the same geographic area," and c) "a type of relationship, especially a sense of shared identity [that] does not require a geographic basis for social interaction" and "may be widely dispersed, as in the 'environmental community,' 'forestry community,' or 'loggers' world' (p. 6-7). Lee and colleagues' definitions b and c are consistent with Kusel's definitions of "communities of place" and "communities of interest" respectively (Kusel et al. 1996).

Finally, a few social identity theorists have explored collective identity at a *regional* level. Bernd et al. (1995), for example, studied regional identity among male inhabitants of the Saarland region of Germany using a social identity lens. Bernd and colleagues began with the premise that "given the appropriate social context or frame of reference, people identify even with highly inclusive groups such as nations or even

continents (e.g. in times of war)" (p. 326). Bernd and colleagues defend the idea of a regional identity arguing that "because a region is typically defined by convergent boundaries in terms of geography, common history and culture, its population often constitutes a group at a level of inclusiveness that is conducive to the perception of [Brewer's] 'optimal distinctiveness'" (p. 326). Their research findings provide evidence that social identification with the Saarlands region, when salient, constitutes a distinct social identity. In addition, the study was unique in that it revealed that research subjects were capable of making distinctions between different *levels* of inclusiveness – the Saarlands region and the nation – rather than simply in-/out-group distinctions.

Contrasting Identity and Social Identity Theories

In contrast to social identity theory described above, identity theory is a microsocial theory of human interaction that helps explain action-oriented and self-verifying roles among individuals (Stets and Burke, 2000; Stryker and Burke, 2000). Identity theory is focused on individual role-related behaviors and categories that are determined by the "reciprocal relationships between self and society" (Hogg et al., 1995, p. 256). From an identity theory perspective, a role is "a set of expectations prescribing behavior that is considered appropriate by others" (Simon, 1992). The core of one's identity, according to Stets and Burke (2000), is the "categorization of the self as an occupant of that role, and the incorporation, into the self, of the meanings and expectations associated with that role and its performance" (p. 225).

According to Stryker and Burke (2000), roles are mediated through interactions between the individual and society. The successful enactment of the role by the individual not only validates his or her identity but also enhances self-esteem and the

self-concept. Role identities, according to the authors, are arranged more or less hierarchically in how they inform the self-concept, with those at the top more self-defining and salient than those near the bottom. Identity salience, according to Hogg et al. (1995) is the likelihood that the identity will be invoked in various contexts.

While identity and social identity theories are similar, identity theorists are more attuned to self-defining roles that people occupy in society, or within a group, while social identity theorists focus on social categories that people ascribe to themselves and others (Hogg et al., 1995). This distinction, while subtle, can be made clearer, perhaps, by contrasting the identity basis of "environmentalist" through both identity and social identity lenses. Applying identity theory, the *role* of environmentalist carries with it societal expectations and standards that define the norms and behaviors by which the individual must abide in order to achieve a positive self-evaluation in that role. Applying social identity theory, the individual associates herself with the *social category* of environmentalist, to which she belongs and in which others see her. In the first, she is accepting a role for which a segment of society sets and maintains standards – what it means to be an environmentalist (Stets and Burke, 2000). In the second, she is choosing an affiliation with a distinct group or category that is recognized both by its members and non-members (Hogg et al., 1995).

Social Identity and Social Conflict

Early theories of social behavior assumed that intergroup differentiation led to hostility and subsequent conflict. Sumner's (1906) theory of ethnocentrism, for example, held that out-group hostility is a natural condition of differentiation. "The insiders in a we-group," Sumner argued, "are in a relation of peace, order, law, government, and

industry, to each other. Their relation to all outsiders, or others-groups, is one of war and plunder" (p. 12). However while Tajfel's (1972) research confirmed that intergroup comparisons led to positive assessments of in-groups over out-groups, it provided no evidence supporting corresponding in-group hostility towards out-groups. According to Brewer (2001), in-group identification precedes out-group hostility but is not by itself a sufficient explanation for intergroup conflict. The explanation is far more complex.

Brewer (2001) contends that social categorization accomplishes two fundamental purposes – it partitions humans into discrete subsets and it highlights intergroup similarities and differences. In addition, since social categorization is a "self-reflecting phenomenon," Brewer argues, it also engages additional processes that encourage further social differentiation by means of *in-group attachment*. Positive valuations resulting from in-group attachment in turn facilitate the development of trust and cooperation among in-group members, which perpetuates a "benign cycle" of positive attitude and behavior within the group. Positive feelings and behavior towards in-group members, however, is limited to those sharing a common membership in the group. The extension of positive behavior towards others, "stops at the boundary between in-group and outgroups; attitudes towards those outside the boundary are, at best, characterized by indifference" (Brewer 2001, p. 22). The consequence of such indifference in many intergroup situations is the perception of discrimination since goodwill and cooperation are extended to individuals on the basis of category membership. However, as Brewer (2001) notes, discrimination occurs, "not because outgroups are hated, but because positive affects such as admiration, sympathy, and trust are reserved for the ingroup and withheld from outgroups" (p. 23).

Hostility is also perceived when a group engages in differentiation that is triggered by a salient need to address an uncertainty about the group's performance or standing. Most often that need is met by comparing the in-group to similar out-groups on relevant variables. Some such comparisons, however, lead to "better than" or "worse than" evaluations and to what Turner (1975) terms "social competition" for positive identity. While the goal of social competition is to seek relative gain for the in-group, it is normally not intended to cause direct harm to the out-group as an end in itself (Brewer, 2001). As such, Brewer (2001) and Struch and Schwartz (1989) make a distinction between intergroup differentiation and discrimination derived from *competition* for social status, and *aggression* driven by the desire to inflict harm.

Brewer (2001) suggests that social identity theory provides an adequate framework for explaining intergroup discrimination that arises from social competition. However, as Brewer suggests, "the story becomes more complicated when one tries to use the same framework to account for more virulent outgroup hate and intergroup hostility" (p. 27). To justify aggression against out-groups, the in-group must perceive "the very existence" of the out-group or its goals and values as a *threat* to the survival or maintenance of the in-group (p. 27). To fully understand this threat, it is important to understand how the interests of both groups come to be perceived as in conflict. One explanation is that the groups are engaged in substantive competition over finite or scarce resources. In such situations, the connection between in-group survival and intergroup antagonism appears obvious. However, Brewer contends that analyses of warfare and intergroup violence do not objectively correlate with resource scarcity or competition. To the contrary, she argues, "threat is often subjective and symbolic" (p. 28).

Brewer (2001) offers another explanation that begins with the recognition that group living constitutes "the fundamental survival strategy" that defines all humans (p. 28). In order to survive in a broad range of physical environments, humans abandoned features and characteristics necessary for survival as isolated individuals and adopted characteristics required for cooperation. In other words, nature selected for "cooperation rather than strength and social learning rather than instinct" (p. 28). Brewer (1997) and Caporael (1997) define this characteristic as *obligatory interdependence*, a requirement on the part of the individual to share resources and provide assistance in order to receive assistance and resources from others. The decision to cooperate, however, creates a "dilemma of trust" for the individual since the benefits of cooperation depend on others reciprocating. Social categorization provides the means for addressing this dilemma – by limiting assistance to "mutually acknowledged" in-group members, the risks of noncooperation can be minimized. Brewer (2001) defines in-groups in this context as "bounded communities of mutual trust and obligation that delimit mutual interdependence and cooperation" (p. 29).

While social categorization helps address the dilemma, it presents a new problem – at the same time that groups demonstrate trust and cooperation within, they constrain it in intergroup relations, reasoning that out-groups cannot be entrusted to protect the ingroup's welfare. Even in the absence of substantive conflict, this difference in behavior creates a self-fulfilling "cycle of competitiveness," leading groups to compete in order to protect themselves from anticipated domination. Brewer describes this phenomenon as a "misattribution process whereby universal ethnocentric behavior (intragroup trust and lack of trust in intergroup encounters) is used to infer malevolent intent on the part of

outgroups" (p. 32). Brewer adds that misattribution processes may also be involved in interpreting intergroup differences more generally, causing discomfort and unease to be attributed to differences in attitudes, values, and cultural practices. Intergroup anxiety is thus transformed into fear, disgust, or hatred (Stephan and Stephan 2000).

Another component of intergroup aggression, and one that is relevant to this research, is the role that threatened identity plays in exacerbating conflict. Brewer's (1991) optimal distinctiveness theory provides parallel clues to this behavior. The theory, described above, suggests that strong group identification derives from meeting simultaneous needs for inclusion and differentiation. From this perspective, there are two fundamental sources of threat to one's social identity. One is a threat to inclusiveness, which derives from fears of marginalization from the in-group brought about by challenges to one's commitment to, or compatibility with, the group. Threats to inclusion result in feelings of contempt and disgust towards offending out-groups. The response, according to Brewer, is avoidance. The second is a threat to group distinctiveness, which derives from fear of the loss, destruction, or domination of the group itself. According to Brewer, changes that increase contact or integration with, or influence from the out-group trigger threats to group distinctiveness, which are accompanied by "feelings of invasion" (p. 33). The emotions resulting from this dual threat, "provide the potent ingredients that are sufficient to kindle hatred, expulsion, and even ethnic cleansing" (p. 33).

Ironically, the potential for intergroup cooperation may exacerbate conflict if cooperation poses a threat to in-group distinctiveness. Even when groups discover common goals or common challenges that are in their interest to address collectively, they often do not (Brewer, 2000; 2001). This view conflicts with well-known research by

Sherif et al. (1961), which suggests that disparate groups may overcome contentious intergroup conflict when the groups discover a superordinate goal or common threat that can only be addressed through mutual cooperation. Brewer generally supports this conclusion when "loosely knit groups" are mobilized to work cooperatively. However, she differs with Sherif's conclusion when dealing with highly differentiated yet interdependent social groups (such as those in the present study). In such contexts, Brewer (2001) argues, "perceived interdependence and the need for cooperative interaction make salient the absence of mutual trust" (p. 33), which poses a threat to group distinctiveness. "Without the mechanism of... trust based on common identity," she argues, "the risk of exploited cooperation looms large and distrust dominates over trust in the decision structure" (p. 33). In such situations, the anticipation of cooperative behavior brought on by perceptions of common goals or threats may actually *promote* intergroup conflict. This is particularly true for individuals who are highly invested in a single social identity.

Other factors that have the potential to exacerbate conflict, and which are also relevant to this research, include political power, culture, and social complexity (Brewer 2001). All provide a context that creates added tensions between the in-group and various out-groups. As conditions are exacerbated, Brewer observes, "a line is crossed between the absence of trust and the presence of active distrust, or between noncooperation and overt conflict" (p. 33). In the political arena, for example, social comparison processes can be strategically manipulated to exaggerate group distinctions for the purpose of gaining or maintaining political power. Thus, social category differentiation provides the "fault lines" that are exploited for political gain (p. 34). The

result is that political attacks from the out-group increase group cohesion and loyalty among in-group members and elevate the legitimacy of in-group interests and goals over the individual's. Moreover, social and cultural factors that intensify in-group attachment and loyalty may further exaggerate intergroup distinctions. When the salience and strength of social identities are increased, the importance of maintaining social boundaries is also increased.

Finally, Brewer (2001) predicts that in-group/out-group antagonisms will be exacerbated in "highly segmented" societies that are differentiated along a dominant cleavage, such as ethnicity or religion (p. 34). Differences would be especially dramatic, she contends, when the categorization is "dichotomous," resulting in two distinct subgroups (p. 34). By contrast, Brewer would predict that complex societies differentiated along multiple and overlapping dimensions that are "not perfectly correlated" would be less likely to fall prey to dichotomous antagonisms. Complex societies, she contends, give rise to "cross-cutting" category distinctions that reduce the individual's dependence on any particular in-group for meeting his or her needs for inclusion, thereby lowering the potential for polarization along a single dimension (Brewer 2001; Brewer and Gaertner 2004).

Social Identity and Cooperation

Brewer (2000) argues that three conditions must be met for intergroup cooperation to emerge from hostility and conflict – common fate, common identity, and positive interdependence. The first condition, common fate, is defined by Brewer as a "coincidence of outcomes among two or more persons that arises because they have been subjected to the same *external forces* or decision rules" (p. 118). Residents living in the

path of an oncoming hurricane, for example, share a common fate in the potential impact of the hurricane on their lives. Their common fate, however, does not necessarily translate into cooperation. They could still act independently of each other, even if it were rational to work together. If, however, they actively coordinate their efforts, then a degree of what Brewer refers to as positive interdependence has been introduced.

Positive interdependence occurs when "goals are compatible such that behaviors that benefit Person A also improve outcomes for Person B" (p. 119). In situations of positive interdependence, Brewer contends, "joint rewards may be the product of cumulative behaviors of independent actors or the product of coordinated interaction in pursuit of common goals" (p. 119).

From Brewer's perspective, the disparate boys' groups in Sherif et al.'s (1961) well known Robbers Cave experiment experienced a common fate in the crises introduced by the researchers as well as positive interdependence in the form of a superordinate goal that required their cooperation. However, Brewer (2000) argues that a common identity necessarily preceded the recognition of positive interdependence and arose from the research subjects' recognition of their common fate. As Brewer notes, "common fate provides one potentially powerful basis for common identity; being subject to the effects of the same event or discriminatory policy creates a social category boundary that distinguishes those who are affected from those who are not" (p. 119).

The impact of common fate on shared identity, Brewer (2000) notes, will depend on the relative saliency of that which is producing the fate. However, while common fate often gives rise to shared identity, the relationship between interdependence and social identity, Brewer contends, is "much more tenuous" (p. 120). In situations of "negative"

interdependence," for example, competing or conflicting goals (i.e. zero-sum games) will reduce the potential for common identity to emerge and, instead, increase the salience of in-group/out-group distinctions. According to Brewer, even in situations where a common fate produces opportunities for positive interdependence, parties may still be compelled to take advantage of each other (i.e. let others do the work). Cooperation, therefore, requires the parties to trust each other or have a means for verifying the other party's trustworthiness. A superordinate goal or the recognition of positive interdependence do not alone engender trust and may not be sufficient to resolve the dilemma of trust that is created, particularly in the face of competition or conflict (Brewer 2000; 2001). A common identity provides the means for resolving this dilemma and serves as the link between common fate and positive interdependence. Turner (1985) reinforces this point in his critique of interdependence theory:

...whereas interdependence theory states that positive interdependence leads to cooperation, which in turn leads to the formation of a psychological group, the evidence implies that psychological group formation may be the necessary intervening process before objective interdependence can be transformed into cooperative activity (p. 88).

Smyth (1994) makes a similar comparison regarding the resolution of intractable conflicts involving ethnic, religious, linguistic, and territorial dimensions. Smyth notes that, "Deals can indeed be done in such intractable conflicts but, in my view, *only* after issues relating to the identity of these groups have first been addressed" (p. 314). Smyth contends that agreement on institutional arrangements to govern public decision making is challenged by identity salience. "Where people are sharply focused on their group identity, negotiating new institutions that will regulate control is very difficult; in fact,

existing institutions may come under great pressure, to the point where ordinary goals such as economic and political progress lose their motivating power" (p. 314).

While it appears that a common identity may be tied to the recognition of a common fate, organizational identity research suggests that common identity may also arise from strategic interventions aimed at "re-categorization." Re-categorization is a process in which a third-party intervention is initiated between subgroups to prime, or reframe, a salient common identity (Brickson and Brewer 2001; Gaertner et al. 1996; Gaertner et al. 2000). Re-categorization is defined by Gaertner et al. (1996) as a strategy which "transform[s] [group] members' cognitive representations from 'us' and 'them' into a more inclusive 'we'" (p. 232) and has been used to induce cooperative behavior between two or more sub-groups with histories of out-group bias and competition.

It may be unrealistic, however, to expect re-categorization to occur in situations of "mortal group conflict" (Gaertner et al. 2000, p. 147). While their experimental interventions with multi-ethnic students in a racially tense high school produced positive results, they were temporary. The authors suggest that in the absence of a stabilizing force, re-categorization "may be unstable and perhaps fleeting among groups in conflict or with strong separate identities" (p. 147). Gaertner and colleagues add that in circumstances of intense conflict, "the introduction of a common enemy can redirect bias and improve relations... at least temporarily, presumably in part through the process of recategorization" (p. 147). Nevertheless, they argue that even a "transient" superordinate identity can have reciprocal effects that cross intergroup boundaries.

In his critique of the common ingroup identity model, Haslam (2004) argues against the use of re-categorization in the context of negotiation between sub-groups with

conflicting interests. Haslam contends that single identity intervention models "advocate strategies of conflict management that do violence to the *social reality* that negotiation is designed to address," particularly with regard to the sub-group that is negated as the superordinate group takes shape (p. 125-126). He contends that,

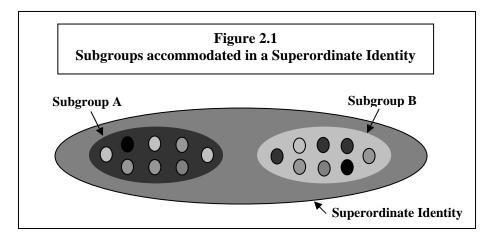
Where individuals feel aggrieved as a result of their membership in a particular group, attempts to address that grievance need to allow them to define themselves and act in terms of that group membership (p. 126).

Haslam adds that, "because social identification of this form is an essential ingredient of *all* social conflict, it must be recognized and allowed expression at some stage in any remedial process" (p. 127). An intervention must begin, therefore, by recognizing the legitimacy of each group's salient social identity. Once the legitimacy of intergroup identities are recognized, group members may be willing to move to a more inclusive level of saliency, where integrative problem-solving is attainable.

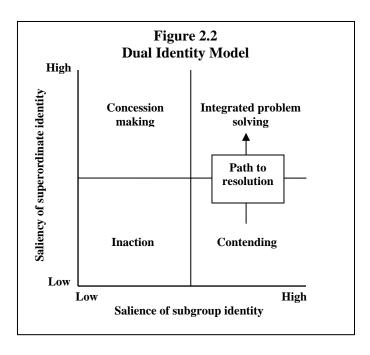
Viewed in the way, Haslam (2004) asserts that "the process of intergroup negotiation – like conflict itself – can be seen to revolve around counterposed social identities defined at subgroup and superordinate levels" (p. 127). This suggests that "the key to satisfactory conflict resolution lies not in increasing the salience of [superordinate] social identity *at the expense of* subgroup identity (that is, re-categorization...) but in acknowledging and allowing expression of both superordinate *and* subgroup identities" (p. 127). A "dual identity model" of conflict resolution (Gaertner et al. 1996) is based on the premise that social identity salience "need not suppress individuality or sub-group specialization – it can simply harness these things towards a common goal" (Haslam 2004, p. 127-128).

In fact, Haslam argues that the success of intergroup negotiation depends on both the saliency of subgroup and superordinate identities. The saliency of the sub-group identity, he argues, "is necessary to ensure that the basis of conflict is actually addressed." The salience of the superordinate identity is necessary for the parties to "share a common motivation to do the creative intellectual work that is needed for social differences to be reconstructed as sources of strength rather than bones of contention" (p. 129). Applying Gaertner's (1996) dual identity model, and borrowing Haslam's graphic representation, we see in Figure 2.1 how disputants in an intergroup conflict may define a superordinate identity that encompasses and yet retains their subgroup identities.

To further illustrate the dual identity model, Haslam (2004) recast the "dual-



concern" model of Rubin et al. (1994) that aligns "concern about own outcome" and "concern about other's outcome" on separate x and y axes. Concern for both, research shows, leads to a problem-solving orientation as opposed to contending, concession making, or inaction orientations. In the dual identity model illustrated in Figure 2.2, Haslam aligns "salience of subgroup identity" and "salience of superordinate identity" on separate x and y axes and suggests that in resolving intergroup conflict, disputants move



sequentially from a "contending" quadrant where divergent subgroup identities are salient but not accommodated within a superordinate identity, to an "integrative problem solving" quadrant where divergent subgroup identities are "reconciled" with a salient superordinate identity (p. 129).

Haslam (2004) adds that if negotiation is to proceed successfully, "then this will necessarily involve problem-solving activity as lower-level social identities remain salient but parties now endeavor to reconcile them with a salient superordinate identity" (p. 130). It is this "synthesizing process," he concludes, "that mobilizes the intellectual resources that help unlock any integrative potential in the negotiation situation" (p. 130). This is not to suggest that intergroup conflicts cannot be settled by working on them in other quadrants. Similar to Rubin's dual concern model (Rubin et al. 1994), Haslam is merely suggesting that contention, concession-making, and inaction in an intergroup context all lead to suboptimal outcomes that, a) miss opportunities for expanding the pie,

b) concede too much in the interest of appeasing the larger group, or c) avoid raising genuine intergroup conflict.

Social Identity and Common Pool Resource Dilemmas

An emerging area of social identity theory is in the realm of social and common pool resource dilemmas. Chase (1992) defines social dilemmas as conflicts of interest between individual and collective outcomes that are both "inter- and intra-individual: that is, between self-interest and other's interest and between self-interest as individual and self-interest as a member of a collective" (p. 104). Kollock (1998) argues that, "many of the most challenging problems we face, from the interpersonal to the international, are at their core social dilemmas" (p. 183). Common pool resource dilemmas, a particular kind of social dilemma, arise when a population's aggregate consumption of a common pool resource exceeds the available supply or the rate at which the resource can replenish itself. When those conditions are met, continued unchecked consumption of the resource, or lack of restraint, threatens the welfare of the entire population (Chase 1992; Kramer and Goldman 1995).

Two broad strategies have been suggested to manage social and common pool resource dilemmas. Messick and Brewer (1983) and Van Vugt (2001) make distinctions between *structural* approaches, which include privatizing or regulating the commons in some fashion so as to restrict and monitor access or consumption, and *psychological* approaches, which consist primarily of educational interventions designed to alter the way individuals value and behave with regard to the resource. A more recent *social psychological* approach involves interventions that rely on social connections and interdependencies among resource users (Messick and Brewer 1983; Morrison 1999; Van

Vugt 2001). Such connections have the potential to foster self-restraining norms and behaviors that increase collective responsibility for the long-term sustainability of the resource. Uphoff and Langholz (1998) refer to this dimension as the *socio-cultural*, which they argue "underscores that individual decisions are embedded in community and local contexts" (p. 251).

Early experimental research on the social-psychological dimensions of common pool resource dilemmas suggests that choices among research subjects to first hoard and then share a limited resource were affected by the activation of collective identities. Researchers found that subjects, when empowered to freely and anonymously harvest from an abundant resource, took as much as they needed as long as the resource was replenished. When the experimenters allowed the resource to slowly deplete, however, subjects began hoarding the remaining contents, resulting in a more rapidly depleted supply. But when the researchers introduced a common identity as resource-dependent users, subjects voluntarily limited their consumption in order to accommodate other users. What grew from a common identity, it appears, was a self-imposed willingness an unspoken social contract—to leave some of the resource in place (Kramer and Brewer 1984; 1986). More recent experimental and field research has confirmed the importance of common identity in enhancing cooperative behavior in common-pool resource dilemmas (Kramer and Goldman 1995; Morrison 1999; Tyler and Degoey 1995; Van Vugt 2001; Wit and Kerr 2002).

Chase (1992) suggests that when the individual perceives a commonality of interest with other individuals, the individual may consider other persons' outcomes in relation to his or her own actions. "Rather than simply maximizing one's own outcome,"

he suggests, "one may trade off benefits to self and other so as to give both (all) some satisfaction. This would lead to greater cooperativeness in social dilemmas as the benefit to the others in the interaction is given more weight" (p. 110). In reviewing early experimental studies of social dilemmas, Chase (1992) concludes that the studies generally support the hypothesis that "social identities have an important role in determining behavior in a social dilemma" (p. 117). Chase concludes that "the likelihood of cooperative participation in collective action is greater the greater the sense of shared identity with others involved in the action..." (p. 117).

According to Foddy and Hogg (1999), social identity theory "has direct relevance to an analysis of social dilemmas" (p. 313). The central idea, they argue, is that,

...as a collection of people increasingly define themselves as members of a common social group, the welfare of the collective should increasingly prevail over self-interest, and their behavior should become more cooperative. If the crux of the conflict in resource dilemmas resides with the level at which identification occurs, then the resolution will rely on finding methods for instilling compatible levels of social identity (p. 313).

In other words, how resource users treat a common resource, the authors contend, "may depend critically upon whether those people identify themselves and relate to one another as individuals, a single inclusive group, or two or more subgroups" (p. 313). A superordinate group orientation, they argue, "removes the conflict, because it aligns individual interests with those of all people accessing the pool" (p. 314). Further, when the welfare of the collective "is aligned with the preservation of a common resource, collective orientation may promote resource conservation." However, Foddy and Hogg contend that it is often difficult to establish such a superordinate orientation, particularly in very large groups. "The problem is that people generally have a large repertoire of

identities they can use to define themselves..., and it can be very difficult to arrange circumstances that enduringly maintain a superordinate identity" (p. 314).

Chase (1992) perceives a similar problem with the application of collective identities in dealing with common pool resource dilemmas – what he terms "dilemmas of identity" (p. 119). Research findings suggest that competition is more intense between groups than it is between individuals in situations involving commons dilemmas. As such, in many of the most challenging common pool resource situations, such as global climate change, Chase warns that "the superordinate group identity would need to be so all-inclusive as to be very hard to maintain. Such a group identity may be liable to fracture and fragment into various subordinate identities" (p. 119). The breakdown of the superordinate group and the formation of subgroups would likely intensify competition for scarce resources, thus exacerbating the problem. Kramer and Brewer (1984) agree. "If subordinate boundaries or distinctions that differentiate members of a commons into identifiable subgroups are made salient," they argue, "processes of in-group bias and intergroup competition may undermine collective interests" (p. 1045). In common pool resource situations, this is often a problem of defining the appropriate scale and boundaries (Dolsak and Ostrom 2003).

What is compelling about social identity theory as it relates to common pool research is that it draws attention to the resource itself as a socializing construct (Kramer and Brewer 1984; Morrison 1999; Tyler and Degoey 1995; Van Vugt 2001; Wit and Kerr 2002). Kramer and Brewer (1984), for example, suggest that "the potential benefits of group identification for solving collective-choice dilemmas require that the salient group boundary correspond fairly closely to access to the common resource. The shared

resource, and associated interdependence, must, in effect, form the basis for a superordinate group identity, which encompasses all of the individuals in the commons" (p. 1045). Kramer and Brewer, therefore, set the stage for the recognition of a common resource- or place-based identity. For example, in an experiment to test the hypothesis that Santa Barbara (CA) residents would restrain themselves from depleting a common pool resource when primed with a "salient community identity," researchers told subjects that they were interested in "how the behavior of residents of a small community like Santa Barbara would compare to residents of other areas" (p. 1048). The researchers found that when a community identity became salient, mean individual consumption reached or fell below the optimal level required to sustain the resource. By contrast, in each of their trials, when subordinate identities were salient, consumption exceeded the capacity of the resource to sustain itself.

Similarly, in a field study of motives for conserving domestic water during a water shortage, Van Vugt (2001) compared the strength of subjects' "identity with the community" with their water consumption habits, as determined by their water meter readings over a nine-month period. The study found that, in general, "high community identifiers" consumed less water than "low community identifiers," especially during the summer. Van Vugt surmises that greater differences in water conservation between high and low community identifiers in summer months may be due to variations in *outdoor* water use, which constitutes a "public behavior" since it is readily observable by one's neighbors. This may explain why high community identifiers were more willing to show restraint. "For them," Van Vugt observed, "it is important to be a respected member of the community: therefore they cannot afford to be deviant" (p. 1448).

In assessing the mechanisms through which community identity might increase the willingness to conserve water, Van Vugt suggests three possibilities. First, community identification might "transform the definition of self-interest to an overarching community interest, thus blurring the boundaries between the private and collective interest." Second, greater community identification could "promote restraint by increasing trust in other people's willingness to exercise restraint." Third, community identification may "raise feelings of pride and respect in the community, which may further promote restraint during a shortage" (p. 1442). Van Vugt concludes that in "extrapolating these findings to natural resource management in society, it seems that in situations with the potential risk of a resource shortage, when needs are high yet supplies are relatively short, communities must rely either on adequate incentive systems or on the strength of people's community ties to save valuable resources" (p. 1447). Van Vugt warns, however, that "community identification processes will only kick in when there is a direct threat to the community and there is no personal incentive for cooperation" (p. 1447). He suggests that it is "probably more appropriate to think of social identification as a buffer, which elicits cooperation only when it is collectively needed, such as a shortage" (p. 1447).

Miller (1992) makes a similar argument for community-based identity in his analysis of the rationality of collective action. According to Miller, rational choice theorists take a too-narrow approach in understanding the affects of rationality on collective action. Drawing on Habermas, Miller suggests that humans possess a "lifeworld" within which "cultural traditions, social integration, and normative structures… are reproduced through an ongoing interpretative process of communicative

action" (p. 26). Communicative action, Miller argues, is focused on "common understandings arrived at consensually that provide the basis for a morally valued way of life and the construction of identities that transcend the individual. These moral bonds and collective identities can form bases for collective action" (p. 29). However, Miller (1992) argues that rational choice theorists have ignored the social context in which communicative action occurs. The social context with which Miller is referring is the community, which he interprets along communitarian and feminist lines as "a collection of people who interact with each other in a common territory" (p. 30). Collective identities are formed, through "the common occupancy of space" (p. 32). Community, in Miller's words, "implies collective identity..." (p. 32).

While community identity is relevant to this research, individuals construct resource- and place-based identities at larger scales, which may also serve to address common pool resource dilemmas. In an experimental field study involving 135 Papua New Guinea residents, for example, Morrison (1999) examined intra- and intergroup cooperation at increasingly inclusive geographical levels of identity salience, from provincial (19), to regional (4), to national (1). Morrison's study tested the hypothesis that "level of cooperation is the product of a salient social identity and that the emergence of a psychological group transcends the objective interdependence structure that defines the social dilemma" (p. 302). Her experimental dilemma was based on a structured conflict of interest between individuals' desires to spend a holiday period with their families or voluntarily participating in a project to help an environmental organization protect the rainforest from an insect invasion.

Morrison (1999) was able to manipulate the definition of the geographical area to be protected so as to create an intra- and intergroup "frame of reference" for participants at each level of identity salience – provincial, regional, and national. Morrison's findings confirmed her hypothesis that participants were more willing to volunteer their time in the intra-group frame of reference regardless of the geographic level of identity salience. Morrison concludes that "the psychological level of identification has a significant impact on cooperative behavior in a social dilemma" (p. 307). Not only were participants able to conceptualize identities at a larger geographic scale, they were also able to make commitments towards resolving the dilemma. Intergroup cooperation at the provincial level, for example, was significantly lower than in-group cooperation at the regional level. Likewise, intergroup cooperation at the regional level was significantly lower than in-group cooperation at the national level. Important to the present research, Morrison adds that "the frame of reference in which a social dilemma is perceived contributes to the pattern of behavior that emerges" (p. 307).

Wit and Kerr (2002) drew similar conclusions in their studies of categorization and cooperation in "nested social dilemmas." Wit and Kerr found that "increasing the saliency of categorization of any level of the hierarchy (i.e. individual, subgroup, or collective) through the subtle and temporary linking of fates of members at that level tends to increase group members' willingness to allocate resources to that level of interest" (p. 632). They also found that group members' willingness to contribute to the collective interest was lowest when fate was shared at the subgroup [competitive] level and highest when fate was shared at the collective [cooperative] level. "Thus, concern for the collective interest is undermined most by an 'us versus them,' two opposing groups

scheme and is nurtured most by a 'we are all in this together,' superordinate-collective scheme" (p. 632). While subgroups showed the lowest level of concern for the collective interest, they showed the highest concern for both the subgroup and the individual, thus setting up conditions for a greater level of in-group/out-group tension. Finally, Wit and Kerr suggest that a low concern for the collective interest can be remedied by the introduction of a common fate with members of the opposing subgroup.

More to the point, the boundaries of the resource in question must be such that a salient resource-based identity is achievable. One significant dimension of this equation, according to Brewer (2000), is the ability among resource users to trust and/or monitor other users. Taking an evolutionary perspective, Brewer (2000) argues that "the most important and universal consequence of ingroup-outgroup differentiation will be the capacity for trust" (p. 123).

If ingroup-outgroup categorization inherently places boundaries on the capacity to trust, then intergroup attitudes and perceptions are fundamentally incompatible with cooperative interdependence. Some redefinition of relevant and salient category boundaries – self categorization at a different level of inclusiveness – must come prior to any benefits of cooperation or else interdependence will increase rather than decrease intergroup hostility (p. 123).

Brewer concludes that:

It is not sufficient to reduce the salience of the preexisting ingroup-outgroup category boundary; this boundary must be superseded by another category identity that is more inclusive but still maintains the properties of a bounded ingroup – defining exclusion as well as inclusion (p. 123).

The Role of Leadership

Using a social identity framework, organizational psychologists Haslam and Platow (2001, p. 218) argue that social identity salience, "can be seen to provide the psychological footing for a range of key organizational phenomena including information

exchange, consensus seeking, cooperation, trust, empowerment, group productivity, and collective action." A leader's success, therefore, "hinges upon an ability to turn 'me' and 'you' into 'us' and to define a social project that gives that sense of 'us-ness' meaning and purpose." In this regard, it is the role of the leader to define and maintain identity salience at the organizational level. Haslam and colleagues contend that organizational leaders are therefore "entrepreneurs of identity" (Haslam 2004; Reicher et al. 2001) and they collaborate with followers in the transformation of social reality and social identity (Reicher et al. 2005).

In related studies of leadership in social movements, Reicher et al. (2001) suggest that, "If crowd members are seeking to determine how they should behave as category members, then the issue comes down to the process of how categories are defined and how proposals come to be construed as either consonant or dissonant with such definitions." Equally, they argue, "the issue of leadership comes down to the question of how individuals come to be seen as defining these matters of category identity" (p. 184). Reicher and his colleagues conclude that, "those who wish to mobilise people to different ends will seek to provide different categories through which people should see their world, themselves and their actions in the world" (p. 186).

A re-interpretation of the Robbers Cave experiment (Sherif et al. 1961) helps illustrate these points. In the experiment, the research team controlled events that led to the boys' discovery of a superordinate goal. However, the research team was instructed to avoid providing leadership to the boys or in directing them in any way. According to the research protocol:

No staff member is to be a leader to the boys during any stage of the study in any of the various activities... You may have to give advice when asked and institute

controls when necessary to maintain order, but please refrain from giving direction and initiating action in relation to problem situations (p. 57).

In Sherif's interpretation of the experimental situation involving the breakdown of the supply truck, the boys tried to push the truck but quickly realized that is was facing uphill. They then discovered a superordinate goal in the form of a tug-of-war rope that could be used to pull and jump-start the truck. In a departure from Sherif's conclusion, however, it appears that the Rattlers' (R) leader Mills, and other Rattlers' team members framed *both* a superordinate identity and a superordinate goal. The following passage is taken directly from the study (Sherif et al. 1961) and reinforces the role that leaders play in the framing process:

Several Rattlers suggested, "Let's push it," but they abandoned the idea because the truck was parked facing up-hill. The tug-of-war rope was in plain sight to both groups. Mills (R) said, "Let's get 'our' tug-of-war rope and have a tug-of-war against the truck. Someone said, "Yeah, we can't push it." Swift (R) said, "20 of us can." Several boys agreed loudly with this, Mills adding, "20 of us can pull it for sure."

Similarly, as entrepreneurs of identity, Reicher and colleagues (2001) contend that leaders must accomplish three fundamental and interrelated tasks in order to successfully mobilize people to appropriate action. First, they must "define the boundaries of the relevant identity such that it includes all those whose support is sought." Second, they must "define those for whom support is sought (the individual, the organisation) such that they are undoubtedly part of the group." And third, they must "define the content of the relevant identity and the nature of one's proposals such that the two are consonant" (p. 186). In other words, leaders will be more likely to succeed to the extent that they can successfully "frame" for their followers, a) the salient identity category and boundary of inclusion (and exclusion), b) the distinct characteristics and values of in-group members,

including the leader, and c) the congruency between the group's (superordinate) identity and the leader's proposed (superordinate) goals. "Above all," Reicher concludes, "it is necessary to work on these various constructive dimensions... such that they form a coherent and seamless whole" (p. 186).

Social identity theory provides a framework that can be used to explore many aspects of group life that are not readily explainable from other perspectives. The purpose here is not to compete with other theoretical frameworks or explanatory concepts, or to mix and match theories to make sense of a situation, but to follow one framework and its application in a dynamic and complex field setting. The present research provides an opportunity to view the conflict through a particular lens and to see if that lens exposes important dimensions that other lenses might not.

Chapter III Methodology: The Use of Frames and Framing

The selection of social identity theory as a lens through which to view and better understand the transformation of community-based environmental conflict requires a slight reformulation of the research question. Therefore a reformulated question is posed: "How does a focus on social identity inform our understanding of the transformation of community-based environmental conflict?" To get at the answer to the question, I chose a case study approach of one controversial and deep-seated natural resource conflict that was transformed at the local level, and in which social identity appeared to play an important role. The approach differs from similar research on natural resource conflicts that employ cross-case comparisons focused on readily observable variables among categorically distinct groups (for example: Coughlin et al., 1999; Wondolleck and Yaffee, 2000; Yaffee et al., 1996). By contrast, this study is designed to gather detailed data on one controversial and high profile group, the Quincy Library Group, located in the Sierra Nevada of northern California. QLG was selected primarily because of the richness of narrative and archival data associated with the conflict. It is also a unique or "extreme" example of community-based conflict and presents an opportunity to study constructs that are presented more vividly. Case study researchers often recommend extreme or polar cases over typical cases because the constructs of interest to the researcher are usually more transparent and observable (Eisenhardt, 1989).

Moreover, a case study approach was selected because the research question led in that direction. According to Yin (1994, p. 1) "case studies are the preferred strategy when 'how' and 'why' questions are being posed, when the investigator has little control over events, and when the focus is on a contemporary phenomenon within some real-life context." Yin adds that, "the distinctive need for case studies arises out of the desire to understand complex social phenomena" (p. 3). This desire is what separates the present research on the transformation of community-based natural resource conflict from past cross-case research and is what drives this study.

Unit of Analysis – the Frame

A growing body of research suggests that the way parties "frame" conflicts has implications for how they interpret the conflict and the parties involved, how they anticipate the conflict unfolding, and whether and how they see the conflict being resolved (Gray, 1997; 2003; Putnam and Holmer, 1991). The basic unit of analysis in my research is the frame, which emerges through the active process of "framing" various aspects of the conflict. For the purpose of this research, it is necessary to make a distinction between frames and the process of framing. From a cognitive perspective (Johnston, 1995, p. 217), frames are "problem-solving schemata, stored in memory, for the interpretive task of making sense of presenting situations," and are based on past experiences and "cultural templates" of appropriate behavior. Similarly, Gray (1997, p. 171) defines frames as "cognitive structures held in memory and used to guide interpretation of new experiences." Goffman (1974, p. 10) uses frames to describe a situational perspective that an individual takes with reference to an event and suggests that the question "what is really going on?" can be defined differently depending on the

frame one is using to make sense of the situation. In situations involving conflict, frames are thought to help parties develop interpretations of what is at stake (Bateson, 1972; Gray, 1997).

While frames are, in a sense, cognitive lenses that help people make sense of the world around them, framing provides an ongoing means of "constructing a world, of characterizing its flow, of segmenting events within that world," and is thought to be a particularly social process designed for building and sharing meaning within a particular culture (Bruner, 1990, p. 56). According to Gray (2003, p. 12) framing is the active process of "constructing and representing our interpretations of the world around us." We construct frames, "by sorting and categorizing our experience – weighing new information against our previous interpretations."

Social movement theorists contend that social activists employ framing to locate the individual in relation to an issue or action, including defining a social problem, imputing blame or causality, and taking a stance (Taylor, 2000). According to Buechler (2000, p. 41), in the process of framing, social activists focus attention on an event, issue, or individual with the purpose of conveying "meaning and significance to elements within the frame and setting them apart from what is outside the frame." In conflict management theory, parties frame disputes in language that reveals differences in values, beliefs, goals, and expectations (Gray 1997; 2003; Putnam and Holmer 1991; Vaughan and Siefert 1992). Similar to social movement theory, disputants' perceptions of conflict thus emerge through the construction of frames in which issues are defined, positions are justified, actions take shape, and allies are recruited and mobilized (Gray, 2003).

It follows that the framing of a conflict, and the perpetuation of frames over time, may contribute as much to a conflict's intractability as the inability of the parties to equitability distribute finite resources (Klar, et al., 1987; Gray, 1997; 2003). Conversely, reframing a conflict, or an important dimension of it, may be necessary for conflicts to be successfully resolved (Gray 1997; 2003; Putnam and Holmer 1991; Shon and Rein 1994; Smith and Berg 1997). Mary Parker Follett (1942) metaphorically defines reframing as "getting the desires of each side into one field of vision" (p. 39). Indeed, mediators often help parties reframe conflicts so that they can see them in new and integrative ways, thus breaking the old frame that held them in the conflict (Moore 2003). Similarly, Smith and Berg (1997) argue that groups often get stuck in the paradoxical tensions characteristic of intergroup conflict and must discover "the link between two apparently contradictory opposites." This discovery provides a reframing of the relationship between the opposite parts and "brings with it new ways of 'looking' at the conflicts" (p. 218).

In an expanded assessment of frames and framing, Gray and others (Lewicki et al., 2003) identified eight distinct frames that are commonly employed by disputants in environmental conflicts and that are believed to contribute to the intractability of such conflicts. These are identity, characterization, conflict management, social control, whole story, power, risk, and loss/gain. Identity and characterization framing, the focus of this research, builds on the work of social identity theorists such as Tajfel and Turner (1979) and Brewer (2001) who suggest that conflict derives in part from social group comparisons in which in-groups portray themselves (identity) more positively and outgroups (characterization) more negatively. It is also consistent with research on the

framing of social identity in situations of conflict, such as the work of Cook-Huffman (2000) who contends that social identity serves as a frame,

"...when it implicitly or explicitly invokes the norms, rules, expectations, feelings, beliefs, or actions associated with a particular social identity or its symbolic representation. Social identities as frames act as boundaries that delineate and characterize the issues and/or the individuals or groups in the conflict. They focus perspectives, which color images and interpretations of both in-group and out-group members" (p. 118).

Among the frames studied by Gray and others (2003), identity and characterization appear to be the most relevant to environmental and natural resource conflicts. Gray (2003, p. 21) contends that groups experiencing such conflict inherently "develop *reflective* frames that depict the way disputants feel about themselves and *projective* identity frames that carry disputants' characterizations of others in the conflict" (emphasis added). Consistent with this view, Brewer and Gardner (1996, p. 91) argue that when collective identities are salient, "in-group/out-group categorizations become the most important basis for evaluating others." Moreover, the use of language to distinguish in-groups from out-groups can have a powerful effect on perceptions. As Perdue et al. (1990) argue, "Because of their ability to imply the in-group or out-group status of people, collective pronouns such as *we, us* and *ours* or *they, them,* and *theirs* are likely to be especially powerful influences in social cognition and perception" (p. 475). Identity and characterization frames thus provide a key to this understanding.

This research follows primarily along the lines of Cook-Huffman (2000), Gray (2003), and Brewer and Gardner (1996) above. However, it is also cognizant of the subtle use of collective pronouns in common language that is not intended to convey or invoke meaning, and which is consistent with methodological conventions in social identity research (Perdue et al. 1990). It is important to note here that I am not studying the act of

framing per se. There is considerable valuable research dedicated to the way actors employ frames and framing in their discourse, some of which is discussed above. The present research uses the frame as a tool of analysis, not the subject of the research.

Because of these distinctions, I am adopting a more flexible approach to the identification of a suitable frame.

Data Sources

I began the study with the collection and temporal cataloging of all available documentation that described local forest management issues from 1982 through 2004, and which provided opportunities for disputants to state opinions and/or respond to the actions of others – the activity of framing. Documents included, a) newspaper articles and public interest news stories; b) local, regional and national editorials and letters to the editor; c) activist and trade association newsletters and action alerts; d) written and electronic correspondence; e) public testimony; f) meeting minutes; and g) technical reports. Documentation included both third-person accounts of forest management issues at the local and regional level, in which disputants are quoted, as well as first-person accounts from a range of individual perspectives.

Because of the public attention created by the conflict, media coverage of events surrounding the conflict is extensive. Coverage is also rich in public dialogue since the conflict itself unfolds in local and national public arenas, including public hearings, public meetings, editorials and letters to the editor, public correspondence, legislative testimony, and congressional debates (including a C-SPAN U.S. House of Representatives floor debate). Media coverage was solicited to both track the events as they unfolded and document how disputants framed the conflicts associated with

particular events. Early local newspaper coverage came primarily from the *Feather River Bulletin*, published weekly in Quincy, California. Early regional news coverage came from the daily *Sacramento Bee* and *Chico News & Review*. A single local news reporter, Jane Braxton Little, covered most of the stories for local and regional publications. Later newspaper coverage came not only from local and regional news sources but also from national sources including the *San Francisco Chronicle*, *Los Angles Times*, *New York Times*, *Christian Science Monitor*, *Washington Post* and others. Approximately 500 documents were gathered from web searches, news-clipping services, local library and historical society collections, interest group archives, a U.S. Forest Service clipping file, and the personal file of local reporter Jane Braxton Little.

I also conducted open-ended interviews with approximately 40 individuals directly or indirectly involved in the local conflict to obtain a detailed account and retrospective of the conflict. Interviews were 1.5 to 5.0 hours in length and were recorded and transcribed into roughly 1000 pages of text. Interviews were conducted to gain disputants' perspectives on the conflict, learn more about the conflict than could be assessed from archival information, and identify contextual dimensions that disputants felt were relevant to and might explain their actions and the actions of others.

Interviewees included QLG members (loggers, environmentalists, public officials and community members); local, regional and national environmentalists; U.S. Forest Service administrators and professional resource managers; Congressional and administrative aides; a local journalist; and a local logger and Maidu tribal member. Data was collected during a series of trips to the region of the conflict – between 1998 and 2004 – as well as to places where disputants currently reside. In addition, from March 2001 to April 2002,

with the assistance of a Ford Foundation Community Forestry Research Fellowship, I lived in the community of Quincy, California, the focal point of the conflict, where I conducted field research.

Frame Analysis – Documenting Identity and Identity Change

To analyze identity and characterization frames, the research followed a modified version of content analysis that is more accurately defined as document analysis (Altheide 1996). Content analysis is defined broadly as a "multipurpose research method developed specifically for investigating a broad spectrum of problems in which the content of communication serves as the basis for inference" (Holsti 1968, p. 597). More specifically, content analysis is a quantitative technique for "making inferences by systematically and objectively identifying specified characteristics of messages" (Holsti, 1968, p. 601). The technique is generally thought of as a quantitative research method that follows a set of pre-determined rules to objectively determine the frequency of a characteristic within a message, and can also be used to detect patterns within messages as well as the presence or absence of characteristics. Content analysis is especially useful when the volume of material being analyzed is such that it requires the researcher to, 1) sample a portion of the total data set and/or 2) use a team of trained coders to process the data set (Holsti 1968). While the data in the present research met some of the requirements for content analysis, the volume of data being analyzed was not large enough to warrant sampling or the use of trained coders.

Instead, this research follows an approach described as document analysis, which Altheide (1996, p. 14) characterizes as "ethnographic content analysis" or more descriptively as the "reflexive analysis of documents." The principal difference between

content analysis and document analysis is that content analysis adheres to pre-determined rules and protocols that allow a number of investigators to code data in precisely the same way, while document analysis follows similar rules and protocols but also allows categories to emerge from the data itself, thus rendering it a qualitative methodology. The goal of content analysis, according to Altheide, is to "verify or confirm hypothesized relationships rather than discover new or emergent patterns" and enables the coding process to be carried out by "novices quickly trained to find, record, and count the 'mentions' for each unit of analysis" (p. 16). Content analysis uses inter-coder reliability to produce validity. Document analysis follows a similar process in that it starts with a set of hypothesized rules and protocols. "The aim is to be systematic and analytic but not rigid. Categories and variables initially guide the study, but others are allowed and expected to emerge..." (p. 16). Document analysis does not rely on inter-coder reliability but, instead, produces validity through the "reflexive and highly interactive nature of the investigator, concepts, data collection and analysis" (p.16).

Because of the relatively small volume of data, and due to the need to allow categories to emerge from the data, a document analysis approach was selected.

Moreover, the nature of the research question and the desire to understand complex social phenomena consistent with a case study, pointed to a reflexive and interactive approach to data analysis. Finally, two common criticisms of content analysis helped inform the selection. The first is the argument that content analysis tends to be overly focused on the frequency of a characteristic, which does not necessarily translate into the significance or importance of the characteristic (Altheide, 1996; Lincoln and Guba 1985). Second, content analysis generally follows a set of rules that pre-determine the categories

used to code data, and which may bias the research direction by overlooking emergent categories that are not contained in the coding protocol (Lincoln and Guba, 1985). These criticisms were noted by Bryan and Wondolleck (2003) in a previous framing analysis. Exploring emerging and changing patterns, they found, provided a deeper understanding of how the conflict was transformed and did not preclude an assessment of a frame's frequency, which was necessary to verify changing patterns.

Identify and Characterization Frames

To begin the analysis, approximately 500 documents tracking local forest management issues were transferred verbatim into a chronological Word file using document scanning and voice recognition software. From a chronological stream of documents, I conducted key-word searches for statements and quotations containing first-person-plural (identity) and third-person-plural (characterization) pronouns, as well as specific collective references such as environmentalist, logger, timber industry, Forest Service, Quincy Library Group, community, and other collective affiliations that emerged from reading the documents. First-person (we, us, our) and third-person (they, them, their) collective pronouns were then assigned salient group affiliations based on their intended meaning within the context of the document. If the intended meaning could not be determined or was a more generalized use of the collective pronoun, the quotations were discarded. I then "packaged" each quote with enough of the adjoining text to capture a sense of the surrounding immediate context. Similar to Gray (2003a), I refer to these packages as identity and characterization frames.

For illustration, the following (Frame #1) is both an identity and characterization frame containing first person plural (we) and third person plural (they) pronouns as well

as the assignment of collective affiliations (Forest Service and logger). The context in which identities are salient is a public hearing concerning the Forest Service's clearcutting policy and is expressed by a member of the local logging community:

Frame #1:

I blame everything on the Forest Service. They [FS] sit on the middle of the fence. Whoever it looks like is going to win, they drop down on that side of the fence," McElroy said. "It looks like loggers [we] are to blame, but it's the Forest Service. We are not responsible for their clearcutting policies. [120]

The above frame is typical of the frames found throughout the study, and can be categorized as both an identity and a characterization frame that is designed to convey a message about the situation faced by the in-group (in this case loggers) and the role of the out-group (in this case the Forest Service) in affecting the situation.

Following Altheide (1996) and Lincoln and Guba (1985), the first step in the frame analysis was the categorization of frames based only on emergent social identities. Categorization of identity frames enabled me to identify salient social identities and document baseline patterns as well as track changes over time. Categorization of identity frames confirmed preliminary observations that salient social identities referenced by disputants fell into four dominant categories:

- Logger (including timber industry supporters)
- Environmentalist
- U.S. Forest Service
- Quincy Library Group

I also discovered an affiliation with "community" as a salient social identity.

Community identity, however, did not emerge as a dominant category but appeared to either support one of the dominant categories listed above or bridge a dominant identity boundary. Community identity frames were evoked by loggers, environmentalists, and QLG, but not by the Forest Service. Although community identity was not a dominant

identity in the larger dispute, in terms of its frequency, it does appear to play a meaningful role in how disputants framed their own identities and how the conflict was ultimately transformed. Community identity is therefore included in the analysis.

From the initial patterning of social identity frames I was able to distinguish three phases of the forest management conflict, punctuated by two relatively distinct "turning points." My research is focused on the first two phases of the conflict and I use the point at which the third phase emerged to bracket the study. The first two phases are of particular interest because they delineate the transformation of the conflict at the local level, where it had festered for more than 15 years. Data from the first two phases of the conflict, a subset of the entire database, is comprised of 258 documents (Appendix A) containing 372 identity frames and 158 characterization frames.

In the spirit of full disclosure, a predominance of identity frames originate from disputants who are serving as leaders of the groups identified above. For example, of the 55 environmentalist identity frames found in phase 1 of the conflict, 20 are associated with the group's primary leader, Michael Jackson. This pattern is repeated within each of the groups. As a counter to the possible bias introduced by too few respondents, I revisited interview transcripts of more than 50 individuals involved in the dispute to determine whether they may have framed the conflict differently than either their principal leaders or other in-group members. Almost without variation, they did not. Moreover, disputants did not disparage leaders or other in-group members, at least in the phases studied. These factors provide a level of confidence that spokespersons' framing of the conflict are representative of the larger group.

The second step in the frame analysis was to categorize frames based on disputants' characterizations of each other within the two phases. Characterization frames contain third-person plural (they-them-their) references and affiliations that make a distinction between the group evoking the frame (in-group) and the group or groups (out-group) that are being characterized. In the framing example above (from Phase 1 of the conflict), a prominent member of the logging community is criticizing the Forest Service for perceived political maneuvering over its clearcutting policy. In the example below (from Phase 2), a QLG member is criticizing the Forest Service for perceived resistance to a forest plan developed by the group.

Frame #2:

"We can't get (officials of) the Plumas National Forest to do anything but talk," said Michael B. Jackson, a Quincy environmental attorney and a founding member of the group (QLG). "They (FS) tell us they like our program but they can't do anything about it. They ought to change their name to the U.S. Lip Service." [190]

Similar to the categorization of identity frames, this step followed a mostly emergent process, although preliminary research and observation suggested noticeable patterns. Initial frame analysis revealed distinct categories of characterization frames depending on the in-group evoking the frame and the out-group being targeted. In phase 1 of the conflict, six categories emerged and are listed below:

- Characterizations by loggers towards environmentalists
- Characterizations by loggers towards Forest Service
- Characterizations by environmentalists towards loggers
- Characterizations by environmentalists towards Forest Service
- Characterizations by the Forest Service towards environmentalists
- Characterizations by the Forest Service towards loggers

In phase 2, six additional categories emerged:

- Characterizations by loggers towards QLG
- Characterizations by environmentalists towards QLG

- Characterizations by the Forest Service towards QLG
- Characterizations by QLG towards loggers
- Characterizations by QLG towards environmentalists
- Characterizations by QLG towards the Forest Service

The number of characterization frames in each category were then counted and compared between phases to determine whether a pattern of change would begin to emerge.

The third step in the frame analysis was to categorize characterization frames based on their perceived intent. This was an emergent process that began to reveal important inter-group dynamics. Quite noticeably, characterization frames fell into either negative and critical (divisive) or positive and favorable (inclusive) categories.

Characterization frames were thus assigned a "charge" – either negative (-) or positive (+) – based on their intent. Frames #1 and #2 above are examples of divisive frames (negatively charged) in which the groups evoking the frames are critical of Forest Service policies. The example below (Frame #3), from phase 1 of the conflict, is both negatively and positively charged, depending on the target of the characterization.

Frame #3:

What do environmentalists believe we have in common with the Yellow Ribbon Committee? We believe that we are all honest people who want to continue our way of life. We believe that we all love the area in which we live. We believe that we all enjoy beautiful views, hunting and fishing, and living in a rural area. We believe that we are being misled by the Forest Service and by large timber, which controls the Forest Service, into believing that we are enemies when we are not. [71]

In this example, environmentalists are favorable to and therefore inclusive of local loggers (the Yellow Ribbon Committee) and, at the same time, are critical of and therefore divisive towards the Forest Service and "large timber" (the timber companies that seasonally employ local loggers).

While the majority of characterization frames are divisive, reinforcing the intractable nature of the conflict, the proportion that are inclusive provide clues to strategies pursued by some disputants to alter the dynamics. Taken together, the analysis of identity and characterization frames provides an image of the dominant groups participating in various phases of the forest management conflict, how salient group affiliations changed over time, how in-groups characterized various out-groups throughout the conflict, and how these characteristics affected the overall dynamics of the conflict. The frame analysis was designed to determine whether social identities markedly changed during the life of the forest management conflict, how they changed, and to systematically document that change. Further, the analysis may suggest that changing social identities are in some way related to the transformation of the conflict at the local level.

Contextual Analysis – External Directional Forces

While the frame analysis is mostly descriptive, there is also a need for an explanatory aspect to the research. If social identities did in fact change during the life of the forest management conflict, as indicated by changes in both identity and characterization frames, does the research offer a plausible explanation for the change? One explanation may lie in a changing context. Social identity theorists (Deaux, 1991; 1993; Turner et al., 1994) argue that social identity is context dependent and changes as individuals move from one context to another. A plausible explanation explored in this research is whether the changing context surrounding the dispute could produce the same effect. If so, an explanation for frame changes observed in the forest management

conflict should be observable in one or more dimensions of a changing context surrounding the conflict.

The fourth step in the analysis was to identify and explore contextual dimensions drawn from the frame analysis, and from retrospective interviews with disputants, that go beyond a description of *how* social identities changed and offer clues as to *why* identities changed. If frame analysis effectively demonstrates that salient social identities among key disputants changed, the explanation, consistent with social identity theory, should point to a changing context. The question that arises, then, is whether the context significantly shifted and, if so, whether it created conditions that fostered the emergence of an inclusive social identity.

In the following identity frame, for example, the 1988 release of Forest Service's Plumas Forest Plan provided a context for identity and characterization framing:

"As a county, we asked for 315 million board feet of timber a year. We got 265.5 million. We and all the counties in northeastern California opposed set-aside lands for the spotted owl. We got more than 100,000 acres. The Regional Forester has ignored our requests and I think we ought to take a hard look at an appeal ourselves," Coates told other County supervisors September 6. [45]

In the quote, the immediate dispute over the content of the forest plan provided a immediate "micro" context for identity and characterization framing. In the larger "macro" context, the forest plan, and the spotted owl issue, are embedded in a conflict over shifting policies affecting the Forest Service that are driven by changing national priorities, greater scientific understanding of forest ecosystems, political pressure, and a growing fear of catastrophic wildfire. In addition, the economic and social dimensions of the community and the ecological conditions of the surrounding forest are subject to

dynamic fluctuations that influence the framing process. These are all potentially valid dimensions of the surrounding context and can be divided into the following categories:

- Changes in the community
- Changes in the environmental movement
- Changes in forest conditions
- Changes in the Forest Service

These categories emerged primarily from the rationale disputants offered in the interviews to justify their actions in the dispute. For example, disputants often defended their actions as necessary to protect *the community* from impending doom. Concerns for the community were used by loggers and timber industry supporters to justify their actions to increase timber harvests, and by environmentalists to assure long-term community economic stability. All of this was occurring while community demographics were slowly shifting from a predominantly logging economy and social structure to a more diverse and less timber-dependent economy and structure.

Disputants also spoke about the *environmental movement* and its evolution. In the initial phase of the conflict, for example, environmentalists had little ability to influence forest policy and resorted to appeals of local timber sales to gain traction. As the environmental movement gained momentum, however, environmentalists began influencing policy decisions on a grand scale. As well, environmentalists increasingly turned to the courts to halt what they considered damaging and misguided logging practices. Many local environmentalists, however, were growing uncomfortable simply advocating a halt to timber production and began exploring alternative forms of timber management and "new forestry" paradigms.

Disputants also spoke of changes in the *physical environment*. As timber harvests increased throughout the 1980s, it became clear to many that there were limits to the

amount of timber that could be harvested under conventional logging practices. At the same time, environmentalists were busy documenting the remaining old growth forest. Communities were also increasingly aware of the growing danger of catastrophic wildfire as surrounding forests became more dense, increasingly infested with insects, and weakened by drought. Finally, the California spotted owl was in steep decline, putting it on a trajectory similar to the Northern spotted owl, which dramatically altered the Pacific Northwest timber economy.

Finally, changes in the *Forest Service* took on several dimensions including both changes in the agency itself and changes that affected the agency. The early period of the conflict saw massive downsizing and consolidation of the agency's field offices, while workloads were increasing and diversifying. At the same time, the agency's timber management paradigm began to shift as more emphasis was placed on endangered species, old growth protection, fire management, and recreation. The agency also began to explore new forestry paradigms including ecosystem management.

Process Theory Orientation

Thus far I have focused on social identity and characterization frames and their changes from phase 1 to phase 2 of the conflict. I have also focused on the context surrounding the conflict as well as changes in the context, which provide the conditions necessary for changes in identity and identity salience (Brewer 1991; Deux, 1993; Turner et al. 1994). However, while we may accept that social identities are context dependent, we also know from other research (Bernard and Young, 1997; Cestero, 1999; Coughlin et al., 1999; Wondolleck and Yaffee, 2000; Yaffee et al. 1996) that similar contextual changes occurred in other communities and yet collaborative efforts did not emerge. This

observation suggests that there may be a need for an explanatory framework that enables the researcher to identify the conditions necessary for change to occur, without the requirement for change to actually occur.

Mohr's (1982) process theory provides an explanatory approach that accounts for such situations. Process theory looks at the "necessary" conditions for organizational behavior to occur without the requirement of "sufficiency" that would produce a cause and effect relationship and a predictable outcome. This approach relies on a "process and necessary ingredients" rather than discrete variables to explain an organizational outcome. Mohr argues that behavioral phenomena often occur without a strict causal relationship among dependent and independent variables. Mohr uses the analogy of contracting malaria to make this point. The necessary conditions for the contraction of malaria are the malarial parasite, persons already harboring the parasite, climatic conditions, and the Anopheles mosquito. In the presence of these conditions one could contract malaria. But if he or she does not, even though the conditions exist, then causality does not hold. Mohr (1982) uses the metaphor of "ingredients plus the recipe that strings them together in such a way as to tell the story of how Y occurs whenever it does occur" (p. 37). The recipe provides a story of how the ingredients fit together in a particular way to create – or in retrospect to explain – an outcome. Process theory, according to Mohr, "eschews efficient causality as explanation and depends instead on rearrangement – that is, on the joining or separation of two or more elements rather than on a change in the magnitude of some element" (p. 45).

Moreover, process theory deals with a discrete "series of occurrences of events" rather than the relationship among variables. The events are linked together in a unique

pattern such that one event tends to pick up where the other left off, making the events, their sequence, and their connections important to the outcome. Mohr adds that, "the ingredients alone do not convey a sense of explanation (for example, victims, mosquitoes, parasites; so what?). There must also be some instruction for mixing them – a recipe" (p. 60). While process theory tells a story about how something comes about, the manner of storytelling, according to Mohr's definition, must conform to narrow specifications and focuses on three elements: "1) necessary conditions, 2) necessary probabilistic processes, which together form the core of the theory, and 3) external, directional forces that function to move the focal unit and conditions about in a characteristic way, often herding them into mutual proximity" (p. 45).

Mohr's theory provides a useful framework for the present research. In the present research, the outcome is the willingness among disputants in the local timber wars to cooperate, which led to the unexpected formation of QLG and a resolution of the local forest management conflict. The framework for explaining the outcome is Mohr's (1982) process theory, which allows the researcher to explain why an outcome occurs when it does occur. The substance of the explanation is drawn from social identity theory, which explores identity saliency within a dynamic context.

Research methods employed in the study were selected because of their fit with the research question, which arose from preliminary observations of identity change. The initial question suggested a case study approach, the need to document identity change, and the need to explore the changing context surrounding the conflict. There was also a need, based on the rarity of similar events given similar contexts, to find a framework for explaining probabilistic behavioral change. Process theory offered such a framework.

Chapter IV Case Study: The Quincy Library Group

The Quincy Library Group (QLG) formed in the fall of 1992 out of the efforts of an unlikely trio: Plumas County Supervisor Bill Coates, a Republican and strong advocate of the timber industry; Tom Nelson, a forester with Sierra Pacific Industries (SPI), California's largest timber company; and Michael Jackson, a local environmental attorney and founding member of the Friends of Plumas Wilderness (FPW), an environmental organization based in Quincy, California. All were concerned about effects on the local economy from sharp declines in timber harvests on the Plumas National Forest, which virtually surrounds the town of Quincy. QLG emerged when logging community leaders Coates and Nelson approached Jackson, the principal leader of the local environmental community, with a proposal to resurrect an unusual forest management plan that FPW and regional environmental organizations had crafted in the mid-1980s (Friends of Plumas Wilderness et al. 1986).

The environmentalists' plan was designed to demonstrate that timber harvesting on the Plumas National Forest, if done appropriately, could accommodate old-growth, endangered species, and riparian habitat protection, and could still produce enough timber to sustain the local mills. But the plan was met with severe hostility when it was introduced, as were its architects. Six years later, however, the plan had begun to look like the only hope for saving the local economy. As reporter Jane Braxton Little wrote in the *Chico News & Review* in October of 1993:

When the environmentalists released their plan in 1986, the Plumas County establishment greeted it with scorn, anger and a spate of anonymous death threats. But by early 1993, when Plumas Forest officials were scrambling to keep a minimal timber program alive, the environmental alternative suddenly looked bounteous. [179]

Coates, Nelson, and Jackson assembled a group of their peers that included, among others, representatives from local timber and business interests, environmental activists, county supervisors, and local citizens. Jackson also invited his activist friends in Sacramento and San Francisco. Some had worked on the environmentalists' 1986 proposal. But Sacramento was an arduous three-hour drive from Quincy and San Francisco was five. Attending regular meetings to further develop the plan would be difficult. Moreover, it was questionable whether the plan was a priority compared with other environmental battles.

The beginning was difficult, but as Nelson noted, he, Jackson and Coates could agree on a lot of things, among them that they all wanted community stability and all were convinced that the Forest Service could not provide it. As trust grew, they were able to agree to a "Community Stability Proposal" (QLG 1993) that reflected the environmentalists' original plan and called for old-growth forest protection, selective logging, fuel management, and riparian protection, while restoring traditional harvest levels on the Plumas, Lassen and a portion of the Tahoe National Forest through selective logging instead of clearcutting.

In the context of the QLG study, the timber wars, as they were called, can be divided into three phases, which are distinguished by the ways in which disputants' identity and characterization frames changed in response to shifting contextual patterns. The phases are: 1) the Forest Planning Process (1984-92), 2) the Emergence of QLG

(1992-96), and 3) Legislating National Forest Management (1996-present). Following is the story, with emphasis on the first two phases. A timeline for phases 1 and 2 is included in Appendix A.

Phase 1 – The Forest Planning Process – (1984-92)

The QLG emerged within a larger political, social and economic context that influenced livelihoods, social status, and political power within natural resource dependent communities in the Northwest. The original conflict escalated in the 1980s under the Reagan Administration, whose policies dramatically increased timber harvests throughout the Northwest (Hirt 1994). At the same time, many rural communities in the Northwest were experiencing an in-migration of urban professionals and retirees whose livelihoods were not dependent on the timber economy (Duane 1998). While this trend would begin to tip the balance of power, during most of the 1980s extractive users held far greater influence. Michael Jackson was in the thick of the efforts to slow the harvest. "The environmental community wasn't going to be intimidated," recalled Jackson, "so we were filing appeals on every sale" (Marston 1997, p. 9).

The Mational Forest Management Act of 1976 (NFMA) required each national forest to develop a comprehensive plan to guide decision-making. After considerable anticipation, in January 1986 the Forest Service released a draft plan for the Plumas National Forest. The agency touted the plan as a careful balance between timber and environmental interests and announced an annual target of 265 million board feet of timber (the average at the time was 185.5 million board feet), to be harvested primarily through clearcutting.

Pursuant to a citizen initiative provision under NFMA, a timber industry coalition, Plumas County, and FPW each submitted alternatives to the Forest Service plan. The timber industry and Plumas County alternatives sought dramatically increased harvest levels, in the range of 315 million board feet per year. The FPW "conservationist alternative" proposed a lower annual harvest – 245 million board feet per year – less than the agency's proposed plan but still considerably more than average harvests. In addition, the FPW alternative set aside significant old-growth, roadless and riparian areas, and banned the controversial practice of clearcutting. The group's goal was to return the forest to pre-European settlement conditions by removing understory trees that had accumulated during a century of fire suppression. In FPW's estimate, the work required to restore and maintain the forest could keep the timber industry active for decades. Said Michael Yost:

None of us is opposed to logging. If done carefully, a great deal of this forest can provide timber for the economic benefit of these communities that depend on the forest. [10]

But timber interests were skeptical of the FPW proposal and the group's motives. They were also distrustful of the Forest Service, which faced the new challenge of balancing competing values.

Fearing a dramatic change in forest policy, a coalition of conservative citizens from Plumas and neighboring Sierra County strongly opposed the Forest Service and FPW plans on the grounds that they over-emphasized non-timber values. To gather input on its proposed plan, the Forest Service held public meetings throughout the region.

According to a *Sacramento Bee* account of a 1986 meeting in the town of Quincy, the logging community came out in force:

The timber industry amassed logging trucks, backhoes and forest workers on the streets of this mountain town Tuesday in a show of force to support maximum harvests on the Plumas National Forest. Speakers wearing wide suspenders and hard hats dominated the hearing, attended by more than 300 people. [14]

As news of the Forest Service plan spread throughout the region, negative reaction only escalated. No one, it appeared, was happy with the agency's apparent compromise. In a newspaper article, Supervisor Coates warned of a pending appeal by Plumas County:

As a county we asked for 315 million board feet of timber a year. We got 265.5 million. We and all the counties in northeastern California opposed set-aside lands for the spotted owl. We got more than 100,000 acres. The regional forester has ignored our requests and I think we ought to take a hard look at an appeal ourselves. [45]

Not surprising, the Forest Service selected its own alternative. But the agency acknowledged the FPW plan as the "environmentally preferred alternative" and touted it for providing "community stability" better than the other options, including its own. The agency rejected the FPW plan however, claiming that its selective logging practices were less efficient than clearcutting, the agency's preferred method of harvest. Unhappy with the Forest Service's so-called compromise, FPW and 12 other groups, including Plumas County, formally appealed the Plumas Forest plan. While the appeals joined dozens of other national forest plans in a cumbersome national review process, the Forest Service initiated timber harvesting under its preferred plan.

Even as it did, however, it was clear that change was on the horizon. In 1989, the northern spotted owl, a cousin of the California spotted owl, was proposed for listing as a federally threatened species under the Endangered Species Act (it was officially listed in June 1990 after more than five years of intense public debate) (Yaffee 1994). This event accelerated the decline of the timber industry in the Pacific Northwest and, while the

northern spotted owl would not affect the Plumas, it suggested that declines in California owl populations would eventually threaten local timber production.

Fearing a similar action, in February 1989, local loggers formed the Yellow Ribbon Coalition, a grassroots effort to protest Forest Service policies they claimed were causing timber shortages. Yellow ribbons, flying from supporters' vehicles and property, symbolized their solidarity with the timber industry. A local newspaper ad passionately described the campaign under the headline "Why We Fly Yellow Ribbons:"

The Yellow Ribbon is silent, but it radiates a power for change, a power to save our Timber Industry, our communities and our natural-resources lifestyle. A lifestyle that embodies all of the values that have made our Nation the greatest Nation on Earth. When we pass a car or truck that is also flying Yellow Ribbons, a bond is formed that cannot be severed by words or deeds of preservationist adversaries. Our Timber Industry, our homes, our families and our communities are at risk. We are united. [75]

In the ad, coalition organizer Donna McElroy listed more than 70 individuals and local businesses that supported the campaign. Soon yellow ribbons were flying from vehicles and posted in storefront windows across the region, and in conservative enclaves throughout California and the West. Beginning in 1989, the coalition staged an annual Labor Day rally and logging truck convoy through northern California. Rally attendees charged the Forest Service with threatening the fundamental rights of local workers. "This rally is about the spotted owl and my rights – peoples' rights to work. If we don't stop the spotted owl deal," a convoy member told a local reporter, "you're not even going to be working." [66]

In response to the Yellow Ribbon campaign, an anonymous environmental faction circulated a well-publicized flyer taking a cynical jab at the campaign and using a fictitious Earth Day 1990 picnic as the medium:

In recognition of Earth Day and all our renewable natural resources – a Community Picnic – April 21, 1990 – Shady Glen area – Plumas County Fairgrounds. Free trees to plant for the future! Free chain saws to prevent unwanted old-growth! Brought to you by: The Nature Consumptioncy, The Wilderness Prevention Society, Ducks 'R' Ours, Multiple Use First!, True Conservationists, Real Environmentalists for Jobs, Sierra Stumper, Friends of the DeForest Service, Society for the Prevention of Cruelty to Red Emmerson. [78]

The flyer also cleverly listed the picnic's fictitious supporters:

Kinder & Gentler Logging, Inc.; California Department of Forest Prevention, Inc.; Pacific Gouge & Erosion, Inc.; 4x4s for 2x4s, Inc.; The Hedduppis Rectumus "Hug a Tree" Project, Inc.; Bob's Biomass Burgers, Inc.; Company Town Realtors, Inc.; Feather River Erosion Aggregate, Inc.; Tie a Yellow Ribbon Around an Old-growth Tree Coalition, Inc.; Plumas Unified School District Kindergartners for Logging, Inc.; Mean Street Project, Inc.; Sierra Chainsaw Artists Guild; Sierra Pacific Monopolies, Inc.; Bill's Tire & Kick-back Company, Inc. [78]

Because the flyer and others like it were anonymous, it was not possible to know whether they were circulated by members of Friends of Plumas Wilderness or by more radical agitators with a different agenda. Michael Jackson and other local environmentalists were careful to distance themselves from vandalism towards the timber industry however it was nevertheless difficult for those in the logging community to make that distinction.

In their Yellow Ribbon campaign travels, loggers were becoming aware of growing public resistance to the practice of clearcutting. To their chagrin, they also discovered that blame for the policy was falling directly on them. Signs that distanced loggers from Forest Service clearcutting policies began to emerge. "Clearcutting is as much of a problem for the logger as the spotted owl," charged Mac McCutcheon, a Quincy logger. "Most loggers are for selective cutting. With proper selective cutting, we'll always have a timber industry and we'll always have our jobs. With clearcutting we get erosion and brush fields." [66]

Nevertheless, the practice of clearcutting continued, as did the growing tensions. The following year, Donna McElroy, a spokesperson for local loggers, stepped up her defense of the logging community and her attacks on the Forest Service:

I'm tired of loggers getting blamed for what's going on in the woods. In every news report you see, the logger -- the working man -- takes the blame for clearcutting. [96]

Despite common ground on clearcutting, loggers continued to use the annual rallies to hammer environmentalists, which they ultimately blamed for Forest Service policies:

If these radical environmentalists have their way we are going to have the cleanest depression this world's ever seen. If we didn't have the timber industry, there would be no town here, and that's a fact. [96]

A year later, however, McElroy reiterated a growing frustration with the agency. "I blame everything on the Forest Service. They sit on the middle of the fence. Whoever it looks like is going to win, they drop down on that side of the fence. [121]

Not surprising, environmentalists shared much of the logging community's frustration with the Forest Service, albeit for different reasons. Asked if environmentalists were satisfied with Forest Service changes, Michael Jackson told a reporter in August of 1991:

If you ask me if there is any real change going on with the Forest Service, I will tell you that there is not. I don't think they are doing anything other than propaganda. [121]

The agency's attempts to balance competing values were satisfying no one, it seemed. The Forest Service was in flux. While an extractive use philosophy pervaded the agency throughout the 1980s, at least parts of the agency were beginning to recognize that public values, and the agency's mission, were changing. Greg McClarren of the Deschutes National Forest in Central Oregon was aware of the dilemma as early as 1986:

Our values are slowly catching up with the public's perception of multiple use. There are some fundamental changes coming in the way our forests are managed. We're on the cutting edge, but we are leading from somewhere in the middle. Timber people say the Forest Service is too liberal; conservationists say our head is in the sand – and to some extent it is, because of our strong traditions in timber management. [10]

Public reaction to the agency's confusion was extremely disruptive, however.

Vandalism and threats of violence began to surface in July 1988 when a spiked board was found buried across a steep logging road. In August 1988, a Quincy newspaper publisher received a bomb threat intended for a Sierra Pacific mill. Threats to environmentalists occurred as well. Michael Jackson reported receiving death threats, including a phone message tape-recorded on his answering machine. He also discovered a well-placed bullet hole in his Main Street office window.

In a 1989 letter appearing in the *Feather River Bulletin*, Jackson decried the vandalism and threats. He also reached out to loggers, referring to a recent *Bulletin* letter from Yellow Ribbon Coalition organizer Donna McElroy in which she criticized Forest Service clearcutting policies. Jackson wrote, "I was more encouraged by reading that letter than anything I have seen or heard in the last ten years in this county." [71] Jackson empathized with loggers' frustrations and reiterated that FPW's alternative provided a common purpose.

We know what is wrong with present Forest Service activities and we know how to fix it. We know how to do that while preserving all of the local timber industry jobs and potentially increasing them. We also know that the logging community has answers to some of our common problems which we may not have considered. We know that for a complete solution to our common goals we need the wisdom of the people who have worked in the woods for the four generations that we have been logging Plumas County. [71]

Jackson also suggested that environmentalists and loggers had a common love of the forest and a common foe in both the Forest Service and in large timber companies.

Jackson's letter attracted the attention of the Plumas County Board of
Supervisors, who invited he and McElroy to a County Board meeting in which a
Resolution condemning the violence was drafted. The Resolution called upon "members
of our community to cooperate and continue positive discussions on the future of the
forest and the stability of our rural quality of life." [70] While Jackson's letter and the
County's Resolution pointed towards a collaborative solution, it did little to change the
dynamics of the conflict. The Plumas Forest Plan was being appealed and the draft forest
plan on neighboring Lassen National Forest had not yet been formally released.

Moreover, for the time being the Plumas Forest was producing an abundance of timber.

All of that was about to change. In June 1991, the *Sacramento Bee* published a cutting five-part special report on the status of the Sierra Nevada Range titled "Majesty and Tragedy: The Sierra in Peril." The series, which won a Pulitzer Prize for author Tom Knudson, stunned the Forest Service.

Today, the Sierra is dominated by controversy. From Camp Nelson to Quincy, Lone Pine to Nevada City, people are fighting over the future of this range. At the center of the controversy stands the largest landowner in the Sierra, one that has cut vast stands of forests, caused massive soil erosion and destroyed many sparkling streams. That landowner is the U.S. Forest Service. [103]

The report laid blame for most of the Sierras perils directly in the lap of the agency and its mantra to "get out the cut." In its defense, the agency claimed that it was changing. "We are really at a crossroads," Regional Forester Ron Stewart told Knudson. "We've got a history. And we see over the past couple of years, and the next couple,

rapid changes going on in the direction and aspects of our mission." [103] The agency's challenge was obvious, even to most insiders, as a wildlife biologist told Knudson:

We have been forced since World War II into being a company that provides a service to private industry and government coffers. This may sound corny, but we should be the stewards of the land – not just a company that meets timber targets. [106]

But even those inside the Forest Service had doubts about the agency's sincerity. "I hear a lot of good verbiage," said Ron Medel, an agency biologist. "But is it translating to change down on the land? No." [103]

In the face of growing pressure, in July of 1991 the Forest Service temporarily suspended all timber sales and harvests in California spotted owl habitat. A Forest Service spokesperson described the suspension as part of a larger move towards a "landscape approach" to managing national forests. In the interim, the agency would complete a study of the status of the California spotted owl and would recommend new management policies. The logging community, however, feared that the Forest Service was caving in to a powerful environmental lobby. Seeking to diminish their influence, the timber industry sought to portray environmentalists as radical special interests:

Until John Q Public stands up and says what he wants, the Forest Service responds to that vocal minority – that 1 percent of the public that wants to lock everything up for owls and wandering minstrels. [119]

In spite of opposition from the timber industry, production began a steep decline. While an average of 185 million board feet was harvested on the Plumas Forest annually between 1988 and 1990, the harvest began a steep decline to an average of 75 million board feet between 1991 and 1993. The Forest Service predicted steeper declines well into the future. Similar declines were projected on the Lassen National Forest. An initial draft of the Lassen Forest plan predicted an

annual harvest of 154 million board feet (from a high of 178 million board feet in the mid-1980s), although the Forest Service's own estimates suggested that the final plan would slowly decrease the harvest to 120 million in 1993. The agency hinted that reductions would continue and that protection of spotted owl habitat would have to occur.

By the time the Lassen plan was finally released in August 1992, however, the harvest target had dropped to 96 million board feet. Livid, county officials took Lassen Forest officials to task for caving in to special interests. Bill Coates told agency leaders:

We sense that the Forest Service is losing its will to fight. We're counting on you guys to start making a stand for these communities. They're counting on you and we're counting on you, and we expect you to fight! [124]

In response, Lassen forest supervisor Leonard Atencio cited a shift in national priorities, which de-emphasized the agency's traditional focus on timber production:

Internally [the agency] is in a lot of chaos. As a country we are not sure we want to continue with our way of life or start protecting our environment. For the Forest Service it isn't a choice. Based on the laws we are required to follow, we are not given a choice of protecting animal species or communities. [124]

In September 1992, Lassen County Supervisors held a special meeting to gather public input on the Lassen plan. Susan Baremore, a forestry consultant from a third-generation logging family, reflected the desperation of the local logging community. "This plan will effectively exterminate an entire culture of families like ours. We're not going to allow our families to be torn apart without a fight!" [147] The meeting ended with a Resolution condemning the Forest

Service and demanding that it postpone adoption of the Lassen Forest plan until it could adequately review local economic and social impacts.

Phase 2 – Emergence of the Quincy Library Group (1992-96)

It was becoming apparent to both environmentalists and logging advocates that their administrative appeals to the Plumas Forest plan were going to fail. FPW contemplated a court action to force the Forest Service to adopt its alternate plan, which the agency had already touted. Coates and Nelson saw no reasonable legal recourse for their appeals. So in the fall of 1992, several weeks before the election that ushered the Clinton administration into office, Coates and Nelson approached Jackson with the idea to dust off the FPW plan. Jackson was eager to meet but did not mince words. As he told a reporter (Little 1998), the timber industry was on its knees. "We let it up to do the right thing" said Jackson. "These people are our neighbors" (p. 13). SPI's philosophy made it easier to talk. According to Nelson, SPI's position has always been "go talk to your adversaries as long as you can keep your wits about you, because you may not be at odds on all points." (personal comm., 3-4-99)

Coates, Nelson, and Jackson agreed that the concepts in the FPW plan were sound. With initial agreement, they joined with other community members to develop a specific project they could take to the Forest Service. Group members initially sought a pilot project on a single watershed – McClellan Creek. The group also started meeting at the Plumas County Library, where it could accommodate a large group, demonstrate openness, and, some say, refrain from raising their voices. In February 1993, the "Library Group" presented the Forest Service with a proposal entitled, "Joint Project Proposal by Friends of Plumas Wilderness and Sierra Pacific Industries." By all public

accounts, the proposal was greeted with cautious optimism by the Forest Service. Plumas Forest Supervisor Wayne Thornton wrote to Jackson on March 4, 1993 expressing the agency's cooperation:

The presentation you made to develop a joint resource management proposal in the McClellan Creek area is exciting. It is exactly this kind of approach to find common ground among diverse interests and get beyond 'sacred semantics' that will determine the best path for resource management in the Sierra Nevada's. (letter dated 3-4-93)

Thornton encouraged the group to develop a detailed proposal for agency review and to coordinate its efforts with agency personnel.

As the group moved forward, however, it returned to a broader focus on interim management of the entire Plumas National Forest as represented in the FPW alternative. The group also expanded its scope to include the Lassen and a portion of the Tahoe National Forest. Together these forests made up a productive and coherent eco-region at the northern tip of the Sierra Nevada. The region included the California timber towns of Quincy, Susanville, Chester, Loyalton, and Greenville – all facing a similar fate. In moving from an experimental watershed project to the management of a timber-dependent region, the group placed itself directly in the path of the Forest Service's timber management program.

In July 1993, Coates and Jackson sought community support at a town meeting at the Quincy Theater Hall. The *Feather River Bulletin* covered the meeting of about 150 citizens and Forest Service employees. The paper was surprised by the camaraderie:

It was something we never thought we'd see in Plumas County but last weekend it happened. Environmentalists, loggers, USFS personnel, mill workers, their union representatives and a bevy of concerned citizens met at a town hall meeting to discuss a plan for the future of the area's forests. After two hours of discussion on the bipartisan proposal, a straw poll show of hands was called for. Only four

people disapproved. It could be the beginning of the end of a long struggle over forest use in the Sierra and a harbinger of the Sierras future. [161]

Prophetically, the *Bulletin* also hinted at the challenges facing the group:

Now it must be sold to the Forest Service and Congress for implementation. Fortunately, the grassroots forest plan is precisely the kind of thing President Clinton called for at the recent timber summit in Portland. [161]

The Forest Service was among the first to respond: "Something really unique and special has gone on here," stated Forest Supervisor Thornton. "All sides are applying equal pressure to the Forest Service, but they're singing from the same song sheet, and that's music to my ears." [163]

The Library Group's purpose, according to a report released at the meeting, was "to develop a plan that would promote the objectives of forest health, ecological integrity, adequate timber supply, and local economic stability." [162] The report contained a list of basic points they could agree upon, general strategies for accomplishing their goals, and an image of a desired future condition: "an all-age, multi-storied, fire resistant forest approximating pre-white-man conditions." [162] With broad community support, the Library Group pushed forward and soon developed a five-year "Community Stability Proposal" for the delineated forests, a total of 2.5 million acres of federal forestland.

Encouraged by the group's progress and overwhelming community support,

Coates was optimistic: "None of us has ever done this before, and I'm sure we'll make
mistakes. But the work we've done so far represents a four-letter word – hope. We
haven't had a lot of that in the past." [163]

Jackson later stated his reasons for getting involved (Marston 1997):

I've taken part in listing almost every salmon on the West Coast. But I can't fix the salmon problem with the law. They're in too much trouble. I need the help of everyone. It's the same with logging. I need my neighbors. If the logger who

drives the Cat in the woods won't help me, then the tractor will go through the stream, no matter how many rules there are.

But Jackson had other important reasons as well. "These are my neighbors," he told a reporter. "My heart doesn't bleed for Sierra Pacific Industries, but bleeds for the folks getting \$12 an hour who don't have alternatives for work." [163] In a letter in a timber industry newsletter two months after their historic town meeting, Jackson elaborated:

We sat down, and worked it out. In doing so, we began rediscovering our sense of community. The conversations, both formal and informal, that have occurred as a result of the efforts of the [QLG] have been very positive. They have made us realize how dysfunctional a community we were before, always fighting each other, instead of trying to move forward on common goals. The social experiment of working together as neighbors is perhaps as important, or maybe more important, than the forestry experiment we are now proposing [170]

While the majority of FPW members joined QLG, not everyone affiliated with the group supported the plan. The first to challenge it was local forest activist Neil Dion. Dion objected to the group's interpretation of the California Spotted Owl Interim Guidelines (CASPO), a scientific report designed to provide interim protection for the owl while the Forest Service developed a long-term management plan. Encouraged primarily by Dion, environmentalists outside the community grew wary of the emerging coalition. They viewed the forests primarily as national assets and saw little connection with local economies, even though some had worked on the earlier FPW plan. Nor did they trust SPI. Moreover, while outside environmentalists were equally frustrated with the Forest Service, and welcomed forest reform, they believed QLG's plan was overly ambitious and preferred a small-scale experiment somewhere on the Plumas forest.

QLG also gained early attention and support from California political leaders including liberal Senator Barbara Boxer and conservative Congressman Wally Herger.

Boxer had initial reservations about the group but attended a QLG-sponsored field trip to

tour neighboring Collins Almanor Forest, which served as a model for the group's plan. At the end, however, Boxer concluded: "This is not easy. And you did it. It is a myth that we can't be for a sound economy and also for a strong environment." Boxer pledged her support for the plan and added, "Here's what I want to leave you with. I think it's exciting. I think it's a model." [179]

Congressman Herger also praised the group but used his praise to subtly criticize Clinton Administration policies:

Unwilling to sit idly by while distant forces decide the fate of our mountain communities, local leaders and activists from across the ideological and political spectrum have been quietly meeting together in a constructive effort to find common ground. [169]

In spite of their ideological differences, Boxer and Herger penned a letter to Secretary of Agriculture Mike Espy in February 1994. The letter described the "remarkable progress" made between the local environmental community and the timber industry on a proposal aimed at achieving balance between economic and environmental interests. Boxer and Herger hoped to encourage Espy to back funding for the proposal's implementation.

In the interim, QLG's strategy at home was to advocate for the modification of proposed Forest Service timber sales that were inconsistent with its Community Stability Proposal. Since the Forest Service had not formally adopted QLG's proposal, the agency's timber sales were often in conflict, especially among agency resource managers who objected to the group's influence. In a leaked and widely circulated internal memo, Lassen Forest Supervisor Leonard Atencio challenged QLG's credibility, while stating his commitment to work with the group.

I have heard the concerns and agree with everyone, this group is not going to be easy to work with. I also agree that this group DOES NOT HAVE THE

ANSWERS EITHER, [and] does not have the expertise they claim. (memo dated 1-9-94)

Atencio's memo was evidence that Forest Service managers were dragging their feet. To ease growing tensions, Regional Forester Ron Stewart sent a memo to staff of the Plumas, Lassen, and Tahoe national forests encouraging cooperation and reminding them that QLG's proposal had already amassed Congressional support. Stewart wrote:

We have wanted consensus for years. This proposal is serious – it could break gridlock – we must be quick to work with it, and to make it a reality. It is our best opportunity to gain the strong community support we need to practice sound resource management. The Forest Service will be judged by how we are able to shift to a new way of doing business. Let's strive to make the judgment favorable. (memo dated 1-21-94)

Sympathetic elements within the agency offered encouragement. Yet little changed. Lacking specific commitment to their plan from local Forest Service officials, 42 QLG members went to Washington, D.C. in March 1994 to lobby Congress and Administration officials. While there, they visited Forest Service Chief Jack Ward Thomas and 110 members of Congress, whom they considered key funding votes (Brooks, 1994). The group received glowing reports from Congress and the Clinton Administration. In fact, some in the Administration began touting QLG, and similar groups, as the "natural resources movement of the 1990s" [188].

However, while its efforts with Congress blossomed, QLG found only pockets of cooperation within the Forest Service. Exasperated, Jackson reminded Thomas of the President's message of cooperation at the 1993 Northwest Forest Summit and the strong support the group received outside the agency. True to his reputation, Jackson accused the agency of "advertising a defective product" for fraudulently claiming to reinvent itself, and chided Thomas for the agency's inaction:

They tell us that the Washington office of the Forest Service and the United States Congress have so screwed up the system that even without opposition, they can't sell timber. Is it true? Is everything so hopeless? Does the Forest Service truly lack the ability to produce any goods or services? Or is it just the group of people we are dealing with? (letter dated 4-19-94)

Thomas did not respond to the letter. So Jackson, as predicted, turned to the media:

We can't get [officials of] the Plumas National Forest to do anything but talk. They ought to change their name to the U.S. Lip Service. I'm hoping its only local ineptness. But if it's not, owls versus jobs was never the problem. [190]

A Sacramento Bee news article put the problem into perspective: "Plumas County's storybook tale of environmentalists and loggers working side-by-side to save their community now has a purported villain: the U.S. Forest Service." [192] An agency spokesperson called it an irony: "The very things that led the Quincy Library Group to meet in the first place are the very things that are limiting our ability to respond." [190]

Instead, the Forest Service responded directly to Congress with a briefing paper reaffirming its support for QLG. Accompanying the paper was an internal memo describing what agency public affairs staff perceived to be the underlying tensions — worsened economic conditions, misleading statements from Chief Thomas and Undersecretary [James] Lyons, unmet timber harvest projections, and increased threat of catastrophic wildfire. (memo dated 4-25-94) The memo also confirmed that amending the existing forest plans would provide the mandate needed to implement QLG's plan. However, the memo stopped short of recommending plan amendments pending the scheduled environmental impact statement (EIS) on the CASPO interim guidelines. Rather than amend the forest plans to incorporate the QLG proposal, the agency decided that the CASPO EIS would serve as the vehicle for amending the forest plans. For QLG this was a catch-22. QLG's plan sought to provide community stability during an interim

period while spotted owl guidelines were being reviewed. However, the preparation and review of those guidelines blocked QLG's interim plan from being implemented.

Frustrated with the administrative process, in May 1994 QLG members attended a Democratic fundraiser in Sacramento, where the California Congressional delegation had arranged for Michael Jackson to meet President Clinton. According to the *Feather River Bulletin*, Jackson waited patiently while the President worked the room. As Clinton approached Jackson, he was joined by Congressman Vic Fazio and Senator Dianne Feinstein, both strong proponents of QLG's proposal. According to the *Bulletin*:

Jackson... began by telling the president "the community has sent me because we think we have a solution to the timber wars." He briefly explained the group's intent when Fazio broke in: "This is the most remarkable group I have ever seen." Feinstein added, "Yes, and we're going to get the money for it." [193]

The President took the group's proposal and promised to review it. According to the *Bulletin*, Clinton was enthusiastic about working on a bipartisan project and was encouraged by a letter of support from California Governor Pete Wilson. Jackson told the *Bulletin* that Clinton's response was more than the group had hoped for. He also noted, "the ease with which we got to the top was amazing. It indicates the level of interest in this plan." [193]

Once again it appeared that the planets were aligning. QLG members soon learned, however, that California's regional environmental community, anticipating Jackson's meeting, had penned a pre-emptive letter to the President, Administration officials, and Democratic members of the California delegation. The letter offered support for local efforts to address forest management issues but was critical of QLG's proposal, arguing that it was inconsistent with federal laws, regulations, and policies, and that it excluded outside environmentalists. Although environmentalists agreed with the

technical aspects of the proposal, they reminded the President that, in his own words at the 1993 Northwest Forest Summit, any plan must be "scientifically sound, ecologically credible, and legally responsible." "At this time," they concluded, "the Quincy Library Group plan fails this test." (letter dated 5-18-94)

Blindsided by the letter, QLG environmentalists fired back a terse and angry response. In their reply to QLG's letter, regional environmentalists attempted to mend fences, apologizing for the tone of the letter and admitting some mistakes. However, they also defended their actions as necessary to correct the impression that environmentalists were united in support of the QLG plan. The reconciliation letter concluded: "We all share the same goal of healthy and sustainable Sierra Nevada forests, and we look forward to continuing to work with you toward that goal."

Although strained, QLG environmentalists and their counterparts resumed a working relationship. For the most part, their criticisms were substantive and not personal. But tensions persisted. Then, in the summer of 1994 a reporter asked Jackson and Coates why some environmentalists opposed the QLG plan. Jackson reminded observers that the group had detractors on both sides. Not one to miss an opportunity to poke his detractors, Jackson described one side as "right-wing people who believe this is a left-wing plot to weaken the moral fiber of loggers and who support the cutting of more trees." The other he described as a "small, left-wing environmental contingent that believes the plan is too kind to loggers." [199] Coates took a direct swipe at environmentalists, suggesting that they may be withholding support, "because their dues are derived from things not working. If we can do something to make the environment better," he suggested, "it threatens their ability to grow and thrive." [199]

While QLG was busy lobbying Congress, and defending its proposal in the CASPO EIS review, a fire destroyed 40,000 acres of pristine forest the group had delimited as off-limits to future logging. The following season, in response to a controversial "salvage" policy designed to streamline logging in burned-over forestlands, Lassen Forest officials initiated the Barkley Salvage Sale. The pending timber sale threatened to splinter the group. While QLG declared the forest off limits to logging, it was now charred and, in the minds of many group members, had limited ecological value. Why not harvest what remained? Jackson recalled the "disputatious" meeting:

The environmental side told our friends "we were with you when the Clinton Administration came in and the Congress was Democratic. We stood with you then. Now you guys have just had the '94 election and you have a Republican Congress and you are insulated from the law. We want you to know that you are not insulated from your word. And you will stop it." They said, "We can't stop it" and they tried and they couldn't. And the Forest Service went ahead with the sale. (personal communication, 8-25-98)

Since they could not stop the sale, QLG agreed to oppose it. "That was not an easy thing," reflected Tom Nelson of SPI. "We got into this coalition to get more timber on the market. But our deal is that the land is off the [logging] base. We honored our commitment." [231] In fact, no logging companies bid on the sale and it was withdrawn. Congressman Herger, however, wanted the timber sold. In a letter to the Forest Service, Herger strongly counseled the agency to re-bid the sale. It did. Again, there were no bids. QLG member and forester Bill Howe told the *Los Angles Times*:

We were under a lot of pressure to break with the group. Industry people were calling, saying, 'Are you crazy, or what?' But three years ago we decided to speak with one voice. It was a matter of principle. [224]

Suspicious of the timing and conditions of the sale, QLG members accused the Forest Service of trying to splinter the group. "I have no doubt the Forest Service's sole goal is to divide us so it can get back to being in charge of a dying empire," stated Jackson [231].

One week after the Forest Service withdrew the Barkley sale for the second time, Secretary of Agriculture Dan Glickman announced \$4.7 million in funding to implement parts of the QLG plan, approximately 1/3 of what the group requested. Officially, the funds were granted to assist the Forest Service in implementing the group's wildfire management strategy. Glickman stated, "This is a California experiment to see if we can talk to each other about natural resources instead of kill each other." [226]

In spite of its efforts, or perhaps because of them, QLG could not get the Forest Service to fully implement its plan. Without a specific charge from Congress or a funded mandate from the Clinton Administration, the agency lacked clear direction to amend its existing forest plans. With encouragement from Congressman Herger, QLG began to view Congress as its only hope for action. QLG biologist Linda Blum viewed legislation as a last resort to get the Forest Service to take the plan seriously. "This is to get them off the dime – to do this work and do it right." [253]

Phase 3 – Legislating National Forest Management (1996-present)

The legislative road was rocky at best. In March 1996, Herger's aides began meeting with SPI's Tom Nelson to draft legislation. Not surprising, Herger favored the logging components of the QLG proposal and, in a letter to Nelson, advocated "flexibility" in the legislation that would allow logging in protected areas "on an as needed basis." (letter dated 3-31-96) To his credit, Nelson shared the letter with QLG members. Jackson suggested that the letter amounted to "blackmail." (QLG meeting

notes dated 4-19-96) Jackson also stated that while he preferred that Herger sponsor the bill, he distrusted the Congressman. To counter Herger's bias, Jackson requested that Senator Feinstein assign an aide to balance the bill.

A draft bill was first circulated in June 1996 (draft legislation dated 6-13-96). To QLG members' frustration, however, the bill still reflected Herger's pro-logging slant. As the bill passed through committee mark-up procedures, QLG environmentalists offered changes to reflect the QLG proposal. A second draft was circulated in September of that year (draft legislation dated 9-4-96). This time QLG environmentalists sought input from their colleagues in the regional environmental community. While the draft bill was significantly improved, the coalition of regional environmentalists revealed several additional problems. No friend of California's environmental community, Herger ignored the coalition's comments and formally introduced the bill in the House. Since the bill was not expected to move in the House before the holiday recess, however, QLG environmentalists assured their regional counterparts that there was still time to respond.

Fearing Herger would by-pass them again, however, regional environmentalists urged QLG to stall action until they could reach agreement, and recommended a time-limited negotiation, "aimed at achieving bill language which allows a reasonable demonstration of the QLG approach." The negotiation required QLG "not to seek to advance the bill until the time allocated for negotiations is up." (Pace, letter date 9-21-96) While QLG welcomed the negotiations, it had little control over Herger, who was eager to advance the legislation. Congress, however, recessed before the bill moved in the House, giving QLG environmentalists and their regional counterparts another chance to find common ground.

Deliberations continued early into 1997 when Herger issued a February 13 deadline for completion of the draft. On February 7, Linda Blum faxed the latest version of the bill (dated 2-7-97) to 15 environmentalists representing a coalition of groups involved in the negotiations. The Sierra Nevada Alliance, the most moderate of the groups, agreed to support the latest draft. The California Wilderness Coalition, also relatively moderate, suggested minor changes but stated that it would not actively oppose the bill. Ryan Hansen, the organization's director, added, "We agree with [QLG members] who point out that the land management framework authorized by the QLG bill is a marked improvement over current practices" (letter dated 2-12-97) The Sierra Nevada Forest Protection Campaign, the most radical of the groups, threatened to oppose the bill and urged other environmentalists to reject it.

Herger and Feinstein introduced the bill on February 27, 1997. QLG environmentalists still hoped that opposing environmentalists would join their effort to improve the legislation. Two days before the House Resources Subcommittee hearings on March 5, which arch-conservative Congresswoman Helen Chenoweth (R-ID) chaired, Blum attempted once more to get the remaining opposition on board:

Finally, I fear that you may be walking right into Queen Helen [Chenoweth] and her loyal knights' trap. They are looking to portray environmentalists as being unreasonable, hysterical, intransigent and never satisfied. You are better than that. (email message dated 3-3-97)

The northern California environmental community, which had thus far held together despite tensions over the QLG proposal, was about to come apart. Two days after the hearing, Natural Resource Defense Council's David Edelson responded:

Under the circumstances, are you really surprised by the amount of confusion, distrust, and concern that the bill has engendered in the environmental community? Speaking personally, I am very uncomfortable being in a position of

opposing you, Mike Yost, and Mike Jackson; I have worked with all of you for many years and have a great amount of respect for your work. However, my greatest allegiance – like yours – is to the forest, and I simply do not agree with you that the QLG agreement is better than what we have, or are likely to have in the near future. (email message dated 3-7-97)

Despite attempts to hold the environmental community together, the contentious political process caused it to splinter, and elevated the conflict to the national level. An improved version of the bill eventually passed the House by a vote of 429 to 1 (the lone dissenting vote was cast by Congressman Ron Paul, R-Texas). Environmentalists lobbied Senator Boxer to withdraw her support and place a "courtesy hold" on the bill, preventing it from reaching the Senate floor. In response, Senator Feinstein worked behind the scenes with the Clinton Administration to attach the bill to its 1998 Appropriations Bill, where it passed and was signed by President Clinton in October of that year.

Chapter V Frame Analysis and the Forest Planning Process

Identity and characterization framing occurs within the context of the local Timber wars, which, as the QLG case reveals, can be divided onto three phases – the forest planning process, the emergence of the Quincy Library Group, and legislating national forest management. As such, the frames being analyzed in this research were triggered by actions or events associated with forest management decisions and policies instituted by the U.S. Forest Service. The actions and events provide opportunities for the disputants to "frame" an issue, position, or response, to which other disputants frame their own responses, and so on. The present chapter (V) documents the intractability of the conflict from a framing perspective and provides a baseline from which to compare identity and characterization frames during the next phase of the conflict. The following chapter (VI) documents identity and characterization frames present as the conflict was transformed. Taken together, chapters V and VI provide an objective assessment of frame changes as the conflict moved from intractability to local resolution.

Dominant Identity Frames

It was first observed that the Timber wars involved three dominant affiliations – logging interests, environmental interests, and the U.S. Forest Service. While these distinctions are often taken for granted, for the purpose of this study they need to be verified so that they can serve as base-line information from which change may be tracked. Baseline social identity categories and subsequent frames were determined by,

1) identifying disputants' in-group affiliations from specific collective references, 2) interpreting the intended meaning of first-person plural references (we, us, our), and 3) recording collective labels attached by the media within the context of a news article.

Following a document analysis approach (Altheide 1996; Lincoln and Guba 1985), identity frames were grouped into common categories and named at the end of the grouping process. Figure 5.1 provides a breakdown of the frequencies of dominant identity categories for the entire study period along with a further breakdown of categories in the two phases of the Timber wars. In addition to the dominant identity frames listed above, Figure 1 also includes the Quincy Library Group (QLG), which is absent in Phase 1 but is strongly represented in Phase 2.

Identity Frames (n=372)	Figure 5.1 Frequency of Identity Frames Phase 1 (n=265)	Phase 2 (n=107)
Enviro 60/16%	Enviro 55/21%	Enviro 5/4%
USFS 133/36%	USFS 113/43%	USFS 20/19%
QLG 68/18%		QLG 68/64%

The following analysis is designed to provide the a sense of the dominant identity frames that emerged in Phase 1 of the conflict, as well as a sense of the context in which the identities were evoked by disputants. Tables 1-3 below contain typical examples of logging, environmental, and Forest Service identity frames respectively. Because they are infrequent, community identity frames are discussed individually and are not placed in a table.

Logging Identity: During the forest planning process, common identities emerged among loggers, timber industry officials, businesses that serviced and/or profited from the industry, supportive county officials, and the local school district, which benefited from payments in lieu of taxes (PILT) on timber sale receipts. I refer to this common affiliation as the "logging community" because it centers around a common position among affiliates to maximize timber harvesting on the national forests. While loggers, timber industry representatives, and county officials spoke most often on behalf of the logging community, local business leaders and school district officials frequently weighed in on forest management issues. This group was galvanized in part by declining timber harvests, increased unemployment, declining tax revenues and PILT payments, and federal cutbacks. Identity frames commonly expressed during this period include affiliations with loggers, with the timber industry, and with "working people."

Table 5.1 is illustrative of the 97 identity frames expressed by members of the logging community throughout Phase 1. While "we" is primarily the more narrowly defined association of timber workers and timber industry representatives, it is also inclusive of the broader set of interests that are connected to the industry through economic and social ties. As the frames indicate, the wellbeing of this group is increasingly threatened by Forest Service actions expressed in the forest plans.

Table 5.1: Logging Identity Frames

[&]quot;We've got jobs. We [loggers] go to work five days a week, and we get paid for it. I've seen things a lot worse," said a local lumber mill worker. [7]

[&]quot;Our homes, college funds, everything we [working people] have is derived from timber dollars," said Gene DuPont, owner of DuPont Power Tool Company in Quincy. "Without them, I might be the next closed business in town." [15]

[&]quot;As a county, we [county officials] asked for 315 million board feet of timber a year. We got 265.5 million. We and all the counties in northeastern California opposed set-aside lands for the spotted owl. We got more than 100,000 acres. The Regional Forester has ignored our requests and I think we [county] ought to take a hard look at an appeal ourselves," Coates told other County supervisor September 6. [45]

[&]quot;I'm a fourth-generation logger [we] in Plumas County and damn proud of it," said a sign on the logging truck owned

by independent Quincy loggers Ian and Donna McElroy, organizers of the event. [66]

"This plan will effectively exterminate an entire culture of families like ours [logging community]," said Susan Baremore, member of the third-generation logging family. "We are not going to allow our families to be torn apart without a fight." [147]

Environmental Identity: The forest planning process was the second major battle for Quincy-area environmentalists. The first was the successful 1984 battle for federal designation of the 21,000-acre Bucks Lake Wilderness on the Plumas National Forest west of Quincy. The Bucks Lake battle mobilized a group of Quincy-area citizens that founded the Friends of Plumas Wilderness. As mentioned, the Friends also spearheaded the forest plan alternative for the Plumas National Forest that was touted as the "environmentally preferred alternative" by the Forest Service. The Friends of Plumas Wilderness emerged as the organizing force behind local forest protection initiatives, and worked with a close-knit coalition of regional and national environmentalists on initiatives affecting California forests. While local environmentalists identified with their local community, their most salient social identity during the forest planning process appears to be with the local and statewide environmental community. Importantly, environmentalists often framed identity in the context of putting forth the Friends of Plumas Wilderness' conservationist alternative. Table 5.2 is illustrative of the 55 identity frames expressed by members of the environmental community throughout Phase 1.

Table 5.2: Environmental Identity Frames

"None of us [enviros] is opposed to logging," said Yost. "If done carefully, a great deal of this forest can provide timber for the economic benefit of these communities that depend on the forest." [10]

"The time for public comment is over. We've [enviros] already submitted our alternative for managing the Lassen Forest. We're waiting to see what will come out in the final plan. If we're unhappy, the proper way to deal with it is to appeal it based on what we see," said Yost. [37]

The local environmental community is not about to be intimidated, nor does it desire a victory at the expense of our neighbors in the timber industry. We are open to communication with any timber industry group. There will be one more opportunity for the community to work together to insure our mutual future. [71]

Quincy attorney Michael Jackson suggested that if the supervisors chose not to remove the [yellow] ribbons from

county trucks, they also display Sierra Club bumper stickers. "That would indicate that the county is taking an evenhanded approach to its political activities," Jackson said. [85]

Friends of Plumas Wilderness recognizes that salvage sales usually cannot generate the funding to carry out the thinnings and fuels reduction work that needs to be done. Earlier this year, we [FPW] offered to go hand-in-hand with local Forest officials and the timber industry to the higher levels of the Forest Service and to Congress to lobby for special appropriations to finance this important work. Today, we renew that offer. [144]

Forest Service Identity: The U.S. Forest Service has a strong hierarchical structure and culture. As such, communication follows a fairly formal chain of command, making it difficult for agency resource managers to communicate directly with their communities or the media, except through prescribed public involvement and public relations protocols. In addition, in the context of the forest planning process, agency spokespeople often found themselves in public forums wherein they were making formal presentations and responding to questions and comments that are bound by planning protocols. They are seldom in a position to express their personal views. The result, it appears, is that Forest Service spokespeople framed organizational issues, and organizational identity, in consistent ways and seldom strayed from the message. Forest Service identity frames generally bear this out. The identity frames in Table 5.3 are illustrative of the 113 identity frames expressed by Forest Service spokespeople in the context of the forest planning process, which focused almost entirely on the agency and its intended actions.

Table 5.3: Forest Service Identity Frames

"We're [FS] here to manage these public lands for the benefit of the public which uses them. People's ideas of what's best change from time to time, and we will adopt our management to suit the times," said Britton. [10]

As for the process the plan is undergoing, Wickman told the board that "**We [FS]** will come out with a final draft, with a proposed 45-day public comment period. At the end of that period of time **we** will analyze the comments **we** receive and issue a Record of Decision, which will then be the basis for the plan." [101]

[&]quot;When we [FS] went from the draft plan to the final, we didn't do it in a void. What we came out with is a compromise, but virtually every solution to a complex problem hurts some interest. This is a plan for a lot of people, not for special interest groups," Bennett said. [40]

[&]quot;If we [FS] cut off part of the forest, we won't get as much output. Congress is the one that has given us this mission. They said get out there and grow trees," Crummer said. [77]

Atencio added that the Forest had faced some tough choices in addressing a wide variety of ways people value and use the Forest. "We [FS] found we simply could not give everyone everything they wanted, so we had to develop the best balance we could, given the circumstances. I think we have done that." [135]

Community Identity: While not dominant, disputants in the local Timber wars occasionally framed other identities. One identity that was framed by both environmentalists and loggers, although with different meaning, was an affiliation with "community." Community affiliation is mentioned here because it appears to be linked to a common or superordinate identity that emerged in Phase 2. Environmentalists, for their part, tended to frame community in three interrelated ways. First, environmentalists used community frames to refer to themselves and the local logging community as legitimate members of the larger Plumas County community, such as follows:

What can Plumas County environmentalists offer the Plumas County logging community? The Plumas County environmental community has been preparing for the forest planning process for over ten years. We are well represented by national and statewide environmental groups and major law firms. We know what is wrong with present Forest Service activities and we know how to fix it. We know how to do that while preserving all of the local timber industry jobs and potentially increasing them [71].

The use of community frames in this way makes in-group/out-group distinctions and implies that the groups are part of a larger interdependent whole. A common or superordinate identity is implied from the reference to Plumas County but is not explicitly stated, nor is it the most salient identity expressed. Second, environmentalists framed community in ways that drew attention to their common fate with local loggers, as well as their interdependence. The following frame recognizes in-group/out-group distinctions, and intergroup conflict, and more directly acknowledges a common community identity (a single community) as well as opportunities to work together "to insure *our* mutual future" (emphasis added).

The local environmental community is not about to be intimidated, nor does it desire a victory at the expense of our neighbors in the timber industry. We are open to communication with any timber industry group. There will be one more opportunity for the community to work together to insure our mutual future. That will take place after the Forest Service responds to the various land management plan appeals which should happen next spring. [71]

Third, environmentalists used decidedly *inclusive* frames in an attempt to make salient a common identity, fate and purpose with the local logging community. In the following frame, environmentalists refer to the Yellow Ribbon Committee, a coalition of loggers, businesses, and public officials who were united in support of increased logging on national forests in the Sierras.

What do environmentalists believe we have in common with the Yellow Ribbon Committee? We believe that we are all honest people who want to continue our way of life. We believe that we all love the area in which we live. We believe that we all enjoy beautiful views, hunting and fishing and living in a rural area. We believe that we are being misled by the Forest Service and by large timber, which controls the Forest Service, into believing that we are enemies when we are not. [71]

This frame comes closest to a salient expression of a common or superordinate identity. Unfortunately, it does not directly reference "the community." It does, however, reference a strong symbol of logging community solidarity – the yellow ribbon. The yellow ribbon was widely distributed on vehicle antennae and in the windows of businesses, shops, restaurants, homes and local government offices throughout the county and came to symbolize membership in the logging community.

It is also worth noting in this frame that environmentalists were attempting to draw new in-group/out-group boundaries that placed local loggers and environmentalists in the new in-group and the timber industry and Forest Service in an unholy alliance as the new out-group. Mainstream environmentalists gained some traction with this distinction, especially in the context of clearcutting, which advantaged large timber

companies in bidding on timber sale contracts. Unfortunately, a faction of radical environmentalists made no distinction between local loggers and the timber industry and muddled the message (see environmentalists' characterization framing discussed below).

While environmentalists framed community in ways that were *inclusive* of loggers, and acknowledged their legitimacy, loggers generally framed community in ways that were *exclusive* and de-legitimizing towards environmentalists. Loggers typically evoked community frames in two interrelated ways. First, loggers did not use "logging community" and "environmental community" frames to refer to legitimate members of the larger Plumas County community, as environmentalists did. Instead, loggers framed community identity more abstractly, primarily in the context of a threat to their livelihoods posed by environmentalists and/or the Forest Service. As such, they framed community in the context of perceived losses to that livelihood. In the example below, the community is defined by "the working person" whose job is threatened by pressure from local environmentalists to protect the spotted owl (hence the reference to the endangered working person).

"It's getting to the point of absurdity," Hoskins said. "One has to be realistic and if a stand is not made, our communities and our jobs are going to disappear. The working person in Plumas and Sierra counties is going to be listed on the endangered species list." [11]

While environmentalists are not explicitly identified as the source of the threat, it is strongly implied. This frame is a response to the release of the draft forest plan for the Plumas National Forest in 1986, wherein 100,000 acres of spotted owl habitat were declared off limits to commercial logging. The jobs v. owls framing captured here was repeated throughout the Sierras and the Pacific Northwest and has, in many ways, come to define the Timber wars.

Second, loggers framed community in ways that more explicitly defined those who belonged to the community and those who did not. In the following frame, for example, a spokesperson for the Yellow Ribbon campaign has defined the boundaries of the community, including the appropriate lifestyle and values that are found there. In this frame, "our" community is, in fact, the logging community as defined by yellow ribbon supporters. A clue to the exclusivity of this frame is found in the author's identification of the threat to this community – preservationist adversaries.

The Yellow Ribbon is silent, but it radiates a power for change, a power to save our timber industry, our communities and our natural-resources lifestyle. A lifestyle that embodies all of the values that have made our Nation the greatest Nation on Earth. When we pass a car or truck that is also flying Yellow Ribbons, a bond is formed that cannot be severed by the words or deeds of preservationist adversaries. [75]

In addition, not only did loggers often refer to environmentalists in extreme and/or derogatory terms, they avoided acknowledging them as legitimate members of the larger community. Instead, they preferred to see them as "special interest" outsiders who were out-of-touch with reality. In the following community frame, for example, a Quincy business spokesperson is advocating for the formation of a citizens group made up of "a broad cross-section of the community" to counter pressure from local environmentalists, who are seen as special interests. This community frame is expressed in the context of the forest planning process and is an attempt to rally the logging community to lobby Congress to overturn the forest management plan.

"What is really effective is to have a responsible organization of local people to deal with the federal agencies and lobby Congress," said Ray Rebell of Quincy. "With a broad cross-section of the community as members, such organizations are heard by Congressman, who see that such organizations are balanced, rather than special interest groups." [11]

In the examples of community frames evoked by loggers, above, references to community initially appear as *inclusive* frames in that an affiliation with what appears to be the larger community is more salient than an affiliation with loggers. On second glance, however, all three frames have an *exclusive* dimension to them – the exclusion of environmentalists who, again, live in the same community. As such, what appears on the surface as an inclusive community frame is, in fact, a divisive effort by loggers to define the community by its logging interests and reframe environmentalists as outsiders who threaten that community.

Dominant Characterization Frames

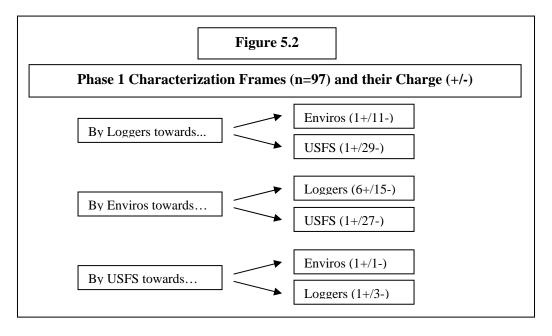
Similar to identity frames, baseline characterization categories and subsequent frames were determined by, 1) identifying specific out-group references and their source, 2) interpreting the intended meaning of third-person plural references (they, them, their), and 3) observing collective labels attached by the media within the context of a news article or document. As mentioned, Phase 1 characterization frames are intended to serve as baseline data from which one can observe and track change. There are also important framing distinctions contained in Phase 1 that appear to facilitate the transition from Phase 1 to Phase 2. These as well as the more typical frames are explored below.

Using document analysis and naturalistic inquiry techniques (Altheide 1996; Lincoln and Guba 1985), characterization frames were grouped into common categories based on the group engaged in the characterization and the group targeted. Dominant characterization frames during Phase 1 fell into the following categories.

- Characterizations by loggers towards environmentalists
- Characterizations by loggers towards the Forest Service
- Characterizations by environmentalists towards loggers
- Characterizations by environmentalists towards the Forest Service

- Characterizations by the Forest Service towards environmentalists
- Characterizations by the Forest Service towards loggers

It was observed during the emergent categorization process that characterization frames were generally either complimentary towards or critical of the group being characterized. Characterization frames were therefore assigned either a positive (+) or negative (-) "charge" based on their intent. Positive charges were given to characterization frames that were generally complimentary to the recipient (inclusive) while negative charges were given to frames that were generally critical of or hostile to the recipient (divisive). Figure 5.2 provides a breakdown of the frequency and charge of Phase 1 characterization frames:



The following analysis is designed to provide a description of the dominant characterization frames that emerged in phase 1, as well as a sense of the context in which the frames were evoked. Tables 4-9 below contain typical examples of logging, environmental, and Forest Service characterization frames.

Characterizations by Loggers towards Environmentalists: The forest planning process was particularly threatening to the logging community, which feared changes in forest policy triggered by pressure from local and national environmental groups. If the logging community was aware of broad public support for the protection of the national forests, it did not convey that perception in the forest planning process. To the logging community, the problem lay squarely with environmentalists, whom loggers characterized as not only out of touch with mainstream American values, but possessing values that were in some cases anti-American. With few exceptions, divisive characterization frames were designed to reduce the credibility and influence of the environmental community over pending forest plans.

An exception to this pattern can be observed in a subtle distinction among a few in the logging community of a difference between "mainstream" environmentalists who generally played by the rules and "radical" environmentalists who had allegedly vandalized logging equipment. Table 5.4 is illustrative of the logging community's generally negative and divisive characterization of the environmental community. Yet, there is an indication that at least some in the logging community were aware that mainstream environmentalists, whom they knew, were a different faction than clandestine radicals. There is only one positive and inclusive characterization frame in the data that was expressed by the logging community towards local environmentalists, however it appears to provide a subtle opening for a dialogue between more moderate members of the logging and environmental communities.

Table 5.4: Characterizations by Loggers towards Environmentalists

"The Forest Service [they] now has de-emphasized the production of forest products in favor of the preservation policies of a vocal minority. Jobs are being sacrificed for visual constraints and non motorized semi private recreation areas (de facto wilderness)," Smith said. [11] (-)

Lou Habersaat drove a loaded lumber truck from Eugene, Oregon to join the convoy. LG "It's not really the bird that's the problem. It's the environmentalists not wanting anyone in the woods. They don't want to see progress," Habersaat said. [66] (-)

"We [logging community] and the [mainstream] environmentalists might disagree in principle, but we're not going to hurt each other. We do our fighting in open hearings. That's why they were created," he [Jan Klement, a Quincy attorney who represents many timber industry companies] said. [69] (+)

If Proposition 130 passes, industry officials have estimated that about 75,000 workers will lose their jobs. "If the radical environmentalists have their way we are going to have the cleanest depression this world's ever seen," said Donna McElroy. "If we [general] didn't have a timber industry, there would be no town here, and that's a fact." [96] (-)

The Forest Service pendulum is swinging toward environmental interests, agreed Collins Pine's [Frank] Stewart. "Until John G. Public stands up and says what he wants, the Forest Service responds to a vocal minority -- that less than 1 percent of the public that wants to lock everything up for owls and wandering minstrels. If it continues, something's going to have to go. Everybody's going to be competing for the available Forest Service timber. Somebody's going to have to drop out," Stewart said. [119] (-)

Characterizations by Loggers towards the Forest Service: As their grip on local forest policy began to wane, the logging community stepped up its attacks on the Forest Service. In the eyes of the logging community, whose timber interests were losing ground to multiple-use forest policies, the Forest Service was caving in. The "iron triangle" that traditionally existed between the timber industry, the Forest Service, and local government, was giving way to environmental, cultural, and recreational interests from inside and outside the agency. The National Forest Management Act (NFMA) and the forest planning process forced the Forest Service to not only consider but also balance environmental, cultural, recreational, and economic uses of the national forests. The logging community's reaction to this threat was to attack the agency for changing direction, abandoning local communities, caving in to special interests, and playing God with peoples' livelihoods.

In the process of blasting the Forest Service for caving in to pressure from environmentalists, some in the logging community discovered common ground with environmentalists over their mutual distaste for some of the agency's policies, particularly clearcutting. While this did not lead to a formal coalition among loggers and

environmentalists to oppose the policy, in part because the policy benefited large timber companies that seasonally employed many local loggers, it appears to have fueled perceptions that agency forest management policies were beneficial to neither. By the end of Phase 1, the logging community had lost faith in the ability of the Forest Service to address the issues with which they were concerned. Logging community characterizations of the Forest Service captured during the forest planning process are consistently negative and divisive, as Table 5.5 illustrates.

Table 5.5: Characterizations by Loggers towards the Forest Service

"Those are the people [FS] that put this town out of business. Over the years, the way they've sold timber, they have definitely put the loggers out of business," said Pew. [26](-)

"Everybody's against it," said Quincy resident Betsy Forbes, who was handing out yellow ribbons and collecting signatures on the petition calling for multiple uses of national forests. "I'm a logger and an environmentalist. Most loggers are because they have to guarantee their own future. When the Forest Service goes out and rapes the forest with clear-cuts, we aren't going to lie down and be quiet anymore. [66] (-)

"I blame everything on the Forest Service. They sit on the middle of the fence. Whoever it looks like is going to win, they drop down on that side of the fence," McElroy said. "It looks like loggers are to blame, but it's the Forest Service. We are not responsible for their clearcutting policies. Every logger is against clearcutting, but you-know-who takes the rap. We care about what goes on in the woods, but we don't set the policies. The Forest Service does." [120] (-)

Supervisor Bill Coates took the Lassen Forest officials to task for "caving in" to special interest groups which are forcing more and more of California's timber base to be set aside. "We can't allow one set-aside after another if we're going to sell timber... we sense that the Forest Service is losing its will to fight," Coates said. [124] (-)

"The Forest Service says it manages according to what the people want. Even the preservationists have said they don't want even-age management. If this is not what the public consensus is, whose consensus is it?" asked Susan Baremore. [137] (-)

Characterizations by Environmentalists towards Loggers: While local environmentalists were aware of growing public sentiment for the protection of national forests in the late 1980s and early 1990s, they were also aware that the Forest Service and the logging community were deeply entrenched in the past. Environmentalists blamed this in part on the agency's internal culture and in part on the dominance of large timber companies. As a counter measure, mainstream environmentalists engaged in a dual strategy to 1) build bridges with local loggers who they felt would benefit from

implementation of the Friends of Plumas Wilderness' conservationist alternative and 2) reduce the influence of the timber industry by characterizing it (primarily Sierra Pacific Industries) as a greedy corporation bent on "getting out the cut" regardless of its impact on forest health or community stability.

The bridge builders believed that logging could be a viable component of the forest ecosystem provided that it was accomplished sustainably. In order to accomplish this goal, however, environmentalists had to convince the local logging community that the present path was unsustainable and that a solution lay with the environmental and logging communities working together. As such, mainstream environmentalists' characterization frames were designed to target common concerns and values between the two groups and to separate them from the timber industry. Mainstream environmentalists' characterization frames are therefore both inclusive of the local logging community (+) and divisive towards the timber industry (-).

Complicating matters, however, was an underground faction of radical environmentalists who were prone to monkey-wrenching logging operations and anonymously publishing scathing and derogatory ads and flyers in local newspapers.

Moreover, the radicals' divisive characterizations made no distinction between local loggers and the timber industry. Because the radicals operated in secrecy, their anonymity prevented the logging community from learning their identities. As a result, loggers often blamed mainstream environmentalists for monkey-wrenching actions including vandalism, bomb scares, spiked boards on logging roads, spiked trees, damaged logging equipment, and spiteful newspaper ads and flyers. While mainstream environmentalists were able to partially separate themselves from the radicals, characterization framing by

environmentalists towards the logging community as a whole presents a confusing message. Table 5.6 illustrates these frames.

Table 5.6: Characterizations by Environmentalists towards Loggers

"El Brazo Enofre (The Angry Group) [us] is weaving a Hangman's Noose for the Evil Logging Truck [them]," a crucifix warning from "Mother Earth's Department of Defense [us]." [39] (-) (radical/anonymous)

"It doesn't make any sense to jeopardize the lives and careers of the men and women who work in the woods. They are not responsible for the forest-management policies, which may be the focus of the anger of some people. It's counterproductive to attack these people when we're [enviros] trying to maintain a dialogue and communication to bring about goals for forest management we all share," Scroggs said. [69] (+) (mainstream)

Environmentalists believe that log exports, automation, and tree plantations are depriving honest workers of their jobs. Environmentalists want to see more competition in the timber industry and are appalled at Sierra Pacific's attempt to exterminate competition like Siskiyou Plumas Lumber Company. Environmentalists believe that a logging contractor should have more than one place to take his logs and that the Forest Service should stop encouraging, by their unnecessary regulations, the consolidation of the timber industry into the hands of large industry. [71] (-+) (mainstream)

"You'll be amazed as you witness the tenacity of this Super Trio, as they boldly face, and fiercely fend off their foes with only the use of primitive chainsaws, bulldozers, helicopters, herbicides, and the United States Forest Army, at their disposal. The battle is tough and dangerous, but it must wage on, if the citizens of Emmerson are to be safe and free from the iron grip of the dreaded Spot. [79] (-) (radical/anonymous)

"The California spotted owl is not going to close the Quincy sawmill. If the timber industry were interested, the spotted owl could be protected and the timber economy of this area could continue. They are not incompatible," said Jackson. "If the timber industry makes a commitment to these rural communities, the jobs will stay here. There's plenty of timber to harvest, and no environmentalist is going to stop that if it's done correctly." [121] (-) (mainstream)

Environmentalists say the timber industry's troubles stem from years of overcutting, especially in the late 1980s. "The timber industry had a free lunch to 90 percent of the old growth in the state," said Louis Blumberg with the Wilderness Society in San Francisco. Now the industry is undergoing an "intense and painful transition" as the most inefficient mills close, he said. [154] (-) (mainstream)

Characterizations by Environmentalists towards the Forest Service: While the logging community perceived itself losing ground to a weakened Forest Service coopted by irrational and deluded environmentalists, the environmental community was not rejoicing, as one might expect. It seemed that the forest planning process had not endeared the environmental community to the Forest Service either. The agency's planning process, and the compromised plans for the Plumas and Lassen national forests, left environmentalists reeling. Moreover, mainstream environmentalists put forth an alternative forest plan they felt met their needs as well as the needs of the logging community. In its analysis of forest plan options, the Forest Service touted the Friends of

Plumas Wilderness' plan as the "environmentally preferred alternative," and praised it for providing "community stability" better than the other options, including its own. The agency then rejected the plan because it abolished clearcutting.

The environmental community was united in its belief that the Forest Service was hopelessly entrenched in its extractive past and was simply serving the political will of the pro-industry Reagan and Bush administrations. Further, while environmentalists initially had high hopes about the NFMA planning process, the reality, in their minds, was that the agency was using the process to justify its goal of continuing down a path of unsustainable timber harvests, with modest set-asides to comply with spotted owl habitat requirements. In the process of criticizing the Forest Service, however, mainstream environmentalists began to take notice of a similar pattern within the local logging community, whose spokespeople were equally unhappy with the agency, albeit for different reasons. By the end of Phase 1, environmentalists had abandoned hope that the Forest Service had any intention of significantly shifting its policies. Table 5.7 illustrates the divisive characterization framing that was occurring towards the Forest Service. It is worth noting that environmentalists occasionally complimented the agency, as when it revised a proposed timber sale to protect an environmentally sensitive area.

Table 5.7: Characterizations by Environmentalists towards the Forest Service

Peter Kirby of the Wilderness Society's resource planning and economics department regrets "the wonderful opportunity that's been squandered. Congress gave the Forest Service its day in the sun," he says, "and the agency blew it!" [9] (-)

"Until you find somebody who can actually read the computer program, the calculations are unavailable to the public," he continues. "In plan after plan we [enviros] eventually learn that its garbage in, garbage out. They [FS] are plugging in the wrong numbers and getting all the wrong answers about how much and how fast to cut." [9] (-)

"They [FS] have set aside for minimum management places that are a maze of roads and past logging activity, yet they don't do anything (protective) around sensitive fisheries and streams," said Michael Yost of Friends of Plumas Wilderness, a Quincy-based environmental group. "It's not logical to have a timber sale right in the middle of a minimum management and visual-retention area." [47] (-)

"Deer Creek Canyon is the crown jewel of the Northern Sierra and southern Cascade area," Evans said. "It's

absolutely unconscionable that the Forest Service plans to log in that area." [77] (-)

He complimented Plumas Forest officials on the La Porte District for changes they made in a salvage timber sale which environmentalists had appealed. Logging activities have been moved away from a watershed as a result of the appeal, said Baiocchi. "They [FS] did a hell of a job on it. It goes to show you that they can really improve their documents," Baiocchi said. [92] (+)

"If you ask me if there is any real change going on with the Forest Service, I will tell you that there is not. I don't think they are doing anything other than propaganda," said Quincy attorney Michael Jackson. "It allows them to tell a judge that they looked at spotted owl protections again, recently. How can you possibly study the cumulative impacts of timber sales on a Thursday afternoon and announce the results Friday morning? It leads me to believe that this is nothing more than bells and whistles and paper-pushing... again!" Jackson said. [121] (-)

Characterizations by the Forest Service: The Forest Service was careful to engage in almost no characterization framing during the forest planning process. There exists anecdotal evidence from interviews with various disputants that Forest Service personnel were, in fact, weighing in with off-the-record opinions about the draft forest plans and the process that was being followed. However that information is drawn from disputants' confidential reflections on the planning process and are not considered valid evidence of ongoing framing. Moreover, it is relevant to the forest planning process that, despite divisive characterization framing from both sides, there are few public characterizations from the Forest Service towards either environmentalists or loggers.

It is also telling that Forest Service frames, when they emerged, were more controversial. Part of the battle between environmentalists and loggers during the Timber wars was over which group could swing the Forest Service in its favor. As such, the groups were constantly monitoring the agency for clues as to which way it was leaning. Tables 5.8 and 5.9 below contain a full list of characterization frames evoked publicly by the Forest Service towards environmentalists and loggers respectively. One frame, it appears, is likely directed towards both groups but, interestingly, could be interpreted by each as directed primarily towards the other. It is therefore included below in both categories.

Table 5.8: Characterizations by Forest Service towards Environmentalists

"Wayne [Dakan] has been a conscience to us [FS]," says Lloyd Britton, who retired in 1987 after 15 years as Plumas Forest supervisor. "His rather extreme views as a preservationist represent a side of the community we have to look at. In some rare instances, we actually agreed." [29] (+)

"When we [FS] went from the draft plan to the final, we didn't do it in a void. What we came out with is a compromise, but virtually every solution to a complex problem hurts some interest. This is a plan for a lot of people, not for special interest groups [them]," Bennett said. [40] (-)

Table 5.9: Characterizations by the Forest Service towards Loggers

But any style of forest management, in the long run, seems to work out, Britton said. "I've seen some horrible logging practices over the years. They'd [timber industry/loggers] leave an awful looking mess when they were through. And yet, you go back today -- if it's been long enough -- and things are healing." [23] (-)

"When we [FS] went from the draft plan to the final, we didn't do it in a void. What we came out with is a compromise, but virtually every solution to a complex problem hurts some interest. This is a plan for a lot of people, not for special interest groups [them]," Bennett said. [40] (-)

"Let's face it -- they (loggers) would just as soon see the owls gone," said a Forest Service planner last year, when the forest plans still were being drafted. [46] (-)

"That's about 200 two-foot-diameter trees. And what about toilet paper for the other 28 million people already here? Where are these trees going to come from? We [FS] need to manage the land more wisely, yes, but timber is an important product from a national forest. We have to meet the demand. Loggers [them] are not cutting trees for the fun of it. They're cutting trees because somebody is telling them, 'I want the product,'" said Bennett. [47] (+)

Frame Analysis – Phase 1

Identity Framing: Baseline identity framing during Phase 1 of the local Timber wars shows marked distinctions among logging, environmental, and U.S. Forest Service identities. Moreover, these identities are clearly the dominant identities that were evoked by disputants in the local Timber wars, at least publicly and in the context of the forest planning process. Phase 1 identities are consistent with patterns observed during preliminary research and are aligned with conventional social science research in natural resources that recognize logging and environmental affiliations as representing distinct "communities of interest" – groups whose members are bound by a common set of underlying interests and goals (Kusel et al., 1996). Forest Service identity frames are consistent with organizational behavioral theorists that acknowledge the salience of organizational identities (Hogg et al. 2000).

Finally, there is no mention of the Quincy Library Group as a salient social identity, although an inclusive identity as members of a single community is salient among mainstream environmentalists although not among local loggers, at least within the context of forest planning. Pursuant to social identity theory, a common community identity cannot be considered a valid social identity at this point since it is not reciprocated by other group members. Tajfel and Turner (1986) remind us that social identities are categorizations that individuals choose for themselves and with which others concur. Since loggers apparently do not concur with the common or superordinate identity, it does not exist.

Characterization Framing: Baseline characterization framing during Phase 1 reveals both *divisive* and *inclusive* intentions on the part of disputants. Divisive characterization frames dominate the local Timber wars and are expressed consistently by loggers and environmentalists towards each other, by loggers and environmentalists towards the Forest Service, and, although rare, by the Forest Service towards both loggers and environmentalists. Divisive frames appear be designed to reinforce existing divisions between groups, reduce the influence of opposing groups on forest plan decisions, and exploit tensions between groups that may lead to new divisions.

By contrast, inclusive characterization frames are expressed almost exclusively by mainstream environmentalists towards the local logging community and appear to be designed to link local environmentalists and loggers together through a common sense of community, purpose and support for the Friends of Plumas Wilderness' proposed forest plan. However, while inclusive characterization framing by mainstream environmentalists was designed to build a bridge between the local logging and

environmental communities, the message was muddled by a divisive radical message that remained underground. Unfortunately, the radical message may have been attributed to the environmental community as a whole, making it difficult for mainstream environmentalists to bridge the gap.

Finally, analysis of characterization framing during Phase 1 reveals the convergence of *divisive* frames by both the logging and environmental communities towards the Forest Service. While the logging and environmental communities were at odds on most forest management issues, they were surprisingly aligned with regard to clearcutting policies and a common belief that the agency was incapable of effectively solving the growing number of forest-related problems. Despite this alignment, most in the logging community continued to distrust local environmentalists, to characterize them as extremists, and to blame them for Forest Service's policies. At the end of phase 1 we see no obvious shifts in identity frames between loggers and environmentalists that would suggest a mutually recognized common identity.

Chapter VI Frame Analysis and the Emergence of the Quincy Library Group

While the previous chapter documented the intractability of the conflict from a framing perspective, and provided a baseline from which to compare identity and characterization frames, the present chapter documents identity and characterization frames emerging as the conflict was transformed. Taken together, the chapters provide an objective assessment of frame change as the conflict moved from local intractability to local resolution. This change appears to coincide with the emergence of a common identity in the Quincy Library Group. QLG emerged at a time when the local environmental and logging communities had determined that the forest planning process was not working for either of them. Not only was the Forest Service's planning process a failure in the eyes of local environmentalists and loggers, the inability of the plans to adequately protect forest health or provide for community economic stability was seen as a travesty. By the fall of 1992, the agency's credibility with both communities was shot. Instead of relying on the Forest Service to satisfy its goals, the logging community turned to local environmentalists, whose alternative plan for the Plumas Forest provided a ray of hope not experienced with the Forest Service. While the plan did not maximize timber harvest volumes, it provided more timber than had previously been harvested from the Plumas Forest and more than enough volume to satisfy the logging community.

In Phase 2 of the local Timber wars, disputant frames are triggered to a large extent by the emergence of the Quincy Library Group, a locally grown response to the

failed forest planning process. Importantly, Phase 2 identity and characterization frames demonstrate a shift in salient social identities that can be systematically contrasted with baseline Phase 1 identity and characterization frames. This shift appears to indicate an alignment between traditional adversaries and the emergence of a new social identity that facilitated the resolution of the Timber wars at the local level. Similar to the previous chapter, this chapter follows an emergent and interpretative process to categorize and track identity and characterization frames.

Dominant Identity Frames

Consistent with Phase 1, Phase 2 social identity categories were determined by, 1) identifying disputants' in-group affiliations from specific collective references contained in the frames, 2) interpreting the meaning of first-person plural references (we, us, our), and 3) observing collective labels attached by the media within the context of a document. In Phase 1 of the conflict, three dominant social identity frames emerged – loggers, environmentalists and the US Forest Service (Figure 1 above). These frames are considered base-line data from which the researcher can track and compare changes that might emerge in Phase 2.

In Phase 2 of the Timber wars, a distinctly new identity frame emerged – a coalition of previous adversaries initially calling itself the "Library Group" after its chosen meeting place, and soon after the Quincy Library Group to indicate its location (the library is officially the Pitkin County Public Library). The new identity appears to replace the dominant existing identities, evidenced by a steep decline in the number of logger and environmental identity frames in Phase 2 (Figure 1) and, more importantly, the emergence of a new identity among key disputants. The quote below, typical of the

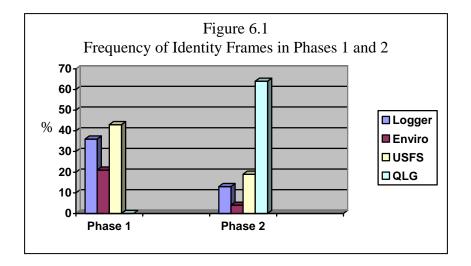
new identity frame captured in Phase 2, contains sufficient information to categorize the statement as an identity frame characteristic of QLG. It is also noteworthy that the disputant, County Supervisor Bill Coates, was a strong advocate and spokesperson for the logging community during Phase 1.

"None of us has ever done this before, and I'm sure we'll make mistakes," said Coates. "But the work we've done represents a four-letter word called 'hope.' We haven't had a lot of that in the past." (127-7/93)

Logging and environmental identities persist in Phase 2, although no longer dominant, and appear to be displaced by the new and more salient QLG identity. Forest Service identity frames, on the other hand, follow a pattern that is similar to Phase 1, although slightly "off message" due to the disconcerting presence of QLG. Finally, community identity frames appear in Phase 2 as well, with patterns shifting from a predominance of divisive and inclusive community frames coming from the logging and environmental communities respectively to a predominance of inclusive community frames coming from QLG members (who are former adversaries) in Phase 2.

As Figure 6.1 graphically illustrates, in Phase 1 of the local Timber wars, 36% of the identity frames were attributed to members of the logging community, 21% to the environmental community, and 43% to the Forest Service. In Phase 2, by contrast, 13% of the identity frames were attributed to members of the logging community, 4% to the environmental community, 19% to the Forest Service, and 64% to the Quincy Library Group. The drop in the frequency of Forest Service identity frames in Phase 2 can be explained in large part by the shift in attention away from the forest planning process, which provided many opportunities for the agency to explain and defend its proposed plans. Unlike vocal members of the logging and environmental communities, Forest

Service spokespeople did not join or publicly affiliate with the Quincy Library Group, at least while they were employed by the agency.



The discussion below follows a similar format as above for QLG, Forest Service, and recurrent logging and environmental identity frames. The discussion also includes an analysis of the use of a community identity frame. Tables 10-13 contain examples of QLG, Forest Service, and recurrent logging and environmental frames. Because they are infrequent, community identity frames are discussed individually and have not been placed into a table.

QLG Identity: According to QLG members interviewed in the research, spokespersons for the local environmental and logging communities began meeting in private in the fall of 1992. However, public acknowledgement of the coalition did not occur until the following summer when the group presented its forest management proposal to the greater community. Once the group went public with its "community stability" proposal, however, almost all of its energy was consumed in explaining the group's formation, defending its plan, and justifying its chosen path to work collaboratively. These descriptions of solidarity played well with the local and regional

media, in part because they were so unexpected and in part because they were so impassioned. They also played well with local and national politicians, who were growing weary of the seemingly intractable Timber wars. That a group of environmentalists, loggers, and local officials could step across ideological boundaries and overcome monumental differences provided hope for other forest-dependent communities facing similar challenges.

Table 6.1 contains examples of the 68 QLG identity frames that were virtually nonexistent in Phase 1 of the Timber wars. The new identity frames illustrate the alignment of previous identities around an alternative forest plan that provided mutual benefits. As the plan, and QLG's very existence, is explained and defended in the public arena, the group's identity is solidified.

Table 6.1: QLG Identity Frames

The July 17 meeting in Susanville, like an earlier meeting in Quincy, was designed to gain "bipartisan community support" for the proposal, Self said. "We [QLG] know that not all timber industry people will support it," he said. "And neither will all the environmentalists," said Jackson. "They think it weakens their position." [164]

The Quincy Library Group has changed the community's approach to other issues, according to Jackson. "It [QLG] has gone a long way toward unifying people," Coates agreed. "Before the project, each camp had its own restaurant. It's not like that anymore." [199]

The plan evolved from three years of painstaking negotiations by the 41-member Quincy group that had taken to meeting in the town library in hopes that the quiet atmosphere would discourage early inclinations to shout at one another. "We [QLG] were like the Israelis and the Palestinians," said Howe. [224]

Bill Coates, a Plumas County supervisor who co-founded the coalition, called the funding award "a stunning breakthrough." "We've [QLG] managed to get rid of 'us versus them.'... If we're successful doing it here, it can happen anywhere," Coates said. [226]

And up in Tehama County, the Quincy Library Group continues to meet. If its proposals were made policy, forester Nelson says, everyone would win - environmentalists, loggers, local residents and business owners. "We [QLG] got the concerns of a very diverse group satisfied," he [Nelson] points out. "When was the last time government did that for us?" [238]

Forest Service Identity: Forest Service identity frames in Phase 2 of the Timber wars are similar to Phase 1 frames. For the most part, in both phases agency officials spoke with a common voice and delivered a positive message. However, while Phase 1

identity framing occurred in a context that the Forest Service led and controlled – the forest planning process – Phase 2 framing occurred in a context that was unfamiliar and often disconcerting. QLG's sudden emergence and the unique challenge it presented for the Forest Service placed enough strain on the agency that its previously consistent message regarding the familiar planning process grew muddled. Moreover, while the agency outwardly supported the group's efforts, internally it resisted the obvious challenge to its authority. As QLG pressured the Forest Service to implement its plan, the agency was compelled to explain not only its public support of the group but its inability or reluctance to fully implement the group's plan.

As mentioned, the frequency of Forest Service organizational identity frames (Table 6.2) is markedly lower in Phase 2 than in Phase 1, primarily due to a shift in attention from the forest planning process to the Quincy Library Group. Nevertheless, agency spokespersons' organizational identities remained salient and intact, at least publicly. Table 6.2 is illustrative of the 20 Forest Service identity frames captured in Phase 2 of the Timber wars and reveals similarities and differences with Phase 1.

Table 6.2: Forest Service Identity Frames

The loss of 150 full-time positions since then has left the Plumas forest understaffed and overworked, said Calvin B. Bird, Thornton's assistant. "We [FS] totally support the (Quincy Library Group). We're killing ourselves trying to find ways to do something, but we have to obey the law," Bird said. Thornton also wants time, saying it would take at least 18 months to implement the Quincy group's proposals. [190]

Matt Mathes, a spokesman for Regional Forester Ron Stewart in San Francisco, called the stalemate an unfortunate irony. Environmental concerns caused a reduction in timber harvests, which reduced Forest Service budgets and forced personnel cuts. "The very things that led the Quincy Library Group [them] to meet in the first place are the very things that are limiting our [FS] ability to respond," Mathes said. [190]

Local Forest Service officials are less enthusiastic about the group, seeing it as citizen involvement run amok. "We [FS] have been involved with the Quincy Library Group [them] for almost one year," Leonard Atencio, supervisor of the Lassen National Forest, wrote in an agency memo circulated last January. "This group is not going to be easy to work with." [198]

The challenge for the Forest Service is implementing a forest management alternative developed outside the agency, says Stewart, the former regional forester. "We're [FS] used to setting the agenda. This is a whole new way of doing business." So far, however, the Forest Service hierarchy has done little more than talk about it. "We're [FS] starting from ground zero," Stewart says. "We don't have anything else like this, but we're committed to making it work as long as it meets our legal needs and the needs of the scientific community." [215]

Lassen National Forest officials plan to sell the 2.5 million board-feet of Barkley timber to the highest bidder Wednesday. The plan has drawn conflicting appeals from U.S. Reps. Wally Herger, R-Marysville, and Vic Fazio, D-West Sacramento. "We [FS] have an opportunity to reduce the fire danger and create some jobs. … To not (sell this timber) we'd be jeopardizing our professionalism," said Leonard Atencio, Lassen National Forest supervisor. [231]

Recurrent Identities – Loggers and Environmentalists: Logging and environmental identity frames, while recurrent, are relatively uncommon (and no longer dominant) in Phase 2 of the local Timber wars (tables 6.3 and 6.4 below). Moreover, the majority of recurrent logging and environmental identity frames contain a common theme - they are evoked primarily by QLG spokespeople to reflect on and explain the dramatic changes that have occurred, to distinguish individual roles within QLG, and to defend themselves against challenges from colleagues skeptical of the group. Finally, a small number of identity frames are evoked by skeptical colleagues who did not embrace the QLG coalition. While these frames are minimal in Phase 2, they increase dramatically in Phase 3, especially within the outside environmental community. Several of the environmental identity frames captured in Table 6.3 below allude to growing tensions within the larger environmental movement over the emergence of the Quincy Library Group. These tensions eventually led to a break between QLG and non-QLG environmentalists and a subsequent escalation of the conflict over QLG's efficacy. Examples of the 14 recurrent logging identity frames and five recurrent environmental identity frames are captured below.

Table 6.3: Recurrent Environmental Identity Frames

"At first, quite frankly, we [enviros] didn't trust [timber industry] them," said Jackson of the timber industry representatives, "and I'm sure they felt the same way about us. But we've [both] all learned over the past few months that we're not always going to get our own way, and we've come to a realization that perhaps the best way to reach a solution is to work from the ground up." [164]

At a forest activists' conference in Ashland [OR] in February, consensus groups were hotly debated. Jackson sounded combative: "My card as an environmental terrorist [us] is about to be revoked. The loggers [them] in my community want me to tell you the following things: 'Clearcutting was wrong. Thank you for your help. It's gone now, and we're glad.' The loggers in my community want to tell you that the streams were silting. They knew they were silting

because they fished there. They didn't design those sales." [198]

"The environmental movement is so young it underestimates its own influence," Jackson says. "Environmentalists are afraid they'll be overwhelmed by the superior money and influence of the extractive industries." Instead, he said, environmentalists [need to learn how to win – and then reach out to a large constituency and move forward. [208]

For Friends of Plumas Wilderness and other environmentalists, the plan they hammered out with the timber industry is nothing but good for the forest, says Jackson. "We [FPW] retain 100 percent of our roadless area. We apply scientific standards to all of our riparian habitat. And we don't export logs out of our towns. It's everything we ever wanted." [215]

Loggers once tossed Jackson out of a bar where he'd been gloating about winning the battle for designation of a nearby wilderness. "It had reached the point that most of the logging community wouldn't set foot in here [Morning Thunder Cafe]," he says, looking around the laid-back coffeehouse, "and environmentalists wouldn't set foot in Bob's Fine Foods [blue collar diner]." [242]

Table 6.4: Recurrent Logging Identity Frames

"I don't know anywhere else in the United States where an entire county has gotten environmentalists [them] and people interested in jobs [us] to agree on anything. All at once there are no sides. This is a brand-new day," said Coates. [179]

And mistrust toward Jackson still abounds in the mountain communities, particularly among families whose roots in the timber industry sink four and five generations deep. "He took us [timber industry] right to the bottom, and now he's going to save us?" said Donna McElroy, a logger's wife who is one of the few to speak out against the coalition. [188]

Other stakeholders joined the trio, not wanting to be out of a loop that included the influential Sierra Pacific. "It's been one of the smartest things we've ever done," said Frank Stewart, resource manager for Collins Pine Co., a family-owned timber company in nearby Chester that forbids clearcutting. The Quincy group adopted Collins' method of selective logging - taking only those trees that are diseased or whose growth rate has slowed, while leaving the most vigorous. [188]

Once the work begins, Quincy Library Group members plan to be looking over everybody's shoulder. "It's not any different from what Friends of Plumas Wilderness [them] have always done except that this time we're going to be standing right next to them," says Nelson, the Sierra Pacific forester. [215]

"We [loggers] were under a lot of pressure to break with the group," said Bill Howe, forest manager for Collins Pine, one of the timber companies that persuaded the U.S. Forest Service to keep [salvage] logging off-limits around Deer Creek. "Industry people were calling, saying, 'Are you crazy, or what?' But three years ago, we [QLG] decided to speak with one voice," Howe said. "It was a matter of principle." [224]

Recurrent identities by local loggers and environmentalists appear to be "receding" in salience and are being replaced by a new affiliation with QLG. However, loggers and environmentalists who joined QLG did not abandon their previous identities, as these frames indicate. In fact, it appears that identities have taken on new dimensions for both loggers and environmentalists who continued to affiliate with their respective groups while adopting a new and (in their minds) congruent identity. Of course, the

perceived inconsistencies of their actions were not lost on many of their peers outside of the community, who decided not to join or support the group.

Community Identity: Consistent with QLG identity frames described above, community identity frames in Phase 2 are entirely *inclusive* of the larger community and are expressed by both loggers and environmentalists, who are now QLG members. In fact, community identity frames found in Phase 2 are mostly inseparable from QLG identity frames since the group was in many ways representing the larger Plumas County community. In this section, however, I analyze identity frames that explicitly reference a "community" affiliation, even though they may also reference other affiliations or first-person plural pronouns such as *we*, *us*, and *our*, that could be interpreted as community identity affiliations.

Community identity frames in Phase 2 are remarkably consistent in their message regarding the need to work together for the benefit of the larger whole. In the early days of the group's formation, QLG members were often reflective of the deeper meaning behind their willingness to collaborate. Community frames from this period offer compassionate reflections on the way things were in the past, such as Michael Jackson's insights into the larger "social experiment" the group had embarked upon. In this frame, Jackson makes a distinction between QLG and the larger community, and attributes the efforts of QLG to helping the community realize its potential:

We sat down, and we worked it out. In doing so, we began rediscovering our sense of community. The conversations, both formal and informal, that have occurred as a result of the efforts of the Quincy Library Group have been very positive. They have made us realize how dysfunctional a community we were before, always fighting each other, instead of trying to move forward on common goals. The social experiment of working together as neighbors is perhaps as important, or maybe more important, than the forestry experiment we are now proposing. [170]

Community identity frames also allowed QLG spokespeople to acknowledge the important link between economic and environmental needs, a topic that local environmentalists pursued and loggers avoided. Either/or distinctions between jobs and owls were perpetuated within the logging community, it appears, as long as logging advocates perceived a threat from the environmental community. A common community identity may have reduced the perceived threat and enabled the logging community to acknowledge the link. In the following community identity frame, Bill Coates, a Republican and strong timber industry advocate, emphasized a directive from President Clinton to protect forests *and* forest-dependent communities:

"We think Congress is tired of getting hit from both sides. Clinton asked us to keep our environment healthy and our communities alive. That's exactly what we are doing," says the Plumas County Supervisor Coates. [179]

Finally, community identity frames were evoked by QLG spokespeople to define and/or reinforce intergroup boundaries between the community, united in support of the QLG forest plan, and the Forest Service, which was supporting its own plan. Consistent with QLG characterization frames discussed below, the community identity frames discussed here provide opportunities to create in-group/out-group distinctions that are particularly relevant in the context of the Timber wars. The most relevant distinction, it appears, is the one between the community and the agency. In the following frames, the three founders and principal spokespeople for QLG, Mike Jackson, Tom Nelson, and Bill Coates, respectively framed community identity by drawing a distinction between the community and the Forest Service:

Jackson: In trying to find resolutions to the issues on which we disagree, we have discovered many important issues on which we all agree. For example, we agree... that speaking as a community, we can and should compel the Forest

Service to change to adapt to better meet the community's economic and environmental needs. [170]

Nelson: I told Michael that what environmentalists and what we as an industry want are not far apart. Everyone wants community stability. We agreed that in order for timber-dependent communities to survive, we needed different policies from the federal government. These communities rely heavily on the Forest Service for the timber program, recreation and for employees who live there and are part of their society. [199]

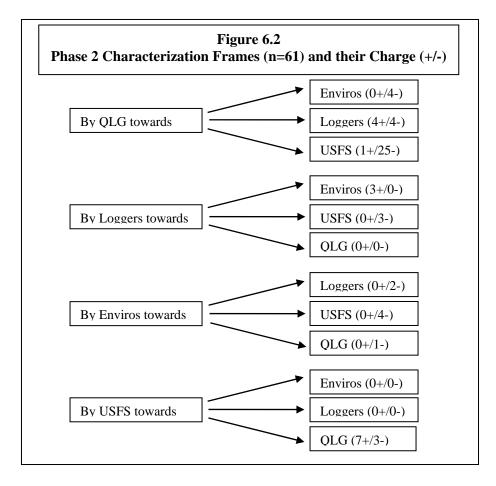
Coates: It occurred to us at the same time that we could not rely on the federal government to solve our problems. Eventually, every community has to take matters into its own hands and control its own destiny. [199]

Dominant Characterization Frames

Consistent with Phase 1, characterization categories in Phase 2 were determined by, 1) identifying collective out-group references contained in the frames, 2) interpreting third-person plural references such as *they*, *them*, and *their* and 3) observing collective labels attached by the media within the context of a document. Using document analysis and naturalistic inquiry techniques (Altheide 1996; Lincoln and Guba 1985), characterization frames were grouped into common categories based on the group engaged in the characterization and the group targeted. Phase 2 characterization frames fell into the following categories:

- Characterizations by QLG towards environmentalists/loggers/Forest Service
- Characterizations by loggers towards environmentalists/Forest Service/QLG
- Characterizations by environmentalists towards loggers/Forest Service/QLG
- Characterizations by Forest Service towards environmentalists/loggers/QLG

Characterization frames were then assigned either positive (+) or negative (-) charges based on their intent. Positive charges were interpreted as *inclusive* frames while negative charges were interpreted as *exclusive* or divisive frames. These distinctions are represented in tables 6.5-6.10 and are explored below. Figure 6.2 provides a breakdown of frequencies and charges associated with Phase 2 characterization frames.



Characterizations by QLG: Not surprisingly, QLG members actively engaged in characterization framing in Phase 2 of the conflict, with framing directed towards environmentalists, loggers, and the Forest Service (Table 6.5). Because of the differences in these frames, however, they will be considered in separate discussions and represented in separate tables. Moreover, characterization frames directed towards environmentalists and loggers are relatively uncommon in the data (four and seven respectively) compared to those directed towards the Forest Service (26).

Characterizations by QLG towards environmentalists are consistently negative and divisive, although not in a provocative way. Moreover, the characterization frames appear to offer an explanation or opinion as to why some environmentalists were skeptical of QLG while others freely joined the group. It is worth nothing that three of

the four characterization frames in Table 6.5 originate from Michael Jackson, the principal spokesperson for QLG environmentalists. Jackson, an outspoken environmental attorney, was fond of publicly chiding his "opponents," and of providing juicy sound-bites for the media. That he was given a forum by the media to talk about fellow environmentalists was not surprising.

The fourth characterization frame in the table originates from Bill Coates, timber industry advocate, County Supervisor, and QLG cofounder. Coates' frame is indicative of the perception among many in the logging community that environmentalists were part of a self-perpetuating "culture of conflict" that was needed to keep funds flowing into the organizations' coffers. This characterization frame is considerably more common in Phase 3 of the Timber wars as advocates of federal legislation to enact QLG's forest plan attempted to discredit environmentalists who opposed it, and to ascribe self-serving motives to their actions. One of the more compelling aspects of this frame, at the time, was that environmentalists skeptical of QLG tended to work for medium to large organizations with significant budgets, while local environmentalists, who formed the core of QLG, were mostly volunteers. These distinctions were not lost on Coates and others engaged in discrediting their opponents.

Table 6.5: Characterizations by QLG towards Environmentalists

The July 17 meeting in Susanville, like an earlier meeting in Quincy, was designed to gain "bipartisan community support" for the proposal, Self said. "We know that not all timber industry people will support it," he said. "And neither will all the environmentalists," said Jackson. "They think it weakens their position." [164] (LG-) (ENV-)

Yet some fellow environmentalists are suspicious of Jackson's efforts to broker a deal with Sierra Pacific and the Forest Service. "The environmental movement is so young it underestimates its own influence," he said. "They're afraid they'll be overwhelmed by the superior money and influence of the extractive industries." [198] (ENV-)

Not everyone supports the Quincy Library effort. Jackson referred to one group of opponents as "right-wing people who believe this is a left-wing plot to weaken the moral fiber of loggers and who support the cutting of more trees." He described the other foes as a "small, left-wing environmental contingent that believes the plan is too kind to loggers." [199] (LG-) (ENV-)

Coates suggested that large environmental groups may be "withholding support because their dues are derived from

things not working. If we can do something to make the environment better, it threatens their ability to grow and thrive. We hope our fears are unfounded." [199] (ENV-)

Characterizations by QLG towards loggers (Table 6.6) are a mixture of positive-inclusive and negative-divisive frames. For the most part, QLG members were attempting to distinguish between those members of the logging community whose wellbeing was at stake and who were considered a necessary component of their plan, and those members who appeared to show very little interest in QLG's broader goals and continued to view the group as a threat. The former group was seen primarily as a population of local loggers who were employed on a seasonal basis to work in the woods. The latter group was seen as people representing trade organizations that lobbied the Forest Service for larger and larger timber harvests, extremists on the logging side of the chasm, and executives of large timber companies who were perceived as indifferent to community stability.

Characterization frames evoked here are similar to and appear to be an extension of characterization frames evoked by local environmentalists in their attempts in Phase 1 to appeal to the local logging community, while linking the timber industry and Forest Service in an unholy alliance. Table 6.6 contains examples of inclusive and divisive characterization frames evoked by QLG spokespeople towards those in the logging community.

Table 6.6: Characterizations by QLG towards Loggers

Jackson, an active participant in the seventh Forest Congress and numerous national environmental campaigns, said he got involved in the local proposal as a member of a timber-based community. "These are my neighbors," Jackson said. "My heart doesn't bleed for Sierra Pacific industries, but it bleeds for the folks getting \$12 an hour who don't have any alternatives for work." [163] (LG+)

"I hear the logger bemoaning the fact that the private lands are getting pounded, but they have gone about aggressively advertising to buy that timber," says Linda Blum, an environmental advocate who signed "Independent Thinker" next to her name on the Quincy Library Group roster. "For them to now bemoan that is pretty silly." [195] (LG-)

"Rural areas were getting beaten up badly in the national arena," Coates said. "The national leadership of the timber

industry has not been particularly perceptive and farsighted, so rural communities needed their own strategy." [198] (LG-)

Not everyone supports the Quincy Library effort. Jackson referred to one group of opponents as "right-wing people who believe this is a left-wing plot to weaken the moral fiber of loggers and who support the cutting of more trees." He described the other foes as a "small, left-wing environmental contingent that believes the plan is too kind to loggers." [199] (LG-)

"I would much rather live with the rednecks than the Brie eaters, even though I tend to represent the Brie eaters in court and agree with them on environmental issues," said Jackson, who came to California from rural Oklahoma. "I want Quincy to survive because I want to live here." [224] (LG+)

Characterizations by QLG towards the Forest Service in Phase 2 (Table 6.7) are similar to characterization frames by the logging and environmental communities in Phase 1 and reveal common tensions with the agency. Neither loggers nor environmentalists believed that the agency was adequately addressing its concerns and both let it know, in no uncertain terms. This pattern continued in Phase 2 but now the groups were united as the Quincy Library Group. Moreover, divisive characterizations by QLG towards the Forest Service took on an added dimension. Loggers and environmentalists were led to believe during the forest planning process that the Forest Service was attempting to balance their interests. Since QLG's plan accomplished this balance, group members assumed the Forest Service would enthusiastically embrace it.

Moreover, loggers and environmentalists believed that their long-standing conflict was the principal obstacle preventing the agency from developing and implementing a timely forest plan. By removing the conflict, they assumed that they had cleared the way for agency action. Neither occurred. While the agency publicly embraced QLG's forest plan, it was paralyzed to do anything with it. Instead, it continued to follow its chosen plan, which was in trouble shortly after it was approved. QLG's response was consistent with Phase 1 characterizations by both the logging and environmental communities — attack the agency for its ineptness. Divisive characterization frames by QLG towards the

Forest Service were common in Phase 2. In fact, 25 of 26 characterization frames were negatively charged. Table 6.7 is illustrative of these frames.

Table 6.7: Characterizations by QLG towards the Forest Service

The five-year plan for managing 2.5 million acres of federal timber land grew out of a common belief that the U.S. Forest Service has failed to provide either healthy forests or stable local economies. "Forest Service management today is terrible forestry. They're cutting our future," said Frank Stewart, a spokesman for Collins Pine Co. of Chester. [163] (FS-)

Since then, the group has waited for their efforts to be translated into action. "We can't get (officials of) the Plumas National Forest to do anything but talk," said Michael B. Jackson, a Quincy environmental attorney and a founding member of the group. "They tell us they like our program but they can't do anything about it. They ought to change their name to the U.S. Lip Service." [190] (FS-)

Plumas County Supervisor Bill Coates, also a coalition co-founder, shares Jackson's conclusion. "The Forest Service's preoccupation with that piece of ground in a critical watershed area seems like an effort to cause disharmony," Coates said. [231] (FS-)

But Michael Jackson, a Quincy attorney and co-founder of the Quincy Library Group, maintains that the 2.5 million-board-foot timber sale is a well-conceived wedge driven by Forest Service officials to divide the coalition. "I have no doubt the Forest Service's sole goal is to divide us, so it can go back to being in charge of a dying empire," Jackson said. [231] (FS-)

"The Quincy Library Group has demonstrated that even when all of us get on the same side and push, it doesn't mean the Forest Service will do anything," says Linda Blum of the Sierra Nevada Alliance, an umbrella organization encompassing grassroots coalitions like the Quincy Library Group. "We don't have a federal partner; we have a federal sparring partner." [242] (FS-)

Characterizations by Loggers: Characterization framing by the logging community in Phase 2 decreased significantly compared with Phase 1. This was primarily due to the emergence of the Quincy Library Group as a dominant identity among members of the logging community and a subsequent decline in the salience of a logging identity. In other words, characterizations were now coming from QLG's logging members instead of the traditional logging community, as indicated from the above discussion. In addition, the characterizations themselves changed. Although their affiliations with the logging community are not as salient as their affiliations with QLG, they sometimes participated in characterization framing *from a logging community perspective*. Logging spokespeople sometimes found themselves explaining, reflecting on, or simply justifying their actions to reach across ideological boundaries and work

with their adversaries. In three of the frames below (Table 6.8), loggers characterize environmentalists in *inclusive* ways through reflections on their perceptions of environmentalists' motives and actions. The fourth frame is an attempt by a logger to convince fellow loggers of the benefits of supporting the QLG plan (while criticizing the Forest Service). In each example, the frame is originating from an individual wearing their logging community hat.

Table 6.8 provides examples of loggers' inclusive characterizations directed towards environmentalists and divisive characterizations directed towards the Forest Service. Inclusive characterizations of environmentalists indicate a reconciliation of some sort based on past misperceptions of either the environmental community as a whole or of specific individuals. This type of characterization was relatively common in interviews conducted between 1998 and 2005 with QLG members from both the logging and environmental communities. Divisive framing directed towards the Forest Service is consistent with Phase 1 characterizations of the agency.

Table 6.8: Characterizations by Loggers

No one is positive of the environmental effects, either, but both timber operators and local environmentalists are betting that they will be better than the recent past. "US Forest Service management today is terrible forestry. They're [FS] cutting our future. If we [loggers] don't go with this program [QLG], that's what you have coming at you," says Frank Stewart, a resource planner with Collins Pine Co. in Chester. [163] (FS-)

"I wished them [enviros] ill," Baremore said of Jackson and his allies. Yet, last fall, Baremore wound up supporting Jackson's bid to withdraw two timber sales that would have logged relatively undisturbed areas of the Plumas National Forest. Jackson, meanwhile, has championed Baremore's goal of expanding local sawmills' access to federal timber. [188] (ENV+)

"What's amazing to me is how much I relied on perception," Baremore said. A fellow participant, Mike Yost, came to mind. Yost, a forestry instructor at the Feather River Community College in Quincy, is an avowed environmentalist who has helped block timber sales in the region. "I thought he was intent on taking every stick of wood out of circulation he possibly could," Baremore said. "I was stunned to find out he had worked for the Forest Service, that he thought there was a time and a place for logging." [188] (ENV+)

Sierra Pacific officials consider their compromises with environmentalists a means of keeping their sawmills open, says Nelson. "We're [timber industry] in business, and we want to stay in business for a long, long time. We've got to get along with our neighbors." [215] (ENV+)

Characterizations by Environmentalists: Characterization framing by the environmental community in Phase 2 also decreased significantly compared with Phase 1. Similar to the logging community, this was primarily due to the emergence of the Quincy Library Group as a dominant identity among local environmentalists and a subsequent decline in the salience of an environmental identity. One difference between loggers and environmentalists in this regard, however, is that not all in the environmental community endorsed the QLG proposal and in some cases even challenged their peers. Those individuals retained their affiliations with the conventional environmental community. As such, characterization frames by environmentalists in Phase 2 (Table 6.9) originate both from individuals affiliated with QLG and those not affiliated.

Characterization framing by environmentalists in Phase 2 is directed towards loggers, the Forest Service, and the Quincy Library Group. While detecting patterns is difficult with so few frames to examine, frames originating from QLG affiliates are generally inclusive of the logging community and tend to be reflective of past misperceptions of loggers' motives and actions. Frames originating from non-QLG affiliates are generally divisive towards the timber industry, the Forest Service, and QLG. An exception to this pattern are characterization frames from environmentalists who were on the fence regarding QLG. In Table 6.9 below, environmentalist Steve Evans is strongly critical of the Forest Service for attempting to destroy community consensus. A Sacramento-based environmentalist, Evans was a supporter of QLG although not directly affiliated. If Evans were a member of the group, these frames would be categorized as characterizations by QLG towards the Forest Service. It is important to note in Table 6.9 the seeds of discontent among environmentalists not affiliated with QLG. As the QLG

case indicates (Chapter IV), a break occurred between QLG environmentalists and those not affiliated with the group over the decision to seek federal legislation. Characterization framing among environmentalists in Phase 2 of the timber wars hints at this pending split.

Table 6.9: Characterizations by Environmentalists

And while he applauded local efforts to resolve disputes over natural resources, Edelson said the Plumas coalition [QLG] made no attempt to involve national environmental groups. "We're talking about public land. All citizens have a stake in how it is managed," said Edelson. [163] (QLG-)

"At first, quite frankly, we [enviros] didn't trust them," said Jackson of the timber industry representatives, "and I'm sure they felt the same way about us. But we've all learned over the past few months that we're not always going to get our own way, and we've come to a realization that perhaps the best way to reach a solution is to work from the ground up." [164] (LG+)

"I would say this [salvage logging] is bad for forest management policy in California," said Louis Blumberg, assistant regional director for the Wilderness Society in California. "And I would say it's a cynical attempt by big timber [them] and its friends in Congress to prey on the public's fear of wildfire to stuff their coffers." [218] (FS -) (LG-)

The Barkley sale is a clear signal that the Forest Service is willing "even eager" to destroy community consensus, he said. "I thought the Forest Service was tired of confrontation and controversy. I thought the agency supported community consensus and had entered a new era where good science and public concerns mean something," said [Steve] Evans. [231] (FS-)

But, as [Steve] Evans noted, the sale may well have destroyed the cooperative spirit that could ultimately have saved our local forests and the logging economy. "Why should I spend my time working to achieve fragile alliances which the Forest Service is going to dynamite? In the future, I may be too busy fighting lawsuits to participate," Evans said. [231] (FS-)

Characterizations by the Forest Service: The Forest Service chose not to engage in the contentious dialogue that defined the timber wars during Phase 1. The agency stayed on point and, with few exceptions, managed to avoid characterizing the other parties, either divisively or inclusively, at least in public. The agency's strategy changed during Phase 2, however, in part because it had little choice but to acknowledge QLG, which had landed in its lap. To be sure, the approach QLG was suggesting — replacing the agency's forest plan with its own — was so unconventional that the Forest Service struggled for a response. In the meantime, QLG was gaining attention and praise from members of Congress and the Clinton Administration. President Clinton's Northwest Forest Conference (April 1993), and the President's admonition to disputants

to "get out of the courtroom and into the meeting room," boosted the group's credibility and made it difficult for the agency to ignore. However, while Clinton's words provided a direction for community members, it did little to address Forest Service conventions.

While Forest Service characterizations of QLG are limited, they are nevertheless powerful. The agency's challenge was in showing support without appearing to hand over the reins. Unfortunately, as Table 6.10 illustrates, the agency's characterizations are both *inclusive* and *divisive*, resulting in a confused message to QLG and those watching.

Table 6.10: Characterizations by the Forest Service

Although the community proposal is not yet a formal, signed document, Plumas Forest Supervisor Wayne Thornton was enthusiastic about its potential. "Something really unique and special has gone on here. All sides are applying equal pressure to the Forest Service, but they're [new coalition] singing from the same song sheet, and that's music to my ears," he said. [163] (QLG+)

Local Forest Service officials are less enthusiastic about the group, seeing it as citizen involvement run amok. "We have been involved with the Quincy Library Group for almost one year," Leonard Atencio, supervisor of the Lassen National Forest, wrote in an agency memo circulated last January. "This group is not going to be easy to work with." [198] (QLG-)

G. Lynn Sprague, Stewart's replacement as regional forester, made a similar commitment in a September letter to Coates. "I am very supportive of this kind of community interest and involvement and very much want to see some successes." [215] (QLG+)

Within local Forest Service ranks the plan has met with mixed reviews. Some employees are as frustrated with their agency as community group members are and have welcomed the opportunity for real change in forest management. Others resent the intrusion of what they consider nonprofessional outsiders. "This group does not have all the answers, and they don't have the expertise they claim," says Lassen National Forest Supervisor Leonard Atencio. [215] (QLG-)

"Here's a group that's not threatening each other or challenging the authority of the federal government," said a spokesman for Glickman. "They are the kind of model of consensus-building that the [Clinton] Administration wants to encourage." [224] (QLG+)

Frame Analysis – Phase 2

Identity Framing: Document analysis of identity frames in Phase 2 revealed distinct changes in identity framing compared to Phase 1. First, document analysis revealed the emergence and stability of a new social identity – the Quincy Library Group – made up of individuals who had previous affiliations with the local environmental and logging communities. As mentioned, this frame was not present in Phase 1. Second,

while environmental and logging identity frames are present (recur) in Phase 2, document analysis verified a sharp decline in the frequency of those frames as the QLG identity became more salient. Third, document analysis revealed the convergence of a community identity that local environmentalists initially framed in Phase 1 and that loggers eventually came to embrace in Phase 2. Finally, document analysis also reinforced the presence and stability of the U.S. Forest Service's organizational identity in both phases 1 and 2. These findings are consistent with patterns observed during preliminary research.

Identities among most local environmentalists and loggers appear to have shifted from in-group/out-group distinctions to the emergence of a common identity in the Quincy Library Group. Moreover, a common community identity is now reciprocated by both loggers and environmentalists and therefore satisfies Tajfel and Turner's (1986) requirement that social identities are self categorizations with which others concur. Community identity also appears to fit Kusel's definition of a "community of place" (Kusel et al., 1996) in that group members are defining community not as people who share a common set of interests but as people who share a common space, which they define as "community." Forest Service identity frames continue to be consistent with organizational identity theorists (Hogg et al. 2000).

Characterization Framing: Characterization frames also shifted in Phase 2 compared to Phase 1. Most striking, divisive characterization frames evoked by the logging community towards environmentalists – common in Phase 1 – disappeared entirely with the emergence of the Quincy Library Group and were replaced by inclusive characterizations of environmentalists that were QLG members. In addition, divisive frames by both environmentalists and loggers towards the Forest Service continued, but

were now emanating from a combined source – QLG. And while the Forest Service engaged in little characterization framing during Phase 1, it was compelled to explain the emergence of QLG and its plan in Phase 2. While characterization framing by the Forest Service continued to be limited, agency spokespeople nevertheless sent a mixed message to the public through both inclusive and divisive characterization frames.

Finally, characterization framing by the environmental community hints of a split between environmentalists affiliated with QLG and those not affiliated. First, QLG characterization frames are inclusive of the logging community while non-QLG characterizations are exclusive and divisive. QLG's empathy towards the local logging community and its acknowledgment of the role the logging community would play in implementing its forest plan was generally not shared by non-QLG environmentalists. Second, non-QLG environmentalists were beginning to challenge the efficacy of QLG's plan, in part because of the growing perception that they could get better results through administrative actions now that the political pendulum had swung in their direction. This split would eventually lead to a chasm between QLG and non-QLG environmentalists that emerged as a "locals versus nationals" debate in which QLG environmentalists' identities as valid members of the environmental community were contested.

Identity and characterization frames in phases 1 and 2 of the local timber wars have markedly changed, especially the emergence of the Quincy Library Group as a new and dominant identity frame for both loggers and environmentalists. From a social identity perspective, this change should result from a changing context since identity is context dependent. If so, the following chapter should reveal the contextual forces facilitating that change.

Chapter VII External Forces: the Role of a Changing Context

As chapters V and VI demonstrate, social identities among disputants in the local Timber wars shifted from disparate identities tied to communities of interest – loggers and environmentalists – to a common and new identity as members of the Quincy Library Group. In addition, we see among loggers a shift in their description of a community identity from an identity exclusive of local environmentalists to one that is inclusive. From the perspective of social identity theory, these changes should be tied to a changing context. As we recall from chapter II, social identities vary in order to better represent the individual's changing relationship to reality, and are expandable and contractible across different domains, resulting in transformations in the definition of self (Brewer 1991). Most studies of social identity and context explore a shift in identity salience resulting from the movement of the individual from an existing to a new social reality. This research, as we recall, explores how the complex and dynamic context surrounding the conflict can shift, causing social identities to align in ways that facilitate a transformation from conflict to cooperation.

This chapter explores the context surrounding the conflict and its dramatic change over time. If a changing context is responsible for the alignment of identities, evidence of it should emerge from the descriptions below. QLG biologist Linda Blum (pers. comm., 3-3-99) captured much of the contextual dynamics in an interview focusing on the conditions that created an environment that was ripe for a truce in the local timber wars:

It's an interesting sequence of events. In the summer of '92, this part of California had a long period of drought – almost seven years at that point. And it was starting to show that and decades of fire suppression, grazing and logging, and other management activities had come to a head. We were starting to have big areas of mortality in the forests and there were about six or eight large wildfires in this part of the Sierra Nevada that burned probably 30 to 35 thousand acres. And, during that summer is when we first started realizing you can't just say, "Don't log it." You've got to treat the problem that leads to these big, catastrophic wildfires. Meanwhile the local political drumbeat was this thing of environmentalists as a whole are anti people – they want the forest to burn up, you know, the end of the world kind of stuff. Also in the summer of '92 is when the Forest Service published the CASPO report – the California Spotted Owl technical assessment that was intended, and we helped make it, to establish a new management direction for the forests. Some people perceived that to be a total lock-up of the timber supply. Others of us saw that there was considerable room to do other stuff – that there was logging to be done and that it did not mean that the mills in Loyalton and Susanville, you know, that everything had to come to a grand halt. And, so it wasn't just this great, courageous, out-of-the-blue step that somebody from Sierra Pacific Industries approached the environmentalists. There were a number of factors rolling up to that.

Shifting context provides a plausible albeit partial explanation for identity alignment, provided that contextual shifts move disputants towards alignment rather than away from it. In exploring the shifting context surrounding the QLG case, it appears that it had two overall effects, which together create conditions ripe for alignment to occur. The contextual influences that created these conditions are complex and dynamic, and need to be understood in order to fully account for the changes that occurred. They are best understood, as Blum alludes to above, as four overlapping categories of contextual change: 1) changes in the local community, 2) changes in the environmental movement, 3) changing forest conditions, and 4) changes in the Forest Service.

Changing Community Context

The northern Sierra Nevada communities and surrounding forestland provide a contextual backdrop for the local Timber wars and the emergence of the Quincy Library Group. While the northern region has changed very little compared to other parts of the

Sierra Nevada (Duane 1999), demographic and economic changes point to a shifting context that gradually altered the dynamics of the local Timber wars. Importantly, community context changed in two fundamental ways. First, the region's dominant commodity-based culture and economy was offset by an emerging amenity-based culture and economy that brought new values and new ideas to the region, thus helping to foster and empower the local environmental community (Duane 1999). Second, economic and social changes in the region began to take their toll on the commodity-based culture, and on the community itself. These two dimensions are explored below.

Amenity Migration

From the 1850s until the 1960s, the northern Sierras were dominated by small and relatively stable towns that were highly dependent on mining, forestry and agriculture (Duane, 1996; 1999). About 1970, however, all of that began to change. Between 1970 and 1980, Sierra Nevada counties witnessed a "rural renaissance" of sorts that increased the region's population by 65% (compared to an 18.6% increase in CA). During the recession and recovery of the 1980s, Sierras added another 39%. The two decades together saw growth of 130% across Sierra Nevada counties (Duane 1996). Described as "the second gold rush," population growth throughout the Sierras began to dramatically change the social, demographic, and economic structure of the region. The rural renaissance of the 1970s included primarily young professionals, back-to-the-land types, and retirees leaving congested cities and suburbs for quiet mountain communities (Duane 1999). Writing in the early 1990s, Kia Snyder (1993), reflected on the back-to-the-land movement of the early 1970s in the Yuba River valley of the northern Sierras:

Twenty years ago this area was reinhabited by a flurry of people escaping the city who formed a community living in hand-built cabins without electricity or

telephones, and many without water. Even today few are on the power grid, but many have solar electricity which powers lights and computers. We like to joke that we've gone straight from the 19th to the 21st century (p. 39).

Snyder also reflected on the political evolution of many of the back-to-the-land refugees from the era:

Over the years, we've become very active in local and regional politics, fighting off proposed mining and development, appealing Forest Service timber sales, and learning the natural history of the area (p. 39).

In the 1980s, the migration continued, led by so-called "equity refugees" who could flip home investments in coastal California cities into tracks of land and second homes in the mountains (Duane 1996). The trend continued through the 1990s and into the present decade.

According to Duane (1996), conventional economic development theory would predict that growth in the Sierra nevada would occur only when there was an expansion in already-dominant resource extraction industries. Such a view reflects the assumption that the foundation of rural economies continues to lie in the exploitation of natural resources. While some increases in extractive industries occurred in the Sierras between 1970 and 1990, a more telling statistic revealed that in most instances extractive economies actually declined even while population dramatically increased. In fact, Sierra Nevada communities with the greatest dependence on timber production actually grew slower than those with less dependence on such production. Instead, according to Duane (1996), "the basis for the subtle yet profound transformation of the 1970s and 1980s has been increasing recognition of the *amenity* value of natural resources" (p. 261). This trend, he adds, "reflects a broad social change in the environmental values of Americans that has simultaneously challenged traditional approaches to land and resource

management over the past three decades" (p. 261). Rather than the search for employment, Duane (1996) lists seven drivers fueling migration into the Sierra nevada: a) quality of life and recreational preferences, b) employment decentralization and a growing service sector economy, c) new information and telecommunication technologies, d) globalization, e) a growing retirement population, f) lower cost of living, and g) growing urban problems.

Isolated geographically and more economically distressed, the northern Sierras have not experienced the level of growth and change that the central and southern Sierras have, although the demographic patterns are similar (Duane 1999). Plumas County, the heart of the northern Sierras and the political epicenter of the Plumas National Forest, increased its population by 49% during the 1970s, 13.2% in the 1980s, and by 5.5% in the 1990s. In all, Plumas County grew by more than 78% from 1970 to 2000 (U.S. Census Bureau). By contrast, neighboring Lassen County, with a more diverse economy and natural resource base, grew more steadily, at 28.8% in the 1970s, 27.6% in the 1980s, and 22.6% in the 1990s, and a total of 101% from 1970 to 2000 (US Census Bureau).

More telling, however, is the shifting demographics of the northern Sierras.

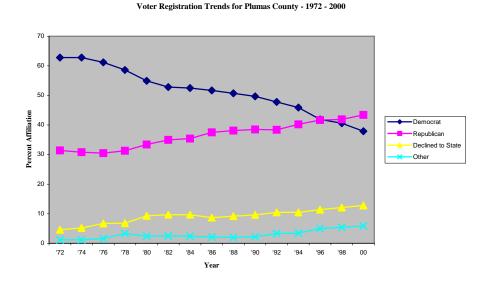
Plumas County's elderly (age 65+) increased from 10% of the population in 1970 to 18% in 2000, while its school-aged cohort (ages 5-17) declined from 26% to 18% (US Census Bureau). Moreover, the influx of retirees brought with it an increasingly significant income stream from non-labor sources such as interest, dividends, pensions, rent, social security, and public assistance. In fact, non-labor income in 2000 accounted for 42% of the total personal income in the county compared to just 28% in 1970. By contrast,

timber-related income dropped from 18.4% of total personal income in 1970 to just 7.2% in 2000 (U.S. Dept. of Commerce, Bureau of Economic Analysis).

During the same period, Plumas County's workforce (ages 18-64) maintained a relatively consistent segment of the overall population, between 57% and 62%. Its composition, however, changed considerably. In 1970, the county's Services and Professional sector comprised the largest portion of its job base – 49.2% – while the Manufacturing sector, including the forest products industry, comprised the second largest portion – 18.6%. In 2000, however, the Service and Professional sector had grown to 55.3% of the job base while the Manufacturing sector shrunk to just 9.7% (U.S. Census Bureau). The fastest growing industries in the County in terms of absolute job growth included state commercial banks, private timber tracts, public golf courses, social service providers, public hospitals, trucking, plywood and millwork, real estate lessors, and special trade contractors. Industries that experienced the greatest decline included national commercial banks, logging, and medical offices, which were siphoned off by hospital increases (Plumas County Economic Development Strategy 2002-2003).

In actual numbers, Plumas County saw a net increase of 5,499 jobs (104%) between 1970 and 2000. Of these new jobs, 3,367 (61%) were in the Services and Professional sector – 2,027 (37%) of which were self-employed "proprietors," or so-called life-style entrepreneurs, who can often work where they choose. Proprietors increased from 21% to 29% of the population between 1970 and 2000. (U.S. Department of Commerce, Bureau of Economic Analysis). Voter registration records also show shifting community demographics.

While one might expect the region to move from a more conservative commodity-based population to a more liberal or moderate amenity-based population, in fact, the trend appears to go in the other direction. Figure 7.1 above illustrates the trend in voter registration for Plumas County from 1972 to 2000 (source: CA Secretary of State).



The table illustrates a steady decline in registered Democrats (62.8% to 37.9%)

and a gradual increase among Republicans (31.4% to 43.4%). It is difficult to know the extent to which the demographic changes listed above have contributed to changes in voter registration patterns. One could reasonably speculate that the steady decline in registered Democrats reflects a decline in the manufacturing labor force, a traditionally Democratic stronghold. One could also speculate that the increase in registered Republicans reflects a growing retirement community, a traditionally conservative stronghold. One might further speculate that an upswing in registered Republican voters may coincide with growing anti-government sentiments that helped elect Ronald Reagan in 1980. It is likely that all of the above as well as national trends contributed to shifting voter registration patterns in the northern Sierras.

Two additional trends in voter registration are worth reporting. The first is the growth, albeit slight, of other political party affiliations including Libertarian, Green, Independent, and American parties. Collectively, these affiliations accounted for only 1.2% of registered voters in 1972 and rose to 5.9% in 2000. Second is the increase in registered voters declining to identify any party affiliation. Collectively, these so-called independent voters accounted for 4.6% of registered voters in 1972 and rose to 12.8% in 2000. Together these differences account for 13.1% of the registered voting population.

Similar demographic trends occurred in Lassen County and other parts of the northern Sierras. These trends generally meant that fewer people in the region were as dependent on the timber industry for their economic well-being. The result was that the region gradually and subtly shifted from a resource-dependent economy to one that was more diverse. More importantly, many of the newcomers were moving to the region for so-called quality of life considerations. With them came new values and new ways of addressing issues. As Blahna (1990) notes, newcomers tend to come from urban areas and are either older, retired couples or are relatively young, affluent professionals and their families. Because of these characteristics, "newcomers often act as 'advocates of change' as they infuse into rural communities their own needs, competencies, and ideas of what constitutes the good life" (p. 159).

The northern Sierras were no exception. Disputants in the local timber wars point to symbolic changes introduced by newcomers that are now community icons. The Mourning Thunder Café, for example, opened in 1976 followed by Quincy Natural Foods in 1978. Morning Thunder, a bohemian-style coffee shop serving a breakfast and lunch fare of Nuevo California cuisine, was frequented by a growing hippie and progressive

population. Loggers and the community's conservative establishment stayed away, frequenting Bob's Fine Foods, a standard Main Street American fare – greasy spoon – connected to the neighboring tavern by a common restroom access (Michael Jackson, personal communication 8/98; Tom Nelson, personal communication 3/4/99). Quincy Natural Foods became the community connection for the growing progressive movement (Pat Terhune, personal communication 5/20/99).

Decline of the Commodity-based Culture and Economy

The northern Sierra region has the lowest average socioeconomic status of any region in the Sierras. While the region has pockets of moderate wealth, it also has the largest proportion of people in poverty, the highest level of "intense poverty," the largest unemployment, the highest rate of children in families receiving public assistance, and the lowest average education level (Doak and Kusel 1996). Finally, the region has the lowest average "community capacity" score based on Doak and Kusel's (1996) assessment of the "collective ability of residents in a community to respond to external and internal stresses; to create and take advantage of opportunities; and to meet the needs of residents" (p. 380). In other words, the region is quite vulnerable to changes that may adversely impact these conditions.

The largest employers in Plumas County in 2000 were Plumas Unified School District (400 employees), the US Forest Service (359 employees), Plumas County Government (333 employees), Collins Pine Mill (332 employees), Sierra Pacific Industries Mill (209 employees), and Union Pacific Railroad (165 employees) (CA Employment Development Dept., Labor Force Statistics). Between the Collins Pine, Sierra Pacific lumber mills, and numerous independent loggers, it is apparent that the

timber industry continues to play a dominant role in the county's employment. However, timber industry dominance has significantly waned in the northern Sierras. Like other Sierra Nevada forests, both the Plumas and Lassen national forests had their heyday of timber production in the late 1980s. On the Plumas National Forest, timber sales averaged 185.5 million board feet annually from 1988 through 1990 and dropped steeply to an average of only 20 million board feet in the period from 1994 through 1996. Lassen National Forest timber sales dropped from an average of 134.9 million board feet annually from 1988 through 1990 to an average of only 19.3 million board feet annually from 1994 through 1996 (USDA 2003).

Timber sales on all Sierra Nevada national forests declined by nearly half during the period from 1991 through 1993 compared to 1988 through 1990 production levels. Timber sales dropped even further during the period from 1994 through 1996 – to less than one-third of 1991-93 levels. Declines throughout the Sierras amounted to an overall drop in timber sales of 84.6% from 1988 to 1996 (Sierra Nevada Forest Plan Amendment 2003), even though production on private forests has remained steady (Laaksonen-Craig et al. 2001).

Precipitous drops in timber sales had two immediate effects. First, employment in the timber industry, which varies seasonally by more than 10%, declined sharply. Annual unemployment figures for Plumas County reflect drastic changes in community economic and social stability. As a reference point, during the 1983 recession, a low point in the timber economy, Plumas County had an average annual unemployment rate of 16.4%, with seasonal fluctuations as high as 27.5% in mid-winter and as low as of 8.6% in late summer. Employment levels rebounded by the end of the decade as the economy

recovered; in 1990 average unemployment had dropped to 9.8%, with a high of 16.6% in the off-season and a low of 4.9% in August. In 1970, Plumas County's timber-related income was 18.4% of total personal income. By 1992, timber-related income had dropped to 7.2% of total personal income (Bureau of Economic Analysis, US Department of Commerce 2000).

Steep declines in timber production in the early 1990s, however, took their toll. In 1993, average unemployment climbed to 15%, with seasonal fluctuations as high as 23.5% and as low as 9%. Average unemployment at the end of 1996, the end of phase 2 of the Timber wars, was 12%, with seasonal variations from a high of 20% to a low of 6.7% (CA Employment Development Department, Labor Market Information Division, 2005). Moreover, while overall employment grew from 7,030 jobs in 1983 to 8,690 in 1996 (23.6% gain), timber industry employment fell from 1300 jobs to 880 (32% loss) during the same period (CA Employment Development Department, Labor Market Division, 2005). Moreover, almost everyone in the community knew a logging family displaced by the downturn and forced to relocate or, worse, could relate a story about alcohol or drug abuse, spousal abuse, or divorce (Rose Comstock, personal communication, 3/3/99).

Second, declining timber production on the national forestlands translated into lost revenues for county roads and schools. To compensate state and local governments for lost tax revenues resulting from the tax-exempt status of federal lands, in 1908 the federal government began paying states 25% of total revenues from public land activities within their borders. The states, in turn, reallocated the funds to local and county governments for roads and schools (Lloyd 2001). An additional program was established

in 1976 to augment the original program in situations where federal revenues fell short of county expectations. The new program (payments in lieu of taxes – PILT) was no longer tied to revenue generation but, instead, was based on the acreage of federal land within each county (Lloyd 2001). As timber sales on the national forests declined, payments to counties also declined, even with PILT augmentation. From 1989 through 1997, annual payments to Plumas County dropped from \$3.7 million to \$1.8 million, resulting in a significant decline in school revenues that threatened to cut school programs, reduce hours, and close and consolidate schools throughout the region.

Did declines in the timber economy, increasing unemployment, and revenue losses to county roads and schools have the impact on the community that many feared? It is unclear, based on the information available, the extent to which a decline in the timber economy directly affected the socioeconomic structure and wellbeing of the region. Along these lines, Berck et al. (2003) looked at participation in county Food Stamp programs and two Aid to Families with Dependent Children (AFDC) programs for 11 timber-dependent counties in northern California between 1983 and 1993, including Plumas and Lassen counties. The researchers challenged the assumption often made in forest management debates that a rise in unemployment within the local timber industry was linked to an increase in participation in county aid programs, or whether other variables played a more significant role.

While the researchers discovered linkages between local timber employment and participation in such programs, especially AFDC programs, they found stronger evidence of a link between timber employment and statewide rather than local economic trends.

Berck et al. (2003) conclude that, "policy that is effective at alleviating poverty at a state

level may be more effective in reducing poverty in these local areas than a policy targeted at increasing local timber-related employment (p. 774). Nevertheless, there were certainly strong perceptions of a correlation between timber employment and community wellbeing, and to a large extent disputants were acting on those perceptions. Moreover, there were additional indicators of an impact. For example, Plumas County's poverty rate increased from 9.7% in 1980 to 11.9% 1990. Lassen County's poverty rate increased from 10.3% in 1980 to 13.3% in 1990. Between 1989 and 1997, public health expenditures in Plumas County increased from \$1,885,000 to \$3,936,000 (Plumas Communities Vision 2020, 2000). Although it is not possible here to draw statistical correlations between crime increases and declines in logging, the information appears to support local perceptions of community decline.

Local Model of Collaboration

The region was in a unique situation. That is why, in the mid-1980s, community economic development interests in Plumas County decided to invest money in the restoration of the region's streams. It started in response to a recession in the early 1980s that left the region struggling for new economic growth. Lacking the dramatic scenic qualities characteristic of the central Sierras, and off the beaten path of California tourists, the northern Sierras were struggling to survive. "Unlike the Sierras famous midsection, toothed with 14,000-foot high slabs of bare granite," a *Sierra Bulletin* article lamented, "the northern end of the range slouches" (Hamilton 1993, p. 100).

In 1984, the Plumas Corporation, the non-profit economic development arm of the County, ran out of ideas for sparking new economic development. Typical industries were not welcome in the region. Moreover, as mentioned above, demographic trends indicated that newcomers were moving to the region less for employment and more for the amenity values it offered, primarily hunting and fishing (Bernard and Young 1997). So the Plumas Corporation took stock of the situation and began looking for opportunities to support the emerging trend. The corporation landed on the idea of restoring severely degraded tributaries of the Feather River, which provided power to Pacific Gas and Electric Company (PG&E) through hydroelectric facilities that were literally choking in sediment (Hamilton 1993).

The Plumas Corporation approached PG&E with a proposal to ecologically restore tributary streams in the watershed, which if successful would greatly reduce the utility's maintenance. The Corporation enlisted the support and participation of the local officials, citizens, and students and together with PG&E and other government agencies restored a 75-acre meadow along Red Clover Creek, an important tributary. By 1993 the Feather River Coordinated Resource Management Group had raised \$2.5 million from PG&E and other participating groups and had conducted 33 restoration projects and studies. In 1992 the group raised \$800,000, an eighth of which came from PG&E. The group also initiated a Watershed Management Certification Program at Feather River College in Quincy to train students to monitor restoration work.

The Plumas Corporation's goal was to work through a community-based collaborative process to restore streams that fed the Feather River and, in the process, enhance economic viability. By tying economic viability to ecological integrity, the Corporation was attempting to respond to demographic trends and reverse the historic pattern of advocating resource extraction at the expense of the environment. "We need to take care of our resource base so it can take care of us

- the same way an entrepreneur would manage capital," Leah Wills, an economist for the Plumas Corporation observed, "Our capital as a county is our beauty and resource wealth" (99).

Environmentalists engaged in the forest management conflict were skeptical of industry's motives and did not participate in early restoration efforts. They were also cognizant that the streams were being degraded primarily through logging and grazing practices that they were attempting to reform. Environmental attorney Michael Jackson was initially skeptical of the group's cooperative approach. But slowly the group's efforts produced tangible results. "Now I can see I was wrong," stated Jackson (Hamilton 1993).

While the restoration work moves slowly in terms of river miles, it has rapidly changed the politics of the community. Our opposition is now pointing to their accomplishments in restoring the damages done by cattle. That's a step forward – maybe a more important step than the restoration of the creek (p. 105).

Changes in the Environmental Movement

The Quincy Library Group is the product of an environmental movement in the Northern Sierras that was influenced by the national environmental movement as well as by regional and local events. The seeds of an environmental movement in the Northern Sierras were apparent as early as 1968 when 77 miles of the Middle Fork of the Feather River were designated under the federal Wild and Scenic Rivers Act. The Middle Fork was listed in part to prohibit the federal government from licensing new hydroelectric dams and major water diversions, which had impacted every major stream and tributary in the Feather River watershed. In 1968, however, the remote Middle Fork, containing Feather Falls, the sixth highest waterfall (640 ft.) in the US, was undeveloped.

While designation of the Middle Fork provided a public record of an emerging environmental conscience, an unlikely hero of sorts was busy laying the groundwork for grassroots activism. According to Michael Jackson,

There has always been a small environmental conscience here. Led by an old railroad worker, Wobbly, by the name of Wayne Dakan. Wayne was a truth speaker and spoke truth to power regularly. When the back-to-the-land people came here in the '70s he became their leader. He left a legacy for those of us who knew him of completely principled absolute vigilance to the environment." (Jackson, pers. comm., 10-25-98)

Local journalist Jane Braxton Little contends that Dakan became "a magnet for environmentalists, hippies and the rest of the newcomers who thought clear-cuts and gravel pits should be more closely regulated" (Little, pers. comm. 10-30-98). Dakan moved to Plumas County in the 1930s as a gold prospector along the North Fork of the Feather River (Little 1988). If his quirkiness endeared him to the local environmental and hippie community, Dakan's acerbic style created lots of enemies. "He's more like a voice from the wilderness than a teacher," said Jackson. "I see no difference between Thoreau and Wayne except that Thoreau wrote and Wayne shouts" (Little 1988, p. 132).

For years Dakan was a lone voice. In 1969, however, Feather River College opened in Quincy, bringing new faculty and a student population to the region. One of the new faculty members was Michael Yost, a Duke-trained forester and environmental advocate. Yost and his artist-wife Sally moved to Quincy in 1975 and soon joined a growing contingent of locals interested in protecting roadless and wilderness areas on the national forests. Yost also introduced his students to Dakan. "Wayne knew what was going on, and he was very concerned about it," said Yost. "But he didn't know what to do." (Little, 1988, p. 132). With Yost's help, Dakan joined college students and instructors to form a community activist group that convinced Plumas County to ban the

use of the herbicide 2,4-D on county property, and eventually convinced the Forest Service to suspend spraying on national forestlands.

The contingent soon formed the nucleus of citizens advocating for the designation of a wilderness area near Bucks Lake, 15 miles from Quincy (Yost, pers. comm., 3-4-99). Long-time resident Wilbur Vaughn first proposed a 21,000-acre old-growth forest for protection in the 1950s, along with Sierra Club director David Brower (Little 1984). With no plans to log the area, and with little support for wilderness protection, the proposal languished. In 1970, however, the Forest Service began a salvage logging operation in the remote area. As would have it, a logger accidentally felled an ancient tree on top of a pickup truck, drawing attention to the operation. Under pressure, the Forest Service abandoned the sale, but left the land unprotected. According to Little (1984), "More than 1000 people signed a petition opposing the logging, and a group later called the Friends of Plumas Wilderness was born." By the 1980s, despite strong opposition from timber companies, the group gathered enough support to include the area in federal wilderness legislation. Surprised by the broad base of support, the Sacramento Bee reported on the successful campaign of "an unlikely alliance of lumber mill workers, housewives and conservationists" (Little 1984).

Environmentalists and their allies had won the Bucks Lake wilderness battle but, as Little reflected, "were not particularly gracious in victory." This, she contends, "set up the battle ground for the national forest planning process, easily the most contentious natural resource conflict Plumas County has seen" (Little, pers. comm., 10-30-98). The leader of the battle was attorney Michael Jackson, who came to Quincy in 1977 to start an environmental law practice. Jackson ran for a Plumas County Board of Supervisors

seat in 1984. He lost by just 12 votes but was buoyed by the discovery of a more equitable distribution of power in the county. "This is one of the most logging-dependent areas in California," Jackson reflected. "But there is no majority here to cut down more big trees" (pers. comm., 8-25-98).

The Larger Movement - In Three Waves

The local environmental movement in Plumas County and the northern Sierras is embedded in a larger, complex movement that influenced its emergence. Without retracing the environmental movement's entire history, its modern structure can be traced to events that created a context within which conditions were ripe for the emergence of local collaborative groups such as the Quincy Library Group. Two related events occurring in the 1960s and 1970s had a dramatic impact on the larger environmental movement – the passage of major environmental legislation and Earth Day, April 22, 1970 (Gottlieb 1993; Shabecoff 2003). A third event, occurring in the early 1980s, highlighted a rift within the budding movement – the election of Ronald Reagan and the conservative backlash that followed (Shabecoff 2003). These events and their influence on the local movement are briefly traced below.

Despite a growing interest in public health and quality of life issues throughout the U.S., the earliest environmental legislation was focused primarily on protecting public lands that had been spared from logging, mining and dam building. The Wilderness Act of 1964 focused on preserving public lands for primitive and non-motorized recreational uses. The Wild and Scenic Rivers Act of 1968 sought to maintain undeveloped and semi-developed rivers in primitive and scenic conditions. Influenced by John Muir, Teddy Roosevelt, Aldo Leopold, and others, this "first wave" of environmentalism was led by

mostly white middle and upper class hikers, backpackers, birders and sportsmen affiliated with the Sierra Club, Wilderness Society, National Wildlife Federation, National Audubon Society, and the Isaac Walton League (Gottlieb 1993; Shabecoff 2003).

These organizations were instrumental in the early 1970s in passing major environmental laws, including the National Environmental Policy Act (NEPA), the Endangered Species Act (ESA), and anti-pollution legislation characteristic of the "second wave" of the movement (Gottlieb 1993; Shabecoff 2003). However, the organizations largely responsible for advocating the highly technical laws and policies lacked the capacity to adequately monitor them. The principal conservation organizations at the time, as well as new organizations such as the Natural Resources Defense Council (NRDC) and Environmental Defense Fund (EDF), adapted to the situation through increased professionalization, thus fostering a new industry focused on scientifically defensible decision-making (Gottlieb 1993; Mitchell et al. 1990). In particular, NEPA created "a broad and expansive environmental policy system" that required lawyers, scientists, and economists to navigate (Gottlieb 1993, p. 125).

As the 1970s progressed, four main arenas of action increasingly defined the second wave of environmental activism: legislation and policy-making, regulatory action, the courts, and the electoral process. An obvious consequence of this focus was the centralization of power in Washington, D.C. and in state capitals. Moreover, power was increasingly consolidated in the hands of roughly a dozen national organizations whose leaders were largely responsible for laying the legislative foundation (Gottlieb 1993; Mitchell et al. 1990). Environmental policies, however, were often ignored on the ground. This was due in large part to the lack of traction local environmentalists were

able to achieve through administrative channels. Jackson recalled the political climate in the region at the time:

For a long time there was total power on the timber side during the 60's, 70's and early 80's in this area. It was basically both parties – the Republicans and Democrats – it did not make any difference who was in charge. There were some environmental laws but there was no enforcement of them whatsoever because they did not have the budget or the staff to do it. Basically here the environmental laws were seen as an attack on the way of life. (pers. comm. 8/98)

To ensure their implementation, environmentalists began to emphasize the enforcement of policies through administrative procedures and the courts, which in turn highlighted the role that lawyers played in the movement and reinforced the adversarial posture the groups had adopted (Gottlieb 1993).

As the mainstream organizations expanded and became more entrenched in Washington, D.C. bureaucracy, they were, as Gottlieb (1993) contends, "increasingly absorbed by the operation and maintenance of the policy system itself" (p. 130). Moreover, the emerging professional staffs tended to limit their activities to their areas of expertise and made little effort to mobilize local support. Local groups often sought assistance from the nationals but, as Gottlieb notes, "the process of interaction was largely one-way and failed to counter the growing impression that the mainstream groups were becoming indistinguishable from the environmental policies they had helped create and maintain" (p. 132). The result was an increasingly professionalized mainstream movement, but one that was losing touch with grassroots supporters and constituents.

Earth Day 1970 had a different effect, sparking a groundswell of local "eco-activist" and consumer action organizations focused on public health and pollution issues (Gottlieb 1993; Shabecoff 2003). Earth Day was the brainchild of Wisconsin Senator Gaylord Nelson, who sought to mobilize a growing student activist movement and

distance it from the more radical New Left and anti-war politics of the 1960s (Gottlieb 1993). Shabecoff (2003 p. 105) contends that Earth Day,

...touched off a great burst of activism that profoundly affected the nation's laws, economy, corporations, farms, politics, science, education, religion, and journalism; created new institutions; and, in time, changed the physical world itself by reducing pollution and preserving open space and other resources.

The proliferation of grassroots activists following Earth Day filled a gap left by the increasingly centralized, mainstream organizations (Gottlieb 1993). But professionalization among the mainstream groups still served as a barrier for local activists relying on their assistance to navigate the complex array of federal laws and policies. For local groups, according to Gottlieb, the use of expertise "was frequently a disempowering experience, a method of defining issues that effectively eliminated participation by those most affected by such decisions" (p. 167). Expertise also established a "hierarchy of participation" in which "those engaged in the minutia of specialization and technical details were given authority, while 'non-experts' were perceived as nonparticipants" (p. 168).

Frustrated with the existing system, Earth Day activists found a new model in consumer advocate Ralph Nader's brand of citizen-centered action coupled with legal support. This new movement was, in Gottlieb's words, "predominantly local in nature, more participatory and focused on action, and critical of the roles of expertise and lobbying in defining environmental agendas" (p. 170). Nader's influence was also apparent in the growing perception among activists that unregulated corporate power was their greatest threat. "The multinational corporation thus became the focus of attack," Gottlieb (1993) contends, "the engaged citizen the instrument for change" (p. 172).

Environmental legislation and the professionalized "CEO culture" (Gottlieb 1993) it fostered contrasted sharply with the citizen-based movement that followed Earth Day. Despite these tensions, McCloskey (1990, p. 78) observed, from 1972 until the mid-1980s the environmental movement was "remarkably free of stress over ideology." There was, however, growing unrest. Focused on environmental issues more broadly, the movement as a whole was more anthropocentric than many activists desired. The "deep ecology" movement began to challenge all of that. Deep ecology, coined by Norwegian philosopher Arne Naess, defined a more "eco-centric" view of the relationship between humans and nature (Dowie 1995). Rather than human-centered environmentalism, deep ecologists sought a nature-centered approach wherein the natural environment was no longer subordinated to an anthropocentric paradigm.

Deep ecology, according to Dowie (1995), provided an "ideal counterpoint to the centralized, bureaucratic environmental activism" that had constrained radical thought (p. 227). As the deep ecology movement took hold, advocates began to clash with what they termed the professionalized "shallow ecology" movement, whose central objective, in their view, was the health and affluence of people in developed countries (Naess 1973, p. 97). One of the early leaders of the deep ecology movement was David Brower, director of the Sierra Club during the 1950s and '60s. While Brower attracted thousands of new members with his charismatic style, he rankled many of the old guard and resigned in 1969 under pressure from the Sierra Club board (Sessions 1995). He subsequently founded two national organizations grounded in deep ecology philosophy.

Brower was not the only deep ecology advocate to clash with the mainstream movement. Among the hundreds of organizations influenced by the philosophy, Earth

First! was the most prominent (Gottlieb 1993). Earth First! defined the genre of the uncompromising organization that mixed civil disobedience with a "flair for theater" and a rejection of industrialized society (p. 197). Rejecting the conventional paradigm, cofounder Dave Foreman set out to "consciously step outside of the system, to eschew the temptation of political access, to deliberately try to stir the stew" (Foreman 1995, p. 55).

The deep ecology movement's sudden debut in the early 1980s was in part a response to the Reagan Administration's hostility towards environmentalism (Shabecoff 2003). Disillusioned with the mainstream groups' inability to counter the Reagan agenda, deep ecologists broke ranks and publicly skewered their mainstream counterparts (Borelli 1988). The mainstream groups, wrote Sierra Club director Michael McCloskey (1990).

...were attacked for not getting the job done – for being complacent, co-opted, bureaucratic, distant, arrogant, interested only in professional 'perks' and money, and for being too conservative (p. 79).

The rift, according to McCloskey, presented a dilemma for the mainstream organizations.

Increasingly, the radical groups embody the passion over the issues and articulate the visions of what the future should hold, whereas the mainstream organizations have far more resources and strong management. The dilemma is how to get these two ingredients into a productive relationship" (p. 85).

At the same time, some of the mainstream organizations were experimenting with what, to many, was the antithesis of the deep ecology philosophy – free market environmentalism. This "third wave" of environmentalism grew out of a desire to use the market to bring corporate America into compliance with federal environmental regulations and standards (Dowie 1995). Mainstream organizations like the Environmental Defense Fund, World Wildlife Fund, and the National Wildlife Federation embraced a philosophy aimed at shifting the environmental battle, as Dowie (1995)

describes, "from the courtroom to the boardroom" (p. 106). National Wildlife Federation director Jay Hair, a spokesperson for the movement, argued that if environmentalists' message is to appeal to corporate America it must "translate into profits, earnings, productivity, and economic incentives for industry" (Dowie 1995, p. 107).

Instead of pursuing legal options through federal regulations, free-market environmental leaders prefer to "hammer out deals" that allow each party to "declare victory and appear green" (Dowie 1995 p. 106-107). While the philosophy found an obvious foothold in U.S. policy, it failed to draw much support from the larger movement. Skeptics of the philosophy deride free-market environmentalism as nothing more than "the institutionalization of compromise" (p. 107). According to Foreman (1984), "we must redefine the battle. We must stop playing the games of political compromise the industrial power brokers have designed for us…" (p. 24-25).

Dialing Down in the Northwest – A Fourth Wave

The rift between the mainstream, radical, and market-based wings of the environmental movement planted seeds for a "fourth wave" of environmentalism characterized by the proliferation of local niche-based groups and activist networks (Dowie 1995). The *Sierra Nevada Conservation Directory*, published by The Wilderness Society (1998) to facilitate intergroup networking, lists over 230 nongovernmental organizations concerned with the environmental health of the Sierra Nevada. Of these, 127 are "conservation organizations" supporting various forms of advocacy and activism, 20 are land trusts engaged in voluntary land conservation, 48 are watershed projects supporting non-confrontational land management practices, and 37 are "other institutions" having overlapping environmental, economic, and social interests. Among

the conservation organizations, 87 are local organizations or chapters focused on a single forest, river, park, or natural feature, 14 are regional organizations and coalitions topically focused on the entire Sierra Nevada, and 26 are statewide organizations and coalitions focused on a specific environmental niche.

According to Hays (2007), the proliferation of niche-based groups focused on forest issues was a response in part to the National Forest Management Act of 1976 (NFMA), which required the Forest Service to develop comprehensive plans for each national forest. The result was the formation of numerous "citizen forest reform organizations" focused on individual national forests and their forest plans. Their formation, Hays contends, "represented a distinctly new agenda and a new type of organization on the environmental scene" (p. 21). These groups, in turn, led to the formation of activist networks facing similar challenges as well as assistance and support from regional and national conservation organizations focused on the forest planning process (Sample and Kirby 1983). Since each forest had its own unique set of problems and issues, however, local forest activists had to develop their own knowledge of the forest as well as unique strategies for addressing forest management issues.

NFMA provided an avenue for groups to advocate specific ecological objectives in pending forest plans and engage specialists in helping them formulate their own plans, which promoted ecological objectives as alternatives to conventional approaches. To be effective, citizens groups had to develop an understanding of ecological principles and their application on a managed forest. This required them to move beyond their conventional knowledge of wilderness and roadless values since they were now dealing with forest disturbances created by human activities (Hays 2007). Moreover, with regard

to logging, NFMA forced environmentalists to confront an uneasy management question

– how *should* logging be conducted on a landscape where it is deemed appropriate?

Activists, it turned out, needed an ecological approach to forestry (Hays 2007).

As the number and capacity of citizen forest reform organizations evolved, Hays (2007) contends, they developed a remarkably consistent set of ecological principles focused on biodiversity, habitat protection, structural diversity, native and old-growth preservation, watershed management, ecological restoration, and fire. For most citizen reform groups, these principles translated into specific actions to, a) protect threatened and endangered species, b) assess the habitat requirements of flora and fauna as well as habitat richness (wetlands and riparian areas), c) replace clearcutting and even-aged management with uneven-aged management and patchiness, d) set aside remaining old-growth forests, e) benchmark desired outcomes to pre-European settlement conditions, and f) organize management activities around watersheds. Hays (2007) describes this approach as a "dual action program of protection and restoration" whereby citizen reform organizations "sought to reduce forest uses that presented a threat to the existence and health of ecological resources... and restore what they felt were more desirable forest conditions, which those practices had degraded" (p. 49).

Ecological sciences and the budding fields of conservation biology, ecosystem management, and ecological restoration were tantamount to this understanding, especially with regard to ecosystem services and the biological value of old growth forests (Yaffee 1994). In addition, environmentalists were aware of models of sustainable forestry that showed promise for forest reform. One such model was dubbed "New Forestry" by its pioneers, forest ecologist Jerry Franklin and colleagues (1989). New

Forestry focuses on the maintenance of complex ecosystems and uses timber harvesting as a tool to maintain ecosystem health. New foresters, according to Franklin, focus not on what they are removing from the forest but on what is left behind. According to Steve Eubanks, one of Franklin's colleagues, "our primary motivation was to perpetuate a healthy ecosystem that could provide products as well as all the benefits, beyond products, that a healthy ecosystem provides" (Taylor 1991 p. 50).

While New Forestry had its skeptics among environmentalists (Zuckerman 1992; Yaffee 1994; Taylor 1991), skeptics were mainly concerned with the ability of the Forest Service to be true to the concept. One such skeptic was Chris Maser, another of Franklin's colleagues. Maser believed that New Forestry was still too commodity oriented and endorsed the vision and spirit that produced it but not the concept as it was being applied. "In New Forestry," said Maser, "the product is still more important than the process, and we are still trying to manage nature rather than work in harmony with it" (in Taylor 1991, p. 51). Instead, many environmentalists argued for a return to "old forestry" as it had been practiced during the Forest Service's custodial era and as it was being applied on a few private forests such as the Collins Almanor Forest in the northern Sierras. Zuckerman (1992, p. 44) made a comparison between "new" and "old" forestry as applied on the Almanor forest:

This is not a New Forestry experiment, but a system developed by Forest Service researchers in the 1930s. Although this way of logging has fallen into disuse on public land, it is maintained by the Collins Almanor Company and held up by many observers as an example of sound forest management. Unlike New Forestry, which attempts to mimic both major and minor natural jolts to the forest, this system recreates only the minor disturbance of light fires.

As mentioned in the QLG case, the Friends of Plumas Wilderness' 1986 conservationist alternative was modeled after the Collins Almanor Forest near Chester, CA. QLG

members took Senator Barbara Boxer to the forest in 1993 to show her what their efforts would look like.

Hays' (2007) description of a fourth wave of citizen forest reform groups triggered by NFMA is precisely what occurred in the northern Sierras in the late 1970s and early 1980s. The Friends of Plumas Wilderness, for example, initially formed to advocate for the Bucks Lake Wilderness area but remained together to develop the conservationist alternative to the Plumas Forest Plan. The formation of such groups also follows a pattern described by Dowie (1995) in which the proliferation of niche-based groups coincides with the splintering of mainstream groups (NFMA may have been a factor in that process). In the Sierra Nevada, as Dowie describes, niche-based groups attempted to work with regional/national groups, which provided resources (Sample and Kirby 1983), and carry out joint campaigns through activist networks. This combination provided a potentially powerful force if the groups could leverage their efforts in both local and regional/national political arenas.

While the combination worked well in some situations, and continues today, it was strained by what QLG biologist Linda Blum describes as "differences in scale and place." Blum contends that a local/national rift was inevitable. "The grassroots folks... were inclined to fiercely defend their local places and resources," she recalls, whereas "the nationals maintained their goals of affecting national environmental policy through legislative and executive branch lobbying" (personal communication, 5-22-05). In deal-making at the national level, Blum contends, local environmental issues sometimes "got traded off by the national staffers up on Capitol Hill and in the White House." Plumas Forest activists were particularly sensitive to this issue – the proposed Bucks Lake

Wilderness area was initially cut from the 1984 California Wilderness Bill by Sierra Club lobbyists who traded it for another area. The Friends of Plumas Wilderness had to scramble to get it back into the legislation. As Blum observed, "One person's Big Picture Deal Cutting is another person's Capitulation" (pers. comm., 5-22-05).

Another dimension of Blum's "differences in scale and place" resulted in a natural split between Sierra Nevada forest activists and those in the Pacific Northwest.

For a time, environmental activists throughout Northern California and the Pacific Northwest leveraged resources and shared common strategies. Wilderness, old-growth, and roadless area protection were common themes on forestlands throughout the region. By the late 1980s, however, environmental issues affecting California coastal and Northwest forests and those affecting Sierra Nevada forests began to diverge. Blum recalled how new federal mandates, including the ESA listing of the northern spotted owl, marbled murrelet, and Pacific coast salmon species, "imposed such differences in what coastal California and Northwest forest activists had to deal with, compared to Sierran activists," that broad coalitions gradually began to splinter (personal communication, 5-20-05).

Moreover, coastal and Northwest forest battles, and the resources they consumed, began to draw attention away from the plight of the Sierras. In 1991, however, the Sierra Nevada was thrust into the spotlight with the release of the *Sacramento Bee* series "Majesty and Tragedy: The Sierra in Peril," a scathing assessment of the environmental health of the range (Knudson 1991). For the first time publicly, the series legitimized concerns about the relationship between forest health, water supply, population growth, and air quality, and presented a new context for viewing federal forest and land use

policy. The Pulitzer prize-winning series also identified a principal villain, the U.S. Forest Service. Moreover, the series vindicated environmentalists and greatly empowered the movement. "In one bold stroke," Duane (1998) observed, "the series changed the terms of the debate about environmental quality and land and resource management issues in the Range of Light" (p. 23). It also served to galvanize the environmental movement and presented it with a unique opportunity to turn the attention the series created into more effective policies.

The Sacramento Bee series was not the only contextual dimension that tipped the balance of power towards environmentalists, although it was significant regionally. Two other factors also contributed to the sense of empowerment that environmentalists were experiencing. One was the growing recognition that the national forests were viewed by the American people as much more than a source of timber. As Franklin (1989) argued concerning the need for an approach to forestry that reflected changing societal values:

Time has come for a shift in agenda. Forestry needs to expand its focus beyond wood production to the perpetuation of diverse forest ecosystems. Industry users need to recognize that society views forestlands as more than just another form of agricultural land with a slowly-maturing crop (p. 43-44).

The second contextual factor contributing to the empowerment of environmentalists was the important string of victories through administrative actions and the courts, in particular the Endangered Species Act listing of the northern spotted owl in June 1990 (Yaffee 1994) and its recognized similarities with the California spotted owl (Marcot and Thomas 1997; Verner et al. 1992).

Changing Forest Conditions

Records indicate that the Sierra Nevada Range was occupied by Native

Americans for almost 10,000 years prior to Anglo settlement (Heizer and Elsasser 1980).

Various Indian tribes depended on the resources around them and gradually began to affect those resources in ways that aided their survival. The most significant impact on the landscape resulted from the practice of burning, which altered the composition of plants, stimulated new growth, and maintained open, park-like conditions (McKelvey et al. 1996). Intentional burning also reduced the risk of fire around Indian villages, encouraged the growth of plants for food and basket making, and increased deer browse (Anderson and Moratto 1996). In the region of what is now the Plumas National Forest, 2000-3000 Mountain Maidu Indians established villages and seasonal camps and used fire in traditional ways described above (Young 2003).

Anglo migration to the Sierras was limited until the discovery of gold in 1948. The Gold Rush that followed dramatically altered the region from what Native Americans had experienced in their 10,000-year occupation (Duane 1998). Mining, logging, grazing, and trapping throughout the central and northern Sierras between 1865 and 1890 led to severe degradation of forests and streams and triggered a strong outcry to protect the public domain (Beesley 1996). In 1890 Congress established Sequoia, General Grant, and Yosemite national parks, thus staving off uncontrolled exploitation of resources within their boundaries (Beesley 1996). In 1891 Congress established the national forest reserve system and designated three reserves in the northern, central, and southern Sierra Nevada range. By the early 1900s, these and other forests became part of the national forest system. By that time, however, timber companies had harvested most of the Sierras productive forestlands (Beesley 1996).

Since the early 1900s, the forest environment in the Sierras has undergone dramatic change. Mostly gradual and cumulative, changes in the forest environment fall

into three broad categories: 1) changes in forest structure and composition; 2) decline in species viability, most notably the California spotted owl; and 3) an increase in the severity of forest fires triggered by periodic and severe drought. These changes had a profound effect on disputants in the local timber wars, particularly as they came to a head in the summer of 1992. Changes in the forest environment and their relationship to the dispute are discussed in more detail below.

Forest Structure and Composition

Forest Service management of the national forests had two dominant impacts on forestlands in the Sierras. First, in 1924 the agency adopted a policy calling for the total suppression of wildfires on lands under its jurisdiction (Beesley 1996). The agency had been fighting fires on the national forests for a number of years prior to the policy, but had not made fire suppression a priority. Second, as population boomed following World War II, and as public demand for natural resources increased, the agency's mission migrated from a primarily custodial relationship to the forests to one that favored intensive forest management (Hirt 1994). Along with the agency's move toward intensive forest management, it also adopted a policy of clearcutting swaths of timberlands, which the agency argued was more efficient than other harvesting techniques (Ruth 1996).

Regarding fire suppression, McKelvey et al. (1996) found in field research throughout the Sierras that forest fire frequencies prior to Anglo settlement occurred at approximately 20-year intervals. Skinner and Chang (1996) report pre-settlement fire intervals in northern Sierra and southern Cascade forests at between eight and 18 years. Swetnam and Baisan (2003) have tied the frequency of fires occurring during presettlement times to climatic processes such as El Niño events, which altered temperature

and moisture conditions associated with the forests. In addition, Moody et al. (2006), correlated significant pre-settlement fire years in the northern Sierras with drought conditions affecting the region. Fires also varied in their frequency and intensity depending upon elevation, topography, vegetation, soil conditions, and cultural practices (Skinner and Chang 1996). Pre-settlement fires were predominantly low-intensity ground fires that damaged the trees' cambium layer, and left a scar, but did not kill the tree itself. Pre-settlement fires were common enough, according to the authors, "to significantly affect forest structure and composition over much of the Sierra Nevada" (Skinner and Chang 1996, p. 1034). The frequency with which fires burned on a landscape scale produced canopy trees that averaged between 250 and 350 years old with a structure consisting of a patchwork of sizes and ages of trees confined to individuals or small groups (McKelvey et al. 1996; Skinner and Chang 1996).

Forest fire suppression was initiated by the Forest Service in the early 20th century and dramatically changed the fire regime of Sierra Nevada forests. In particular, fires were not only considerably less frequent but also burned far less acreage, especially at higher elevations. The dramatic effect caused by the reduction in the area burned by fire throughout the 20th century, combined with the effects of timber harvesting practices and climate change has led to substantial increases in the quantity of live and dead fuels in Sierra forests and, as important, to changes in the "arrangement" of live and dead fuels (McKelvey et al. 1996, p. 1035). Moreover, fuel levels increased in parallel with the development of denser forests, which contained large concentrations of small and medium-size classes of shade tolerant and fire-sensitive tree species. The more dramatic impact of fire suppression, the authors' contend, is a large increase in the amount of live

fuels near the forest floor that "provide a link between surface fuels and the upper canopy" (p. 1035).

One consequence of the agency's fire suppression policy is the intensity of fires that do occur. According to McKelvey et al. (1996), forest fires in the Sierra Nevada occur less frequently and cover a smaller area than they did during pre-settlement times, however, because they contain substantially more fuels and fuel "ladders," they are more likely to be severe and burn at intensities that are "detrimental to the integrity and sustainability of Sierran ecosystems" (p. 1037). Instead of ground fires that periodically reduce or remove live and dead fuels, modern fires decimate entire stands of trees, often scorching the soil surface and eliminating important microorganisms.

McKelvey et al. (1996) argue that forest management practices throughout the 20th century have served to accelerate these trends. Logging practices on Sierra national forests, and elsewhere, have primarily resulted in the removal of large canopy trees, thus accelerating the growth and density of understory trees and decreasing the heterogeneity of the forest. Such practices, in combination with the tendency to abandon forest slash after a logging operation, has resulted in additional accumulation of fuels. Compared with pre-settlement conditions, trees making up Sierra Nevada forests are generally younger, denser, smaller, and more homogenous. They are also subject to increased disease and insect infestation during periods of stress.

A shift towards more intensive forest management occurred following World War II when demand for wood products from the national forests rose by more than 200%. According to Wilkinson and Anderson (1987), twice as much timber was harvested from the national forests in a 16-year period from 1950 to 1966 than in a 45-year period from

1905 to 1950. More locally, foresters on the Eldorado National Forest, oversaw the harvest of a total of 148.9 million board feet of timber in the 38 years between 1902 and 1940. By contrast, in a mere four year period between 1941 and 1945 the Eldorado produced a total of 175.4 million board feet (Beesley 1996). Logging in the Sierras increased steadily until about 1950, remained fairly constant until the recession of 1982, and then increased again to a historic peak in 1990 (McKelvey and Johnston 1992).

Management prescriptions employed in Sierran forests were unique to the region (McKelvey and Johnston 1992). Interestingly, logging on Sierra forests prior to the 1980s seldom employed clearcutting as a harvest method. While a policy shift towards clearcutting began in the 1970s, the practice did not emerge as the dominant method of harvest until the mid-1980s. As such, rather than an interspersed patchwork of clear-cut and virgin old-growth forest stands that characterize Pacific Northwest forests, Sierra Nevada forest stands were primarily selectively logged and salvaged until 1990, thus removing the largest trees from the entire forest system while maintaining a younger and denser forest (Helms and Tappeiner 1996). In general, unlike Pacific Northwest forests, Sierran forests have "few or no stands remaining that can be described as natural or pristine" (McKelvey and Johnston 1992, p. 241). To varying degrees, the authors argue,

...the forest system has been changed from one dominated by large, old, widely spaced trees to one characterized by dense, fairly even-aged stands in which most of the larger trees are 80-100 years old. This forest appears to be unstable. It is highly susceptible to drought-induced mortality, as competition for water weakens trees on drier sites. It is impacted by massive bark beetle infestations. And it is very flammable (p. 241).

Alteration of the structure and composition of Sierran forests led to two significant policy changes in the late 1980s and early 1990s that altered the course of logging on Sierra Nevada forests. First, concerns for the protection of the California

spotted owl resulted in a two-thirds reduction in the volume of timber harvested, along with the protection of forest stands surrounding owl nesting sites. Along with this reduction was the elimination of clearcutting as the preferred harvest method and a return to selective logging of individual trees and group selections. Second, growing public concern for the loss of old growth forests – for their recreational value and as critical habitat for the spotted owl – led to efforts to withdraw the remaining old growth forestlands from the federal timber base. By the early 1990s, only 8.2% of Sierra Nevada forests were considered high-quality "late successional including old growth" (LS/OG) remnants (Franklin and Fites-Kaufmann 1996). Franklin and Fites-Kaufmann concluded in their analysis of Sierra Nevada forests that the current extent of high quality LS/OG forest ecosystems in the Sierra Nevada is "far below levels that existed prior to western settlement" (p. 651). They base their conclusion on descriptions contained in historic surveys of forest reserves, knowledge of fire regimes existing at the time, and conditions in national parks that were not logged.

Species Decline

An additional change in the forest environment was the decline of species that depended on certain forest conditions for their survival. Primary among these species was the California spotted owl, a cousin of the northern spotted owl – listed as a federally threatened species in 1990 (Yaffee 1994). While the California owl was not yet listed, its population trajectory and potential impact on logging was similar to the northern spotted owl and for many in the Sierras was an omen of things to come.

The first studies of the status of the spotted owl were conducted in California in the early 1970s (Verner et al., 1992). Those studies located owls at only 159 locations

and in the late 1970s the Forest Service designated the California spotted owl as a "sensitive species" on national forests in California. Yet the agency did not begin extensive surveys of the owl's status until 1981. When it did, the agency discovered two distinct populations in California based on diverse physiographic provinces with little overlap among the resident owl populations – the Sierra Nevada (the focus of this research) and the Southern California provinces (Verner et al. 1992). Studies at that time determined that the primary threat to the owl's survival in the Sierra Nevada Province was the management of timber on seven national forests on the west side of the Sierra range and on private industrial timberlands. Subsequent studies of the owl's status in between 1987 and 1991 revealed an estimated 1250 spotted owl sites (Verner et al. 1992), with approximately 92% of the sites on public forestlands. Spotted owl nesting pairs were confirmed at 697 of the sites however only 162 sites were on protected lands in either national parks or wilderness areas. Researchers also found that 80% of the national forest sites were in industry-preferred mixed-conifer forests. The remaining sites were in red fir (10%), ponderosa pine/hardwood (7%), and foothills riparian/hardwood forests (3%) (Verner et al. 1992).

In the late 1980s, the Forest Service established an interagency spotted owl
Technical Assessment Team to more thoroughly assess the status of owls in the region
and recommend an interim strategy for maintaining and restoring owl populations
(Verner et al., 1992). The assessment team was charged with finding answers to three
fundamental questions informing a recommendation regarding future management
options. The questions were: Is the California spotted owl's population declining in all or
part of its range? Is the owl a habitat specialist? If yes, then is the habitat upon which the

owl specializes declining? Studies by the assessment team to answer the first question produced mixed results, primarily because samples containing marked birds at the study sites were small. While data from field sites indicated a 3% annual rate decline during the short study period – 1988-1991 – the research team could only conclude that "we are uncertain about the true trend of this population" (Verner et al. 1992, p. 8). Moreover, the study team had no data regarding past trends in owl populations with which to compare their findings. Without such data, a study of such short duration and small sample size could only be considered inconclusive. Questions two and three would have to help fill in the blanks. If the owls were found to be habitat specialists and their habitat was in severe decline, scientists could reasonably predict population trends.

Studies to determine whether the California spotted owl is a habitat specialist were more conclusive (Verner et al., 1992). The assessment team found that owls used forested habitats almost exclusively, although California spotted owls were found in a greater variety of habitats than the northern spotted owl. Within forested habitats, they found that 45 percent of all nests in the mixed-conifer forest zone were in stands with relatively large trees and closed canopies. Similarly, studies indicated that owls foraged at locations with higher canopy closure, greater basal areas of both live trees and snags, and more dead and downed wood. In general, owls foraged in intermediate to old-aged stands, usually with greater than 40% canopy closure.

In addition, field analysis of 276 nest sites provided fairly conclusive evidence that owls preferred very large, old trees, averaging about 96 feet in height and 45 inches dbh, and with approximately 75% canopy cover in the surrounding forest (Verner et al., 1992). Cavity nests were found at 66% of the nest-sites indicating that most nest trees

were large, old and "decadent." Researchers found that many of the nesting cavities formed when decay invaded trees where branches were torn from the trunk. Large cavities were required to accommodate the nest, the female owl, and two nestlings. Hence, very large trees were needed to produce the cavities. "Not only were the diameters of nest trees significantly larger than the average tree in today's conifer forest," the assessment team reported, "but also they exceeded the mean diameter of trees in plots sampled in the Sierra Nevada at the turn of this century. The owls are apparently nesting today in a legacy of very large, old trees that were present in 1900 and before" (p. 9). The assessment team concluded that California spotted owls are indeed habitat specialists.

The assessment team was also charged with determining whether there was a significant decline in the amount of habitat used by the owl (Verner et al., 1992). In their analysis, the assessment team observed that Sierra Nevada forests have been "markedly impacted" by human intervention, especially during the past 150 years (p. 10). Consistent with other studies, sheep grazing, extensive logging, and fire suppression were the principal human activities leading to changes in forest conditions beginning in the early part of the 20th century and becoming "increasingly effective and aggressive" since that time (p. 10). Specifically, a combination of logging large trees and attrition of the oldest trees amounted to a marked decline in the number of suitable nesting trees. Meanwhile, the buildup of surface fuels and the extensive increase in shade-tolerant trees resulted in extensive vertical fuel ladders that connect surface fuels to the crowns of dominant forest trees, causing additional risks to old trees. "We expect the net result to be a much higher incidence of stand-destroying fires in the future than was characteristic of the Sierran fire regime prior to this century," predicted the assessment team. "And with those fires we

will continue to lose remnant, individual old trees, stands of old trees, and other old-growth attributes" (p. 10).

The assessment team (Verner et al., 1992) also reviewed timber harvest targets and harvesting techniques in national forest plans (LMPs) and predicted that implementation of the plans would decimate the remaining unprotected old growth forests and alter the structure and ecology of the remaining forests. "Given these projections," the team concluded, "it seems most likely that the forest to be generated by adherence to current LMPs will be susceptible to fire disturbance, nearly devoid of large, old trees, and depauperate in terms both of plant and animal species that depend on attributes of the older forests that were common last century" (p. 10). The assessment team concluded that the owl's preferred habitat was in steep decline.

Rather than call for larger reserves, the assessment team recommended that the Forest Service alter its forest management practices (Verner et al., 1992). Because the remaining owl nesting sites were still "widely and fairly evenly dispersed" throughout the conifer forests of western Sierra Nevada, the team believed that improved management practices, rather than reserves, offered the best hope for at least an interim solution (p. 19). "The desired objective," in the team's estimation, "would be to determine how to maintain spotted owls throughout Sierran conifer forests in a manner compatible with some sustainable level of timber production" (p. 20). The team concluded its analysis with three primary objectives for altering the agency's forest management practices. First, they recommended protecting known owl nest sites and main roost stands from significant degradation. Second, they recommended protecting very large, old trees throughout Sierra Nevada conifer forests. Third, they called for the reduction in fuel

loads. The team also recommended an interim management period of five years while scientists more thoroughly assessed the status of the spotted owl in the Sierras.

Drought and Fire

Severe drought conditions hit Sierra Nevada forests in the mid-1980s and lasted for approximately six years. The primary effect of the drought on the forests was to weaken trees that were then vulnerable to insect attack. Drought conditions also lowered the moisture content and slowed the decomposition of forest biomass, resulting in a larger, drier, and more combustible fuel load. The drought of 1986-92 was being monitored by a number of agencies in California and Nevada. However, because of its severity, and its visual impact, the drought played out in real time in the media, and in rather dramatic fashion. Media attention appears to have elevated the fear of catastrophic wildfire that, while present, was severely exacerbated by the drought.

Newspaper coverage of the drought was carried by the *Sacramento Bee* in February 1989 when the *Bee* reported that tree mortality on the Eldorado National Forest was so higher that, for the first time, the Forest Service was offering more dead or insect-infested "salvage" trees for sale than live trees. The *Bee* reported that, "two consecutive years of drought have brought to the forest the worst insect kill in years, and the situation is expected to worsen" (59). The Eldorado National Forest salvage operation was thought to be the most aggressive in the state at that time, offering to sell a record 90 million board feet of dead timber as compared to 77 million board feet of live trees. The *Los Angeles Times* picked up the story in July 1989, reporting the "loss of more than a million trees – the state's worst die-off in more than a decade." The dead trees, the *Times* reported, "represent enough lumber to build 300,000 new houses and more are being

discovered every day..." The toll of dead trees for 1989 was expected to top 4 billion board feet and would continue mounting in subsequent years (64). In dramatic fashion, the paper reported that the lack of water itself was not killing the trees. The trees were only weakened by lack of water, "then finished off by an opportunistic epidemic of burrowing, mating bark beetles that foresters are powerless to stop."

The *Times* raised the issue of increased fire risk but buried it beneath a greater concern for the loss of production. "Forestry officials are mainly concerned however, that all the dry, rotting wood will be fuel for wildfires and that it represents a waste of usable timber" (64). As the drought worsened, however, concerns shifted from salvage timber to the fear of wildfire. The *Sacramento Bee* carried the story again in May 1992, now in the sixth year of the drought. (5-10-92). In a provocative article titled "Drought Sets Stage for Disastrous Fires," the *Bee* reported that, "As the 1992 fire season fast approaches, officials at the cooperative of federal, state and local fire-fighting agencies looking over their 14-million-acre domain and don't like what they see." "It's like a piece of dynamite ready to be matched," Claude Marsh, operations coordinator for the Sierra Front Wildfire Cooperators told the *Bee*.

In late August 1992, the *Bee* (8-25-92) reported an "unpredictable and ravenous" fire on the Shasta National Forest. Shasta County's Fountain fire, the *Bee* reported, "leaped past containment lines early Monday, consuming rare northern spotted owl habitat and sending residents scurrying from subdivisions once thought to be safe." After five days, the fire zone was established at 64,000 acres confirming the Fountain fire as one of the 10 largest fires ever to strike California. Moreover, because of the unusual conditions, the fire was not behaving as predicted, according to a California Department

of Forestry spokesperson. "We thought we'd have a better handle on it by this time. Mother Nature is not going our way, with the winds and the six-year drought." The most devastating fire of the season, the Fountain fire also consumed pristine wildlife habitat. "In just one 1,000-acre fraction of the burn area," the *Bee* reported, "biologists know of the destruction of one nest of the endangered northern spotted owl, two osprey nests, one goshawk nest and an important elk calving area." The *Bee* also reported a suspected incidence of arson on the forest and throughout the state since the "statewide fire siege" began two weeks earlier.

As the 1992 fire season was ending, a final devastating fire ignited, this time in the northern Sierras. The *Bee* (10-1-92), with increasingly dramatic affect, reported a "ravenous fire" rampaging through the Eldorado National Forest, consuming more than 18,000 acres of timber, destroying structures and "awing veteran firefighters with its ferocity." The Cleveland fire, the third major fire to hit northern California since August, burned both sides of Highway 50 on the western slope of the Sierra, closing the highway to Lake Tahoe. About 2,300 firefighters were at the scene of the fire, which incident commander Ron Dougherty described to a *Bee* reporter as "roaring through the area like an atomic bomb." The *Bee* described the advance of the fire as "a starving man set loose on a banquet." The fire, it reported, "sent plumes of flame thousands of feet into the air, while huge embers floated several feet above the charred ground, held aloft by the heat." Winds up to 30 mph, it stated, "set the blaze on a wickedly whimsical path that dodged firebreaks and hop-scotched over rivers and streams."

The Washington Post carried the story of the worsening drought and the devastating effects of the Cleveland fire under the headline "Forest Fires Rage in Sierra

Nevada..." (October 2, 1992). Focused primarily on Lake Tahoe, the *Post* reported that "six consecutive years of drought have dried up man-made reservoirs and natural trout streams, wiped out at least 90 percent of wildfowl nesting areas, devastated two national forests and killed deer and wild horses." Nevada's state climatologist told the *Post*, "It's so dry in the forests it's like walking on corn flakes." And a spokesperson for the Forest Service confirmed to the *Post* that half of the trees in the Tahoe National Forest were declared dead or dying.

In late October, the *Bee* ran a story (10-25-92) under the headline "Drought Made Summer's Fires Fiercer, Officials Say." At \$20 million, the *Bee* reported, the Fountain fire was more costly than any fire in the history of California's Department of Forestry and Fire Protection. The *Bee* also expressed concerns raised by forestry officials that drought-induced fires marked a new era in fire management. "The fury of the Fountain fire, as well as two other large blazes in Northern California, has veterans worried," the *Bee* reported. "They fear that the hotter, faster-burning blazes that marked this year's fire season will become more common if the state's drought continues."

"This is the most incredible burning situation many of us have ever seen," a state forestry official said of the Fountain fire (10-25-92). The fire, the *Bee* reported, "spit out flaming chunks of debris that landed a half-mile away. And it spawned fire tornados that twisted pine trees 2 feet in diameter and broke them into pieces." Fire captain Mike Witesman told the *Bee* that the Fountain fire even generated its own weather system and gusting winds generated by the fire made it difficult for fire fighters to stand in some places. Smoke columns, stated the *Bee*, "shot so high into the atmosphere that they hit

cooler air and formed a large icecap in the sky. A forester stationed at a lookout even spotted lightning strikes created by the fire."

Six years of drought were blamed for conditions that gradually turned northern California forests into what one forester called "giant fireplaces." The Forest Service reported 4,570 fires on national forestlands in California in 1992, compared to a five-year annual average of 2,000 fires. The California Department of Forestry and Fire Protection (CDF) reported 7,567 fires on all California forestlands in 1992, compared to a five-year annual average of 6,457 fires. The rash of fires in 1992 was blamed in part on arsonists affiliated with the logging community. Although it was seldom discussed or pursued criminally, it was generally accepted that out-of-work loggers occasionally started fires to create temporary work on salvage projects. CDF determined that 1100 of the 1992 fires were arson-caused, as compared to 280 the previous year (Weiss 1993). While the number of acres consumed by the 1992 fires did not increase, their intensity and their danger to life and property did. "What is unusual is they are reaching these huge proportional sizes so much faster," a forestry official told the Bee (10-25-92). "They just completely outdistance the initial attack and become so large, so fast, that we're overwhelmed within hours."

Changes in the Forest Service

According to Kent Connaughton, Ph.D., Deputy Regional Forester for the U.S. Forest Service Region 5, to understand Forest Service changes, and many of the agency's current issues, one must begin with Samuel Hays' book *Conservation and the Gospel of Efficiency* (1999). Hays studied the conservation movement in the U.S. during the Progressive Era of the late 1800s and early 1900s and explored the establishment and

evolution of federal resource management institutions and policies. Connaughton (pers. comm., 5-21-99) contends that the relics of the Progressive Era are alive and well in the Forest Service and other federal resource management agencies:

It is a good place for you to start in putting in context why it is that you have some of the conflicts that you've got today. Because it is a difficult thing for an organization like this, born in that kind of a background, thinking that it has the answers or is at least expected to have the answers. And you get into the messy environment of empowerment and inclusiveness and all this other stuff in which no one is declared to have the final answer. You have a piece of it but you don't have the whole thing. And therein lies the real rub with our own traditions. And if traditions define what your cultural identity is, then you potentially have a cultural reformation on your hands or a revolution in existence internally.

The Progressive Era, according to Hays (1959/1999), was a broad-based movement advocating the centralization of governmental authority and control, with the reliance on expertise, specialization, and efficiency as guiding principles. Governmental authority and control, Hays contends, evolved into, "a more elaborate process of measurement and prediction, reliance on experts who could develop and manipulate information, and techniques for shaping the course of events to reach predictable outcomes" (p. xi). To maximize efficiency, Progressive Era institutions shifted the location of decision-making "away from the grass roots, the smallest contexts of life, to the larger networks of human interaction," including centralized government agencies and large corporations (p. x).

Federal natural resource institutions and policies were deeply influenced by Progressive Era thinking. The early conservation movement was led primarily by Progressive Era "technicians" who promoted the rational and orderly use of natural resources and who, above all, focused on efficiency, planning, and "the application of expertise to broad national problems" (Hays 1959/1999 p. xii). The conservation

movement was primarily a science-based movement, in part a reaction to abuses of political and industrial power obvious on the public domain at the time. Conservation leaders emerged from the applied sciences and cultivated professional networks with fellow practitioners. "Loyalty to these professional ideals, not close association with the grass-roots public, set the tone of the Theodore Roosevelt conservation movement" (Hays 1959/1999 p. 2).

Fundamental questions of who should decide the course of natural resource development were the topic of considerable professional discourse within these networks. Since natural resource matters were basically technical in nature, Progressives thought that technicians, rather than legislators, should deal with them. Gifford Pinchot, a German-trained forester and the first Chief of the U.S. Forest Service, was the embodiment of Progressive Era thinking in natural resource management and is credited with helping Roosevelt turn his conservation ethic into federal policy. A private forester at the time, Pinchot was appointed chief of the Division of Forestry in 1898 and assumed the role of chief of the newly created Bureau of Forestry in the Department of Agriculture in 1900. Pinchot emerged at a time of massive abuses of the public domain by an unconstrained timber industry. According to Hays (1959/1999),

Low prices for forest land and the meager amount of capital required encouraged many enterprising Americans to enter the field. The industry was highly mobile; lumbermen rapidly cut and abandoned lands, and moved on to new areas. Few cut more than the most valuable trees; they left second-grade timber as waste. Lumbermen showed little concern for fire and disease damage, the destruction of trees during logging, or provisions for adequate reproduction (p. 27).

In response, by the late 1800s forestry professionals began to demand that the federal government implement an orderly program of "scientific management" of the public domain, which Nelson (2000) describes as a Progressive theory about "the

capabilities of not only scientific knowledge to transform the physical world but also the political institutions by which this knowledge would be put to use" (p. 59). Pinchot assumed leadership of the movement and began to promote the concept of sustained yield management, a principle tying timber production to annual growth rates, reducing waste from timber harvests, and controlling forest fires. Pinchot was a strong advocate of using public forestlands to promote economic development, and argued that scientific management of the forests was the key to their productive use.

One of Pinchot's most significant battles was over the disposition of the public domain itself. Until the 1880s, the Interior Department's General Land Office maintained a policy of divesting the public domain. Due in part to Pinchot's persistence, in 1891 Congress passed the General Land Law Revision Act, which reversed the federal government's divestment policy and allowed for the retention of the public domain. The Act, however, renewed the controversy over who would manage the domain and how it would be managed. Many of the Act's proponents, especially in the Department of Interior, sought to curtail commercial use of the lands and advocated retention of the lands for parks and nature preserves. Others, including Pinchot, sought to develop "a trained forestry force" to aggressively manage the forest reserves, suppress forest fires, control disease, and supervise the harvest and sale of timber, as well as maintain the integrity of the forests (Hays 1959/1999 p. 36).

Wary of continued abuses by the timber industry, Congress opposed Pinchot's pressure and restricted commercial use of the lands. Undeterred, Progressive Era advocates persisted in promoting the Forest Management Act of 1897 (the Organic Act), which granted the Secretary of Interior powers "to regulate the occupancy and use" of the

forest reserves and paved the way for federal officials to open the lands to commercial use. A problem still remained, however. The reserves were still under the jurisdiction of the Interior Department's General Land Office and were being managed by a staff of attorneys, a culture that at the time favored political appointments and personal favoritism. Pinchot's answer was to transfer the lands to the Bureau of Forestry in the Department of Agriculture. Pinchot again persisted and in 1905 Congress transferred the reserves to the Bureau. At the same time, Roosevelt began to expand the reserve system, from 41 reserves and 46.4 million acres when he took office to 159 national forests and 150.8 million acres by 1907 (Hays 1959/1999). Pinchot prevailed "through sheer force of personality and conviction," Hays contends, and influenced Progressive Era natural resource management in all aspects of federal natural resource policy (p. 30). Adds Hirt (1994 p. 31): "The basic institutional structure and guiding principles of federal forest management laid down by Pinchot have carried on to the present."

Eras of National Forest Management

From the early days of the Forest Service until the beginning of World War II, the agency managed the national forests according to a "custodial" model of resource management (Hirt 1994; 2000; Kessler and Salwasser 1995). Pursuant to the model, the national forests were managed as much for the watershed values they provided as for the timber that could be harvested. Hirt (1994) contends that the push to establish the national forest reserves in the late 1800s was the result of a strong movement by a wide variety of interests to set aside portions of the federal government's extensive land holdings as "forest reservations" (p. 29). The Organic Act of 1897 identified the purpose of the forest reserves, "to protect the forests from fires and depredations, to secure

favorable water flow conditions, and to provide a continuous supply of timber." As mentioned, the Act also allowed the federal government to regulate the "occupancy and use" of the reserves, which served as the legal foundation for the agency to set grazing fees, provide campgrounds and summer home sites, and establish regulations (Hirt 1994 p. 30). This clause, Hirt contends, translated into the agency's early philosophy of sustained yield, "a philosophy of conservative use that would allow sustained production of timber yet leave the forest unimpaired" (p. 31).

The custodial era was also marked by the introduction of the concept of conservation. Pinchot claimed to have coined the word, intending to make a distinction between *conserving* natural resources and *preserving* them (Hirt 1994). To Progressives, conservation was "the utilitarian maintenance of nature's ability to produce goods and services rather than the preservation of nature per se" (p. 32). For Pinchot, it meant "the greatest good to the greatest number for the longest time" (p. 32). In his first State of the Union address, Theodore Roosevelt introduced conservation as a new administrative policy. "Forest protection," Roosevelt stated, "is not an end of itself; it is a means to increase and sustain the resources of our country and the industries that depend on them." In response to an unconstrained timber industry, Roosevelt added; "The preservation of our forests is an imperative business necessity... Whatever destroys the forest threatens our wellbeing" (p. 32).

The custodial era was gradually replaced by the era of intensive scientific management that led up to and followed World War II (Hirt 1994; 2000; Kessler and Salwasser 1995). Demand for the production of timber to support the war effort and to serve the housing needs of a post-war population boom placed increased pressure on the

Forest Service to greatly expand timber production on the national forests. The post-war boom also brought unprecedented economic prosperity to the American people and with it an insatiable demand not only for wood products but for outdoor recreation. The Forest Service welcomed the increase in demand but was initially overwhelmed by what was expected. Rather than retreat to its custodial role, however, the agency "enthusiastically sought to increase supply through intensive management" (Hirt 1994, p. 44).

Timber sales on the national forests increased by 238% between 1939 and 1945. However, it was not long before problems developed, both internally and externally. While interpretations of sustained yield were evolving towards a production model, the agency itself began to recognize that the wartime level of timber production was both unsustainable and incompatible with other resource values. Each year during World War II, for example, Forest Service chiefs cautioned Congress that logging on both national and private forestlands was not only unsustainable but destructive. The agency claimed that the timber industry was liquidating old growth forests on its own lands with little regard for erosion or reforestation. Unfortunately, the same thing was happening on the national forests. The agency, however, was powerless to control it. By the end of the war, Chief Lyle Watts estimated that wartime timber production on the national forests had exceeded their annual growth rate by 50 percent (Hirt 1994).

Recovering from this destructive period was critical. The post-war housing boom, however, created additional pressures on the Forest Service to harvest even more timber. In 1946, the Forest Service identified lumber supply as "perhaps the number one bottleneck" in preventing the housing boom from achieving its full potential and recommended that the agency intensify its efforts (Hirt 1994, p. 50). That year, timber

production from the national forests was 2.7 billion board feet. By 1955, timber production had risen to 6.3 billion board feet and by 1960 it reached 9.4 billion board feet. The bulk of production occurred in eleven western states but most notably in the Pacific Northwest and the Northern Rockies. These regions also witnessed an "astonishing proliferation" of outdoor recreation resulting from increased expendable income, more leisure time, and greater mobility (Hirt 1994, p. 52). In 1945, the Forest Service reported that the national forests received approximately 10 million recreational visitors. By 1960, the number of visitors had risen to 92.5 million, a 900 percent increase during a period in which the U.S. population grew by 35 percent.

During the custodial era of forest management, the agency's lack of procedures for resolving conflict was not a major concern (Ruth 2000). By the mid-1950s, however, increased demand for both timber and recreation set the stage for a series of increasingly acrimonious conflicts. The agency's inability to effectively respond to those conflicts in many ways defined the era of intensive forest management. The first significant conflict occurred over wilderness designation. By 1958, 14 million acres of national forestland – roughly 7% – had been informally designated as wilderness, wild or primitive by the Forest Service. These lands were primarily forests with limited commercial value or were rock and ice. According to Hirt (1994), the areas were established by the agency in the 1920s and 1930s in response to influential resource managers who recognized their wild character. The Forest Service as a whole supported and even defended wilderness preservation. However, as Ruth (1996, p. 149) observed, "many conservationists did not believe that the agency valued wilderness enough to ensure that existing primitive area designations would survive the timber industry's preference for increased timber harvest

levels in national forest lands." The agency also appeared satisfied with the wilderness it had informally set aside and was not interested in additions to its portfolio.

Wilderness advocates had another vision. They recognized significant non-timber values in commercially valuable timber stands in the form of ancient trees and old growth forests, and believed the agency had a responsibility to set aside a portion of those forests. Old growth forests thus came to define the battleground over federal legislation to protect additional wilderness areas. The wilderness debate carried on for eight years, while timber harvesting on the national forests increased at a rapid pace. Timber advocates were able to stave off a growing segment of society that viewed the national forests as more than a source of lumber. However, a surge in the environmental movement in the early 1960s along with a change in guard from the Eisenhower to Kennedy administrations tipped the balance of power in the debate (Hirt 1994; 2000). The Wilderness Act passed in 1964.

As non-timber values on the national forests gained public importance, a parallel conflict ensued as groups representing those values vied for attention. Hirt (1994) contends that this made "public relations difficult for the Forest Service." "Increasingly," Hirt noted, "each constituent user group hammered the agency for failing to provide for their needs, and attempted to redefine the agency's policy rhetoric to their own advantage" (p. 171). At the heart of this conflict was the definition of multiple-use management, which the agency defined, more or less, according to timber industry sensibilities. From the industry's perspective, multiple use referred to a hierarchy of uses with timber being dominant. From environmentalists' perspective, multiple use implied equal consideration among all uses including water, wood, wildlife, wilderness, forage

and recreation. Not wishing to lose control of the debate to either side, the Forest Service positioned itself in the middle, characterizing the extremes as special interests advocating either "overuse" or "single use" of the national forests.

In the mid-1950s, interest groups turned to Congress to formally define multiple use management. Over the next few years the debate continued, with definitions predictably skewed towards either timber production or resource protection. The Forest Service continued to define its role as arbiter of the public good, but avoided legislation. The agency, Hirt (1994) contends, "sought with its definition of multiple use to maintain the status quo that allowed it wide discretion, while commodity interests sought to firmly establish their priorities and noncommodity interests sought to alter the priorities" (p. 181). Eventually, however, the agency acquiesced to a legislative definition and proposed an administrative bill incorporating its own language. With the Forest Service on board, The Multiple Use and Sustained Yield Act (MUSY) was passed in 1960.

In the end, MUSY was vague enough that it provided the agency with the discretion it desired (Ruth 1996). Even as the Kennedy administration assumed power, the Forest Service was unable to reconcile timber production with other multiple use requirements. First, Congress still considered the Forest Service timber management program to be its primary purpose. As such, congressional appropriations overwhelmingly supported a robust timber program (Ruth 2000). Second, leadership choices made at the beginning of the Kennedy administration led to the appointment of a decidedly production-oriented Forest Service Chief – Edward Cliff. Cliff's appointment "symbolized loyalty to the old status quo and initiated a period of unprecedented hostility between the Forest Service and environmentalists" (p. 221). By the end of the 1960s,

little had changed in how the national forests were managed, other than the designation of new wilderness areas that were off limits to logging.

The decade of the 1970s marked a major period of controversy over forest management (Hirt 1994). The period began with enactment of the National Environmental Policy Act of 1969 (NEPA) and the Endangered Species Act of 1973 (ESA), and was highlighted by the enactment of the National Forest Management Act of 1976 (NFMA). While NEPA was intended to ensure that environmental factors be considered in federal decision-making processes, and the ESA was intended to identify and protect federally threatened and endangered species, NFMA required the Forest Service to develop long-range plans for individual national forests. The importance of NEPA to this period was its requirement for public involvement. Specifically, NEPA's public information and disclosure provisions provided citizens with opportunities to challenge agency decisions through political and administrative processes and the courts. Similarly, the ESA allowed citizens to petition the federal government and the courts to list threatened and endangered species and to force their protection (Ruth 1996).

NFMA called for comprehensive planning that attempted to reconcile public demands for resource protection, including maintaining the viability of native vertebrates, with timber production and resource development (Ruth 1996). NFMA was also intended to "reinvigorate the idea of multiple use" by employing planning as a mechanism for resolving conflicts (Ruth 2000, p. 222). The public involvement component of the planning process was expected to "reorient" decision-making from a process based primarily on expertise to a process "resembling a political dialogue between the administrator and the public" (p.223). Instead, the planning process provided

the agency with an opportunity to showcase and then defend intensive management on individual national forests. To wit, the forest plans "uniformly adopted unjustifiably optimistic assumptions to support high timber harvest targets" (Hirt 1994, p. 265).

The controversy intensified during the 1980s, a period in which both Congress and the Reagan administration pressured the agency to continue to set unrealistic timber targets. This was especially true of the Reagan administration, which strongly favored aggressive commodity-based programs and viewed the national forests primarily as timber plantations, including the widespread use of clearcutting (Hirt 1994). However pressure from above only served to affirm what many foresters had been practicing, and were rewarded for, since the postwar housing boom. What Congress had envisioned as a "bottom-up process, emphasizing capabilities of the land and desires of the people," became instead a top-down process influenced by political appointees and congressional appropriations committees (Kessler and Salwasser 1995, p. 173). This perception was eventually confirmed by the Office of Technology Assessment (OTA 1992) in a report analyzing the strengths and weaknesses of the NFMA planning process. Published in February 1992, the report concluded that, 1) forest plans emphasized commodity production over non-commodity values; 2) monitoring and evaluation of management actions was inadequate to assess long term impacts; 3) budgetary decisions continually overrode planning and management decisions; and 4) targets imposed at the national level continually negated local management decisions.

As Ruth (1996) confirmed, "much of the opposition to the [forest plans] has been due to the inability of the agency to satisfy the ecological protection provisions of federal law and policy" (p. 160). This was no more apparent than with threatened and

endangered species, which finally forced the agency to confront the ecological realities of its policies (Hirt 1994; Yaffee 1994). Several species, it was discovered in the 1970s and 1980s, were highly dependent on forest conditions that were prized by the timber industry. First to be recognized for their declining status were the northern spotted owl, grizzly bear, and several native salmon populations. As awareness of the species' biological requirements grew, it became evident to most observers that changes were coming. The wakeup call for the Forest Service came with the proposed ESA listing of the northern spotted owl by the U.S. Fish and Wildlife Service in 1989, and the formal listing of the species in 1990 (Marcot and Thomas 1997; Yaffee 1994).

As threatened and endangered species issues became more ominous, they eventually began to affect timber targets contained in the forest plans. Precipitous declines in timber sales appeared inevitable if the species was to be protected. "Amidst the swelling controversy," Hirt (1994) concluded, "ground level managers of the national forests came to a growing sense by the end of the decade of the 1980s that their capabilities and the ecological capabilities of the national forests were overstretched" (p. 278). Former Forest Service Chief Jack Ward Thomas (1998 p. 18) described the agency's grudging acknowledgment of the need to change:

Between private lands and public lands, the world that was once covered with a sea of green was now pocked with clearcuts and crisscrossed by roads. But we still continued until we were face to face with a segment of the public that had a differing view of what their national forests should be.

Battle over Administrative Appeals

That segment of the public had been armed since the mid-1930s with the power to appeal administrative decisions (Vaughn and Cortner 2005, p. 46). In 1936, Forest Service appeal procedures were officially codified in the *Federal Register*, stating that:

An appeal may be taken from any administrative action or decision by filing with the officer who rendered the decision a written request for reconsideration thereof or notice of appeal. Decisions of forest officers shall be final unless appeal is taken therefrom within a reasonable time. The decision appealed shall be reviewed by the immediate superior of the officer by whom the decision was rendered; that is, in the following order: Supervisor, Regional Forester, Chief of the Forest Service, Secretary of Agriculture.

Up until the passage of NEPA and NFMA in the late 1960s and early 1970s, however, Forest Service appeals were filed primarily by parties holding permits with the agency or having other business deals. NEPA and NFMA expanded opportunities for public participation in agency decision-making and opened the door to increased appeals of agency actions. NFMA, in particular, established a legal and regulatory framework for public involvement in forest planning. According to an Office of Technology Assessment (1992) report evaluating the forest planning process, this framework was "designed to encourage public involvement in three general stages...: 1) in plan development, review, and implementation; 2) through requests for administrative review of plans and decisions; and 3) through judicial review" (p. 77). In addition, NFMA instructs the agency to coordinate its planning process with those of other Federal agencies and State, tribal, and local governments. "Taken together," OTA reports, "these channels for public participation are intended to expand and elevate the public's historic role in Forest Service decisionmaking and to assure that public values, needs, and desires are reflected in forest plans" (p. 77). At Senate Committee hearings on the planning process in 1989, however, Senators Mark Hatfield (R-OR) and James McClure (R-ID) concluded that the planning process had "broken down." The problem, according to OTA researchers, "is commonly attributed to Forest Service failure to involve the public effectively in forest planning" (p.77).

One significant avenue for public involvement, mentioned above, is the right of citizens to appeal agency plans and decisions through administrative review. The increased number of administrative appeals filed post-NFMA, and their technical nature, however, placed new burdens on the agency. In response, in 1977 the Forest Service recommended placing restrictions on the appeals process that limited appeals to those who had previously participated in the planning process. The agency was deterred from imposing limits on the appeals process by the Committee of Scientists established under NFMA, which supported greater public access to agency decisions. The agency, however, resisted the Committee's recommendations and instead offered planning rules that limited appeals to those who had established "standing" via previous involvement. This change, which would be dropped and added over the next 15 years, had the effect of increasing the number of public comments filed during the planning process to assure that legal standing was secure (Vaughn and Cortner 2005).

In response to the agency's actions, in 1978 President Carter issued Executive Order 12044, which required federal agencies to develop procedures allowing public comment on all new rules and regulations as they were developed. Carter also directed the Office of Management and Budget (OMB) to report on agency regulatory activities and progress in implementing the Order. In 1980, however, the Reagan administration immediately revoked Carter's EO and replaced it with Executive Order 12291, which granted a 60-day moratorium on new administrative rules and established the Presidential Task Force on Regulatory Relief to review, and essentially delay, any new rules that ran counter to Reagan's views. In 1983, the agency finally released a new set of rules governing administrative appeals. Although the requirement for prior standing was

dropped, the rule changes this time codified an appeal process that was much more adversarial and that required more formal procedures (Vaughn and Cortner 2005).

The Reagan administration witnessed a proliferation in both numbers and activities of mainstream and grassroots environmental organizations that were eager to challenge its interpretation of environmental policy and law. The number of Forest Service administrative appeals rose from 581 in 1983 to 1609 in 1988. In 1989 they dropped slightly to 1291. A Congressional Research Service (CRS) study of the appeals suggested that the jump during this period coincided with the release of many of the early forest plans (Vaughn and Cortner 2005). The trend also coincides with the rise in timber harvest levels on many national forests, including the Plumas and Lassen forests in the northern Sierras (USDA 2003).

As the number of appeals increased, the Forest Service became increasingly frustrated with the perceived delays they were causing. Forest Service managers were concerned that while the appeals were designed to be a tool to resolve disputes, they were being used by environmentalists to delay or postpone what they considered worthy projects (Coulombe 2004). In 1989, the agency made further revisions to the appeal process that put into place efficiency measures that created three separate avenues for appeal – occupancy and use permits such as grazing allotments; projects proposed pursuant to forest plans; and the forest plans themselves. Removed were provisions allowing appellants to make oral presentations, and restrictions were placed on requests for a "stay of decision" while appeals were reviewed. Finally, timeframes were placed on the submission and review of different types of appeals (Vaughn and Cortner 2005).

Shortly after the new rules were finalized, the General Accounting Office (GAO) released a report on the appeal of timber sales in response to a Senate request. The GAO examined the appeals filed between 1983 and 1988 and concluded that the agency's justification for revising the rules was unsubstantiated, stating that, "the increases in appeals processing times and in the backlog of unresolved appeals do not appear to be due to problems with the appeals system itself. Rather, they most often occurred because the Forest Service has experienced difficulties in resolving complex environmental issues raised in the increasing number of timber sale and forest plan appeals." The report also noted that the new rules "do not directly address the difficulties that the Forest Service has experienced in resolving environmental issues raised by appeals – the factor that is principally responsible for these time overruns" (GAO report quoted in Vaughn and Cortner 2005, p. 53).

In spite of the GAO findings to the contrary, Vaughn and Cortner (2005) observed that, "the 1989 GAO report was the first of many that would be requested by members of Congress..., all intended to find justification to further limit the administrative appeals process" (p. 53). Congress made several attempts to amend NFMA over the next three years to address the common perception that administrative appeals were delaying forest plans. Each attempt came closer to codifying two key changes. First was the provision requiring appellants to demonstrate standing through prior involvement in the planning process. Second was a provision that automatically denied an appeal if the Forest Service failed to make a decision within the prescribed time period.

In the early 1990s, both Congress and the Forest Service, with support from the timber industry, continued to push for changes to the appeals process. While less vocal,

environmentalists were also dissatisfied with the process and argued that they were not being given sufficient opportunity to participate, that line offers were positioned against them, that appeal decisions were unresponsive to their claims, and that time frames were constrained. In February 1991, the agency again revised its procedures, this time requiring it to publicize proposals in newspapers easily accessible to the publics most affected by a decision. This minor change had the affect of increasing the number of appeals and other comments that the agency could receive and gave the appearance of greater transparency. Somewhat cynically, it also "helped to establish a paper trail that could be used to document Forest Service attempts to enhance public participation" (Vaughn and Cortner 2005, p. 55).

Later that year, timber advocates in Congress introduced federal legislation to address the issue. Senators Robert Packwood (R-OR) and Slade Gorton (R-WA) cosponsored the Federal Lands and Families Protection Act, which sought to legislate two key provisions raised above – requirement for legal standing for appellants and the automatic denial of appeals if the agency failed to act within the timeframe. According to Vaughn and Cortner (2005, p. 55), "[b]oth senators were riding on public opinion that blamed the decline in logging jobs and delays in timber sales on the Northern spotted owl, which was being considered for designation as a threatened species under the Endangered Species Act." The Forest Service, to a fault, interpreted Congressional interest in the issue as confirmation of support for further limiting the appeal process. In March 1992, the agency published a proposed rule to eliminate all appeals of forest projects, while retaining appeals of forest plans. Instead, the agency proposed a "pre-

decisional" public comment opportunity designed to reduce the uncertainty resulting from the existing process (Vaughn and Cortner 2005, p. 56). The rule stated in part:

Administrative appeals adversely affect jobs, families, and communities by delaying or withdrawing projects which support the local economy, thus creating uncertainty for communities dependent upon Forest Service goods and services... The current post-decisional appeal process creates uncertainty as to the Forest Service's ability to deliver those goods and services, impeding economic growth and development. Delays in delivery of National Forest System goods and services can place the economic viability of communities at risk (proposed rule 57FR 10444 quoted in Vaughn and Cortner 2005, p. 56).

In contrast to previous rules, the new rule would allow the public to comment only on proposed actions in draft Environmental Assessments (EA) and Findings of No Significant Impact (FONSI). Public comments would be addressed by the agency in the formal Decision Notice, which would be mailed to those submitting comments. The new rule also allowed the agency to bypass the rules in response to extraordinary conditions, such as catastrophic wildfire and insect and disease infestations that required immediate attention (Vaughn and Cortner 2005).

Throwing caution to the wind, the agency and Congressional supporters again asked CRS to report on the status of administrative appeals and their impact on Forest Service timber sales. Again, the CRS findings failed to support the perceptions of the agency and congressional timber advocates. The CRS report found that of the 1386 appeals filed in 1991, 397 timber sales, representing only 10.3 percent of the agency's commercial sales, had been appealed. The CRS report concluded that appeals could be reasonably blamed for preventing the achievement of only 5 percent of the agency's timber targets (Baldwin and Gorte 1992). The report also concluded that most appeals were resolved in a timely manner, were not frivolous in nature, and may have actually saved the federal government money. In addition, the Office of Technology Assessment

(1992) released an analysis of the forest planning process in the spring of 1992 that supported the administrative appeals process as a reasonable extension of public participation under NEPA and NFMA and concluded that the process was a valuable tool in agency decision-making.

Media accounts and public opinion came down strongly in favor of rejecting the proposed changes. The Bush administration blamed environmentalists for abusing the process by delaying and halting logging and by destroying local economies in timber-dependent communities. Environmentalists quickly rallied behind the CRS report and the appeals process, repeating many of the arguments contained in the report (Goodman 1994). The agency received more than 30,000 comments in response to the proposed rule, the majority of which supported the right of citizens to object to agency decisions (Vaughn and Cortner 2005). A similar majority was reflected in the Forest Service rank and file (Goodman 1994).

In May of 1992, while the agency's proposed rules were still under consideration, members of Congress resumed their debate, but with a new awareness of public sentiment on the issue. Senator Wyche Fowler (D-GA), who had previously sought a balance between Forest Service efficiency and public participation, strongly challenged the Bush administration's motives for continuing to push for limits on the appeal process. As chairman of the Senate Subcommittee on Conservation Forestry, Fowler opened hearings on the issue:

As chairman of this subcommittee... I intend to find out what the President really has in mind with respect to sales of timber on Federal lands... The system should not be abused – we agree on that much. But closing the system the public relies upon is certainly not the answer... The Forest Service claims that, "the intended effort is to expand opportunities for pre-decisional involvement of the public in Forest Service decision-making." I submit, on the contrary, that – while "the

intended effort" is disguised here in pretty God-awful bureaucratic perversion of plain English – the actual result will be the exact opposite." (Fowler testimony quoted in Vaughn and Cortner 2005, p. 58)

Fowler decided to fight the agency's proposed rules and in July 1992 introduced his own legislation. The first bill – the Forest Service Decisionmaking and Appeals Reform Act – was stalled in the Senate Committee on Agriculture, Nutrition and Forestry. In August 1992, Fowler reintroduced the measure as an amendment to the Interior and Related Agencies Appropriations Act. The amendment was unique in its scope because, "for the first time the Forest Service would be required to implement an... appeals process that had strict timelines for the filing and review of appeals and, perhaps most importantly, a notice and comment period for all projects, including those requiring only an EA rather than an EIS" (Vaughn and Cortner 2005, p. 59).

Senator Larry Craig (R-ID) offered an amendment to Fowler's amendment that reestablish legal standing, required the Forest Service to attempt to resolve disputes through informal meetings, and shortened processing timelines. Both the Fowler and Craig amendments were accepted on voice vote as part of the appropriations bill, which was enacted in October 1992. The Fowler/Craig amendments to the Appropriations Act not only expanded the scope of the appeals process by including Environmental Assessments, but took the rule setting process out of the hands of the Forest Service. "At this point," note Vaughn and Cortner (2005, p. 59), "the Forest Service became the only federal agency with a legislatively mandated appeals process."

Hints of Change – a New Era?

Early accounts of agency soul searching resulted in hints of change. In 1989, a Forest Service public information packet revealed the agency's new goal of increasing

the "environmental sensitivity" of commodity production on national forests (Hirt 1994 p. 284). Then, in early 1990, the agency announced a major new initiative designed to significantly change the way it managed the national forests – New Perspectives. To promote its new environmental sensitivity, the agency appointed a wildlife biologist, Hal Salwasser, as director of the initiative (Hirt 1994). Kessler and Salwasser (1995) observed that the reason for the change was the agency's recognition that the context for forest and natural resource management had shifted and that the "fitness" of the Forest Service in this new context had been affected (p. 171). The shifting context, they argued, required agency leaders to ask a different management question. "The key question addressed in the planning process (how should we manage these lands?) would remain moot until a more basic question was answered first: for whom, and for what values and purposes, should we manage these lands?" (p. 174). Kessler and Salwasser suggest that the particular "brand" of multiple use management practiced by the Forest Service in the 1980s was "growing increasingly discordant with society and with developments in the scientific community" and thus required a fresh look (p. 174).

Charles Cartwright, assistant director of the program, told science writer Seth Zuckerman (Zuckerman 1992), that New Perspectives "first focuses on providing for a healthy, vibrant ecosystem, and then delivers sustainable products in the process of maintaining that healthy state" (p. 41). The cornerstone of the program, according to Cartwright, was a model of forest management referred to as "New Forestry," a term coined by forest ecologist Jerry Franklin and his colleagues (Franklin 1989). Franklin, at the time professor of ecosystem analysis at the University of Washington and chief plant ecologist for the Forest Service's Pacific Northwest Research Station, pioneered New

Forestry as "a kinder and gentler forestry that better accommodates ecological values, while allowing for the extraction of commodities" (p. 38).

New Forestry was based on research on the ecology of old-growth forests in the Pacific Northwest and was designed to move the traditional practice of forestry away from a narrow focus on the commercial harvest and regeneration of timber and towards the long-term maintenance of complex ecosystems. The principal effect of the paradigm was in redefining the practice of forestry, making timber production a tool for restoring ecological health. However, the emerging paradigm did not fall neatly into either environmental or timber industry camps. Instead, it challenged both:

Industry users need to recognize that society views forestlands as more than just another form of agricultural land with a slow-maturing crop. Forestry professionals need to acknowledge that what is good for wood-fiber production is not necessarily good for other forest values. Conversely, environmentalists must stop relying on setting aside preserved lands as the only approach to the protection of ecological values (Franklin 1989 p. 44).

Although skeptical, environmentalists in some regions were willing to give New Forestry a try. As forest activist Jim Britell recalled of a New Forestry proposal in 1990 on the Siskiyou National Forest, "No one was enthusiastic about logging in a roadless area. But Oregon was cutting record numbers of trees and would continue to do so until the laws were changed. We figured we'd better come up with a method that didn't trash the place" (Zuckerman 1992 p. 42). What emerged through a local collaborative process was a "highly constrained" logging plan for the Shasta Costa basin that environmentalists supported. "If logging has to be done in a roadless area," Britell stated, "this is how we would like to see it done. Shasta Costa gives us a model" (p. 45). But the plan failed to produce the volume of timber needed to entice the timber industry and the Forest Service subsequently altered the plan, allowing more old-growth to be cut, doubling road

construction, and increasing the harvest. Now a strong critic of collaboration, Britell (www.britell.com) expressed his frustration with the experience: "Agencies are willing to give us an endless supply of elk viewing areas, maps, rides in helicopters, new trails, and schmoozing: anything and everything except trees" (Zuckerman 1992, p. 45).

Many Forest Service professionals welcomed New Perspectives, but were less than optimistic the agency was capable of significant reform. New Perspectives was viewed by some as the usual "smoke and mirrors public relations games" typical of Forest Service reform efforts. Others were "cynically optimistic" and wanted to believe the agency was finally serious about change (Hirt 1994, p. 285). Unfortunately, while New Perspectives led to a number of creative projects during the initiative's two-year experiment, it conflicted with many of the forest plans recently developed pursuant to NFMA. At a congressional hearing on national forest management in April 1991, for example, Senator Patrick Leahy (D-VT) challenged the agency's commitment to the initiative. "You cannot have New Perspectives," Leahy argued, "and at the same time have a 66 percent increase in the Green Mountain's [national forest] timber sale program. That is contradictory and it has got to stop" (p. 285).

In fairness to the agency, many forest supervisors tried unsuccessfully to lower their NFMA timber targets to more sustainable levels using New Perspectives as justification. In response, timber-oriented members of Congress pressured the agency to retain the high targets and to castigate forest supervisors who resisted the pressure. In June 1992, amidst great skepticism, Forest Service Chief Dale Robertson announced to regional and national foresters that the New Perspectives experiment was being adopted under the title of "Ecosystem Management." Robertson stated: "…the Forest Service is

committed to using an ecological approach in the future management of the national forests and grasslands" (Hirt 1994 p. 288). Robertson defined ecosystem management as "a multiple use philosophy built around ecological principles, sustainability, and a strong land stewardship ethic, with a better recognition of the spiritual values and natural beauty of forests" (Robertson 1991 p. 19).

Sierra Nevada National Forests

The U.S. Fish and Wildlife Service (FWS) considered the spotted owl a "threatened species" even before the passage of the Endangered Species Act (ESA) in 1973. The FWS included both the northern and California subspecies of the spotted owl in their informal listing, although neither made the list of Threatened and Endangered species when the Act was passed. Forest Supervisors in California were first made aware of the owl's status in 1972. In 1973 and 1974, the Forest Service, the California Department of Fish and Game, and the National Park Service jointly funded the first survey to document the status of the owl in California. Their findings revealed a more abundant population than first anticipated – 159 confirmed locations within the owl's known range. Because of these findings, concern by government officials for the owl's viability was slow to develop (Beck and Gould 1992).

The passage of NFMA in 1976 increased attention to the California spotted owl, in part because the Act mandated the maintenance of viable populations of native vertebrates on the national forests. NFMA also required the identification and use of Management Indicator Species (MIS) to inform decisions regarding wildlife communities and associated habitats. While the owl was designated a MIS for wildlife requiring extensive "late-seral-stage" conifer forest, little more occurred until 1981 when the Forest

Service convened an interagency task force of federal and state agencies with jurisdiction over California spotted owl management. The purpose of the task force was to review an approach to spotted owl protection recommended by the interagency Oregon Endangered Species Task Force, a parallel group dealing with the northern spotted owl. The Oregon task force's management plan recommended that 1000 acres of old-growth forest within a 1.5-mile radius of an owl nest-site be maintained for each nesting pair. Recognizing similarities between the owl's plight in California and the Pacific Northwest, the California task force adopted the recommendations of the Oregon group. In July 1981, the Regional Office of the Forest Service directed the national forests within the Sierra Nevada to integrate the strategy into their upcoming forest plans (Beck and Gould 1992).

National forests with owl populations responded to the directive by creating networks of Spotted Owl Habitat Areas (SOHAs) within their forest plans. The strategy permitted some timber harvesting in parts of SOHAs not immediately adjacent to nesting trees but did not protect forestlands outside the SOHAs, even though they were used by the owls for nesting, roosting and foraging. As such, the forest plans greatly expanded the use of clearcutting as a harvesting technique and proposed significantly higher harvest levels on forestlands outside the SOHAs. The agency's rationale for the increase was that the forests were mainly composed of mature or over-mature trees that had exceeded their peak productivity (i.e. old growth) (Ruth 1996; 2000).

As forest plans were being completed, ongoing research on the northern spotted owl began to suggest that the SOHA strategy may be ineffective in maintaining the viability of spotted owl populations. Concerned with the efficacy of the strategy, federal agencies responsible for northern spotted owl management – the Forest Service, Fish and

Wildlife Service, National Park Service, and Bureau of Land Management – began work on an interagency agreement to develop a common strategy for maintaining the viability of the spotted owl throughout its range. The agreement, in 1989, established the Interagency Scientific Committee (ISC) to address the growing crisis surrounding the northern spotted owl, which by that time had been proposed for ESA listing (Ruth 1996; Yaffee 1994; Beck and Gould 1992).

Led by Forest Service biologist Jack Ward Thomas, the ISC was given six months to "develop a scientifically credible conservation strategy for the northern spotted owl" (Beck and Gould 1992 p. 39). The ISC's report was released on April 1, 1990 and concluded that the SOHA strategy would lead to increasing loss and fragmentation of suitable owl habitat and threaten the owl's continued existence. The ISC report recommended a strategy that called for the designation of large, well-distributed reserves, called Habitat Conservation Areas (HCAs). Each HCA, the report recommended, should support at least 20 nesting pairs, with the forestlands between the HCAs managed so as to facilitate movement among the reserves. The ISC report had a significant impact on northern spotted owl management (Marcot and Thomas 1997; Yaffee 1994) and greatly heightened concern over California spotted owl management (Beck and Gould 1992).

As the ISC study was nearing completion, the committee's findings began to surface confirming the belief that the SOHA policy and subsequent administrative actions employed to protect the California spotted owl were also inadequate and, further, were vulnerable to legal challenge (Ruth 1996 p. 157). In response, in 1989 the Forest Service modified the SOHA policy on Sierra Nevada forests by requiring that field surveys be conducted in the preparation of biological evaluations for proposed timber sales. The goal

of the field surveys was to assess potential owl locations on forestlands outside the SOHA networks that were scheduled for timber sales. According to Beck and Gould (1992), the evaluations improved the coverage of forestlands surrounding SOHA networks but were considered inadequate because they required only three project-site visits to determine whether owls occupied the areas.

Troubled that the agency was not adequately considering spotted owls in project evaluations, in March 1991 the Natural Resources Defense Council (NRDC) filed a number of administrative appeals challenging timber sales on the Tahoe National Forest (Ruth 1996). The appeals challenged the agency's decision to continue using the SOHA strategy, in light of additional research, and argued that NFMA mandates required the agency to take greater steps in protecting spotted owl habitat. As a follow-up, in May of 1991 NRDC attorney David Edelson wrote a letter to Regional Forester Ron Stewart threatening to sue the agency for violation of NFMA if it approved additional timber sales in spotted owl habitat (119).

According to Ruth (2000), the Forest Service decided that NRDC's argument had substantial merit and chose instead to alter its policies without waiting for the results of the appeals. "This development," Ruth contends (1996 p. 158), "may be regarded as the clearest signal that the land management plans were not going to be fully implemented." In May 1991, with growing concern over the efficacy of the SOHA strategy, the Forest Service and the State of California convened the California Spotted Owl Assessment and Planning Team, comprised of federal and state owl biologists and resource managers (Beck and Gould 1992; Ruth 1996; 2000). The goal of the group was to further assess

the status of the owl in California and to develop a "long-term ecosystem planning strategy" that would protect the species and its habitat (Ruth 1996 p. 158).

Then, in July 1991, one month after the release of the *Sacramento Bee* series "Majesty and Tragedy: the Sierra in Peril," the Regional Forester directed the national forests of the Sierra Nevada to temporarily suspend all sales of green timber pending a review of the cumulative effects of the timber sales on the California spotted owl.

According to Beck and Gould (1992), "the protocol for project surveys for spotted owls was changed to match that used for the northern spotted owl. This entailed six visits with longer time periods between visits, ensuring a higher likelihood of detecting owls that might be present" (p. 42). The agency characterized the suspension and review, according to Matt Mathes, a regional spokesman for the Forest Service, as "part of a move towards more of a landscape approach to managing national forests. Instead of looking at just the individual timber sale," said Mathes, "we will look at the entire ecosystem in which our timber sales take place." (119)

The policy essentially precluded the large-scale use of clearcutting and other even-aged management strategies and precipitated the first of several steep declines in timber sales on Sierra Nevada national forests. On the Plumas Forest, which harbored the largest population of California spotted owls, timber sales dropped from an annual average of 185 million board feet between 1988 and 1990 to an average of 75 million board feet between 1991 and 1993. On the Lassen, timber sales dropped from an annual average of 134 million board feet between 1988 and 1990 to an average of 124 million board feet between 1991 and 1993 (USDA 2003). More importantly, the agency predicted deeper cuts as new owl policies were put into effect.

In July 1992, the California Spotted Owl Assessment and Planning Team released the "CASPO Report," confirming the findings of the ISC report that the SOHA policy would likely lead to further declines in California spotted owl populations and recommending an interim strategy pending further studies. According to Ruth (2000 p. 229), the assessment team "clearly regarded current management direction as detrimental to the long-term well-being of the habitat and the species." The report pointed specifically to the logging of large-diameter trees and long-standing fire suppression policies that jeopardized the owl's survival. The Technical Assessment Team estimated that implementation of the existing forest plans would result in further loss of suitable habitat at the rate of 229,000 acres per decade (Verner et al. 1992). The team also emphasized that suppression of fire had accelerated the accumulation of fuels and significantly increased the likelihood that fires would destroy important timber stands, including those essential to the spotted owl (Verner et al. 1992). The CASPO report recommended three immediate steps for addressing the emerging crisis: 1) a halt to the logging of large, old trees; 2) aggressive thinning and fuel reduction activities in or near owl habitat, and 3) additional research on the owl's status (Ruth 1996). It had become apparent from the CASPO recommendations that Sierra Nevada forests were on a collision course similar to Pacific Northwest forests if the agency did not immediately act to protect the owl.

The contextual changes described in this chapter created an environment that, it appears, was conducive to some sort of change. By the summer of 1992 the region was in its sixth year of a severe drought that was showing no sign of subsiding. In some places, insect damage had killed almost half of the standing timber. By the fall of 1992,

catastrophic wildfire posed an increased threat to the northern Sierras and had already devastated thousands of acres of productive forestland and critical wildlife habitat.

Forests were choked with dense understory trees and brush that threatened the health of the forest ecosystem. The remaining old-growth forests were off limits to any and all logging pursuant to CASPO and the California spotted owl was poised for listing under the Endangered Species Act. Timber production was on its way down, further depressing the local economy. Lumber mills were laying off workers and unemployment was rising. The forests, which by now had undergone almost 100 years of fire suppression, threatened to ignite into almost unfathomable infernos. Blame spread to both the environmental community and the Forest Service for the growing crisis. Local environmentalists had integrated themselves into the larger community, and had produced a viable alternative, but were still vilified by the logging community for producing the crisis. However, it was increasingly apparent to both the logging and environmental communities that the Forest Service could not manage the growing crisis.

By the fall of 1992, dramatic contextual shift had occurred surrounding disputants in the local timber wars. From a social identity perspective, these contextual changes, and perhaps others, should be sufficient to produce a context in which local environmentalists and loggers could view themselves as members of a common group. At this point, however, we do not have a plausible connection between the changing context surrounding the conflict and a changing identity. We only know that they both changed. Therefore we are still in need of a mechanism or process that links them together and offers a more robust explanation for the emergence of the Quincy Library Group.

Chapter VIII Explaining Identity Change: A Social Identity Perspective

In chapters V and VI we see that identities among the disputants changed from disparate identities as members of the logging and environmental communities to a common identity with the Quincy Library Group. We also see that logging community members reframed a more inclusive community identity to include environmentalists. In chapter VII we see that the context surrounding the conflict significantly and in some ways dramatically changed over a period of approximately 100 years, but more acutely during a 15-year period between 1982 and 1997 commonly referred to as the timber wars. Contextual changes, and disputant accounts, also point to a turning point or sorts in the summer of 1992 when contextual forces appear to merge. We now have two important pieces of information – the context surrounding the conflict changed and disputants' identities aligned. We also know from the research thus far that acute contextual changes in the summer of 1992 and the emergence of the Quincy Library Group in the fall of 1992 appear to coincide.

From a social identity perspective, we may have a plausible explanation for the emergence of a common identity, which then facilitated the transformation of the local timber wars. However, we do not have a causal relationship between contextual change and identity shift since we also know that similar contextual changes were occurring in other forest-dependent communities in the Sierras and the Pacific Northwest that presented similar opportunities for transformation to occur but did not produce a similar

shift. For those communities where similar transformations did occur, however, we would expect to find similar patterns. As mentioned above, the Quincy Library Group is one of many collaborative natural resource management groups that emerged in the U.S. in the early 1990s.

While more the exception than the rule, the proliferation of such groups throughout the western U.S. affords a unique opportunity to study the elements that help or hinder their success. Studies have looked at examples of collaborative natural resource management and have summarized the characteristics and most salient components of each (Coughlin, et al., 1999; Wondolleck and Yaffee, 2000; Yaffee et al., 1996). These studies principally involve cross-case comparisons that tend to follow a variance theory approach to explaining organizational phenomena (Mohr, 1982; Scott, 1995). In each of the studies, researchers looked for common patterns and characteristics among existing groups, and expressed their conclusions as discrete variables that, they argue, are necessary for success. Those comparing QLG with other groups looked for divergent patterns and characteristics that distinguished between QLG and other existing groups (Duane 1997; Hibbard and Madsen 2003).

This research takes a different approach by looking for the necessary conditions for collaboration to transcend intractability, while recognizing that it may still not occur. While other studies observe collaborative groups that are already formed, this study is focused on the mechanisms that enabled group members to transform an intractable environmental conflict and to form a cohesive collaborative. Mohr's (1982) process theory, introduced in Chapter IV, better fits this endeavor. As mentioned, process theory deals with the discrete occurrence of events rather than the relationship among variables.

A process theory framework is appropriate when a strict causal relationship does not hold. This occurs when the conditions necessary for an event are present but its actual occurrence is tied to probabilistic processes of some sort. Processes theory, by contrast, is based on a series of a events that are linked together such that one picks up where the other leaves off, making the events, their sequence, and their connections important to the behavioral outcome. In addition, process theory focuses on three elements: 1) necessary conditions, 2) necessary probabilistic processes, and 3) external directional forces that herd the focal unit and the necessary conditions into mutual proximity.

Following Mohr's framework, I have divided the discussion in this chapter into the above elements. However, the nature of the story requires a different ordering of the elements due to the importance of the external directional forces in significantly altering the context surrounding the conflict. Therefore, the ordering below proceeds as follows; necessary conditions, external directional forces, and necessary probabilistic processes. The behavioral outcome, again, is the action by disputants in the local forest management conflict – the timber wars – to engage in negotiations that led to the formation of the Quincy Library Group and the resolution of the local conflict. The outcome, in other words, is cooperation rather than confrontation. The focal unit is the set of disputants who were directly involved in the local forest management conflict and who participated in identity and characterization framing within the context of the conflict.

Necessary Conditions

For comparison, Mohr (1982) lists the necessary conditions for the contraction of malaria to be the malarial parasite, persons already harboring the parasite, and the *Anopheles* mosquito. These conditions alone, however, do not produce the disease.

Similarly, as mentioned in Chapter II, Brewer (2000) argues that three interrelated conditions must be met for intergroup cooperation within the focal unit to transcend conflict – common fate, common identity, and positive interdependence. Similar to the contraction of malaria, these conditions alone do not produce cooperation.

Before going further, however, it is necessary to draw a definitional distinction between external directional forces described by Mohr and common fate described by Brewer. By their respective definitions, both are external forces yet Mohr's process theory framework requires the necessary conditions to be internal forces. For practical purposes, a common fate is both since there is both an external force producing the fate and an internal cognitive process that becomes aware of the fate. Brewer's example of residents living in the path of an oncoming hurricane illustrates this point. While the hurricane is an external force, residents must still recognize it as a common fate and a potential threat to their wellbeing. Likewise, in a forest management context, such as dealing with the threat of catastrophic wildfire, the risk of such a fire occurring provides a common fate – an external force – however the perception that a risk exists is subject to internal cognitive processes and to the process of framing.

From Brewer's (2000) perspective, the boys' factions in the Robbers Cave experiment (Sherif et al. 1961) met the conditions necessary for cooperation to transcend conflict, first in the crises introduced by the researchers, then in the recognition of a common identity via shared recognition of their fate, and finally, or in parallel, through positive interdependence in the form of a superordinate goal that allowed them to control the fate (a tug-of-war against the truck). Similarly, disputants in the local forest management conflict met the conditions necessary for cooperation to transcend conflict,

first through the dramatically changing context surrounding the conflict, described below, then in the recognition of a common identity via shared recognition of their fate, and finally, or in parallel, through positive interdependence in the form of a superordinate goal that allowed them to control their fate (the Friends of Plumas Wilderness plan). Complicating matters, it appears that disputants responded to the fate in different ways and at different times, which created a lag of approximately six years (1986-92) between environmentalists' recognition and initial framing of their common fate with the logging community and loggers' acceptance. Following Mohr's (1982) framework, this suggests that external directional forces were acting on or were perceived by the logging and environmental communities differently.

Eventually, however, a common fate was acknowledged by both loggers and environmentalists, although it was not directly acknowledged by the logging community prior to the formation of the Quincy Library Group. It was, however, acknowledged indirectly in loggers' recognition, for example, that neither they nor environmentalists were enamored with Forest Service clearcutting policies, which affected both groups. These kinds of subtle acknowledgements occurred primarily in the summer of 1992, as the following negatively charged characterization frame by logging community member Susan Baremore towards the Forest Service indicates:

The Forest Service says it manages according to what the people want. Even the preservationists have said they don't want [clearcutting]. If this is not what the public consensus is, whose consensus is it? [138]

There is, however, direct retrospective evidence suggesting that the logging and environmental communities recognized that their common fate in the hands of the Forest Service was good for neither group and that they needed to rely on each other. In 1994,

Bill Coates reflected on his decision to approach Michael Jackson to initiate what appears to be a process of mutual fate control. Similar statements were made by members of both the logging and environmental communities to explain their unexpected behavior:

It occurred to us at the same time that we could not rely on the federal government to solve our problems. Eventually, every community has to take matters into its own hands and control its own destiny. [199]

These statements appear to verify the recognition of a common fate, which meets Brewer's (2000) first condition necessary for cooperation to transcend conflict. The second condition, common identity, is also contained in Coates's statement above and is framed in terms of loggers' and environmentalists' common fate as residents of the same forest-dependent community. This is in sharp contrast to the divisive community identity frames expressed by loggers in phase 1 of the timber wars. Unfortunately, there is no direct evidence captured in the identity and characterization framing data that publicly acknowledges the logging community's recognition of a common identity with local environmentalists prior to Coates' and Nelson's initial contact with Jackson. Logically, however, it is improbable that such evidence could exist since it is unlikely that Coates and Nelson would have made public statements prior to their secret meeting with Jackson. As such, it is necessary to look for other clues to the recognition of a common identity or a basis for it.

Turning to retrospective accounts by Bill Coates of his decision to approach

Jackson, we see that he and others may have recognized the basis for a common identity
early on – a love for the land and country. In an interview in 1999, Coates was asked
whether his values towards nature had changed through his experiences with the Quincy

Library Group. To the contrary, Coates and others discovered that they shared those values with environmentalists when the group began meeting.

The thing that we always had in common that we did not know that we did was a love for the land and the country. Once we realized that a person doesn't live in the mountains unless they love it, because they can make a hell of a lot more money someplace else. To put up with this weather and the lack of income and the poor working conditions you have to have a love of nature. So I don't know anyone, and I have lots and lots of friends in this county, I don't have a single one who wants to leave this place worse than he found it. So as we got into these groups we all had actually the same underlying goal. To have a better forest. (personal communication 5-17-99)

While Coates claims that environmentalists and loggers discovered a basis for a common identity once they started meeting, it is more likely that they knew this before hand since this was a key message coming from the local environmental community. Taking Coates' comments at face value, however, it appears that there was at least the basis for a common identity almost from the start. Moreover, the community itself, as indicated in Coates' statement above, and many others like it, also suggests that a common identity was recognized by the logging community. From this information, we can reasonably infer that Brewer's second condition is also met.

The third condition, positive interdependence, is apparent from loggers' interest in the Friends of Plumas Wilderness plan and from the above statement and others like it, in which loggers begin to adopt the environmental community's framing of the overall goal. Interestingly, public statements by the logging community prior to the meeting between Coates, Nelson and Jackson suggest that loggers were beginning to accept the environmental community's inclusive framing of the problem, although not environmentalists themselves. From a social identity perspective, loggers would have to recognize a common identity with environmentalists, or the basis for a common identity,

in order to navigate this shift, even though they did not acknowledge it. The acceptance of the environmental community's framing appears to follow a gradual process that began with the stark "jobs versus owls" duality that was perpetuated throughout the 1980s by the logging community and is expressed in the flowing statement from 1989: "This rally is about the spotted owl and my rights – people's rights to work. If we don't stop the spotted owl deal, *you're* not even going to have a job!" [66]

As the conflict evolved, however, it was eventually reframed by the logging community in ways that more fully captured the social and economic dimensions of the problem but continued to marginalize and ignore the environmental dimensions. For example, a January 1992 critique of the Lassen Forest plan advocated only one side of the problem: "Community stability should be a Forest Service objective. The plans you are showing us ruin that." [124] This common sentiment was eventually reframed by the logging community in ways that began to recognize the tensions created by the overall problem. The following frame, taken from a newspaper report from August 1992, suggests that the either/or jobs-versus-owls duality had been reframed by some in the logging community as a both/and possibility along with the adoption the environmental community's overall goal – community stability and forest health:

Baremore also said she was not sure she agreed with the Forest Service's emphasis on... clearcutting areas of timber and then replanting seedlings. Baremore, who said she was concerned about "community economic stability and forest health," said a great concern of hers was that in the plan, "There aren't a lot of whys." [138]

Finally, as the Library Group began meeting, the goal was again reframed and this time captured the complex nature of the challenge the group faced. The following frame, noteworthy in its similarity to the previous frame and environmentalists' initial framing,

was taken from the group's purpose statement and appeared in the *Feather River Bulletin* shortly after the watershed town meeting at the Quincy Theater in the summer of 1993:

The group's focus is, "to develop a plan that would promote the objectives of forest health, ecological integrity, adequate timber supply, and local economic stability." [155]

This gradual and subtle reframing, which occurred in 1992, suggests that the logging community may have been negotiating an identity shift that was somehow inclusive of the environmental community. The common identity that emerged, which was framed by both loggers and environmentalists, was the community itself, even though group members' affiliations with the Quincy Library Group were more salient to others. This gradual reframing by the logging community suggests that loggers may have expanded the boundaries of the larger community to include local environmentalists, which they had previously excluded. From this perspective, Coates and Nelson were not stepping across stark ideological boundaries but were instead extending a long deserved welcome to their new neighbors – the environmentalists. As neighbors, cooperation was expected.

External Directional Forces

We have now discussed the conditions necessary for cooperation to transcend intractable conflict. In this section we will explore the external directional forces that likely "herded" the focal unit and conditions into mutual proximity. I return to Mohr's (1982) framework to discuss those forces and their impact on disputants' common fate. We are reminded that the external directional force required for malaria to occur is the hunting of prey by *Anopheles* mosquitoes. Similarly, in the forest management conflict, the external directional force – that which is producing the fate – is a changing context as described in Chapter VII above. As QLG biologist Linda Blum reminds us:

It was an interesting sequence of events... it wasn't just this great, courageous, out-of-the-blue step that somebody from Sierra Pacific Industries approached the environmentalists. There were a number of factors rolling up to that (personal communication 3-3-99).

Similarly, QLG environmentalists George and Pat Terhune (1998) reflected on the dynamic and complex dimensions surrounding the local timber wars that played an important role in helping them recognize a common fate, not only with the logging community but also with the Forest Service.

Within this atmosphere, some people in each camp began to recognize, but not yet clearly articulate, that our forests, our communities and the Forest Service had an unbreakable relationship of mutual interdependence. We could not have stable and healthy communities if we did not assure long-term health of the surrounding forests, as demanded by environmentalists. We could not restore long-term health to our forests without the large-scale participation of an industrial infrastructure largely dependent on a profitable timber base. And neither goal could be achieved unless greatly improved forest management could be implemented by the Forest Service (p. 6).

The Terhunes' statement also acknowledges a common identity with the forest-dependent communities of the region as well as the recognition of mutual interdependence among environmentalists, loggers and the Forest Service.

External directional forces – changing context – can be traced to three areas; changes in the community, changing forest conditions, and changes in the U.S. Forest Service. A fourth contextual change, in the environmental movement, appears to be a response to contextual changes listed above as well as changes in the movement at the regional and national level. Within this framework, contextual changes should both produce and heighten the awareness of a common fate within the local logging and environmental communities and make salient a common identity and positive interdependence within the focal unit. These contextual dimensions are extracted from Chapter VII and are interpreted below.

Community Change

The community changed in two fundamental ways that heightened the awareness of common fate between loggers and environmentalists. First, the region's commodity-based population and culture was offset by an emerging amenity-based population that brought new values and ideas to the region, thus helping to foster and empower the local environmental community. Second, and most importantly, economic and social change throughout the region began to negatively impact the commodity-based culture, and forest-dependent communities, sharpening awareness of and concern for this component of the community's social and economic fabric and diminishing its power base throughout the region. As Michael Jackson lamented, "My heart doesn't bleed for Sierra Pacific Industries, but it bleeds for the folks getting \$12 an hour who don't have any alternatives for work." [163]

Amenity migration was a necessary component of the discovery of a common fate as it brought people to the region who were not dependent on the timber economy but who moved to the region for its recreational opportunities, rural lifestyle, and lower cost of living. As mentioned, amenity migrants included back-to-the-land types, entrepreneurs escaping congested cities, and retirees seeking a more relaxed lifestyle and lower cost of living. Amenity migrants began moving to the region in the late 1960s and continued throughout the study period. An Oklahoma native, Michael Jackson moved to Quincy in 1977 from Redding, California (personal communication 8/98). Mike Yost, a Duke University forester and principal architect of the Friends of Plumas Wilderness' conservationist alternative, moved to Quincy in 1975, shortly after Feather River College was established (personal communication, 3/4/99). Jackson and Yost, both in their 30s at

the time, were typical of the young urban professionals seeking to establish careers and raise their families in the growing and changing mountain communities characteristic of the Sierras at the time.

Further, not only were the newcomers there to stay, they were also starting to integrate themselves and their families into the communities. Yost, for example, taught forestry and natural resources at Feather River College and was actively involved in the budding environmental community (personal communication, 3/4/99). Jackson became the track coach at the local high school and ran for a Plumas County supervisor seat in 1984 – he lost by just 12 votes (personal communication 8/98). George Terhune, a retired American Airlines pilot, and his wife Pat moved to Quincy in 1986. Pat soon joined Plumas People for Peace, Quincy's emerging anti-nuclear weapons movement, and volunteered at the local natural-foods coop (personal communication, 5/20/99).

The budding environmental community had very little influence over forest management, however, until 1984 when it was successful in designating the Bucks Lake Wilderness Area. Buoyed by community support for a wilderness area, the environmental community began focusing on Forest Service timber sales and the NFMA forest planning process. As Jackson stated in 1989, however, environmentalists did not "desire a victory at the expense of our neighbors in the timber industry" [71]. This suggests that environmentalists may have recognized interdependencies with the logging community at a relatively early stage. This recognition, in part, led to the formulation of the Friends of Plumas Wilderness conservationist alternative, an attempt to reform Forest Service management practices while maintaining community economic stability.

Even with their Bucks Lake victory, however, environmentalists made little headway in their attempts to reform Forest Service management practices. As a result, they continued to file formal appeals of agency timber sales. They also continued working with their regional counterparts in the environmental movement to ripen forest reform issues related to clearcutting, old-growth, endangered species, and riparian habitat protection. The result of their actions was, in part, the curtailing of logging operations. Timber sales began to decline, unemployment rose, mill closures threatened, and revenues to counties for roads and schools began to drop. While they continued promoting their alternative forest plan, environmentalists received virtually no support from the logging community.

Unfortunately, the logging community did not recognize or acknowledge a common fate with environmentalists and instead viewed them as largely responsible for the fate descending upon them. Clearly, loggers did not believe that environmentalists had their interests in mind and viewed them instead as a threat, even though environmentalists offered a plan that increased timber harvest levels by more than 50 million board feet above previous harvests and proposed meeting those targets through selective logging, which loggers greatly preferred over clearcutting. Moreover, the Forest Service had touted the Friends' conservationist alternative as the plan best able to achieve long-term community stability by providing a steady supply of timber.

According to Plumas County Supervisor Bill Coates (personal communication 5/17/99), the local logging community rejected the Friends' alternative because it did not trust environmentalists. Coates described loggers' perceptions of the local environmental community at the time as "a bunch of people that had shown a certain disdain for the

need to work and the need to raise kids." Coates also described loggers' perceptions of environmentalists' approach to the problem:

The attitude was that we could replace all the businesses around here with boutique shops. So it was not a time when environmental organization ideas were well accepted in rural communities, because they represented the big city attitude towards the woods, which was lock them up and keep people out. So local citizens reacting to that attitude were very negative about anything some of these people suggested. So even if they thought the idea looked alright they were suspicious of it because of who was driving the boat (pers. comm. 5-17-99).

In this passage, Coates is suggesting that the logging community likely recognized the merits of the Friends' plan at a time when environmentalists were viewed in a highly derogatory light by the rest of the community. Hence, loggers were suspicious of the plan, and rejected it, in part because it was authored by the environmental community. The passage lends credence to the argument that identity distinctions played a significant role in the conflict as it was being played out and that disparate identities prevented the logging community from recognizing the merits of the Friends' plan and taking it more seriously at an early stage. The incongruence between the plan's obvious benefits to the logging community and loggers' abhorrence of the plan suggests that underlying cognitive processes were overriding rational behavior.

It is also the case that the logging community advocated for even higher harvest levels in the NFMA planning process and held out hope that the Forest Service would, on appeal, select its proposed alternative. However, the logging community's preferred alternative, while harvesting significantly more timber volume, would likely produce a boom and bust economic cycle through massive clearcutting. Its proposal, a throwback to the previous era of timber domination, was not only detrimental to long-term community stability, it also employed a logging technique – clearcutting – that local loggers found

offensive. Further, it contained few of the environmental protection provisions that the Forest Service was required to consider. While logging community leaders may have longed for the "good ole days," it is unlikely that they felt much confidence that their proposal would be seriously considered or that it would survive the appeal process.

Meanwhile, environmentalists were persistent in their efforts to establish a working relationship with the logging community, while at the same time continuing to press for forest reforms. Jackson alluded to such a relationship, and the interdependence between loggers and environmentalists, in a 1989 *Feather River Bulletin* commentary in which environmentalists appealed to the local logging community to work together towards the implementation of the conservationist alternative. Jackson stated in part:

We also know that the logging community has answers to some of our common problems which we may not have considered. We know that for a complete solution to our common goals we need the wisdom of the people who have worked in the woods for the four generations we have been logging in Plumas County. [71]

As we know, however, the local logging community did not share the same perspective and, instead, chose to characterize environmentalists as a vocal minority that was not only dangerously out of touch with logging interests but was a threat to their culture and way of life. Loggers launched the Yellow Ribbon Labor Day Campaign and took to the highways with their message of solidarity with working people and their disdain for their "preservationist adversaries" who threatened it. Little changed, however, and timber harvests began to decline, at first gradually and then precipitously, starting in 1990. On the Plumas National Forest, timber sales dropped from an annual average of 185.5 million board feet from 1988 through 1990 and to an average of only 20 million board feet in the period from 1994 through 1996. Layoffs at lumber mills started immediately and then increased during the summer of 1992 [135, 136, 138]. And while

salvage sales from drought-stricken and burned-over forests prevented some mills from closing, the trend was clearly towards more layoffs and eventual closures. True to form, loggers further escalated the conflict by publicly blaming both environmentalists and the Forest Service for their plight. Closure of the P&M Cedar Products mill and log yard in August 1992 brought this response from Larry Hood, company president:

These unfortunate reductions in our operations are the direct result of the continued and unjustified pressure from preservationists, and the abject failure of the U.S. Forest Service to meet its obligations under the Multiple Use Sustained Yield Act of 1960. [135]

Applying a social identity framework, it appears that a changing community context produced very different realities for environmentalists and loggers. For environmentalists, changing community context led to the integration amenity migrants and to the recognition of a common fate, common identity, and interdependence with loggers. Local environmentalists, it appears, adopted dual identity frames as members of the local environmental community and as members of the larger community, of which loggers were a significant and legitimate part. Applying a social identity framework, dual identities resulted from the changing context and enabled local environmentalists to recognize positive interdependencies with the logging community. The Friends' conservationist alternative, it follows, grew from this recognition.

For loggers, however, the establishment and integration of the environmental community was seen as a threat to the logging community itself, causing intergroup tensions to escalate. While a common fate may have existed between loggers and environmentalists as residents of the forest-dependent region, it was not acknowledged by loggers. Instead, loggers perceived negative interdependencies with environmentalists whom, they feared, sought to take productive forestland out of the timber base. Loggers

resisted a common identity that required the recognition of environmentalists as legitimate members of the larger community and, instead, adopted a community identity exclusive of local environmentalists. Applying a social identity framework, a changing community context produced a threat to the community and prevented local loggers from recognizing a common identity and positive interdependencies with the environmental community. The rejection of the Friends' conservationist alternative resulted in part from this threat. This suggests that identity-based barriers may have to be bridged at a higher level of inclusion before the Friends' plan could be acknowledged and accepted.

Changes in the Environmental Movement

Changes in the environmental movement are considered separately from community change since changes in the movement produced external forces that had an additional affect on local environmentalists. As such, local environmentalists were influenced by the same external forces acting upon their regional counterparts but were also influenced by external forces acting upon forest-dependent communities in which they lived. From a social identity perspective, these contextual changes created dilemmas for local environmentalists that required them to negotiate what it meant to be environmental activists as residents of forest-dependent communities. It also placed local environmentalists in the unique position of having to find novel approaches to environmental activism. As Brewer (1991) noted, "When the definition of self changes, the meaning of self-interest and self-serving motivation also changes accordingly" (p. 476). In this section, I discuss changes that were occurring at both the regional and local level and local environmentalists' response to those changes.

To begin, the environmental movement changed in three fundamental ways that, from a social identity perspective, helped local environmentalists negotiate the meaning of "community-based" environmental activism. Redefining activist identities, in turn, enabled local environmentalists to recognize a common fate with the logging community and to seek integrated solutions to forest management problems. First, it appears that amenity migration and integration, and a decline in the commodity-based culture and economy, led local environmentalists to the recognition of a common fate with loggers, to see themselves as fellow community members, and to develop a concern for the wellbeing of those communities. This, in turn, led them to seek integrative approaches to forest management that recognized positive interdependencies. Second, changes affecting the environmental movement presented novel approaches that could be used to integrate environmental and logging interests. And third, increased attention to the plight of the Sierras elevated environmentalists' status in the debate and altered the balance of power. These changes are analyzed below from the perspective of how they contributed to environmentalists' identities as community-based activists and to the recognition of a common fate with the logging community.

Amenity migration, as we know, produced a local and empowered environmental community whose members eventually integrated themselves into the larger community. Environmentalists wanted their communities to survive, as Michael Jackson stated, because they wanted to live there too. As such, amenity migration and integration, in part, led environmentalists to pursue approaches that integrated environmental and logging interests. Jackson alluded to this pursuit as he recalled the relationship local

environmentalists were seeking in their development of the Friends of Plumas Wilderness conservationist alternative:

...we anticipated the kind of relationship we liked to have with our neighbors in a situation in which everybody was trying to take care of the environment. And in which any timber production was a by-product of that. It was an honest attempt by honest people in the environmental movement to foresee a future – a changed timber industry but one still a part of management of the national forest. (personal communication 8/98)

In addition, from their vantage point as community-based activists, local environmentalists were concluding that adversarial and confrontational approaches were no longer workable in the gradually worsening ecological and socio-economic context. Halting the sale of timber from national forests, or "shutting down" the timber industry, they surmised, would not improve forest conditions and would have deleterious affects on community wellbeing. Linda Blum described this realization in the unusual summer of 1992, a few months before logging community leaders approached Michael Jackson:

And, during that summer is when we first started realizing you can't just say, "Don't log it." You've got to treat the problem that leads to these big, catastrophic wildfires. Meanwhile the local political drumbeat was this thing of environmentalists as a whole are anti people – they want the forest to burn up, you know, the end of the world kind of stuff. Also in the summer of '92 is when the Forest Service published the... California Spotted Owl [CASPO] technical assessment that was intended, and we helped make it, to establish a new management direction for the forests. (personal communication 3/3/99)

As the passage contunied, Blum also hinted at the different ways that environmentalists perceived the new management direction recommended by the CASPO report, falling out along local and regional/national identity distinctions:

Some people perceived [CASPO] to be a total lock-up of the timber supply. Others of us saw that there was considerable room to do other stuff – that there was logging to be done and that it did not mean that the mills in Loyalton and Susanville, you know, that everything had to come to a grand halt. (personal communication 3/3/99)

Moreover, there was also a growing concern primarily among community-based activists that confrontational strategies were producing grim results. Blum recalled her own realization in the early 1990s that while forest activists had succeeded with administrative appeals, in the courts, and in political action campaigns, they needed less confrontational tools for responding to the growing hostilities. As pressure mounted, Blum recalled, tensions between loggers and environmental activists escalated:

The political polarizations were escalating – jobs v. owls, fish v. people, Judi Bari got car-bombed, forest arsons were up – and some of us really were alarmed, and felt we should try to defuse the hostilities and dysfunctionalities before more people and places got seriously hurt. (personal communication 5/20/05)

Local environmentalists' reaction to these concerns, I argue, stems in part from their vantage point as community members subject to the same external forces as their fellow loggers. This is perhaps best observed by comparing perceptions between local environmentalists and their regional and national counterparts in discussions over the most effective strategies for advancing forest reform efforts. In the passage below, Linda Blum, who actively networked with her regional counterparts on forest reform issues, lamented about the differences between her perspective as a community-based activist and her perceptions of the perspectives of her regional counterparts:

What I thought I knew better than they at that point were the practical limitations to a confrontation-only strategy, based upon the realities of appeals and the timber sale lawsuits at that time; what things were and were not achievable in settlement negotiations; and the level of social and ecological unrest in mill towns and forest communities from Susanville to Terra Bella (personal communication 5/21/05).

Unfortunately, different perspectives, which fell out primarily along local and regional/national lines, began to produce tensions within the environmental movement itself. Environmental activists on each side were increasingly frustrated with proposed strategies from their counterparts that did not match their perceptions. This difference

created a growing rift between activists as they attempted to network with each other over proposed forest reform efforts. This rift eventually caused the networks to splinter and, in some cases, to oppose each other. As biologist Linda Blum lamented regarding her attempts to network with a coalition of activists:

I was very frustrated by the Sierra Club and NRDC and sort of the San Francisco – the urban faction – basically in their insistence upon their choice of organizing and lobbying techniques. If you're going to make a change in whether that timber sale operator tells the sale administrator he knows it's wrong to cut 30-inch trees and he's not going to do it, you've got to change his mind and his heart. You aren't going to do it by putting an Action Alert on a door hanger in Modesto (personal communication 3-3-99).

From their perspective as community-based activists, local environmentalists were no longer satisfied with top-down "just say no" stances espoused by regional and national environmentalists and sought new approaches. Drawing from the *third wave* of the environmental movement, market-based solutions provided a compelling model for local environmentalists, who were concerned not only with the economic wellbeing of their communities but with overall forest management. More importantly, they were aware that the forests needed attention and that the logging community could prosper if it could be enlisted to help improve forest health. Localized citizen action and modified market-based approaches merged around the concept of ecological forestry, which evolved at the grassroots level in response to the NFMA (Hays 2007). Using ecological forestry principles, and the neighboring Collins Almanor Forest as a model, the Friends of Plumas Wilderness sought to demonstrate that timber production and ecological health were not mutually exclusive. Friends' forester Mike Yost described the group's thought process in developing their forest plan:

"...we came up with what we thought was a pretty comprehensive plan for management of the forest in an environmentally sound way. And, we didn't at all

try to limit timber production. We talked a lot about thinning and we talked about doing timber in a different way. And we weren't really focusing on timber as the ultimate resource. We were protecting all the back country, protecting all the roadless areas, protecting the watersheds and trying to keep enough of the timber program so we would keep the mills open." (personal communication, 3/4/99)

Finally, increased attention to the plight of the Sierra Nevada resulting from the 1991 *Sacramento Bee* series "Majesty and Tragedy: the Sierra in Peril" elevated environmentalists' status at a critical time in the debate and altered the balance of power. Vindicated by the series, environmentalists gained influence over the direction of forest management and were faced with a choice as to how to employ their increased power. Community-based activists, for the most part, used this influence to advocate for increased dialogue with the local logging community to defuse hostilities and to find integrative solutions, including the Friends of Plumas Wilderness' plan. Reflecting on local environmentalists' response to the logging community's interest in resurrecting the Friends' plan, Terry Terharr, a Sierra Club activist who was involved at the time, spoke of environmentalists' increased influence over forest management and community-based activists' choice to cooperate:

That was a time when the environmentalists thought the sky was the limit. But to their credit, they said: "They're offering us what we said we wanted, and that's what we want." They might have said, "We are going to ask for more," but they didn't. (Marston 1997, p. 12)

Regional and national activists, however, advocated for what they felt was stricter enforcement of laws and regulations. According to Jackson, environmentalists chose not to endorse the QLG plan because, "They think they can get a better deal now that the timber industry is on its knees. They are mad at us because we are going to let it up to do the right thing" [258]. Jackson was, in part, correct. John Buckley (1998), director of the Central Sierra Environmental Resource Center, defended environmentalists' decision to

reject the QLG proposal on the grounds that the balance of power had shifted in their favor.

When the QLG agreement was created by all the local warring factions, it was a time of clearcutting, intensive road-building into roadless areas, and minimal protection for streams and rivers. At the time, the compromise agreed to by local environmentalists was probably a reasonable deal. But years later, by the time the QLG legislation was developed, the national forests were under much different direction. Today in the Sierra Nevada, roadless areas are temporarily off limits, trees over thirty inches in diameter are mostly protected, and timber sale levels are much lower than a few years ago (p. 46).

However, Buckley (1998) admitted that at the time the QLG agreement was forged, it was "probably a reasonable deal" (p. 46). Why then did local and regional environmentalists respond differently? One explanation, from a social identity perspective, is that the changing context surrounding the local timber wars produced a common fate that local environmentalists shared with their communities that regional and national environmentalists did not recognize. This fate increased the saliency of a common identity at the community level and appears to have produced a distinct identity as community-based environmentalist activists (as opposed to grass-roots activists). This distinction caused a rift along identity-based lines between local and regional/national environmentalists, or between community-based and grassroots activists, and caused the camps to view forest reform goals and strategies differently.

Changing Forest Conditions

Local loggers and environmentalists, we know, shared a common fate as residents of a forest-dependent region at the northern tip of the Sierras. Their communities were literally surrounded by large expanses of national forests that were managed by the U.S. Forest Service. Their lives and livelihoods, in many ways, were inextricably tied to the fate and condition of the surrounding forests. A change in those conditions, therefore,

might affect loggers and environmentalists in similar ways, thus heightening their awareness of a common fate and leading to cooperative behavior. On the other hand, however, changing forest conditions may affect them differently, or be perceived differently in their causes and effects. Heightened perceptions of common fate may, in fact, lead residents to competitive behavior such as hording.

The condition of the northern Sierra forests changed in two fundamental ways. First, the combination of a century of fire suppression and a half-century of intensive forest management left behind a forest that contained shrinking economic opportunities; growing risk of loss of life, property, and livelihood from catastrophic wildfire; and declining ecological health. Second, an intensive six-year drought that struck the northern Sierras between 1986 and 1992 greatly magnified the conditions described above and posed an immediate threat to communities surrounded by drought-stricken national forests, as well as to the species that depended on the forest. As the drought worsened, forest fires burned at alarming intensities.

Forest fire suppression and intensive forest management following World War II left behind a biologically depleted forest deficient of large canopy trees, choked with small understory trees, and prone to insect infestation and wildfire. As a result, the Forest Service was forced to institute policies that were designed to halt or reverse these trends. The combination of forest conditions and resulting Forest Service policies had the effect of severely curtailing the timber industry and causing an abrupt downturn in the timber economy in the northern Sierras, thus exposing communities in the region to layoffs, mill closures, and lost tax revenues. Unfortunately, the logging and environmental communities perceived the causes of the problems quite differently. Much of the blame

for the economic downturn was attributed to environmentalists, who were largely responsible for raising awareness of declining forest health conditions and challenging Forest Service policies.

One of the principal tensions between loggers and environmentalists affecting the factions' perceptions of forest conditions was the logging community's "sustained yield" forest management perspective. A common perception within the logging community at the time, for example, was that the Plumas National Forest produced more than 300 million board feet of timber per year. According to Bill Coates, since the forest consistently produced that volume of timber, harvesting less was an inefficient use of the resource. This argument led the logging community, and the Forest Service itself, to focus almost exclusively on timber volume and was put forth by loggers as one basis for rejecting the Friends of Plumas Wilderness plan to harvest *only* 245 million board feet.

We just decided that if we were growing so much we ought to be able to take a little less than that out in the form of wood fiber. Made pretty good sense to us. Well in those days the recognized number for what we were growing depended on who you talked to. The Forest Service would come out with an estimate in the 300 million board foot category. We were only suggesting a 262 million board foot cut. So we thought that as long as we were far under what we were growing that there was no reason to go down any further (personal comm. 5-17-99).

Another significant tension between loggers and environmentalists affecting perceptions of forest conditions and subsequent management strategies was the logging community's perspective on "multiple use" resource management. Multiple use, to the logging community, meant shared use of the entire land base. Environmentalists' efforts to protect remaining old-growth forest, spotted owl habitat, and roadless and riparian areas by removing them from the land base were therefore particularly threatening to the logging community because the so-called "set-asides" reduced land available for timber

production. Loggers' arguments against set-asides were grounded in their interpretation of the Multiple Use and Sustained Yield Act of 1960. Coates elaborated on the loggers' interpretation of the law as well as their fears. To logging advocates,

...true multiple use meant that there was room in the forest to enjoy a wide variety of activities from wheelchair handicapped people to the most avid backpacker to the most needful logger, and that they ought to be able to co-exist. And the basic rule was that you didn't interfere with one of those other uses. The "set-aside movement" came along and threatened that whole idea because they wanted a chunk of land just for themselves. So after a while we realized that the set-aside groups were endangering the general forest by grabbing off chunks of it (personal communication 5-17-99).

While forest management practices were principally responsible for changing forest conditions, the severe drought of 1986-92 greatly exacerbated those conditions by placing additional stress on the forests. The drought, and the devastating wildfires that accompanied it, significantly heightened the threat to the forests and to forest-dependent communities. Threat of catastrophic wildfire provided another powerful external force for residents of rural communities surrounded by susceptible forestland. For the most part, however, such fires were consistently managed by firefighting agencies. Of the 4,570 fires reported on California national forests in 1992, only three produced devastating fires. [150] It appears that forested communities had become complacent in the face of increasing risks. While they were aware that a common fate existed, the relative saliency of that which was producing the fate was apparently not yet great enough, or sufficiently close to home.

The tipping point appears to be the intense fires that occurred during the summer and fall of 1992, at the height of the drought. Suddenly, the external force had become quite salient. Michael Jackson noted that the Friends' conservationist alternative was designed in part to reduce the fuel loads that had accumulated from over a century of fire

suppression and intensive logging. But the plan did not specify a strategy for dealing with fires that threatened the communities themselves. Why? At the time the group did not fully appreciate the threat that modern fires posed. In the summer of 1998, however, Jackson was keenly aware of the threat. Sitting in his downtown office in Quincy, California, Jackson posed the following question:

Would you like to walk out and take a look at the back side of this town and tell me what the fire coming down hill through that undergrowth is going to look like when it arrives? Because my neighbors down here in Loyalton saw it three times in one two-day period. It took them \$9 million to drive that fire out of town. And all the help from everybody in the world. That is a very expensive way to deal with this problem (personal communication 8/98)

Regional and national environmentalists later criticized the Quincy Library Group for playing on citizens' fear of catastrophic wildfire, and believed the fire issue was overblown. Judging from media reports on the drought, and media coverage of several severe fires, it appears that their fears were valid. When Bill Coates was asked if he knew why a concern for catastrophic wildfire was not part of the Friends' 1986 conservationist alternative, but was being used as a primary argument for implementing the QLG plan, Coates pointed to the nearby Cottonwood fire of the fall of 1992:

When the [conservationist] alternative had been done, we did not have the Cottonwood fire in our area at that point. So I think the thinking has changed a little bit since the alternative, based on that fire and others that have happened around us. I think peoples' thinking tends to be a work-in-progress based on what happens in your environment. (personal communication 5-25-99)

As we have observed, forest conditions changed dramatically in the northern Sierras throughout the period of the timber wars. These changes affected environmentalists and loggers in similar ways and in ways that were quite different. For example, the threat of catastrophic wildfire and the overall health of the forests affected environmentalists and loggers similarly, exposing a common threat and common interests

to protect the forest and their communities. Neither relished the thought of a catastrophic wildfire sweeping through the town or devastating the surrounding forests. On the other hand, the protection of old growth forests, endangered species, and roadless and riparian areas affected them differently, exposing a threat to the logging community and conflicting interests with regard to harvest levels and set-asides.

From a social identity perspective, their exposure to the increasing threat of drought and catastrophic wildfire may have created a greater awareness of their shared fate as residents of forest-dependent communities and heightened the saliency of a common identity and positive interdependencies associated with cooperation. At the same time, their exposure to ecological degradation associated with old growth, endangered species, and roadless and riparian area protection may have created a greater awareness of their shared fate as competing factions within forest-dependent communities and heightened the saliency of subgroup identities and negative interdependencies associated with competition and conflict.

Borrowing from Yaffee (1998), it can be argued that changes in forest conditions created both centripetal and centrifugal forces that acted on disputants in ways that heightened either a salient superordinate identity or salient subgroup identities. In this regard, cooperation would be expected to transcend conflict when centripetal forces – the threat of drought, disease, and catastrophic wildfire – outweighed centrifugal forces – old growth, endangered species, and roadless and riparian set-asides. Prior to 1992, it appears that centrifugal forces heightened the saliency of subgroup identities between loggers and environmentalists and the perception of negative interdependencies, despite the presence of the Friends of Plumas Wilderness conservationist alternative. As the drought

deepened and forest fires intensified in the unusual summer and fall of 1992, centripetal forces around the increased threat of devastating wildfire may have increased the saliency of a superordinate identity that enabled residents of forest-dependent communities to align themselves against the threat.

Forest Service Change

The U.S. Forest Service plays a dominant role in the northern Sierra communities surrounded by national forests. Forest Service policies, set by Congress and by administrative priorities, can literally make or break communities, institutions, and livelihoods. In addition, court actions and administrative appeals brought against the Forest Service can have similar effects. However for some, "Forest Service change" is an oxymoron since the agency is notoriously slow to adapt to changing conditions. This section is primarily a story of the agency's response to the changing context in which it operated. The Forest Service responded to change in two fundamental ways that affected local loggers and environmentalists' sense of a common fate as constituent groups subject to the agency's policies and actions. First was the Forest Service's inability to adequately adapt to the growing crisis. Second, the agency's response, when it finally acted, was simply to abandon its long-standing forest management paradigm, with no apparent alternative. This created a sense within both the logging and environmental communities that the Forest Service could not address the crisis. While it had articulated New Perspectives, New Forestry, and ecosystem management, what it delivered was a halt to almost all logging.

The agency's inability to adapt to a changing environment is a familiar theme.

Wondolleck (1988) argued that the Forest Service's inability to adapt was due, in part, to

its difficulty managing the "preservation paradigm" that emerged in the 1960s and 1970s. Rather than adapting to the new laws and policies, the Forest Service adapted the laws and policies to its existing paradigm. As Wondolleck argues, the approach continually failed, yet the agency persisted in its all-too-familiar process. Similarly, Salka (2004) argues that the agency's inability to adapt to the northern spotted owl crisis was due to it being "captured by its own core technologies" (p. 221). Salka defines core technologies as "arrangements necessary for carrying out the tasks or programs the agency is assigned to do." An agency's core technology is largely "a function of the technological knowledge and skills of the agency's dominant profession" (p. 222). To maintain and protect their core technologies, organizations will attempt to "buffer them against uncertainties" in the surrounding environment by demonstrating a willingness to adapt to changes as they arise. Short of adapting, however, an organization may provide the appearance of change while carefully guarding its core technology. The core technology may then become a barrier. Lacking a means for addressing the problem, the agency is thrown into a crisis.

Often, agency procedures will become routinized so that each new issue will be dealt with in routine ways. This tendency creates the potential for problems if the new issue cannot be effectively addressed with routine procedures (p. 223).

In the northern spotted owl controversy, the focus of Salka's research, the Forest Service relied on its core technology, scientific planning and management, to assess and respond to the growing crisis. Moreover, the agency's core technology was heavily influenced by one set of constituents – the commodity-based culture – with which agency decision-makers were strongly aligned (Culhane 1981; Salka 2004; Twight and Lynden 1989). Failing to recognize the magnitude of the problem, the Forest Service simply

included the SOHA networks as another variable in the planning process. The agency's inability to address the issue enabled environmentalists to expand the scope of the conflict through the courts, causing the Forest Service to lose control of the issue, thus becoming a victim of its core technology.

Yaffee (1994) argues that the Forest Service's organizational norms and values, a legacy of its Progressive Era past, prevented the agency from adapting to the northern spotted owl crisis. Yaffee contends that over time "an elaborate set of norms developed that defined organizational styles and prescribed appropriate behavior." Behavioral norms were reinforced through narrowly focused academic disciplines, image control that attracted recruits that "fit the mold," on-the-job training and socialization, and deliberate and subtle rewards and sanctions. As they became embedded in the agency, the norms created a technical workforce that was strikingly homogeneous. Former Forest Service Chief Jack Ward Thomas (1998) would concur with this assessment:

The traditional Forest Service workforce was made up of males – predominately foresters and engineers – most from accredited forestry schools who went through a very similar socialization process in education and early experience. They didn't tend to question much (p. 18).

On the ground, agency norms and values translated directly into timber harvest targets, which provided the basis for the agency's reward system. While resource managers were well aware of the timber bias, most did not question it. A Forest Service resource manager revealed the agency's bias to *Sacramento Bee* reporter Tom Knudson in 1991:

We have a whole generation of managers who were raised on getting the cut out. They get graded on it. When our forest supervisor gets his yearly review, it's a big-ticket item, "Did you meet the timber targets?" I have wildlife targets, too, and fish targets. And nobody ever once reviews, when I get graded, whether I meet my fish and wildlife targets. I think that's indicative of the double standard. [103]

In response to the emerging northern spotted owl crisis, Yaffee (1994) observed that the Forest Service's initial reaction was to "avoid dealing with it at all."

The owl was a non-issue for the agency. It was neither threatening nor demanding, because all of the experience of the leadership suggested that the owl could be dealt with in a minimal fashion with no resulting organizational or political fall-out (p. 270).

As the issue became more controversial, and could no longer be ignored, the agency simply followed its standard operating procedures. Yaffee contends that the agency's failure to deal with the spotted owl issue "was not that it was not doing anything, but rather that it was responding in time-honored ways that were inappropriate to the owl case or the times" (p. 270). Yaffee concluded:

The time had come for a different kind of response to the evolving owl issue, and agency officials were unable to carry it out. Even those who tried were bound excessively by the character of the agency as it had evolved and been perfected over time (p. 275).

This pattern was repeated on Sierra Nevada national forests, first by fitting the problem into the agency's existing paradigm and then by abandoning the paradigm and suspending logging altogether. While the agency was trying to avoid a repeat of the northern spotted owl crisis, it had only succeeded, for the time being, in temporarily preventing an ESA listing of the owl. It had not addressed the larger issue of balancing commodity and non-commodity needs. Ruth (1996 p. 160) framed the dilemma the agency faced as it contemplated the next step:

Scientific and technical knowledge are essential components of decision making, but this expertise has not solved the riddle of how to meet either the demands of NFMA's several conflicting forest management goals or the conflicting demands of the public.

Stuck in its Progressive Era paradigm, the agency held the fate of the community and region in its hands, maintained control over that fate though scientific management, and

yet provided no path for addressing the crisis. What emerged from the agency's action to suspend logging was a common recognition among local loggers and environmentalists that the Forest Service could not solve the problem for either of them.

The recognition that the Forest Service held the fate of both groups in its hands and, further, that its policies could not satisfy either of them, or the larger community, came sooner to the local environmental community. This recognition is captured in the Friends of Plumas Wilderness plan, which attempted to integrate environmental and logging interests, and in statements that local environmentalists made in an attempt to convince the logging community that the Forest Service was not its ultimate salvation. The following statement by Michael Jackson, for example, is indicative of how local environmentalists chose to convey this message to the logging community:

The Plumas County environmental community has been preparing for the forest planning process for over ten years. We know what is wrong with present Forest Service activities and we know how to fix it. We know how to do that while preserving all of the local timber industry jobs and potentially increasing them. We also know that the logging community has answers to some of our common problems which we may not have considered. [71]

The logging community may too have recognized a common fate with environmentalists at the hands of the Forest Service since they were aware that the agency had ultimate authority over forest management decisions affecting both groups' interests. Applying a social identity lens, Forest Service actions to suspend logging were perceived as a direct threat to the logging community, both from the perspective of the agency's perceived actions against the logging community and from the appearance of favoring the environmental community. The logging community expressed this threat by attacking the Forest Service for caving in to radical environmentalists, whom they chose

to diminish and discredit, as the following passage from Frank Stewart of Collins Pine Co. suggested in August 1991:

Until John G. Public stands up and says what he wants, the Forest Service responds to a vocal minority – that less than 1 percent of the public that wants to lock everything up for owls and wandering minstrels. If it continues, something's going to have to go. Everybody's going to be competing for the available Forest Service timber. Somebody's going to have to drop out. [119]

Eventually, however, it became obvious to most that neither group was satisfied with the agency's direction, or lack thereof, and neither was being favored. This realization may have reduced the perceived threat to the logging community and enabled its members to acknowledge mutual dissatisfaction with Forest Service actions. On rare occasions, the logging community's criticism of the Forest Service even included such an acknowledgment, as in logging consultant Phil Nemir's critique of the Lassen Forest planning process in August 1992. "They tried to play God," complained Nemir. "Now nobody's happy because nobody fully understands what the trade-offs are." [141]

From a social identity perspective, the logging community likely recognized its shared fate with environmentalists in the hands of the Forest Service. However, it is likely that they still perceived negative interdependencies with environmentalists over critical forest management issues. They therefore continued to hold out hope that the Forest Service and intensive forest management would be their salvation. An indication of this is Bill Coates' challenge to Forest Supervisor Leonard Atencio in response to a 40-percent drop in timber harvest projections in the draft Lassen Forest Plan. The *Feather River Bulletin* covered a January 1992 meeting between the Forest Service and county supervisors at which Coates' criticized the agency for caving in to environmentalists and admonished the agency, almost as a last resort, to fight on behalf of the communities:

We sense that the Forest Service is losing its will to fight. We are counting on you guys to start making a stand for these communities. You can't fight a forest fire or anything else without them. They are counting on you and we are counting on you, and we expect you to fight. [124]

Atencio's response was not hopeful. The *Bulletin* cited a shift in national values that "forced a change from the Forest Service's traditional emphasis on timber harvests" [124]. Atenio told county supervisors that the agency now had other priorities, including stricter compliance with NFMA:

I hope your perception is not that the Forest Service is not putting up a good fight. Internally [the agency] is in a lot of chaos. As a country we are not sure we want to continue with our way of life or start protecting our environment. For the Forest Service it isn't a choice. Based on the laws we are required to follow, we are not given a choice of protecting animal species or communities. It's real clear our job is to manage national forests. [124]

Atencio's assessment of the dilemma facing the Forest Service was accurate. The CASPO report was released later that year and called for drastic measures to protect the California spotted owl and to reduce the hazards of dangerous fuel build-up in Sierra Nevada national forests. The Forest Service, it appeared, could no longer be counted on to save the logging community from the fate that was upon it.

Summary

In the previous sections we have examined the changing context surrounding the timber wars from four perspectives – changes in the community, in the environmental movement, in forest conditions, and in the U.S. Forest Service. Moreover, we have examined those changes through a social identity lens in which identity is context-dependent and in which a changing context is a necessary component for social identity change. In addition, from a social identity perspective, a changing context may produce and make salient a common fate among disputants in an intractable conflict, thus creating

conditions necessary for the emergence of a common identity, the recognition of positive interdependence, and movement towards collective action. Using Mohr's (1982) framework, contextual changes provide the external forces that "herd" the disputants and the conditions necessary for cooperation to emerge into mutual proximity (p. 45).

In the local timber wars, it can be argued that contextual changes produced three elements that heightened the saliency of a common fate among disputants in the local timber wars and created conditions necessary for a common identity to emerge. These elements are extracted from the contextual categories described above and define the crisis they were facing: a) a shared sense of loss, b) a shared sense of urgency, and c) institutional failure. These elements, I argue, are the fundamental contextual dimensions of local disputants' common fate and coalesce around a common sense of and concern for the fate of their forest-dependent communities and surrounding forests. These elements or dimensions of common fate were produced and made salient by a) economic loss and projections of further suffering, b) the immediate threat that modern wildfires posed in conditions of severe drought, and c) Forest Service paralysis in addressing these and other problems.

In addition, we can take from the analysis of necessary conditions that disputants recognized a common identity as residents of the forest-dependent community or at least recognized the basis for a common identity. Finally, disputants also shared the knowledge of a common set of tools, techniques, skills, and models for mutual fate control. This arose from their common knowledge of each other and from local models of forest management and ecological restoration, such as the Collins Almanor Forest and the Feather River Coordinated Resource Management Group. External direction forces, it

can be argued, had moved the disputants and conditions necessary for cooperation to emerge into mutual proximity. There is still one missing component of Mohr's recipe – the probability that the mosquito will bite the victim.

Necessary Probabilistic Processes

"I could feel, smell and almost taste the fire," said Clinton Wooster, a Reno attorney who walked outside for 30 minutes Wednesday evening and came back coughing. "The mountains were not visible because of the haze and smoke." [149]

Clinton Wooster lives in Reno, Nevada, 75 miles south-southeast of Quincy,
California, the location of the infamous meeting at which Coates and Nelson approached
Jackson to inquire whether environmentalists were serious about the conservationist
alternative. Wooster walked outside on the evening of September 30, 1992. The
Cleveland Fire started the day before near a campground on the Eldorado National Forest
west of Lake Tahoe. The fire burned 22,485 acres over a two week period. Two
firefighters died in a plane crash fighting the fire. Coates and Nelson very likely knew of
these events as they walked up Main Street to Jackson's law office.

Bill Coates, Tom Nelson, Michael Jackson, and people like them, I argue, provide the necessary probabilistic process that causes cooperation to emerge from intractable conflict, when it does emerge. But Coates, Nelson, and Jackson have to do something that is equivalent to the bite inflicted by the *Anopheles* mosquito. They also have to carry a certain status that makes them effective communicators. In the case of the *Anopheles* mosquito, that status is a female mosquito. They cannot, for example, be male *Anopheles* or other mosquito species. In other words, in order to transmit the disease they have to *be* a certain thing – a female *Anopheles* – and they have to *do* a certain thing – bite a person.

By the same token, in order for cooperation to transcend intractability, Coates, Nelson, and Jackson have to *be* a certain thing and they have to *do* a certain thing. Applying a social identity framework, the probability of cooperation emerging, therefore, will depend upon the ability of *adopted leaders* to effectively *frame the conflict in ways that make salient disputants' common fate, common identity, and positive interdependencies*. Given similar external directional forces in forest-dependent communities throughout the Northwest, this probabilistic dimension of the dispute appears to be the critical element that appears to distinguish those forest-dependent communities that adopted collaborative approaches during the timber wars from those that did not. This interpretation requires us to revisit the concept of framing explored in chapter III and to develop a better understanding of the role that leaders play in the framing process. This suggests the following questions in the context of the present research: who is framing and what is being framed?

Who is Framing?

In studies of organizational leadership, Haslam and Platow (2001, p. 218) argue that social identity salience, "can be seen to provide the psychological footing for a range of key organizational phenomena including information exchange, consensus seeking, cooperation, trust, empowerment, group productivity, and collective action." A leader's success, therefore, "hinges upon an ability to turn 'me' and 'you' into 'us' and to define a social project that gives that sense of 'us-ness' meaning and purpose." In this regard, it is the role of the leader to define and maintain organizational identity salience. Haslam and others contend that leaders provide the critical role of "entrepreneurs of identity" (Haslam 2004; Reicher et al. 2001).

In studies of leadership in social movements, Reicher et al. (2001) suggest that, "If crowd members are seeking to determine how they should behave as category members, then the issue comes down to the process of how categories are defined and how proposals come to be construed as either consonant or dissonant with such definitions." Equally, they argue, "the issue of leadership comes down to the question of how individuals come to be seen as defining these matters of category identity" (p. 184). Reicher and his colleagues conclude that, "those who wish to mobilise people to different ends will seek to provide different categories through which people should see their world, themselves and their actions in the world" (p. 186). The "transformative potential of leaders," therefore, "lies in their ability to define shared social identities. It is through redefining identity that they are able to shape the perceptions, values and goals of group members" (Reicher et al. 2005, p. 560).

In the Robbers Cave experiment (Sherif et al. 1961), the research team controlled the experiment that led to the discovery of a superordinate goal. However, the research team did not, according to the research protocol, prime their subjects in any way.

According to the protocol, staff members at the camp (the research team) were instructed to avoid directing the subjects.

No staff member is to be a leader to the boys during any stage of the study in any of the various activities... You may have to give advice when asked and institute controls when necessary to maintain order, but please refrain from giving direction and initiating action in relation to problem situations (p. 57).

In the conclusion of the study, Sherif (1961) reiterated the importance of letting the factions discover the superordinate goal:

In this experiment, the setting and circumstances for the introduction of superordinate goals were elaborately prepared by the experimenters. But beyond

setting the scene, the methods followed, the discussion necessary for the solution, the plans to be made and executed were left to the groups themselves (p. 210).

In the experimental situation involving the breakdown of the supply truck, the boys recognized their common fate and then discovered the tug-of-war rope that could be used to pull and jump-start the truck. The initial exchange among the boys during the discovery of the superordinate goal (below) is taken from the researchers' account of the event. To set the stage, Mills emerged and remained the Rattlers' (R) leader throughout the experiment while for the Eagles' a new leader emerged at each stage. The description below suggests that the superordinate goal was initially framed by Mills. Unfortunately, it is unclear from the passage what Eagles' responded to Mills.

Several Rattlers suggested, "Let's push it," but they abandoned the idea because the truck was parked facing up-hill. The tug-of-war rope was in plain sight to both groups. Mills (R) said, "Let's get 'our' tug-of-war rope and have a tug-of-war against the truck" (p. 171).

In the Robbers Cave experiment we see that a leader from one faction initiated the framing process, which was accepted by an individual (or individuals) from the other faction. Similarly, from the QLG case study we see that adopted leaders from the local environmental community initiated the framing process in hopes that it would be reciprocated by leaders from the logging community. Local environmental leaders consistently framed the conflict in ways that invited cooperation with the local logging community. Their efforts, however, initially had little impact on the local logging community. Leaders on one side of the dispute may have correctly framed the dispute, but they could not transform the conflict without the acceptance of their framing by adopted leaders on the other side. Both the Robbers Cave experiment and the QLG case suggest that adopted leaders or appropriate spokespeople *on both sides of the dispute* are

necessary components of the framing process. This also appears to be true from media accounts and case studies of well known collaborative groups whose leaders crossed ideological (identity) boundaries to talk (Bernard and Young 1997; Brick et al. 2001; Cestaro 1999; Colburn 2002; Kiester 1999; Wondolleck and Yaffee 2000).

Media accounts, moreover, often call attention to the courageous acts by factional leaders as they symbolically cross ideological boundaries to talk with adversaries. This is a common theme in the QLG story, which is captured in a *Chico News & Review* editorial titled *Truce in the Forest Wars* describing the new relationship forged by Jackson and Coates as they sat next to each other on the stage of the Quincy Town Hall Theater in July 1993.

Michael Jackson and Bill Coates, inveterate enemies, are sitting side-by-side on the bare wood stage of Quincy's Town Hall Theatre. Watching them in open-mouthed amazement is an audience of loggers, downtown shop owners and long-hairs from the food co-op around the corner. No one who knows the combative attorney and a politician who hates to lose would be shocked if they suddenly exchanged fisticuffs. Instead, however, Jackson and Coates surrender their 15-year owls-versus-jobs fight to stand together and embrace a proposal to save their community and the national forests surrounding it. [179]

These acts appear to be important in the context of "who is framing" in that they acknowledge the individuals who took considerable risk in stepping across ideological and identity-based boundaries as they initiated the framing process. What makes the effort all the more noteworthy, it appears, is that the individuals are leaders of their respective groups and not random group members.

What is Framed?

Paralleling Mohr's (1982) analogy regarding the contraction of malaria, Perdue et al. (1990) observed that "in-group- and out-group-associated *words* may function as linguistic *vectors* that establish an evaluative predisposition toward targets previously

uninfected..." (p. 482). In the same way that epidemiologists refer to vectors that carry and distribute disease-producing micro-organisms (insects, animals, and food), Perdue and colleagues investigated how in-group and out-group "descriptors" (collective pronouns) such as *we*, *us* and *ours* or *they*, *them* and *theirs*, affected the way in which information associated with the descriptor was evaluated. Their findings showed that priming subjects with in-group descriptors elicited significantly more pleasant evaluations from research subjects than when primed with out-group descriptors.

Foddy and Hogg (1999) argue that an important implication for social dilemmas is how people with access to the resource categorize themselves; as members of a superordinate group, as two or more subgroups, or as an aggregate of distinct individuals. Since research findings strongly suggest that a superordinate identity is more likely to result in collective restraint, it follows that the superordinate group is the preferred categorization. The authors conclude that, "If the crux of the conflict in resource dilemmas resides with the level at which identification occurs, then the resolution will rely on finding methods for instilling compatible levels of social identity" (p. 313). To that end, social movement theorists Snow and McAdam (2000) contend that "framing processes... constitute perhaps the most important mechanism facilitating identity construction..., largely because identity constructions are an inherent feature of framing activities" (p. 53). At a concrete level, they argue, "the construction of identities via framing occurs in the course of identity talk among adherents and activists" wherein "identities are announced or renounced, avowed of disavowed, and embraced or rejected" (p. 54). The medium, they conclude, "is typically framing discourse" (p. 54).

As entrepreneurs of identity, Reicher and colleagues (2001) contend that leaders must accomplish three fundamental and interrelated tasks in order to successfully mobilize people to appropriate action. First, they must "define the boundaries of the relevant identity such that it includes all those whose support is sought." Second, they must "define those for whom support is sought (the individual, the organisation) such that they are undoubtedly part of the group." And third, they must "define the content of the relevant identity and the nature of one's proposals such that the two are consonant" (p. 186). In other words, leaders will be more likely to succeed to the extent that they can successfully "frame" for their followers, a) the salient identity and boundary of inclusion (and exclusion), b) the distinct characteristics and values of in-group members, including the leader, and c) the congruency between the group's (superordinate) identity and the leader's proposed (superordinate) goals. "Above all," Reicher concludes, "it is necessary to work on these various constructive dimensions... such that they form a coherent and seamless whole" (p. 186). While Reicher and colleagues (2001) do not discuss the role of common fate in their analysis, social movement theorists recognize the importance of a common fate or common threat as a possible condition for mobilization (Noakes 2000).

Finally, we must consider Brewer's (2000) necessary conditions for the emergence of intergroup cooperation – common fate, common identity, and positive interdependence. Unfortunately, Brewer does not suggest how the necessary conditions become salient. She does, however, argue forcefully for their saliency. Returning to the Robbers Cave experiment, which Brewer used to draw attention to the conditions (p. 119), we find examples of not only the conditions necessary for cooperation to emerge but the mechanism – framing – that heightened their salience. The following description

is a continuation of Sherif's (1961) passage in which the Rattlers' leader, Mills, framed the superordinate goal for the two factions:

Someone said, "Yeah, we can't push it." Swift (R) said, "20 of us can." Several boys agreed loudly with this, Mills adding, "20 of us can pull it for sure." The idea of having a tug-of-war against the truck was repeated by several boys in both groups. Mills (R) ran over to get the rope and started to tie it to the front bumper of the truck. An Eagle (E) said it would be too long, and suggested pulling it half-way through the bumper, thus making two pulling ropes. Clark (E) fed it through the bumper while Mills (R) stretched it out. Harrison (R) suggested that the Eagles pull one rope and the Rattlers the other. Barton (R) said, "It doesn't make any difference" (p. 171).

The passage confirms the framing of a superordinate goal as the basis for Sherif's conclusion, however the boys are, at the same time, framing a superordinate identity in their choice of collective pronouns, or linguistic vectors, to motivate action: "Let's push it," "Let's get our tug-of-war rope," "...we can't push it," and "20 of us can pull it for sure." Consistent with Brewer (2000), then, it appears that the boys' awareness of a common fate – the breakdown of the supply truck – led to the framing of a salient superordinate identity and superordinate goal ("a tug-of-war against the truck"). The research team created the situation but played no further role in priming the boys. The boys themselves created the frames that allowed them to transform the conflict. Finally, one factional leader initiated the framing process, which was gradually accepted by the other faction.

While the other researchers cited in this section have not struggled with the constructs in the same way Brewer has, they appear to have arrived at similar conclusions. Each reference the importance of a superordinate identity and identity boundaries in the framing process (Foddy and Hogg 1999; Snow and McAdam 2000; Reicher et al. 2001). In addition, Reicher et al. (2001) discuss the link between the

"content of the relevant identity and the nature of one's proposals" (p. 186) and argue for congruency between the two. These appear to be equivalent to Brewer's superordinate identity and superordinate goal. Finally, Haslam and Platow (2001), citied above, also make the connection between a common identity and a common goal in their reference to "a social project that gives that sense of 'us-ness' meaning and purpose" (p. 218).

Applying a social identity lens, it appears that the necessary probabilistic processes in transforming an intractable conflict such as the one found in the Quincy Library Group case appear to involve adopted leaders from both (or all) sides of the conflict, symbolically crossing identity-based boundaries, and framing a salient common fate, common identity, and positive interdependence and/or superordinate goal such that disputants in the conflict are mobilized to cooperate. While the probability of this process occurring is relatively low, it is not unheard of. In fact, the social identity lens applied here helps to explain what we generally know about how similar intractable conflicts were transformed in the early 1990s (Bernard and Young 1997; Brick et al. 2001; Cestaro 1999; Coughlin et al. 1999; Colburn 2002; Wondolleck and Yaffee 2000; Yaffee et al. 1996). Moreover, it does not diminish the relevancy of other explanations of cooperative behavior in similar contexts, as will be discussed in more detail in the final chapter.

In this chapter I have applied a social identity lens to the transformation of a community-based environmental conflict. I have also used an explanatory framework that recognizes situations in which causal explanations do not hold. In such situations, conditions may exist for an outcome to occur and yet there is a probability that it may not occur. Following this framework, I have explored the necessary conditions for the

outcome to occur, the external directional forces necessary to align the conditions with the participants, and the probabilistic processes necessary to produce the outcome.

In summary, the necessary conditions for cooperation to transcend conflict are extracted from Brewer's (2000) theoretical framework and are a common fate, common identity, and positive interdependence as residents of forest-dependent communities subject to the same external forces and decision rules. The external directional forces required to herd the conditions and disputants into favorable alignment were extracted from disputants' descriptions of the changing context surrounding the local timber wars, as well as further study of the changing context. Finally, the necessary probabilistic processes that produced the outcome were extracted from observations and general knowledge of the differences between situations where cooperation has emerged and similar situations where it has not. The difference, it appears, is the role that leaders play in framing and reframing the conflict in ways that make salient the necessary conditions for cooperation to emerge.

Chapter IX Conclusion

Putnam (1994) encourages negotiation scholars to challenge traditional models of negotiation theory, in particular three assumptions that are embedded in such models; the focus on instrumental goals, the primacy of the individual, and rationality as the source of knowledge and choice. Putnam argues that while traditional models have given us "a rich field of study with excellent descriptive and explanatory power," they "seem to blind us to important aspects of this complex process" (p. 337). Traditional approaches, she argues, for the most part, "fail to see, explain, or understand what is hidden or 'invisible' from many negotiation theories" (p. 337). Putnam contends that the field of negotiation remains dominated by "a controlling paradigm or root metaphor – transactional exchange" (p. 338). To move away from a narrow focus on traditional models informed by exchange theory, Putnam encourages scholars to develop an interdisciplinary field in which "multiple paradigms flourish and inform one another" (p. 337):

The interdisciplinary area of negotiation analysis needs to expand its range of explanatory heuristics and introduce a variety of conceptual lenses rather than continue to grind one lens to optimal sharpness.

This research attempts to expand the range of explanatory heuristics in the negotiation and conflict management field by applying a social identity perspective to the transformation of an intractable environmental conflict at the local level. A social identity perspective was initially chosen during preliminary research due to the way that disputants' collective identities appeared to change during the course of the conflict. An

initial exploratory research question of "What changes when difficult environmental conflicts are transformed?" guided the preliminary research and was reframed to capture the identity-based focus of the study. The revised question, "How does a focus on social identity inform our understanding of the transformation of community-based environmental conflict?" was chosen to better describe the more narrowly focused direction of the research. The question was also framed so as to avoid setting up competing paradigms with traditional models of negotiation. The research is intended to provide an additional lens with which to understand intractable environmental conflict and its transformation. It does not attempt to replace the traditional model of negotiation however it does attempt to challenge the primacy of that model over other models.

As we have learned from applying a social identity perspective, disputants in the local timber wars adopted new collective identities as the conflict was transformed. These identities shifted from divergent affiliations with the environmental and logging communities to a collective and inclusive affiliation with the larger community and with the Quincy Library Group. Further, it appears that the logging community expanded its definition of the larger community to include local environmentalists. These findings are captured in the identity and characterization frames in chapters V and VI. It also appears from additional research that the context surrounding the conflict changed dramatically prior to and during the period in which the conflict occurred. Chapter VII details this changing context along four dimensions – changes in the community, in the environmental movement, in forest conditions, and in the U.S. Forest Service. These dimensions, extracted from interviews with disputants, are often mentioned by disputants in their explanations for the behavioral changes that occurred during the timber wars.

These two very distinct features of the conflict – changing identities and changing context – are critical to our understanding of the transformation of the conflict from a social identity perspective. As we know from social identity theory, social identities are context dependent and change with changing context. We also know that individuals have multiple social identities and that a particular identity becomes salient in a given context. From a social identity perspective, therefore, the changing social identities observed in chapters V and VI would have to have been "caused" by the changing context surrounding the disputants. Since the four contextual dimensions described in chapter VII had the greatest impact on disputants throughout the conflict, it is likely that these contextual elements were principally responsible for the change in identity salience observed in chapters V and VI. Further, the contextual changes appear to have caused divergent identities with environmentalists and loggers to converge and "align" around a common identity with the larger community and with the Quincy Library Group.

We also know from social identity theory that a common identity provides a strong basis for cooperation. From a social identity perspective, a common identity may emerge from the recognition of a common fate that is produced by the changing context. A common fate – being subject to the same external forces and/or decision rules – then makes salient a common identity among disputants. Their common identity then allows disputants to recognize positive interdependencies and common goals. We see this in environmentalists' inclusive identity and characterization frames and in their focus on positive interdependencies with the logging community. With the logging community, however, we see almost the opposite pattern – exclusive identity and characterization frames and a focus on negative interdependencies with environmentalists.

Eventually, a common fate as residents of a forest-dependent community entrusted to a federal agency that could not manage the growing crisis likely increased the saliency of loggers' common identity with environmentalists and allowed them to recognize positive interdependencies and a common goal. Fortunately, a common goal existed in the form of the Friends of Plumas Wilderness plan, which became the basis for the Quincy Library Group community stability proposal. From a social identity perspective, the continually changing context likely produced a common fate that caused salient social identities to align. While leaders of the logging community obviously made strategic choices that can be explained through transactional and exchange theory models, those models do not account for identity shifts and the role that changing identity played in the ability of disputants to transcend the previously intractable conflict.

We also know from social identity theory that leaders play a particularly important role in the transformation of an intractable conflict in that they have the ability to frame a common fate, common identity, and positive interdependencies such that disputants recognize and translate those conditions into cooperative interaction. Leaders, however, also have the ability to perpetuate identity distinctions and intergroup conflict by increasing the salience of identity boundaries, the divergent characteristics and values of out-group members, and negative interdependencies that exist between or among the groups. From a social identity perspective, this choice is likely based on the ability of factional leaders to recognize a common identity with their adversaries, or the basis for a common identity. This again is produced by a common fate. In the local timber wars, it appears that environmental leaders recognized the basis for a common identity with loggers and framed a common fate, common identity, and positive interdependence with

the logging community at an early stage of the conflict. This is evident from identity and characterization frames expressed by environmental leaders.

Logging community leaders, however, did not recognize the basis for a common identity with environmentalists and perceived the environmental community as largely responsible for their fate. Logging community leaders framed the conflict in ways that perpetuated identity distinctions and negative interdependencies. As the context continued to change, however, and their common fate became more obvious, logging community leaders appear to have discovered the basis for a common identity and began to reframe the conflict in ways that gradually reflected environmentalists' perspectives, thus accepting environmentalists into the larger forest-dependent community. In accepting environmentalists, it can also be argued that the logging community may have redefined the larger community – it was now no longer a "timber-dependent" community but was more appropriately a "forest-dependent" community.

Finally, the research methodology and the research itself points to an unrecognized phenomena of leadership that is characteristic in the transformation of intergroup conflict. It appears from this research that group leaders from *both or all* factions of the conflict must recognize and frame a common fate, common identity, and positive interdependence with their adversaries in order to transform the conflict. For this to occur, a common fate and the basis for a common identity must be salient to both or all factional leaders. If it is not, the conflict will remain intractable. This suggests that the probability that leaders in intergroup conflict will mutually discover a common fate, common identity and positive interdependence, and mobilizing cooperative action to transform the conflict, is relatively rare.

Contribution to the Research

The present research draws primarily on social identity theory to explain the transformation of a deep-seated environmental conflict that is typical of the conflicts facing environmentalists, extractive industries, and government agencies throughout the U.S. Social identity theory was developed and advanced primarily through experimentation with student populations and research subjects in organizational contexts. In addition, most studies are of a quantitative nature. Social identity theory has also been tested in many real-world settings and has shown to be a consistently valid theoretical framework. In spite of the predominance of experimental research, social identity theory has shown such consistent and predictable results that social identity theorists suggest that cognitive processes involved in self-categorization and comparison are adaptive in human populations.

In the realm of social identity research, this study appears to offer a unique contribution. While field studies exploring social identity change exist, I was unable to locate a study of the complexity contained here. I was also unable to find any research that used frame analysis to track social identity change with a changing context; that explored the complexity of a changing context; that identified the role that leaders play in conflict transformation; and that used process theory in conjunction with social identity theory to explain probabilistic processes involved in behavioral change. The principal contributions to social identity theory, however, are the role that the surrounding context plays in identity change and the role that adopted leaders play in the transformation of identity-based conflict. These contributions are discussed below.

First, social identity research posits that social identity is context dependent and changes when the context surrounding the individual changes. Turner et al. (1994) suggest that the individual "gains identity from being placed in context" (p. 458). Most research exploring contextual changes and subsequent changes in social identity have explored the movement of individuals from one context to another and the affect of those changes on collective identity. This research, on the other hand, looked at how identities change when research subjects stay in the same place and the context shifts around and under them. It also explores the way in which intergroup conflict is experienced by the groups as the surrounding context changes and as subgroup identities shift to a superordinate identity while maintaining subgroup affiliations.

Findings of the present research support social identity theory in that identities are tied to context and change correspondingly. However, this research suggests that changing context surrounding existing identities may not be immediately recognized by participants and may emerge through an evolving process as participants grapple with contextual changes and their meaning. While new identity frames appear abruptly with the emergence of the Quincy Library Group, it appears that environmentalists adopted a common identity frame early in the conflict while the logging community resisted the changing context until a sense of urgency enveloped them.

Second, social identity research offers little in the way of leadership in the context of intergroup conflict, except to demonstrate that as prototypical group members leaders play a role in reinforcing identity distinctions with other groups. In common pool resource dilemma research, leaders are often appointed by group members to oversee access to the resource. In social movement research, leaders frame collective identities

and mobilize sympathizers against oppressors. I found no research, however, describing the role that leaders play in resolving identity-based conflict, particularly where leaders may have defied principals of prototypicality and framed superordinate identities that bridged identity boundaries. I also found no direct research that discussed the way in which a changing context or a common fate is conveyed to group members. In that light, the present research makes a significant contribution to the role that leaders play in perpetuating identity distinctions and in framing common fate, common identity, and common goals, and creating a common space for opposing leaders to enter.

The research may make an even greater contribution to the field of negotiation theory in that it advances our understanding of identity-based conflicts and provides another lens through which to view intractable conflicts. With regard to furthering our understanding of identity-based conflict, this research has delved more deeply into social identity theory as an explanatory framework, and into the conflict itself, than comparable identity-based research in the negotiation arena. Most negotiation research dealing with identity-based conflict, I have found, has either mixed identity and social identity frameworks in its analyses or has skimmed the surface of the theory, thus overlooking the richness of the framework. Moreover, many social psychologists that study negotiation behavior, I have found, tend to focus on interpersonal dynamics and pay little attention to either group behavior, intergroup conflict, or the role of context. I found as I delved into the research that I was initially drawn to the more familiar negotiation literature pertaining to identity-based conflict, but soon found it lacking as a solid framework. As I waded more deeply into social identity theory, however, I discovered greater theoretical consistency and a solid framework, but found myself in a very deep pool. Feeling slightly overwhelmed by the challenge, I was tempted to return to the negotiation literature. Fortunately, I stayed afloat and can now add to the depth of knowledge of identity-based conflict in the negotiation field.

Finally, as Putnam (1994) observed, the dominant theoretical framework for understanding and explaining negotiation behavior is exchange theory. Following this framework, actors are driven by instrumental goals, act as individual utility maximizers, and make decisions that are guided by purely rational thought. While it is helpful to view the present research through this lens, such a view would miss the hidden and invisible dimensions of individual and group behavior that inform our understanding of the conflict and its transformation in value-added ways. From this perspective, the present research, which stays true to a social identity framework throughout the study, adds immensely to the interdisciplinary nature of negotiation theory and research. Discounting the research because it does not track with the dominant paradigm would be a mistake.

Limitations of the Research

The principal data used to identify and document identity and characterization frames was extracted from media and documentary accounts of the way in which disputants in the local timber wars used third-person plural pronouns and other affiliations when talking about forest management issues. These accounts were derived from public settings in which disputants spoke briefly about forest management issues that were the topic of a particular meeting. Accounts were also derived from media interviews with disputants as well as letters to the editor, guest opinions, and other accounts. In addition, many of the newspaper articles that covered forest management issues were written by a single reporter. While the advantage of these accounts is that

they are all real time data and are absent of reflective biases, they may be limited in two minor ways, discussed below.

First, media accounts of the ongoing conflict may be biased by the views of the reporter or may be sensationalized to capture a certain drama produced by the conflict. While sensationalized media accounts of conflict are more prevalent today, they were likely occurring in the 1980s and early 1990s, even in rural communities. In addition, participants may have "played to the media" or to the audience by exaggerating their views or opinions in a highly charged public context. While both are possible, I did not detect an observable difference between media accounts and disputants' own accounts of the situation. Moreover, media or disputant dramatization of the conflict may have drawn out identity and characterization distinctions that are relevant to the conflict and its resolution but which would have remained unspoken in the absence of more intense conflict. Finally, dramatization may, in fact, make the conflict more difficult to resolve, suggesting that its resolution is all the more astonishing.

Second, while identity and characterization frames are extracted from public statements made by disputants in media and written accounts of the dispute, social identity theory is in large part a cognitive process that occurs internally and emerges through social interaction. Self categorization may therefore occur outside of any public accounting of identity and characterization framing. This makes it difficult to know in real time whether a common identity was recognized by the logging community prior to the formation of the Quincy Library Group. As mentioned, it is improbable that such evidence would exist since it is unlikely that Coates and Nelson would have made public

statements prior to their secret meeting with Jackson. Nevertheless, public accounts of the conflict provide limited real-time opportunities to track some important information.

Application in the Public Policy Arena

Ending the timber wars through local consensus was a significant goal of the Clinton Administration during the 1990s and continues to be a policy directive of the current administration, as indicated by federal initiatives and policies designed to foster "cooperative conservation" (Van de Wetering 2006). It is expected that consensus-based solutions to natural resource and environmental problems will be a significant goal of future administrations as environmental issues continue to challenge life, liberty and the pursuit of happiness. As such, the present research should be of interest to public policy makers, administrators, and managers. The research is also intended to add to the knowledge base and skill set of public policy conflict managers and the cadre of academics and professionals who train them, as well as participants in consensus-based decision-making processes. In this section I will discuss the relevancy of a social identity framework to understanding and managing community-based environmental conflicts from the perspectives of three sets of actors – public policy makers, conflict managers, and potential participants.

Relevance for Public Policy Makers

A social identity framework helps us see that laws and policies such as the Multiple Use and Sustained Yield Act and the National Forest Management Act function in ways that inadvertently reinforce identity distinctions and perpetuate competition and conflict among user groups. While well-intended, laws and policies that divide natural resources into specific uses or values based on the stated or perceived interests of

narrowly defined "stakeholders" perpetuate competition and identity-based conflict.

Because of the tendency among individuals to categorize themselves in terms of groups, to reserve benefits for in-group members, and to compare their group more favorably with regard to access and distribution of resources, it is critical that policy makers consciously design public policies in ways that both avoid perpetuating divisive identity distinctions and reinforce common identity distinctions.

Unfortunately, there is a tendency among policy makers to develop policy initiatives in ways that reinforce identity boundaries. This, I argue, occurs for two reasons. First, policy makers generally do not see public policy debates as identity-based conflicts and tend to think of them solely as interest-based conflicts driven by substantive differences among parties. While there are clearly substantive dimensions to identity-based conflicts, the conflicts themselves occur between or among groups rather than between or among individuals. It is the "we" and "they" of public policy debates that make them identity-based conflicts. Second, because policy makers generally do not recognize identity-based conflicts, they tend to overlook the role that their own social identities play in policy debates. They therefore tend to categorize themselves in alignment with an interest group, reserve benefits for in-group members, and compare their in-group more favorably than other groups.

Public policies that are cognizant of social identity dynamics and identity-based conflict would contain subtle but important differences. Instead of framing the policy around distinct resource values and uses, policies would recognize such values and uses but focus on their integration within an inclusive identity frame, which would be reinforced by policy makers and public managers through governing structures,

professional positions, and reward systems. Instead of "getting the desires of each side into one field of vision" as Mary Parker Follett (1942. p. 39) stated in her definition of reframing, public policies would focus more strongly on "getting the *faces* of each side into one field of vision." Pursuant to this research, such policies would include an inclusive framing of the common fate faced by the people the policy will affect, subgroup identities and a superordinate identity defined by the policy or its implementation, positive interdependencies among people and groups, and a common or visionary goal that will be achieved if the policy is successful. One significant goal of the policy itself, therefore, should be to instill and sustain a salient superordinate identity among all of the resource users, while allowing subordinate or interest-based identities to co-exist.

Pursuant to NFMA, for example, the forest planning process is focused on individual national forests, which may provide the basis for a common identity. However, the most salient identities in the NFMA planning process, we have seen, are subgroup or interest-based identities focused on forest values and uses that perpetuate identity distinctions. An identity-based approach might focus more strongly on the resource, landscape, or ecosystem as a socializing construct in an effort to make salient a common resource-based identity, the integration of resource values within the boundary of that identity, and an overarching goal that captures a shared vision that could be achieved if the goal was realized. Section 101 of NEPA offers the conceptual framework for such a goal in its recognition of productive harmony:

"...it is the continuing policy of the Federal Government, in cooperation with State and local governments, and other concerned public and private organizations, to use all practicable means and measures... to create and maintain conditions under which man and nature can exist in productive harmony, and fulfill the social, economic, and other requirements of present and future generations of Americans."

Inclusive concepts such as productive harmony provide an integrated and visionary goal that a group of people can work towards. From a social identity perspective, they first need a context in which to pursue the goal, where the "we" is or can be defined. In an environmental arena, that context is generally a landscape, region, or ecosystem that provides a salient boundary inside of which people have the potential to see themselves as a single group with a common fate. Collaborative resource management groups such as the Applegate Partnership and Malpai Borderlands Group, for example, tend to redefine themselves in "landscape" terms rather than as disparate users groups (QLG is an exception) (Brick et al. 2001). Group members still affiliate with their respective user group identities but have defined a common identity boundary inside of which they see themselves as a single group. And the group is defined by the landscape that they share. Unfortunately, integrated concepts such as productive harmony have been replaced by competing resource uses and values that perpetuate identity distinctions, competition, and conflict. Without a basis for a common resource-based identity, it appears, the most we can expect from environmental policies are compromises among competing uses and values, hardly a condition of productive harmony.

In addition to public policies, government agencies that administer such policies show strong tendencies towards structures of governance that reinforce identity-based distinctions and perpetuate intergroup tensions. Social identities exist within and between organizations at levels where identity salience is most stable. Organizational, programmatic, and disciplinary identities engender trust and cooperation within the organization, program, or discipline, but create barriers that prevent managers and resource specialists from crossing identity-based boundaries to define integrated

problems, share information, and leverage resources in ways that lead to integrated problem solving and productive harmony. It is imperative that public managers and resource specialists are aware of identity-based barriers to cooperation and to collectively identify a basis for common identity that has the potential to define group boundaries at a greater level of inclusiveness. The concept of ecosystem management, for example, has the potential to provide a superordinate identity for organizations responsible for the management of the system. Framing a common identity at the appropriate landscape scale, I argue, may be critical to the success of a management initiative or project.

Relevance for Conflict Management

Conflict managers are in a unique position to design and facilitate collaborative and negotiated processes that minimize identity-based distinctions and increase opportunities for integrative problem solving and cooperation. Often, however, conflict managers inadvertently perpetuate identity distinctions because they overlook the identity-based nature of most environmental and natural resource conflicts and decision-making processes. Or they attempt to frame a common identity without fully understanding the saliency of the identity to disputants or the unique context surrounding it. In addition, while most conflict managers are aware of the concept of framing and reframing, they tend to apply the concept only to restatements of the problem or peoples' interests without fully understanding the role that social identity plays in how people might perceive their interests. Moreover, conflict managers may downplay the salient identities around which conflict exists and miss opportunities to establish and sustain dual identities that capture both the intergroup tensions necessary to ensure that the basis of

conflict is addressed and the shared motivation to turn their differences into opportunities.

Environmental conflict managers are also in a unique position to help disputants define resource management boundaries inside of which people may see themselves as a common group. Boundaries and scale in ecosystem management, for example, are extremely important variables in determining the likelihood that a superordinate resource-based identity will be established and will be stable. At what landscape scale and under what conditions, for example, will divergent natural resource users recognize a convergent superordinate identity? How do they define or arrange themselves on the landscape in ways that might suggest a common boundary within which there is potential to recognize a common fate and a common identity?

In the QLG case, it appears that the forests defining the boundaries of the intergroup conflict – the timber wars – also came to define the boundaries of a salient superordinate identity for the warring factions. This occurred in part due to the context in which the conflict occurred – national forest management and the NFMA planning process. However, it also suggests that social identities can be shaped to some extent by the ways in which the context is defined by an agency such as the Forest Service that largely controls peoples' fate. On the other hand, resource management agencies may be wise to define management boundaries based on the ways in which resource users define them. Such boundaries may already provide the basis for a common identity.

As we have established, landscape or resource boundaries must be defined such that a salient superordinate identity is achievable. One significant dimension of this equation is the ability among resource users to trust and/or monitor other users. If the

identity boundary is too large, for example, thus increasing the anonymity of resource users or the difficulty of resource monitoring, identity salience is considerably more challenging. In addition, a common resource-based identity may be difficult to achieve and sustain in situations where strong intergroup distinctions create additional barriers to the formation of trust. Conversely, a superordinate identity may be easier to achieve and sustain where a basis for intergroup or interpersonal trust already exists or where all-party monitoring can be more easily established. Finally, since social identity is context dependent, the changing context surrounding the management of specific resources or specific uses may provide opportunities to frame common identities based on new interpretations of common fate and positive interdependencies among the parties.

In addition to issues of boundary and scale, identity-based dimensions of environmental and natural resource conflicts suggest new areas of inquiry for conflict assessment. The discussion above suggests that conflict assessment should be focused not only on the principal issues, underlying interests, and willingness among the parties to engage in negotiation or collaboration, but also on the identity-based dimensions of the conflict. Identity-based dimensions are revealed in the way parties use social identity and characterization frames in their descriptions of the conflict. From a social identity perspective, a conflict or situation assessment should also explore, a) the context surrounding the conflict and whether contextual dimensions are acting as centripetal or centrifugal forces to produce a common fate, b) whether participants perceive a common fate and interdependence with other participants, c) whether there is a basis for a common identity in the way participants talk about each other and/or share the landscape or

resource, and d) whether leaders among the factions perceive a common identity or with their adversaries.

A willingness to engage in a negotiated process suggests that the parties may already perceive a common fate of some sort that provides the basis for a common identity. This may be as straightforward as, for example, a negotiating group's common knowledge that if they don't reach an agreement, a higher authority will decide for them. Their common identity as a group of people subject to the same fate may enable them to join forces in a process of mutual fate control. This suggests that even in a negotiated rulemaking context, for example, where participants have no social ties with each other, there still exists the opportunity for a common identity to emerge and to better the negotiated outcome.

Finally, conflict managers need to be aware of how social identity influences the dynamics of the intergroup conflicts they are mediating. Ideally, we have learned, outcomes are improved when participants maintain a healthy tension between their subgroup identities and their superordinate identity, or between their identities as environmentalists and loggers and their identity as QLG members. All too often, negotiators in collaborative processes either fail to adopt the more inclusive group identity, therefore never recognizing the superordinate goal, or they fully adopt the superordinate identity and lose sight of their constituents' underlying interests. A social identity lens helps conflict managers make sense of their observations of participants who at one extreme seem unwilling to agree to anything the group proposes. As conflict

managers are aware, these differences go beyond the parties' instrumental goals and suggest social and psychological dimensions of conflict and cooperation.

Relevance for Participation

Participants in environmental and natural resource conflicts may be making strategic choices to gain or maintain political advantage for their group and, therefore, may be quite comfortable perpetuating identity-based divisions. Where inherent power differences exist, altering the balance of power by mobilizing people to take action may require identity and characterization framing that distinguishes between the "haves" and the "have-nots." This is essentially the role that social identity plays in social movements, including the environmental and natural resource justice movements. It is also the strategy used by local environmentalists in the present research. However, local environmentalists did something else that opened the door for cooperation and collaboration with the logging community. They, in a sense, built a bridge for the logging community to walk across while at the same time working through activist channels to block their alternate routes.

Why might this be the wiser strategy to pursue in environmental conflicts, not only for environmentalists but for other interest groups? From a common pool resource perspective, it is a wiser strategy because of the collective nature of common pool resource dilemmas. As environmental ethicist Johnson (2003) asserts, since common pool resource problems are derived from resource users acting independently, one's moral obligation in the face of a commons dilemma is to "work for a collective agreement that could avert a potential tragedy of the commons" (p. 283). As noted above, working towards a collective agreement may require disenfranchised groups to first gain power by

influencing the context surrounding management of the resource. However, ethical obligations require each of the parties to take additional steps towards a collective agreement that enables them to work together to avert the tragedy.

The nature of common pool resource dilemmas also requires participants to recognize the difficult challenges faced by resource users who derive their livelihoods from the resource itself. In such situations, Johnson notes (2003), "personal sacrifice to preserve the commons tends to be self-eliminating" (p. 272) since other users will fill the gap created by the individual exercising restraint. Thus the challenges created by the dilemma will be more acutely experienced by those whose livelihoods are affected by proposed changes. And when their identities are tied to those livelihoods, the prospect of change is increasingly threatening. A "fourth generation logger in Plumas County" [66], with salient ties to family, vocation, and place, will find personal sacrifice for the good of the commons much more challenging, especially with the very real prospect that showing restraint will be self-eliminating.

Assuming that participants in environmental and natural resource conflicts wish to move towards collective action in common pool situations, achieve a more productive harmony between man and nature, or simply resolve the conflicts they are facing, what might they learn by applying social identity theory to the QLG case? First, it appears that while local environmentalists in the QLG case were trying to gain political advantage for their group, they were also framing a common fate, common identity, positive interdependencies, and a common goal with the local logging community. Moreover, they were careful to legitimize the logging community's role in the larger community and in the implementation of their plan, and sought their input in making the plan better. In

addition, environmentalists made an effort to integrate themselves into the larger community in ways that benefited the community as a whole. Finally, they offered a consistent and inclusive message throughout the conflict, even as they were being vilified by members of the logging and environmental communities.

Fortunately for them, the context surrounding the conflict changed, thus heightening awareness within the logging community that their fate and the fate of the environmental community were tied together. Since social identity is context-dependent, it follows that a changing context is a necessary component of a changing identity. Therefore, the context surrounding the conflict needs to perceptually shift. If it does not, or it is not recognized, it is unlikely that a common fate will be acknowledged. However, a common fate may occur in many forms and is not limited to those identified in the QLG case. It is therefore necessary to monitor the context surrounding the conflict for opportunities to frame or reframe contextual changes in ways that define the basis for a common identity, that frame a common identity when a basis exists, and that point towards interdependencies among the parties and to a common goal or vision.

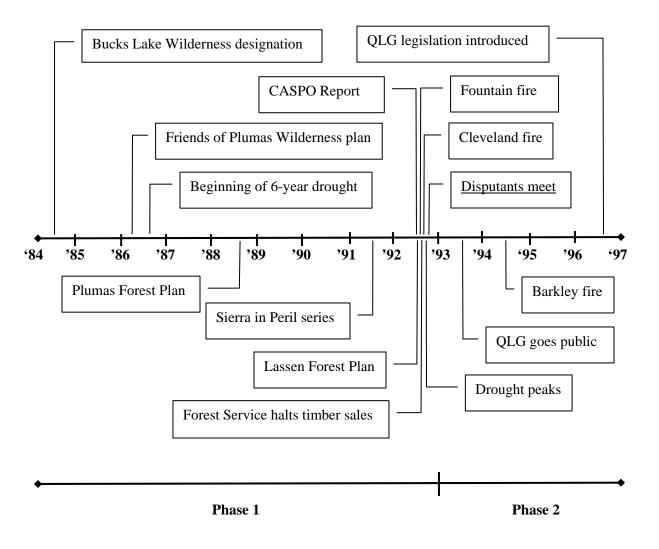
Moreover, it appears that a common fate and common identity may need to be framed by leaders from one group and accepted, in one form or another, by leaders from the other group. This act may present a challenge for the groups and their respective leaders if their advances are perceived as a sign of weakness by either group. This perception makes it all the more difficult for leaders to cross identity-based boundaries and may, to a large extent, prevent them from doing so. Unless, that is, they can define a superordinate identity they and other leaders can step into that encompasses a larger collective. In the QLG case, the larger collective was the forest-dependent community

they shared. Stepping into a common space for the good of the community, as it was characterized by the media and most observers, was not perceived as a sign of weakness, even though Jackson famously commented later that the timber industry had come to environmentalists "on its knees." This suggests that leaders play a unique and complicated role in the transformation of identity-based conflict in that they frame a salient common identity that is inclusive of the other group, maintain a common space for other leaders to step into without losing power or face, close off alternative courses of action, and accommodate other leaders and their constituents when they take the step.

A final note on the Quincy Library Group itself. I have purposely not taken sides in the QLG debate, and have been disappointed with other researchers who have compromised their integrity by deciding that QLG is either good or bad. I have also been disappointed by fellow researchers who have taken sides in the debate without thoroughly studying the points they are criticizing. Instead, they have interviewed the parties in the conflict and interpreted their statements as factual evidence when additional research would have exposed them as opinions designed to influence peoples' perceptions. In that light, many researchers have become pawns of the disputants whose side they have taken. Having studied this group more extensively than other researchers, read what other researchers have written, and lived in the community for a year, I have to conclude that the group has been misrepresented and misunderstood. It is evident to me that the Quincy Library Group is not a pawn of the timber industry, is not undemocratic, is not trying to circumvent federal environmental laws, is not unscientific, is not a special interest group, and is not purposefully exclusive. It is an honest example of collaborative decisionmaking, with all of its imperfections.

The group has also made mistakes along the way, principally alienating the Forest Service, allowing western Republicans to use the group to criticize environmentalists, and failing to use its popularity in Congress to keep the environmental community at the table. Of these, the greatest misstep, in my judgment, was the alienation of the Forest Service. I say this because the Friends of Plumas Wilderness plan, which was eventually recognized as a common goal between loggers and environmentalists, was also the common goal for the Forest Service, since it met the CASPO guidelines, provided community stability, and was consistent with New Forestry and ecosystem management principles. However, the agency did not recognize the plan as a common goal since, from a social identity perspective, it had no basis for a common identity with environmentalists or with QLG. More importantly, the Forest Service was not viewed and did not view itself as an interdependent member of the larger community. This failure perhaps speaks best to the role that social identity plays in either achieving cooperation or perpetuating conflict. The failure of QLG to implement its plan lies to a large extent in its inability to frame a common fate, common identity, and positive interdependencies with the Forest Service – to create and maintain a common space for agency leaders to step into without losing power or face.

Appendix A Conflict Timeline



Appendix B Interviewees and Affiliations

Leonard Atencio, US Forest Service

Tom Bonnicksen, Texas A&M University

Barbara Boyle, Sierra Club

Linda Blum, QLG/Friends of Plumas Wilderness

Luis Blumberg, The Wilderness Society

Rose Comstock, QLG/Women in Timber

Kent Connoughton, US Forest Service

Jody Cook, US Forest Service

Neil Dion, Friends of Plumas Wilderness

Steve Evans, Friends of the River

Maggie Fox, Sierra Club

Duane Gibson, US House Natural Resources Committee

Warren Gorbet, Maidu logger

Rick Healy, US House Natural Resources Committee

Steve Holmer, American Lands Alliance

Michael Jackson, QLG/Friends of Plumas Wilderness

Cathy Lacey, US Senator Dianne Feinstein

Mike Leahy, National Audubon Society

Jody Linker, US Senator Barbara Boxer

Jane Braxton Little, journalist

Jim Lyons, Under Secretary of Agriculture

Michael McCloskey, Sierra Club

Mike McGill, US Senator Dianne Feinstein

Tom Nelson, QLG/Sierra Pacific Industries

Erin Noel, Sierra Nevada Forest Protection Campaign

Felice Pace, Klamath Forest Alliance

John Preschutti, Friends of Plumas Wilderness

Kathy Reich, US Senator Dianne Feinstein

Mark Rey, Senate Energy and Natural Resources Committee

John Sheehan, QLG/Plumas Corporation

Dallas Sholes, US Congressman Wally Herger

Frank Stewart, QLG/Collins Pine Co.

Kieran Suckling, Center for Biodiversity

George and Pat Terhune, QLG

Craig Thomas, Sierra Nevada Forest Protection Campaign

Jack Ward Thomas, US Forest Service

Wayne Thornton, US Forest Service

Mike Yost, QLG/ Friends of Plumas Wilderness

Appendix C Media Sources for Identity and Characterization Frames

- 1. 8-25-82, Dave Moller, Coates testifies in Washington DC, Feather River Bulletin.
- 2. 2-22-84, Jane Braxton Little, Timber extensions affect firms, *Indian Valley Record*.
- 3. 9-28-84, Ken Payton, NEW TIMBER, WATER RULES IN EFFECT FOR US FORESTS IN STATE, *Sacramento Bee*.
- 4. 10-21-84, Jane Braxton Little, Small-town triumph for nature: After 30 years, Bucks Lake Wilderness is official, *Sacramento Bee*.
- 5. 3-3-85, Jane Braxton Little, Timber firms learning to cope with slow times, *Reno Gazette-Journal*.
- 6. 6-26-85, Betty Nelson, Collins employees vote to extend contract. *Timber Industry Trends*.
- 7. 8-20-85, Jane Braxton Little, County's timber industry slow but steady, Feather River Bulletin.
- 8. 11-3-85, Walt Wiley, COMPETITION CUTS AWAY AT STATE TIMBER TRADE *Sacramento Bee.*
- 9. 1-23-86, Dennis Hanson, The Future of the Forests, Chico News & Review.
- 10. 1-23-86, Jane Braxton Little, A plan to last 50 years: can sustain the Plumas forest? *Chico News & Review*.
- 11. 1-27-86, Jane Braxton Little, Stage set for 'job survival' battle on PNF plan, *Feather River Bulletin*.
- 12. 2-12-86, Jane Braxton Little, Clearcutting: Assuring Future Forests? *Portola Reporter*.
- 13. 3-27-86, Gary Voet, WHAT IS WILD? Sacramento Bee.
- 14. 4-30-86, Jane Braxton Little, Quincy protesters want bigger wood harvests, Sacramento Bee.
- 15. 5-7-86, Jane Braxton Little, Plumas rallies behind a maximum timber harvests, *Feather River Bulletin*.
- 16. 5-7-86, Jane Braxton Little, Plumas evaluates comments on forest plan, *Feather River Bulletin*.
- 17. 5-7-86, Jane Feller, Concerns mount over Plumas forest plan, Feather River Bulletin.

- 18. 5-8-86, Jane Braxton Little, Controversy greets Plumas forest plan: deadline nears for public comment, *Chico News & Review*.
- 19. 5-8-86, Danielle Toussaint, Budget axe falls on the forest: fewer services, higher fees at Plumas and Lassen, *Chico News & Review*.
- 20. 5-21-86, Jane Braxton Little, Plumas Board OKs forest-land proposal, Sacramento Bee.
- 21. 5-28-86, Jane Braxton Little, Forest plan revision begins, Feather River Bulletin.
- 22. 10-1-86, Jane Braxton Little, What threatens our supervisors? *Indian Valley Record*.
- 23. 3-18-87, Walt Wiley, Retired Forester has Faith in Trees' Future, Sacramento Bee.
- 24. 4-8-87, Betsy Curry Week, Lumber forecast stable for 1987, Feather River Bulletin.
- 25. 8-6-87, Jane Braxton Little, Timber slump felling town: Historic Greenville hopes it can mobilize to attract tourists. *Sacramento Bee*.
- 26. 8-16-87, Jane Braxton Little, US Lumber Sales Policy Cuts out Small Companies, Residents Say, *Sacramento Bee*.
- 27. 9-7-87, Jim Sanders, CREWS CONTAIN MORE THAN 1,000 OF STATE INFERNOS, *Sacramento Bee.*
- 28. 2-14-88, PANELISTS DEBATE CLEAR CUTTING ON NATIONAL FORESTS, Sacramento Bee.
- 29. January/February 1988, Jane Braxton Little, The Gadfly Botanist of Plumas County, *Sierra Magazine*.
- 30. 1-27-88, Jane Braxton Little, Proposal would divide forest, Indian Valley Record.
- 31. 1-27-88, Jane Braxton Little, Supes endorse forest split plan, *Indian Valley Record*.
- 32. 2-2-88, Jane Braxton Little, Small sawmill seeks change in timber bidding, *Sacramento Bee*.
- 33. 2-3-88, Jane Braxton Little, Small timber sales program wins high praise, *Indian Valley Record*.
- 34. 3-2-88, Tom Wright, Lassen opposes Modoc Forest plan, Lassen County Times.
- 35. 3-2-88, Tom Wright, At a glance: Timber receipts announced, *Lassen County Times*.
- 36. 3-8-88, Tom Wright, Timber harvest to drop? Lassen County Times.
- 37. 3-13-88, Jane Braxton Little, Industry charges errors in Lassen Forest plan, *Feather River Bulletin*.
- 38. 8-20-88, Mark Michaels, Bomb threat apparent hoax, Feather River Bulletin.

- 39. 8-27-88, Tom Wright, Crosses denounce Quincy logging, Feather River Bulletin.
- 40. 8-31-88, Jane Braxton Little, Plumas releases Forest plan, Feather River Bulletin.
- 41. 9-1-88, Ken Payton, Boost planned in Plumas timber sales, Sacramento Bee.
- 42. 9-5-88, Sandra Gubel, New Forestry Standards Afoot, Feather River Bulletin.
- 43. 9-7-88, Jane Braxton Little, Appeal already of Plumas plan, Feather River Bulletin.
- 44. 9-13-88, Don Rogers, Nail-lined board found buried on logging road, Feather River Bulletin.
- 45. 9-14-88, Jane Braxton Little, Not enough: industry against Forest plan, *Feather River Bulletin*.
- 46. 9-15-88, Danielle Toussaint, Eyes Out For The Spotted Owl: On the Trail of the Forest's Most Controversial Critter, *Chico News & Review*.
- 47. 9-15-88, Jane Braxton Little, The 14-Pound Compromise, Few Satisfied With Huge New Forest Plan, *Chico News & Review*.
- 48. 9-15-88, Jane Braxton Little, Forest Plan Calls For New Protections: Water, Wildlife, Scenery Received Special Care, *Chico News & Review*.
- 49. 9-20-88, Tom Wright, Reward fund established, Feather River Bulletin.
- 50. 9-28-88, Jane Braxton Little, Supervisors plan to appeal Plumas Forest plan, *Feather River Bulletin*.
- 51. 10-5-88, Lynda Smith, Forest Service Rep Explains Management Plan, *Feather River Bulletin*.
- 52. 10-12-88, Jane Braxton Little, Plumas Forest plan attacked from all sides, *Sacramento Bee*.
- 53. 10-19-88, Jane Braxton Little, Nobody likes this Plumas forest plan, Feather River Bulletin.
- 54. 10-11-89, Jane Braxton Little, Plumas Forest plan opposed by both sides, *Sacramento Bee*.
- 55. 1-11-89, Jane Braxton Little, Plumas Forest plan hit by appeals, *Feather River Bulletin*.
- 56. 1-12-89, Jane Braxton Little, Battle lines drawn over Plumas Forest plan, *Chico News & Review*.
- 57. 1-31-89, Jane Feller, Board appeals Plumas plan, Lassen County Times.
- 58. 2-2-89, Jane Braxton Little, Small Sawmill Seeks Change in Timber Bidding, *Sacramento Bee*.

- 59. 2-15-89, Chris Bowman, DROUGHT TOLL: DEAD TREES TO OUTSELL LIVE ONES, Sacramento Bee.
- 60. 4-23-89, Chris Bowman, BEST AND BIGGEST VANISH OLD-GROWTH TIMBER MAKES LAST STAND, *Sacramento Bee*.
- 61. May/June '89, Jane Braxton Little, Collins Almanor: A Selective Forest, American Forests.
- 62. 5-24-89, Jane Braxton Little, \$1 million loan would add jobs at sawmill, *Indian Valley Record*.
- 63. 5-31-89, Jane Braxton Little, Mill undaunted by high-level rejection (see similar articles in 1988), *Indian Valley Record*.
- 64. 7-22-89, Kevin Roderick Voracious Beetles Take Toll on Sierra Trees, Los Angeles Times.
- 65. 8-22-89, Vandalism unsolved, Feather River Bulletin.
- 66. 9-3-89, Jane Braxton Little, Loggers stack up complaints, Sacramento Bee.
- 67. 9-5-89, Tom Wright, Yellow Ribbon Rally targets Bay Area, Feather River Bulletin.
- 68. 9-6-89, Editorial Page, Letters to the Editor, Feather River Bulletin.
- 69. 9-8-89, Jane Braxton Little, Vandals strike in Plumas: Engines damaged in 5 logging vehicles, *Sacramento Bee*.
- 70. 9-19-89, Resolution No. 89 Condemning Acts of Violence and Vandalism and Threats Against Residents of our Community, Plumas County, CA
- 71. 9-20-89, Michael Jackson, From Where I Stand: Another View, Feather River Bulletin.
- 72. 9-27-89, Jane Braxton Little, County voices concerns over recent violence, *Indian Valley Record*.
- 73. 01-22-90, Jane Braxton Little, Small mill shuts, rips large rival, U.S. policy, *Indian Valley Record*.
- 74. Winter 1990, Jane Braxton Little, Bob Baiocchi: Profile Of An FFF Conservation Award Winner, *The Fly Fisher, Magazine of the Federation of Fly Fishers*, 23(1).
- 75. 3-7-90, Donna McElroy, Advertisement, WHY WE FLY YELLOW RIBBONS, Feather River Bulletin.
- 76. 3-21-90, Advertisement, Feather River Bulletin.
- 77. 4-3-90, Jane Braxton Little, Plan to log Lassen National Forest sites draws protests, *Sacramento Bee*.
- 78. 4-90, Looking Out for Future Generations! Handbill

- 79. 4-90, Looking Out for Future Generations!, Handbill.
- 80. 4-11-90, Jane Braxton Little, Opponents claim yellow ribbons on county trucks discriminates, *Feather River Bulletin*.
- 81. 4-14-90, Jane Braxton Little, A yellow ribbon or a red flag? Plumas sign of support for loggers starts fight, *Sacramento Bee*.
- 82. 4-18-90, Jane Braxton Little, Protest divides Plumas: Some are seeing red over yellow ribbons, *Sacramento Bee*.
- 83. 4-21-90, Jane Braxton Little, Protest ends with shoving incident, Sacramento Bee.
- 84. 4-25-90, Jane Braxton Little, Protest turns sour: Brock battles demonstrators, *Feather River Bulletin*.
- 85. 4-25-90, Jane Braxton Little, Yellow ribbon issue stops county meeting, *Feather River Bulletin*.
- 86. 5-2-90, Jane Braxton Little, Supervisors critical of Brock, Feather River Bulletin.
- 87. 5-2-90, Jane Braxton Little, Chamber opposes Round Valley sale, Feather River Bulletin.
- 88. 5-9-90, Jane Braxton Little, Split board allows yellow ribbons to fly, Feather River Bulletin.
- 89. 5-16-90, Jane Braxton Little, Ribbon talks will reopen, Feather River Bulletin.
- 90. 5-22-90, NATIONAL FORESTS BEGIN their FIRE SEASON EARLY, Sacramento Bee.
- 91. 5-23-90, Jane Braxton Little, Coates halts yellow ribbon talks, Feather River Bulletin.
- 92. 6-24-90, Jane Braxton Little, County briefed on timber sale appeals, Feather River Bulletin.
- 93. 6-26-90, Jane Braxton Little, Further delays on future of ribbons, Feather River Bulletin.
- 94. 6-27-90, Sensitive to ribbons, Feather River Bulletin.
- 95. 8-20-90, Chris Bowman, Has big lumber cut down its future? Sacramento Bee.
- 96. 9-2-90, Jane Braxton Little, Loggers out to tell their side: Convoy of rigs will hit S.F., Sacramento, *Sacramento Bee*.
- 97. 10-12-90, Jane Braxton Little, Plumas may help in fight, Sacramento Bee.
- 98. 10-17-90, Tom Wright, Vandals hit loggers, Sheriff reports \$159,000 damage, *Feather River Bulletin*.
- 99. 2/12/91, Jane Braxton Little, California Town Unites To Save a Local Stream: Alliance Battles to Halt Wolf Creek Erosion, Lift Area Economy, *The Christian Science Monitor*, 83(65).
- 100. 3-13-91, Joel Stovall, Forest Plan draws criticism from county, Lassen County Times.

- 101. 3-19-91, Joel Stovall, Supervisors confront forest supervisor, Lassen County Times.
- 102. 3-26,-91, Kathleen Grubb, Timber industry Nixes Compromise on Forestry Reform, *Sacramento Bee.*
- 103. 6-9-91, Tom Knudson, FROM MINING TO MALLS, ONSLAUGHT TAKES TOLL, SPECIAL REPORT: MAJESTY AND TRAGEDY: THE SIERRA IN PERIL, *Sacramento Bee.*
- 104. 6-10-91, Tom Knudson, SMOG FOULS CRYSTAL-CLEAR MOUNTAIN AIR SPECIAL REPORT: MAJESTY AND TRAGEDY: THE SIERRA IN PERIL, *Sacramento Bee.*
- 105. 6-10-91, Tom Knudson, MOUNTAIN LAKE TURNS TO DESERT WINDS STIR RAGING DUST STORMS, SPECIAL REPORT: MAJESTY AND TRAGEDY: THE SIERRA IN PERIL, *Sacramento Bee*.
- 106. 6-11-91, Tom Knudson, DEATH KNELL SOUNDS FOR THE FORESTS OF PARADISE, SPECIAL REPORT: MAJESTY AND TRAGEDY: THE SIERRA IN PERIL, Sacramento Bee.
- 107. 6-11-91, Tom Knudson, REPLANTING OF FORESTS CALLED A FAILURE, SPECIAL REPORT: MAJESTY AND TRAGEDY: THE SIERRA IN PERIL, *Sacramento Bee*.
- 108. 6-11-91, Tom Knudson, AS HABITAT VANISHES, SO DOES WILDLIFE, SPECIAL REPORT: MAJESTY AND TRAGEDY: THE SIERRA IN PERIL, Sacramento Bee.
- 109. 6-12-91, Tom Knudson, ERODED LAND CHOKING STREAMS, SPECIAL REPORT: MAJESTY AND TRAGEDY: THE SIERRA IN PERIL, *Sacramento Bee.*
- 110. 6-12-91, Tom Knudson, MINES FOUL SIERRA STREAMS: POISONS FROM SITES EXACT A HEAVY TOLL, SPECIAL REPORT: MAJESTY AND TRAGEDY: THE SIERRA IN PERIL, Sacramento Bee.
- 111. 6-12-91, Tom Knudson, HYDROELECTRIC PLANTS DROWNING IN MUD, SPECIAL REPORT: MAJESTY AND TRAGEDY: THE SIERRA IN PERIL, Sacramento Bee.
- 112. 6-12-91, Tom Knudson, SPECIAL REPORT: MAJESTY AND TRAGEDY: THE SIERRA IN PERIL, *Sacramento Bee*.
- 113. 6-13-91, Tom Knudson, HOPES FOR REFORM IMPROVE. SPECIAL REPORT: MAJESTY AND TRAGEDY: THE SIERRA IN PERIL, *Sacramento Bee*.
- 114. 6-13-91, Tom Knudson, GROWTH: LIKE GOLD RUSH OF '49, PEOPLE POUR INTO HILLS, SPECIAL REPORT: MAJESTY AND TRAGEDY: THE SIERRA IN PERIL, Sacramento Bee.
- 115. 6-23-91, Art Nauman, LOGGERS FAULT SIERRA SERIES, Sacramento Bee.
- 116. 7-24-91, Jake Cavey, Regional owl Team Visits Plumas, Feather River Bulletin.
- 117. 7-24-91, Jake Cavey, Leslie visits area mills, national forest, Feather River Bulletin.

- 118. 7-24-91, Plumas owl Numbers Given, Feather River Bulletin.
- 119. 8-22-91, Jane Braxton Little, New Winds In the Woods: Forest Changes Shake Up Timber Towns, *Chico News & Review*.
- 120. 8-22-91, Jane Braxton Little, Donna McElroy: Blame the Forest Service, *Chico News & Review*.
- 121. 8-22-91, Jane Braxton Little, Michael Jackson: What crisis?, Chico News & Review.
- 122. 10-16-91, Jane Braxton Little, County to Battle Feds (can't find article!!), Sacramento Bee.
- 123. 11-29-91, Chris Bowman, U.S. TO CUT FIRE CREW OPERATIONS, Sacramento Bee.
- 124. 1-29-92, Jane Braxton Little, Lassen Forest supervisor gives report in Plumas, *Feather River Bulletin*.
- 125. 2-20-92, YEAR SIX OF DROUGHT IN THE VALLEY, Sacramento Bee
- 126. 2-27-92, Jane Braxton Little, Forest Service undercuts T-shirt boom, Sacramento Bee.
- 127. 3-23-92, Jane Braxton Little, Disputed T-shirts back on market: Forest Service gives up fight over emblem with toppled tree, *Sacramento Bee*.
- 128. 4-5-92, Ursula Rose, COLD FACTS, EARLY SPRING TREK REVEALS LOW WATER CONTENT IN SIERRA, *Sacramento Bee*.
- 129. 4-13-92, Dave Moller, Thornton Steps into Forest Supervisor Post, Feather River Bulletin.
- 130. 4-13-92, Jane Braxton Little, Owl's Holding the County's Future, Feather River Bulletin
- 131. 5-10-92, John D. Cox, DROUGHT SETS STAGE FOR DISASTROUS FIRES, *Sacramento Bee*.
- 132. 6-24-92, Mareva Brown, IGHTNING STORMS IGNITE FIRES ACROSS DRY NORTH STATE, *Sacramento Bee*.
- 133. 7-1-92, Joel Stovall, County hires attorney to battle against USFS management plan, *Lassen County Times*.
- 134. 7-22-92, Tom Knudson, ENVIRONMENTALIST RIPS PLAN TO BOOST LOGGING AT TAHOE, *Sacramento Bee*.
- 135. 8-11-92, Joel Stovall, Lassen Forest Supervisor releases plan, Lassen County Times.
- 136. 8-18-92, Brian Bauman, Few in attendance at forest plan open house, *Lassen County Times*.
- 137. 8-18-92, Joel Stovall, County considers suing Forest Service, Lassen County Times.
- 138. 8-18-92, Brian Baumann, Timber industry reacts to plan, Lassen County Times.

- 139. 8-19-92, Mary Hasselwander, P&M closes Westwood log yard, McLeod Mill, Feather River Bulletin.
- 140. 8-19-92, Mary Hasselwander, Lumber mill cuts staff, Feather River Bulletin.
- 141. 8-22-92, Jane Braxton Little, Plan angers Susanville: Would slash Lassen logging, *Sacramento Bee*.
- 142. 8-25-92, Dave Moller, Quincy mill layoffs begin, Feather River Bulletin.
- 143. 8-25-92, Brad Hayward and Nancy Vogel, STUBBORN SHASTA FIRE JUMPS LINES OWL HABITAT CONSUMED; NO CONTAINMENT IN SIGHT, Sacramento Bee.
- 144. 9-2-92, Linda L. Blum, From where I stand, Perspective, Feather River Bulletin.
- 145. 9-5-92, Jane Braxton Little, Loggers rev up trucks for rally, *Sacramento Bee*.
- 146. 9-9-92, Tom Knudson, Cure for forests or attack? Furor grows as drought, fires boost salvage logging of trees, *Sacramento Bee*.
- 147. 9-30-92, Jane Braxton Little, Lassen residents protest U.S. bid to slash timber harvest, *Sacramento Bee*.
- 148. 10-1-92, Nancy Vogel and Mareva Brown, "WE TRIED TO STOP IT. . .FINALLY IT JUST OVERRAN US" INFERNO RAMPAGES IN SIERRA 18,000 ACRES OF EL DORADO COUNTY TIMBER CONSUMED, Sacramento Bee.
- 149. 10-2-92, Lou Cannon, Forest Fires Rage in Sierra Nevada as a Drought Stricken Reno Reels Cooler Weather, Humidity Give Officials Hope of Controlling Blaze, *The Washington Post*.
- 150. 10-25-92, Diana Sugg, DROUGHT MADE SUMMER'S FIRES FIERCER, OFFICIALS SAY, *Sacramento Bee*.
- 151. 11-92, Jeff Phillips, The Sierra's troubled trees logging controversies in the Sierra Nevada West Watch, *Sunset Magazine*.
- 152. 12-4-92, Don Stanley, IF FORECASTS CAME TRUE, THE DROUGHT WOULD BE HISTORY, *Sacramento Bee*.
- 153. 1-10-93, Joel Stovall, Court ruling favors counties over federal wildlife agency, *Lassen County Times*.
- 154. 2-21-93, Nancy Vogel, SILENCING OF THE SAWMILLS: Timber Jobs become an endangered species, *Sacramento Bee*.
- 155. 2-21-93, Source: CA Employment Development Department, Sacramento Bee.
- 156. 3-29-93, Jane Braxton Little, Group Claims Timber Sales Violate Rules, Sacramento Bee.
- 157. 4-9-93, Jane Braxton Little, Forbes takes shot at Jackson, contract, Feather River Bulletin.

- 158. 4-28-93, Jane Braxton Little, PNF timber report: Near future looks dismal, *Feather River Bulletin*.
- 159. 5-19-93, Cynthia Pack, Greenville District plans new building despite cutbacks, *Feather River Bulletin*.
- 160. 6-5-93, Jane Braxton Little, Plumas Forest officials criticized over costly new lease, *Sacramento Bee.*
- 161. 7-14-93, Editorial, A vote for the future, Feather River Bulletin.
- 162. 7-14-93, Dave Moller, Forest use plan gains momentum, Feather River Bulletin.
- 163. 7-19-93, Jane Braxton Little, Timber foes join to save a town, Sacramento Bee.
- 164. 7-21-93, Joel Stovall, Coalition proposes new management plan, Feather River Bulletin.
- 165. 7-28-93, Editorial, Talking trees, Sacramento Bee.
- 166. 8-25-93, Kristin Woods, Thornton says forest pact will not be easy to pull off, *Chester Editor*.
- 167. 9-1-93, Cynthia Peck, Pew fears Indian Valley will be left out, *Indian Valley Record*.
- 168. 9-93, Bill Cottini, County superintendent of schools, Timber receipts to fall shorter than expected, *Timber*.
- 169. 9-93, Wally Herger, Congressman lauds forest use compromise plan, *Timber*.
- 170. 9-93, Michael Jackson, Quincy Library Group, A sense of community bonds the region, *Timber*.
- 171. 9-93, Tim Leslie, Senator, First District, Senator supports efforts of 'library' group, *Timber*.
- 172. 9-6-93, Alexander Cockburn, Bruce Babbitt, compromised by compromise: While the media lionize him, he's selling out the environment, *The Washington Post Weekly Addition*.
- 173. 9-8-93, Tom Wright, Yellow Ribbon Rally: Hayfork welcomes convoy of 120 vehicles, *Indian Valley Record*.
- 174. 9-9-93, Debra Moore, Boxer visits: California's new us Senator learns forestry at Collins Pine, *Feather River Bulletin*.
- 175. 9-8-93, Debra Moore, Senator applauds forest use proposal, Feather River Bulletin.
- 176. 9-8-93, editorial, Some needed clout, Feather River Bulletin.
- 177. Sept/Oct. 1993, Joan Hamilton, Streams of Hope: A Recession Brings Pain, But also Renewal, to Plumas County, CA, *Sierra Magazine*.
- 178. 10-12-93, Jane Braxton Little, As timber jobs fade, area set to fight back: Plumas

community tackles future head on, Sacramento Bee.

- 179. 10-21-93, Jane Braxton Little, Truce in the forest wars, Chico News & Review.
- 180. 10-29-93, Jane Braxton Little, A meeting of minds on forests: Environment, economy fuel compromise plan, *Sacramento Bee*.
- 181. 12-3-93, Steve Stuebner, Jack Ward Thomas: Hail to the Chief, High Country News.
- 182. 1-9-94, Jane Braxton Little, Timber revenue drop hits Plumas schools, Sacramento Bee.
- 183. 1-13-94, Jane Braxton Little, Plumas town fears losing high school, Sacramento Bee.
- 184. 3-3-94, Chris Bowman, Locals-only Log Milling Restriction Sought, Sacramento Bee.
- 185. 3-8-94, Schools lobby nationally for increased timber receipts, Lassen County Times.
- 186. 3-10-94, Catherine Bridge Neighbors, Working Solution Sought: Officials want Camino Mill Closing Delayed, *Sacramento Bee*.
- 187. 4-2-94, Michael Doyle and Michael Lewis, Cashing in with Uncle Sam, Workers can take money \$25,000 and run in federal bid to cut force, *Sacramento Bee*.
- 188. 4-14-94, Chris Bowman, Separate Peace in "Timber Wars': Economic Interest Produces Consensus, *Sacramento Bee*.
- 189. 4-18-94, Dave Moller, Axe may fall on more USFS jobs, Feather River Bulletin.
- 190. 4-29-94, Jane Braxton Little, Forest Service called sluggish, Sacramento Bee.
- 191. 5-2-94, Jane Braxton Little, Quincy group asks president to step in, aid forest plan, *Sacramento Bee*.
- 192. 5-5-94, no author, Grass-Roots coalition: bypass "U.S. lip service", *Chico News & Review*.
- 193. 5-25-94, Debra Moore, Library group catches Clinton's ear, Feather River Bulletin.
- 194. 5-25-94, Jane Braxton Little, Plumas backs off on logging plan, Sacramento Bee.
- 195. 5-25-94, Kip Ward, Logging private lands: New trend in timber industry makes money for some, *Feather River Bulletin*.
- 196. 6-26-94, Chris Bowman, FIRE: DECADES OF FIRE SUPPRESSION EXPECTED TO FAN SIERRA FLAMES, *Sacramento Bee.*
- 197. 7-3-94, Kathie Durbin, THE APPLEGATE PARTNERSHIP, Oregonian.
- 198. 7-3-94, Kathie Durbin, CALIFORNIA ALLIANCE SHARES A COMMON OPPONENT, *Oregonian*.

- 199. July/August 1994, Lea Brooks, Interim Management Plan for Feather River Watershed: Quincy Library Group Takes on Congress, *California County*.
- 200. 7-11-94, Chris Bowman, Forest Service scolded over tree killing effort: Program to aid wildlife unnecessary, critics say, *Sacramento Bee*.
- 201. July/August 1994, Jane Braxton Little, ACURRENTOFHOPE: Saving a small river may be the key to saving a small town, *HARROWSMITH Country Life*, IX(52).
- 202. 8-17-94, Jane Braxton Little, PLUMAS DECLARES CRISIS, AIMS AT FOREST SERVICE, *Sacramento Bee*.
- 203. 9-7-94, Editorial, Don't slash forests under guise of fire prevention: Our View: Proposals to harvest dying trees could increase fire risks, not reduce them. *USA Today*.
- 204. 9-13-94, Jane Braxton Little, Trees Cut in Effort to Help Forest: us Kills 270 Plumas Pines to Stop Parasites, *Sacramento Bee*.
- 205. 9-15-94, Denny Walsh, LOGGING SUSPENDED AT PLUMAS SALE SITE JUDGE'S RULING ALLOWS SPOTTED OWL HEARING, *Sacramento Bee*.
- 206. 9-19-94, Kathie Durbin, Flame and blame in the Northwest: loggers urge fire sales, *High Country News*.
- 207. 9-20-94, Denny Walsh, SETTLEMENT ENDS FIGHT IN PLUMAS LOGGING FIRM AGREES TO LIMIT CUTTING IN OWL AREA, Sacramento Bee.
- 208. 10-17-94, Kathie Durbin, The progress of freewheeling consensus jeopardized as feds pull back, *High Country News*, 26(19).
- 209. 11-13-94, Michael Doyle, Babbitt faces hostile Congress, Earth Watch.
- 210. 11-14-94, Tim Anderson, Debate rages on: Plants, animals vs. economy, *Reno Gazette-Journal*.
- 211. 11-20-94, Fire: Even in winter, forest safety still a burning issue, Our View, *Auburn Journal*.
- 212. 11-25-94, Containing the New Rush in the Sierras, *Living on Earth*, National Public Radio.
- 213. 12-25-94, Letters to the Editor, Sacramento Bee.
- 214. 12-26-94, Paul Larmer, Coming soon: A leaner, more ecological agency, *High Country News*.
- 215. 1/2-95, Jane Braxton Little, The Quincy Library Group: Posted: No clearcutting on U.S. Forest Service land. No logging or grazing near streams. Timber processed at local mills. By mutual decree of loggers and environmentalists, *American Forests*.
- 216. 5-10-95, Jane Braxton Little, Plumas rejects aid plea in forest case: Group sought earlier grant's total: \$15,000, *Sacramento Bee*.

- 217. 6-3-95, No author, 3 forests to consolidate, Feather River Bulletin.
- 218. 8-22-95, Nancy Vogel, Lawmakers, foresters at loggerheads on tree salvage, Sacramento Bee.
- 219. 8-21-95, Alex Barnum, Tahoe's Evergreen Forests Are Dying: Environmentalists worry over logging in recovery plan, *San Francisco Chronicle*.
- 220. 9-4-95, Ed Marston, How to get rural people to stand proud and tall, *High Country News*.
- 221. 11-04-95, Headline: First Ask the Locals, Big Horn Wyoming, High Country News.
- 222. 11-15-95, David H. Keller, \$4.7 million set-aside for forest, Feather River Bulletin
- 223. 11-15-95, California Resources Agency Press Release, QUINCY LIBRARY GROUP SETS GREAT EXAMPLE; FEDERAL POLICY MUST FULLY INTEGRATE LOCAL DIRECTION.
- 224. 11-15-95, Frank Clifford, Coalition's Olive Branch Saves Economy, Forest, Los Angeles Times.
- 225. 11-15-95, Jane Braxton Little, Federal forest projects get funds: Plan called victory for Quincy coalition, *Sacramento Bee*.
- 226. 11-16-95, Jane Braxton Little, \$4.7 million pledged for forest work: Agriculture chief praises coalition's collaboration, *Sacramento Bee*.
- 227. 11-22-95, Jane Braxton Little, Holiday Cheer: Protest-Festooned Fir On Way To White House, *Chico News & Review*.
- 228. 11-28-95, Editorial, HEADLINE: PROGRESS IN QUINCY, Sacramento Bee.
- 229. 12-21-95, Letters, Sacramento Bee
- 230. 2-25-96, John H. Cushman Jr., Adversaries On Logging Inch Closer In Conference, *New York Times*.
- 231. 2-29-96, Jane Braxton Little, Fire sale: Will a Deer Creek Timber Sale Fracture Peace in the Woods? *Chico News & Review*.
- 232. 3-7-96, Another hollow promise, Opinion, *The Union Democrat*, Sonora, California.
- 233. 3-13-96, Michael Doyle and Nancy Vogel, VOTE ON KEY LOGGING ISSUE TODAYSENATE CONFRONTS DELICATE POLITICAL BALANCE BETWEEN JOBS, ENVIRONMENT, *Sacramento Bee*
- 234. 3-26-96, Dan Glickman, U.S. Agriculture Secretary, Setting the Record Straight on Logging, *Union Democrat*, Sonora, California
- 235. 3-31-96, Jane Braxton Little, Political firestorm over timber sale, Sacramento Bee.

- 236. 4-3-96, Jane Braxton Little, FOREST SERVICE CANCELS SALE OF SCORCHED TREES, CITES "PUBLIC CONCERNS", *Sacramento Bee*.
- 237. 4-12-96, David H. Keller, Quincy Library group rebukes spotted owl study, *Feather River Bulletin*.
- 238. 5-4-96, No author, Small group threw water on sale of burnt trees, *The San Diego Union-Tribune*.
- 239. 5-12-96, Catherine Bridge Neighbors, LOGGER TACKLES THORNY MEDIATION, *Sacramento Bee.*
- 240. 5-13-96, Lisa Jones, Howdy, neighbor! As a last resort, westerners start talking to each other, *High Country News*.
- 241. 5-13-96, Michael McCloskey, The skeptic: Collaboration has its limits, *High Country News*.
- 242. 5-13-96, Jon Christensen, Everyone helps a California forest except the Forest Service, *High Country News*.
- 243. 7-3-96, Pete Geddes, Building trust and respect in the west, *Seattle Times*.
- 244. 7-23-96, Editorial, they don't have all the answers, Lassen County Times.
- 245. Autumn, 1996, Jane Braxton Little, TO CUT OR NOT TO CUT: How to manage healthy forests, *American Forests*.
- 246. 9-6-96, Michael Doyle, New study of spotted owl on tap, Sacramento Bee.
- 247. 9-6-96, no author, new us study of Sierra Nevada forests launched, Los Angeles Times.
- 248. 9-6-96, Dennis J. Oliver, U.S. shoots down Sierra logging plan: administration overrules forest service, *The Oakland Tribune*.
- 249. 9-6-96, Elliot Diringer, Clinton to name new panel to study logging in the Sierra, *San Francisco Chronicle*
- 250. 9-15-96, Jane Braxton Little, Fire plan strikes fear in tiny town, Sacramento Bee.
- 251. 9-16-96, Jon Christensen, Two reports set the stage for Sierra Nevada's future, *High Country News*.
- 252. 9-17-96, CONGRESSIONAL PRESS RELEASE: HERGER INTRODUCES QUINCY LIBRARY GROUP FOREST HEALTH BILL, BYLINE: WALLY HERGER, CONGRESSMAN, US HOUSE OF REPRESENTATIVES.
- 253. 9-19-96, JANE BRAXTON LITTLE, Quincy alliance spawns forest bill, Sacramento Bee.
- 254. 10-28-96, Mark Matthews, Forest chief resigns, High Country News.
- 255. Winter/Spring 1997, Jane Braxton Little, American Forests, vol. 103 no. 1.

256. 3-3-97, Clyde Weiss, Plan sparks forest management debate: new Quincy Library group caps logging, but environmentalists still don't like it, *Chico Enterprise Record*.

257. 3-22-97, Alston Chase, GREENS MUST LEARN: PRESERVATION, POWER DON'T MIX, Washington Times.

258. 3-31-97, Jane Braxton Little, National groups object to grassroots power in D.C., *High Country News*.

References

- Abrams, D. (1992). Processes of social identification. In G.M. Breakwell (Ed). *Social Psychology of Identity and the Self Concept.* Surrey University Press. pp.??
- Acheson, J.M. (1988). *The lobster gangs of Maine*. Hanover, NH: University Press of New England.
- Acheson, J.M. (2003). Capturing the commons: Devising institutions to manage the Maine lobster industry. Lebanon, NH: University Press of New Hampshire.
- Altheide, D.L. (1996). *Qualitative media analysis*. Qualitative research methods series 38. London: Sage Publications.
- Anderson, K. and Moratto, M. (1996). Native American land-use practices and ecological impacts. In: *Sierra Nevada Ecosystem Project, Final report to Congress*, vol. II, pp. 187-206. *Assessments and scientific basis for management options*. Davis: University of California, Centers for Water and Wildland Resources.
- Bacow, L.S. and Wheeler, M. (1984). *Environmental Dispute Resolution*. New York: Plenum Press.
- Baldwin, P. and Gorte, R.W. (1992). CRS report for Congress. *Administrative Appeals of Forest Service Timber Sales*. Washington, DC: Congressional Research Service, April 8, 1992, 2.
- Barber, B. (1984). *Strong Democracy: Participatory Politics for a New Age*. Berkeley: University of California Press.
- Bartel, C. and Dutton, J. (2001). Ambiguous organizational memberships: Constructing organizational identities in interactions with others. In: M.A. Hogg and D.J. Terry (Eds.), *Social Identity Processes in Organizational Contexts*, pp. 115-130, Philadelphia, PA: Psychology Press.
- Bateson, G. (1972). Steps to an Ecology of Mind. New York: Ballantine Books.
- Baumeister, R.F. and Leary, R.R. (1995). The need to belong: Desire for interpersonal attachments as a fundamental human motivation. *Psychological Bulletin*, 117:3, 497-529.

- Beck, T.W. and Gould, G.I. (1992). Background and current management situation for the California spotted owl. In: Verner, J., McKelvey, K.S., Noon, B.R., Gutiérrez, R.J., Gould, G.I., Jr., Beck, T.W., (Technical Coordinators). *The California Spotted Owl: A Technical Assessment of its Current Status*, pp. 37-53. Gen. Tech. Rep. PSW-GTR-133. Albany, CA: Pacific Southwest Research Station, Forest Service, U.S. Department of Agriculture.
- Becker, C. D. and Ostrom, E. (1995). Human ecology and resource sustainability: The importance of institutional diversity. *Ann. Rev. of Ecol. Systematics* 26:113–133.
- Beesley, D. (1996). Reconstructing the landscape: an environmental history, 1820-1960. In: Sierra Nevada Ecosystem Project, Final report to Congress, vol. II, pp. 3-24. Assessments and scientific basis for management options. Davis: University of California, Centers for Water and Wildland Resources.
- Bell, D. (1989). American exceptionalism revisited: the role of civil society. *The Public Interest*, no.95, 38-56.
- Bell, M. (1992). The fruit of difference: The rural-urban continuum as a system of identity. *Rural Sociology*, *57(1)*: 65-82.
- Berck, P., Costello, C., Fortmann, L. and Hoffmann, S. (2003). Poverty and employment in forest-dependent counties. *Forest Science* 49:5 763-777.
- Bernard, T. and Young, J. (1997). *The Ecology of Hope: Communities Collaborate for Sustainability*. New Society Publishers.
- Bernd, S., Kulla, C. and Zobel, M. (1995). On being more that just a part of the whole: regional identity and social distinctiveness. *European Journal of Social Psychology*, 25: 325-340.
- Bingham, G. (1986). *Resolving Environmental Disputes: A Decade of Experience*. Washington, DC: The Conservation Foundation.
- Bish, R.L. (1977). Environmental resource management: public or private? In G. Hardin and J. A. Baden, eds. *Managing the Commons*, pp. 217-228. San Francisco, CA: W.H. Freeman and Co.
- Blahna, D.J. (1990). Social bases for resource conflicts in areas of reverse migration. In R.G. Lee, D.R. Field, W.R. Burch Jr. (Eds.), *Community and Forestry: Continuities in the Sociology of Natural Resources*, pp. 159-178. Boulder, CO: Westview Press.
- Borelli, P. (1988). *Crossroads: Environmental priorities for the future*. Washington, DC: Island Press.

- Breakwell, G. M. (1983). Identities and conflicts. In G.M. Breakwell (Ed.), *Threatened Identities*, pp. 189-213. John Wiley and Sons, Ltd.
- Breakwell, G. (1986). Coping with Threatened Identities. London: Metheun.
- Brewer, M.B. (1979). In-group bias in the minimal intergroup situation: A cognitive-motivational analysis. *Psychological Bulletin*, 8, 307-324.
- Brewer, M.B. (1981). Ethnocentrism and its role in intergroup trust. In M. Brewer and B. Collins (Eds.), *Scientific Inquiry in the Social Sciences*, pp. 214-231. San Francisco, CA: Jossey-Bass.
- Brewer, M.B. (1991). The social self: On being the same and different at the same time. *Personality and Social Psychology Bulletin, 17:5, 475-482*
- Brewer, M.B. (1997). On the social origins of human nature. In C. McGarty and S.A. Haslam (Eds.), *The Message of Social Psychology*, pp. 54-62. Oxford, England: Blackwell.
- Brewer, M.B. (2000). Superordinate goals versus superordinate identity as bases of intergroup cooperation. In D. Capoza and R. Brown (Eds.), *Social Identity Processes*, pp. 117-132. London: Sage Publications.
- Brewer, M.B. (2001). Ingroup identification and intergroup conflict: When does ingroup love become outgroup hate? In R.D. Ashmore, L. Jussium and D. Wilder (Eds.), *Social Identity, Intergroup Conflict, and Conflict Reduction*, pp. 17-41. Oxford, England: Oxford University Press.
- Brewer, M.B. and Gaertner, S.L. (2004). Toward reduction of prejudice: Intergroup contact and social categorization. In M.B. Brewer and M. Hewstone (Eds.), *Self and Social Identity*, pp. 298-318. Malden, MA: Blackwell Publishing.
- Brewer, M.B. and Gardner, W. (1996). Who is this we? Levels of collective identity and self representations. *Journal of Personality and Social Psychology*, 71:1, 83-93.
- Brick, P., Snow, D. and Van de Wetering, S. (2001). *Across the Great Divide: Explorations in Collaborative Conservation and the American West*. Covelo, CA: Island Press.
- Brickson, S. and Brewer, M. (2001). Identity orientation and intergroup relations in organizations. In: M.A. Hogg and D.J. Terry (Eds.), *Social Identity Processes in Organizational Contexts*, pp. 49-65. Philadelphia, PA: Psychology Press.
- Bruner, J. (1990). Acts of Meaning. Cambridge, MA: Harvard University Press.

- Bruner, J. (1995). Meaning and self in cultural perspective. In D. Bakhurst and C. Sypnowich (Eds.), *The Social Self*, pp. 18-29. Thousand Oaks, CA: Sage Publications.
- Bryan, T. (2003). Context in environmental conflict: Where you stand depends on where you sit. *Environmental Practice Journal, Special Issue on Environmental Conflict Resolution and Framing*, 5(3): 256-264.
- Bryan, T. (2004). Tragedy averted: the promise of collaboration. *Society and Natural Resources*, 17:10 881-896.
- Bryan, T.A. and Wondolleck, J.M. (2003). When irresolvable becomes resolvable: The Quincy Library Group conflict. In R.J. Lewicki, B. Gray, and M. Elliott, (Eds.), *Making Sense of Intractable Environmental Conflicts: Concepts and Cases*, pp. 63-89. Washington, DC: Island Press.
- Buckley, J. (1998). Quincy Library Group... What's wrong? *Chronicle of Community*, 3:146.
- Buechler, S. M. (2000). *Social Movements in Advanced Capitalism*. New York, Oxford University Press.
- Burgess, H. and Burgess, G. (1996). Constructive confrontation: A tranformative approach to intractable conflicts. *Mediation Quarterly*, 13: 305-322.
- Burnett, M. and Davis, C. (2002). Getting out the cut: Politics and national forest timber harvests, 1960-1995. *Administration and Society*, 34(2): 202-228.
- Caton Cambell, M. (2003). Intractability in environmental disputes: Exploring a complex contstruct. *Journal of Planning Literature*, 17:3 360-371.
- Cairns, E. (1982). Intergroup conflict in Northern Ireland. In H. Tajfel (Ed.), *Social Identity and Intergroup Relations*, pp. 277-297. Cambridge, England: Cambridge University Press.
- Caporael, L.R. (1997). The evolution of truly social cognition: The core configurations model. *Personality and Social Psychology Review, 1,* 276-298.
- Carroll, M.S. and Lee, R.G. (1990). Occupational community and identity among Pacific Northwestern loggers: implications for adapting to economic changes. In: R.G. Lee, D.R. Field, and W.R. Burch, Jr. (Eds.), *Community and Forestry: Continuities in the Sociology of Natural Resources*, pp. 141-155. Boulder, CO: Westview Press.
- Cestaro, B. (1999). Beyond the Hundredth Meeting: A Field Guide to Collaborative Conservation on the West's Public Lands. Sonoran Institute, Tucson, AZ.

- Chase, J. (1992). The self and collective action: Dilemmatic identities. In G.M. Breakwell (Ed.), *Social Psychology of Identity and the Self Concept*, pp. 101-127. Surrey University Press.
- Clinton, B. (1993). Charting the common ground: closing remarks. *Ancient forests in the balance: a field guide to the Northwest Forest Conference, Special Issue, Forest Watch*, 13(9): 30.
- Coggins, G.C. (1996). Devolution in federal land law: Abdication by any other name... *Hastings West-Northwest Journal of Environmental Law and Policy* 3(2): 211-218.
- Coggins, G.C. (2001). Of Californicators, quislings, and crazies: Some perils of devolved collaboration. In P. Brick, D. Snow, and S. Van de Wetering (Eds.), *Across the Great Divide: Explorations in collaborative conservation and the American West*, pp. 163-171. Washington, DC: Island Press.
- Colburn, C. H. (2002). Forest policy and the Quincy Library Group. In: R.D. Brunner, C.H. Colburn, C.M. Cromley, R.A. Klein, and E.A. Olson, (Eds.), *Finding common ground: Governance and natural resources in the American West*, pp. 159–200. New Haven, CT: Yale University Press.
- Coleman, P.T. (2000). Intractable conflict. In M. Deutsch and P.T. Coleman (Eds.), *The handbook of conflict resolution: Theory and practice*, pp. 428-450, San Francisco, CA: Jossey-Bass.
- Cook-Huffman, C. (2000). Who do they say we are? Framing social identity and gender in church conflict. In P.G. Coy and L.M. Woehrle (Eds.), *Social Conflicts and Collective Identities*, pp. 115-132, Lanham, MD: Rowan & Littlefield.
- Coover, G.E. and Murphy, S.T. (2000). The communicated self: exploring the interaction between self and social context. *Human Communication Research*, v.26, n.1: 125-147.
- Cortner, H.J. and Moote, M.A. (1999). *The Politics of Ecosystem Management*. Washington DC: Island Press.
- Coughlin, C., Hoben, M., Manskopf, D., and Quesada, S. (1999). *The Controversy over Collaboration: An Assessment of Collaborative Resource Management Partnerships*. Master's Project: The University of Michigan, School of Natural Resources and Environment.
- Coulombe, M.J. (2004). Exercising the right to object: A brief history of the Forest Service appeals process. *Journal of Forestry*, 102:2 10-13.

- Creed, G.W. and Ching, B. (1997). Recognizing rusticity: Identity and the power of place. In: B. Ching and G.W. Creed (Eds.), *Knowing Your Place: Rural Identity and Cultural Hierarchy*, pp. 1-38. London: Routledge.
- Cuba, L. and Hummon, D.M. (1993). A place to call home: Identification with dwelling, community, and region. *The Sociological Quarterly*, *34*(1): 111-131.
- Culhane, P. (1981). *Public lands politics*. Baltimore, MD: Johns Hopkins University Press.
- Deaux, K. (1991). Social identities: thoughts on structure and change. In: R.C. Curtis (Ed.). *The Relational Self: Theoretical Convergences in Psychoanalysis and Social Psychology*. Guilford Press.
- Deaux, K. (1993). Reconstructing social identity. *Personality and Social Psychology Bulletin*, 19(1): 4-12.
- Deaux, K., Reid, A., Mizrahi, K., and Ethier, K.A. (1995). Parameters of social identity. *Journal of Personality and Social Psychology*, 68(2): 280-291.
- DeBonis, J. (1993). Agency reform: an insider's view. Ancient forests in the balance: a field guide to the Northwest Forest Conference, Special Issue, Forest Watch, 13(9): 38.
- DeLong, J.V. (2002). *Out of Bounds, Out of Control: Regulatory Enforcement at the EPA*. Washington, DC: CATO Institute.
- Devall, B. (1990). Deep ecology and radical environmentalism. In R.E. Dunlap and A.G. Mertig (Eds.), *American Environmentalism: The US Environmental Movement, 1970-1990.* pp. 51-62. Bristol, PA: Taylor & Francis, Inc.
- Doak, S.C. and Kusel, J. (1996). Well-being in forest-dependent communities, part II: A social assessment focus. Sierra Nevada Ecosystem Project: Final Report to Congress, vol. II, Assessments and scientific basis for management options. Davis, CA: University of California, Centers for Water and Wildland Resources.
- Dolsak, N. and Ostrom, E. (2003). The challenges of the commons. In *The commons in the new millennium: Challenges and adaptations*, ed. N. Dolsak and E. Ostrom, 3–34. Cambridge, MA: MIT Press.
- Dowie, M. (1995). Losing Ground: American Environmentalism at the Close of the Twentieth Century. Pp. 317, Cambridge, MA: The MIT Press.
- Duane, T.P. (1996). Human settlement, 1850-2040. Sierra Nevada Ecosystem Project: Final Report to Congress, vol. II, Assessments and scientific basis for management

- *options*. Davis, CA: University of California, Centers for Water and Wildland Resources.
- Duane, T.P. (1997). Community participation in ecosystem management. *Ecology Law Quarterly*, 24: 771-797.
- Duane, T.P. (1999). Shaping the Sierra: Nature, Culture and Conflict in the Changing West. Berkeley, CA: University of California Press.
- Duerr, W.A. and Duerr, J.B. (1975). The role of faith in forest resource management. In: F. Rumsey and W.A. Duerr (eds.), *Social sciences in forestry: A book of readings*. Philadelphia, PA: W.B. Saunders Co.
- Durkheim, E. (1964). *The Division of Labor in Society*. New York: Free Press of Glencoe.
- Eggins, R.A., Haslam, S.A., and Reynolds, K.J. (2002). Social identity and negotiation: subgroup representation and superordinate consensus. *Personality and Social Psychology Bulletin*, 28(7): 887-899.
- Eisenhardt, K.M. (1989). Building theories from case study research. *Academy of Management Review*, 14: 532-550.
- Ethier, K.A. and Deuax, K. (1994). Negotiating social identity when contexts change: Maintaining identification and responding to threat. *Journal of Personality and Social Psychology*, 67(2): 243-251.
- Etzioni, A. (1993). *The Spirit of Community: The Reinvention of American Society*. New York: Simon and Schuster.
- Evans, B. (1993). The battle for the ancient is now ours to lose. Ancient forests in the balance: a field guide to the Northwest Forest Conference, Special Issue, Forest Watch, 13(9): 34.
- Fisher, R. and Ury, W. (1991). *Getting To Yes: Negotiating Agreement without Giving In.* 2nd Edition. Penguin Books.
- Foddy, M. and Hogg, M.A. (1999). Impact of leaders on resource consumption in social dilemmas: the intergroup context. In: M. Foddy, M. Smithson, S. Schneider, and M. Hogg (Eds.), *Resolving Social Dilemmas: Dynamic, Structural and Intergroup Aspects*. (pp. 309-330). Philadelphia, PA: Psychology Press.
- Follett, M.P. (1942). Constructive conflict. In H.C. Metcalf and L. Urwick (Eds.). *Dynamic Administration: The Collected Papers of Mary Parker Follett*, Harper and Row.

- Foreman, D. (1984). It's time to return to our wilderness roots. *Environmental Action*, 15(5): 24-25.
- Foreman, D. (1995). The new conservation movement. In G. Sessions, (Ed.). *Deep Ecology for the 21st Century: Readings in the Philosophy and Practice of the New Environmentalism.* pp. 51-56. Boston, MA: Shambala.
- Forest Service Employees for Environmental Ethics (1999). Restoring Our Forest Legacy: Blueprint for Sierra Nevada National Forests. FSEEE-Sponsored Plan for the National Forests of the Sierra Nevada: submitted to the US Forest Service.
- Franklin, J. (1989). Toward a new forestry. American Forests, December, 1989: 37-44.
- Franklin, J.F. and Fites-Kaufmann, J.A. (1996). Assessment of late-successional forests of the Sierra Nevada. In: *Sierra Nevada Ecosystem Project, Final report to Congress*, vol. II, pp. 627-656. *Assessments and scientific basis for management options*. Davis: University of California, Centers for Water and Wildland Resources.
- Friedman. M. and Frost, E. (1993). Conservation biology and national forests: from big trees to biodiversity. *Ancient forests in the balance: a field guide to the Northwest Forest Conference, Special Issue, Forest Watch, 13(9):* 41-42.
- Friends of Plumas Wilderness, Mother Lode Chapter Sierra Club, Northstate Wilderness Committee, and Altacal Audubon Society, (1986). The conservationist alternative to the Plumas National Forest Land Management Plan. Unpublished Report. www.qlg.org/public_html/archive/archivemisc/fpwconalt.html
- Gaertner, S.L., Dovidio, J.F., Nier, J.A., Banker, B.S., Ward, C.M., Houlette, M., and Loux, S. (2000). The common ingroup identity model for reducing intergroup bias: progress and challenges. In D. Capoza and R. Brown (Eds.), *Social Identity Processes*, pp. 133-148. London: Sage Publications.
- Gaertner, S.L., Rust, M.C., Dovidio, J.F., Bachman, B.A., and Anastasio, P.A. (1996). The contact hypothesis: The role of common ingroup identity on reducing intergroup bias among majority and minority group members. In J.L. Nye, and A.M. Brower, (Eds.), *What's Social about Social Cognition?*, pp. 230-260. Newbury Park, CA: Sage.
- Gergen, K.J. (1994). *Realities and Relationships: Soundings in Social Construction*. Cambridge, MA: Harvard University Press
- Gollwitzer, P.M. (1986). Striving for specific identities: The social reality of self-symbolizing. In R.F. Baumeister (Ed.), *Public Self and Private Self*. pp. 143-159. New York: Springer-Verlag.

- Goodman, M. (1994). Forest Service appeals reform: Searching for meaningful review. *New York University Environmental Law Journal*, (www.nyu.edu/pages/ejl).
- Gottlieb, R. (1993). Forcing the Spring: The Transformation of the American Environmental Movement. Washington, DC: Island Press.
- Gray, B. (1991). *Collaborating: Finding Common Ground for Multiparty Problems*. San Francisco: Jossey-Bass Publishers.
- Gray, B. (1997). Framing and reframing of intractable environmental disputes. In R.J. Lewicki, R. Bies and B. Sheppard (Eds). *Research on Negotiation in Organizations*, 6: 163-188. Greenwich, CT: JAI Press Inc.
- Gray, B. (2003a). Framing of environmental disputes. In R.J. Lewicki, B. Gray, and M. Elliott, (Eds.), *Making Sense of Intractable Environmental Conflicts: Concepts and Cases*, pp. 11-34. Washington, DC: Island Press.
- Gray, B. (2003b). Freeze framing: the timeless dialogue of intractability surrounding Voyageurs National Park. In R.J. Lewicki, B. Gray, and M. Elliott, (Eds.), *Making Sense of Intractable Environmental Conflicts: Concepts and Cases*, pp. 91-126. Washington, DC: Island Press.
- Gray, B., Peterson, T., Putnam, L.L. and Bryan, T.A. (2003). Comparing natural resource cases. In R.J. Lewicki, B. Gray, and M. Elliott, (Eds.), *Making Sense of Intractable Environmental Conflicts: Concepts and Cases*, pp. 159-189. Washington, DC: Island Press.
- Gusfield, J.R. (1975). *The Community: A Critical Response*. New York: Harper Colophon.
- Hamilton, J. (1993). Streams of hope: A recession brings pain, but also renewal, to Plumas County, CA. *Sierra Magazine (Sept/Oct)*, pp. 98-104.
- Hammond, K. and Grassia, J. (1985). The cognitive side of conflict: From theory to resolution of policy disputes. In: S. Oskamp (Ed.) *International conflict and national public policy issues*, pp. 233-254. Beverly Hills, CA: Sage.
- Hardin, G. (1968). The tragedy of the commons. Science, 162: 1243-1248.
- Harre, R. (1979). Social Being. Oxford: Blackwell.
- Haslem, S.A. (2004). *Psychology in Organizations: The Social Identity Approach*. London: Sage.
- Haslem, S.A. and Platow, M.J., (2001). Your wish is our command: The role of shared social identity in translating a leader's vision into followers' action. In: M.A. Hogg

- and D.J. Terry (Eds.), pp. 213-228. *Social Identity Processes in Organizational Contexts*. Philadelphia, PA: Psychology Press.
- Hays, S. (1999). Conservation and the Gospel of Efficiency: The Progressive Conservation Movement, 1890-1920. Pittsburgh, PA: University of Pittsburgh Press (paperback edition originally published 1959 by Harvard University Press).
- Hays, S. (2007). War in the Woods: The Rise of Ecological Forestry in America. Pittsburgh, PA: University of Pittsburgh Press.
- Heizer, R. and Elsasser A. (1980). *The natural world of the California Indians*. Berkeley, CA: University of California Press.
- Helms, J.A. and Tappiener, J.C. (1996). Silviculture in the Sierra. In: *Sierra Nevada Ecosystem Project, Final report to Congress*, vol. II, pp. 439-476. *Assessments and scientific basis for management options*. Davis: University of California, Centers for Water and Wildland Resources.
- Hibbard, M. and Madsen, J. (2003). Environmental resistance to place-based collaboration in the U.S. West. *Society and Natural Resources*, *16*: 703-718.
- Hirt, P.W. (1994). A conspiracy of optimism: Management of the national forests since World War Two. Lincoln, NE: University of Nebraska Press.
- Hirt, P.W. (2000). Predicting the future by understanding the past: A historian considers the Forest Service. In: R.A. Sedjo, (Ed.), *A vision for the US Forest Service: Goals for the next century*, pp. 149-169. Washington, DC: Resources for the Future.
- Hogg, M.A. and Abrams, D. (1988). *Social Identifications: A Social Psychology of Intergroup Relations and Group Processes*. London: Routledge.
- Hogg, M.A., Terry, D.J., and White, K.M. (1995). A tale of two theories: A critical comparison of identity theory with social identity theory. *Social Psychology Ouarterly*, *58*(4): 255-269
- Hogg, M.A. and Terry, D.J. (2000). Social identity and self-categorization processes in organizational contexts. *Academy of Management Review*, 25(1): 121-140.
- Holling, C.S. and Meffe, G.K. (1996). Command and control and the pathology of natural resource management. *Conservation Biology*, *10*(2): 328-337.
- Holsti, O. (1968). Content Analysis. G. Lindzey & E. Aronson, (eds.), *The Handbook of Social Psychology, 2nd edition*. Reading, MA: Addison-Wesley.
- Hormuth, S.E. (1990). *The Self-concept and Change: An Ecological Approach*. Cambridge, U.K., Cambridge University Press.

- Huber, P. (1999). *Hard Green: Saving the Environment from the Environmentalists*. New York, NY: Basic Books.
- Hunter, S. (1989). The roots of environmental conflict in the Tahoe basin. In L. Kriesberg, T.A. Northrup, and S.J. Thornson (Eds.), *Intractable conflicts and their transformation*, pp. 25-40. Syracuse, NY: Syracuse University Press.
- Jackson, J.W. and Smith, E.R. (1999). Conceptualizing social identity: A new framework and evidence for the impact of different dimensions. *Personality and Social Psychology Bulletin*, 25(1): 120-135.
- Jenkins, M.B. and Smith, E.T. (1999). *The Business of Sustainable Forestry*. Washington, DC: Island Press.
- Janssen, P.R. (1970). The age of ecology. In J.G. Mitchell and C.L. Stallings (Eds.), *Ecotactics: The Sierra Club Handbook for Environment Activists.* pp. 53-62. New York: Simon and Shuster.
- Jetten, J., O'Brien, A., and Trindall, N. (2002). Changing identity: Predicting adjustment to organizational restructure as a function of subgroup and superordinate identification. *British Journal of Social Psychology*, 41: 281-297.
- Johnson, B.L. (2003). Ethical obligations in a tragedy of the commons. *Environmental Values*, 12: 271-287.
- Johnson, H. (1995). A methodology for frame analysis: From discourse to cognitive schemata. In H. Johnson and B. Klandermans (Eds.), *Social Movements and Culture*, pp. 217-246. Minneapolis, MN: University of Minnesota Press.
- Kaufman, H. (1960). *The Forest Ranger: a Study in Administrative Behavior*. Baltimore, MD: The Johns Hopkins University Press. 259 pp.
- Kelman, H.C. (1997). Negotiating national identity and self determination in ethnic conflicts: The choice between pluralism and ethnic cleansing. *Negotiation Journal*, 13, 327-340.
- Kelman, H.C. (2004). Reconciliation as identity change: A social-psychological perspective. In: Y. Bar-Siman-Tov, (Ed.), *From Conflict Resolution to Reconciliation*, pp. 111-124. London: Oxford University Press.
- Kemmis, D. (1990). Community and the Politics of Place. University of Oklahoma Press.
- Kerr, A. (1993). Fierce, but compassionate defense of the forest. *Ancient forests in the balance: a field guide to the Northwest Forest Conference, Special Issue, Forest Watch*, 13(9): 24.

- Kessler, W.B. and Salwasser, H. (1995). Natural resource agencies: transforming from within. In: R.L. Knight and S.F. Bates (Eds.), *A New Century for Natural Resources Management*. Washington, DC: Island Press.
- Kiester, E. (1999). A town buries the axe. Smithsonian Magazine, 30(4): 70-79.
- Klar, Y., Bar-Tal, D., and Kruglanski, A. (1987). On the epistemology of conflicts: Toward a social cognitive analysis of conflict resolution. In W. Strobe, A.W. Kruglanski, D. Bar-Tal, and M. Hewstone (Eds.), *Social psychology and intergroup and international conflict*, pp. 112-137. New York: Springer-Verlag.
- Kollack, P. (1998). Social dilemmas: the anatomy of cooperation. *Annual Review of Sociology*, 24: 183-214.
- Kramer, R.M. and Brewer, M.B. (1984). Effects of group identity on resource use in a simulated commons dilemma. *Journal of Personality and Social Psychology*, 46: 1044-1057.
- Kramer, R.D. and Goldman, L. (1995). Helping the group or helping yourself? Social motives and group identity in social dilemmas. In D.A. Schroeder, (Ed.), *Social Dilemmas: Perspectives on Individuals and Groups*. Westport, CT: Praeger.
- Kreisberg, L. (1993). Intractable conflicts. *Peace Review*, 5: 417-421.
- Kusel, J., Doak, S.C., Carpenter, S., and Sturtevant, V.E. (1996). The role of the public in adaptive ecosystem management. In *Sierra Nevada Ecosystem Project: Final Report to Congress. vol. II, Assessments and Scientific Basis for Management Options*. Davis, CA: Centers for Water and Wildland Resources, UC-Davis.
- Laaksonen-Craig, S., Goldman, G.E. and McKillop, W. (2001). Forestry, forest industry, and forest products consumption in California. ANR Publication 8070, University of California, Division of Agriculture and Natural Resources.
- Lalli, M. (1992). Urban-related identity: Theory, measurement, and empirical findings. *Journal of Environmental Psychology*, 12: 285-303
- Lederach, J.P. (1997). *Building peace: Sustainable reconciliation in divided societies*. Washington, DC: U.S. Peace Institute.
- Lee, R.G., Field, D.R. and Burch, W.R. (1990). Introduction: forestry, community, and sociology of natural resources. In: R.G. Lee, D.R. Field, and W.R. Burch, Jr. (Eds.), *Community and Forestry: Continuities in the Sociology of Natural Resources*, pp. 3-14. Boulder, CO: Westview Press.

- Lewicki, R., Gray, B. and Elliott, M. (2003). *Making sense of intractable environmental conflicts: Concepts and cases*. Washington, DC: Island Press.
- Lewicki, R.J., Saunders, D.M., and Minton, J.W., (1997). *Essentials of Negotiation*. Boston, MA: Irwin/McGraw-Hill.
- Lewin, K. (1948). Resolving Social Conflicts. New York: Harper.
- Lewis, M.W. (1992). *Green Delusions: An Environmentalist Critique of Radical Environmentalism*. Durham: Duke University Press.
- Lincoln, Y.S. and Guba, E.G. (1985). *Naturalistic Inquiry*. London: Sage Publications.
- Little, J.B. (1988). The gadfly botanist of Plumas County, *Sierra Magazine*, *Jan/Feb.* 1988, pp. 132-138.
- Little, J.B. (1998). Common ground: Forest foes of northern California bury hatchet but spark a new furor over three Sierra forests, *California Wild, Spring 1998*, pp. 9-15.
- Lloyd, L. and Sokolow, A.D. (2001). California's forest counties: payments from the US Forest Service. *California Community Topics*, No. 7, April, University of California, Davis, CA.
- Manes, C. 1990. *Green Rage: Radical Environmentalism and the Unmaking of Civilization*. Boston: Little, Brown.
- Marcot, B.G. and Thomas, J.W. (1997). Of spotted owls, old growth, and new policies: A history since the Interagency Scientific Committee report. Gen. Tech. Rep. PNW-GTR-408. Portland, OR: U.S. Department of Agriculture, Forest Service, Pacific Northwest Research Station. 34 p.
- Marston. E. (1993). Searching for an angle at the Forest Summit. Ancient forests in the balance: a field guide to the Northwest Forest Conference, Special Issue, Forest Watch, 13(9): 8-9.
- Marston. E. (1997). The timber wars evolve into a divisive attempt at peace, *High Country News*, 29(18): 8-13.
- Masiel, D. (2004). Crude reality. Outside Magazine, 29(2): 82–89.
- Matthews, J.A. (1983). Environmental change and community identity. In G. M. Beakwell, (Ed.). *Threatened Identities*, pp. 215-237. John Wiley and Sons, Ltd.
- McCloskey, M. (1990). Twenty years of change in the environmental movement: An insider's view. In R.E. Dunlap and A.G. Mertig (Eds.), *American Environmentalism:*

- The US Environmental Movement, 1970-1990. pp. 77-88. Bristol, PA: Taylor & Francis, Inc.
- McKelvey, K.S., Skinner, C.N., Chang, C., Erman, D.C., Husari, S.J., Parsons, D.J., van Wagtendonk, J.W. and Weatherspoon, C.P. (1996). An overview of fire in the Sierra Nevada. In: *Sierra Nevada Ecosystem Project, Final report to Congress*, vol. II, pp. 1033-1040. *Assessments and scientific basis for management options*. Davis: University of California, Centers for Water and Wildland Resources.
- McKelvey, K.S. and Johnston, J.D. (1992). Historical perspectives on forests of the Sierra Nevada and the transverse ranges of Southern California: Forest conditions at the turn of the century. In: *The California Spotted Owl: A Technical Assessment of its Current Status*. Verner, J., McKelvey, K.S., Noon, B.R., Gutiérrez, R.J., Gould, G.I., Jr., Beck, T.W., (Technical Coordinators). Gen. Tech. Rep. PSW-GTR-133. Albany, CA: Pacific Southwest Research Station, Forest Service, U.S. Department of Agriculture. pp. 225-246.
- McMillan, D.W. and Chavis, D.M. (1986). Sense of community: A definition and theory. *Journal of Community Psychology*. *14*: 6-23.
- Messick, D.M. and Brewer, M.B. (1983) Solving social dilemmas: A review. In L. Weaver and P. Shaver (Eds.). *Review of personality and social psychology* (Vol. 4 pp. 11-44). Beverly Hills, CA: Sage.
- Miller, B. (1992). Collective action and rational choice: Place, community, and the limits to individual self-interest. *Economic Geography*, 68: 22-42.
- Millward, L.J. (1995). Contextualizing social identity in consideration of what it means to be a nurse. *European Journal of Social Psychology*, v.25: 303-324.
- Mitchell, R.C., Mertig, A.G. and Dunlap, R.E. (1990). Twenty years of environmental mobilization: trends among national environmental organizations. In R.E. Dunlap and A.G. Mertig (Eds.), *American Environmentalism: The US Environmental Movement,* 1970-1990. pp. 11-26. Bristol, PA: Taylor & Francis, Inc.
- Mohr, L.B., (1982). *Explaining Organizational Behavior*. San Francisco, CA: Jossey-Bass.
- Moody, T.J., Fites-Kaufman, J., and Stephens, S.L. (2006). Fire history and climate influences from forests in the northern Sierra Nevada, USA. *Fire Ecology, 2:1* 115-142.
- Moore, C. (2003). *The Mediation Process: Practical Strategies for Resolving Conflict*. 3rd Edition. San Francisco, CA: Jossey Bass.

- Morrison, B. (1999). Interdependence, the group, and social cooperation: A new look at an old problem. In: M. Foody, M. Smithson, S. Schneider, and M. Hogg, (Eds.), *Resolving Social Dilemmas: Dynamic, Structural, and Intergroup Aspects*, pp. 295-308. Philadelphia: Psychology Press.
- Morrison, M.C. (1983). In praise of paradox. *The Episcopalian*. January.
- Naess, A. (1973). The shallow and the deep, long-range ecology movements. *Inquiry*, 16: 95-100.
- Nelson, R.H. (2000). Rethinking scientific management: Brand-new alternatives for a century-old agency. In: R.A. Sedjo, (Ed.), *A vision for the US Forest Service: Goals for the next century*, pp. 57-73. Washington, DC: Resources for the Future.
- Noakes, J.A. (2000). Official frames in social movement theory: The FBI, HUAC, and the Communist threat in Hollywood. *The Sociological Quarterly* 41:(4): 657–680
- Norman, J. (1993). A revolution in forest management. Ancient forests in the balance: a field guide to the Northwest Forest Conference, Special Issue, Forest Watch, 13(9): 21.
- Northrup, T.A. (1989). The dynamic of identity in personal and social conflict. In L. Kriesberg, T.A. Northrup, and S.J. Thorson, (Eds.), *Intractable conflicts and their transformation*, Syracuse, NY: Syracuse University Press.
- Office of Technology Assessment (1992). Forest Service Planning: Accommodating Uses, Producing Outputs, and Sustaining Ecosystems, OTA-F-505. Washington, DC: U.S. Government Printing Office, February 1992.
- Olson, M. (1965). *The Logic of Collective Action*. Cambridge, MA: Harvard University Press.
- Ostrom, E. (1990). *Governing the Commons: The Evolution of Institutions for Collective Action*. New York, NY: Cambridge University Press.
- Pacific Health Consulting Group (2000). Plumas communities vision 2020: Background data report. Revised 10-25-2000.
- Perdue, C.W., Dovidio, J.F., Gurtman, M.B. and Tyler, R.B. (1990). Us and them: social categorization and the process of intergroup bias. *Journal of Personality and Social Psychology*, *59*(3): 475-486.
- Proshansky, H.M. (1978). The city and self-identity. *Environment and Behavior*, 10: 147-169.

- Proshansky, H.M., Fabian, A.K., and Kaminoff, R. (1983). Place-identity: Physical world socialization of the self. *Journal of Environmental Psychology, 3:* 57-83.
- Purcell, C. (1973). From Conservation to Ecology. New York, NY: Crowell.
- Putnam, L.L. (1994). Challenging the assumptions of traditional approaches to negotiation. *Negotiation Journal*, *10*(4): pp. 337-346.
- Putnam, L. and Holmer, M. (1991). Frames of reference and reframing in negotiations: A communication perspective. Paper presented at the fourth annual conference of the International Association for Conflict Management, The Netherlands, June 17-20, 1991.
- Putnam, L.L. and Peterson, T. (2003). The Edwards Aquifer dispute: Shifting frames in a protracted conflict. In: R.J. Lewicki, B. Gray, and M. Elliott, (Eds.), *Making Sense of Intractable Environmental Disputes: Concepts and Cases*, pp. 127-158. Washington, DC: Island Press.
- Putnam, L.L. and Wondolleck, J.M. (2003). Intractability: Definitions, dimensions, and distinctions. In: R.J. Lewicki, B. Gray, and M. Elliott, (Eds.), *Making Sense of Intractable Environmental Disputes: Concepts and Cases*, pp. 35-59. Washington, DC: Island Press.
- Putnam, R.D. (1993). *Making Democracy Work: Civic Traditions in Modern Italy*. Princeton, NJ: Princeton University Press.
- Putnam, R.D. (2000). *Bowling Alone: The Collapse and Revival of American Community*. New York: Simon and Schuster.
- Rainey, H.G. (1997). *Understanding and Managing Public Organizations*. Second Edition. San Francisco, CA: Jossey-Bass Publishers.
- Reicher, S.D., Drury, J., Hopkins, N., and Scott, C. (2001). A model of crowd prototypes and crowd leadership. In: C. Barker, A. Johnson, and M. Lavalette, (Eds.), *Leadership and Social Movements*, pp. 178-195. Manchester, UK: Manchester University Press.
- Reicher, S., Haslam, S.A. and Hopkins, N. (2005). Social identity and the dynamics of leadership: Leaders and followers as collaborative agents in the transformation of social reality. *The Leadership Quarterly*, 16(4): 547-568.
- Robbins, W.G. (1993). The United States Forest Service and the problem of history. *The Public Historian*, 15(3): 41-49.
- Robertson, F.D. (1991). The next 100 years of national forest management. *Transaction of the North American Wilderness and Natural Resources Conference*. 56: 19-21.

- Rothman, J. (1997). Resolving Identity-based Conflict in Nations, Organizations, and Communities. San Francisco, CA: Jossey Bass.
- Rubin, J.Z., Pruitt, D.G., and Kim, S.H. (1994). *Social Conflict: Escalation, Stalemate, and Settlement*. Second Edition. McGraw Hill.
- Ruth, L. (1996). Conservation and controversy: national forest management, 1960-1995. In: Sierra Nevada Ecosystem Project, Final report to Congress, vol. II, pp. 145-162. Assessments and scientific basis for management options. Davis: University of California, Centers for Water and Wildland Resources.
- Ruth, L. (2000). Changing course: conservation and controversy in the national forests of the Sierra Nevada. In: R.A. Sedjo (Ed.), *A Vision of the U.S. Forest Service: Goals for Its Next Century*. Washington, DC: Resource for the Future.
- Salaman, G. (1974). *Community and Occupation: An Exploration of Work/Leisure Relationships*. London: Cambridge University Press.
- Salka, W.M. (2004). Mission evolution: The United States Forest Service's response to crisis. *Review of Policy Research*, 21(2): 221-232.
- Sample, V.A. and Kirby, P.C., (1983). *National forest planning: A conservationist's guide*. Second edition. Handbook published by: The Wilderness Society, Sierra Club, Natural Resources Defense Council, National Audubon Society, National Wildlife Federation.
- Saylor, E.S. and Aires, E. (1999). Ethnic identity and change in social context. *The Journal of Social Psychology*, v.139 n.5: 549-566.
- Sessions, G. (1995). Ecocentrism and the anthropocentric detour. In G. Sessions, (Ed.). Deep Ecology for the 21st Century: Readings and the Philosophy and Practice of the New Environmentalism. pp. 156-183. Boston, MA: Shambala.
- Shabecoff, P. (2003). A Fierce Green Fire: The American Environmental Movement. Revised edition. Washington, DC: Island Press.
- Sherif, M., Harvey, O.H., White, B.J., Hood, W.R., and Sherif, C.W. (1961). *The Robbers Cave experiment: Intergroup conflict and cooperation*. Middletown, CT: Wesleyan University Press.
- Shindler, B. and Cramer, L.A. (1999). Shifting public values for forest management: Making sense of wicked problems. *Western Journal of Applied Forestry 14(1):* 28-34.
- Shon, D.A. and Rein, M. (1994). Frame Reflection. New York: Basic Books.

- Skinner C.N. and Chang, C. (1996). Fire regimes, past and present. In: *Sierra Nevada Ecosystem Project, Final report to Congress*, vol. II, pp. 1041-1069. *Assessments and scientific basis for management options*. Davis: University of California, Centers for Water and Wildland Resources.
- Smith, K.K. and Berg, D.N. (1997). *Paradoxes of group life: Understanding conflict, paralysis, and movement in group dynamics*. San Francisco: New Lexington Press.
- Smyth, L. (1994). Intractable conflicts and the role of identity. *Negotiation Journal*, 10(4): pp. 311-321.
- Snow, D.A. and McAdam, D. (2000). Identity work processes in the context of social movements: clarifying the identity/movement nexus. In: S. Stryker, T.J. Owens, R.W. White (Eds.), *Self, Identity and Social Movements*, pp. 41-67. Minneapolis: University of Minnesota Press.
- Snow, D.A., Rochford, E. Burke Jr., Worden, S.K., and Benford, R.D. (1986). Frame alignment processes, micro-mobilization, and movement participation. *American Sociological Review*, *51*: 464-481.
- Snyder, K. (1993). Community-based computer mapping: The Yuba experience. In D. Aberley (Ed.), *Boundaries of Home: Mapping for Local Empowerment*, pp. 39-41. Philadelphia, PA: New Society Publishers.
- Somers, M. R. (1994). The narrative constitution of identity: A relational and network approach. *Theory and Society*, *23*: 605-649.
- Steel, B.S. and Weber, E. (2003). Ecosystem management and public opinion in the United States. In B.A. Shindler, T.M. Buckley, and M.C. Finley (Eds.), *Two Paths Toward Sustainable Forests: Public Values in Canada and the United States*, pp. 76-92. Corvallis, OR: Oregon State University Press.
- Steins, N.A. and Edwards V.M. (1999). Collective action in common-pool resource management: The contribution of a social constructivist perspective to existing theory. *Society and Natural Resources*, 12: 539-557.
- Stephan, W. and Stephan, C. (2000). An integrated theory of prejudice. In S. Oskamp (Ed.), *Reducing prejudice and discrimination*, pp. 23-45. Mahwah, NJ: Lawrence Erlbaum.
- Stets, J.E. and Burke, P.J. (2000). Identity theory and social identity theory. *Social Psychology Quarterly*, 63:3, 224-237.

- Struch, N. and Schwartz, S.H. (1989). Intergroup aggression: Its predictors and distinctness from in-group bias. *Journal of Personality and Social Psychology*, *56*: 364-373.
- Stryker, S. and Burke, P.J. (2000). The past, present, and future of an identity theory. *Social Psychology Quarterly*, 63(4): 284-297.
- Sumner, W.G. (1906). *Folkways*. New York: Ginn Publishers.
- Susskind, L. and Cruickshank, J. (1987). *Breaking the Impasse: Consensual Approaches to Resolving Public Disputes*. New York, NW: Basic Books.
- Susskind, L. and Weinstein, A. (1980). Towards a theory of environmental dispute resolution. *Environmental Affairs*, 9: 311-357.
- Swetnam, T.W. and Baisan, C.H. (2003). Tree-ring reconstructions of fire and climate history in the Sierra Nevada and southwestern states. In: Veblen, T.T., Baker, W., Montenegro, G., Swetnam, T.W. (Eds.), *Fire and climate change in temperate ecosystems of the western Americas*. New York: Springer-Verlag: 158-195.
- Swan, W.B., Jr. (1983). Self-verification: Bringing social reality into harmony with the self. In: J. Suls and A. Greenwald (Eds.), *Psychological perspectives on the self.* v.2, pp. 33-66. Hillsdale, NJ: Erlbaum.
- Tajfel, H. (1972). Experiments in a vacuum. In J. Isreal and H. Tajfel (Eds.). *The Context of Social Psychology: A Critical Assessment*. London: Academic Press.
- Tajfel, H. and Turner, J.C. (1979). An integrative theory of intergroup conflict. In: W.G. Austin and S. Worchel (Eds.). *The Social Psychology of Intergroup Relations*. Monterey: Brooks/Cole.
- Tajfel, H. and Turner, J.C. (1986). The social identity theory of intergroup behavior. In S. Worchel and W. G. Austin (Eds.). *Psychology of Intergroup Relations*, pp. 7-24, Chicago: Nelson-Hall Publishers.
- Talbot, A.R. (1983). *Settling Things: Six Case Studies in Environmental Mediation*. The Conservation Foundation and the Ford Foundation.
- Taylor, D. (2000). Advances in environmental justice: Research, theory and methodology. *American Behavioral Scientist*, 43(4): 504-580.
- Taylor, D. M. and Moghaddam, F. (1994). *Theories of Intergroup Relations: International Social Psychological Perspectives*. Westport, CT: Praeger.
- Taylor, G.N. (1991). Will "new forestry" save old forests? *American Forests*, 97(9-10): 49-55.

- Tenbrunsel, A.E., Wade-Benzoni, K.A., Messick, D.M., and Bazerman, M.H. (1997). The dysfunctional aspects of environmental standards. In M.H. Bazerman, D.M. Messick, A.E. Tenbrunsel, and K.A. Wade-Benzoni, (Eds.). *Environmental Ethics and Behavior: The Psychology of Environmental Evaluation and Degradation*. San Francisco: The New Lexington Press.
- Terhune, P. and Terhune, G. (1998). QLG case study. Case Study for the Workshop *Engaging, Empowering, and Negotiating Community: Strategies for Conservation and Development*. The Conservation and Development Forum, West Virginia University and the Center for Economic Development Options, October 8-10, 1998.
- Thomas, J.W. (1998). What happened to the Forest Service? *Chronicle of Community*, 3(1): 17-21.
- Thompson, S.C. and Stoutemeyer, K. (1991). Water use as commons dilemma: The effects of education that focuses on long-term consequences and individual action. *Environment and Behavior*, 23. 314-333.
- Turner, J.C. (1975). Social comparison and social identity: Some prospects for intergroup behavior. *European Journal of Social Psychology*, *5*: 5-34.
- Turner, J.C. (1985). Social categorization and the self concept: a social cognitive theory of group behavior. In E.J. Lawler (ed.), *Advances in Group Processes* (vol. 2, pp.71-122) Greenwich, CT: JAI Press.
- Turner, J.C. (1987). *Rediscovering the Social Group: A Self-categorization Theory*. Oxford England: Basil Blackwell.
- Turner, J.C. (1991). Social Influence. Pacific Grove, CA: Brooks/Cole Publishing Co.
- Turner, J.C. (1999). Some current issues in research on social identity and self-categorization theories. In N. Ellemers, R. Spears, and B. Doosje (Eds.). *Social Identity: Context, Commitment, Content.* Oxford: Blackwell.
- Turner, J.C., Oakes, P.J., Haslam, S.A., and McGarty, C. (1994). Self and collective: Cognition and social context. *Personality and Social Psychology Bulletin*, 20(5): 454-463.
- Twight, B. and Lynden, F. (1989). Measuring Forest Service bias. *Journal of Forestry*, 87: 35-41.
- U.S. Department of Agriculture (2003). Sierra Nevada Forest Plan Amendment: Draft Supplemental Environmental Impact Statement. U.S. Department of Agriculture Forest Service, Pacific Southwest Region, R5-MB-019.

- Uphoff, N. and Langholz, J. (1998). Incentives for avoiding the tragedy of the commons. *Environmental Conservation* 25(3): 251-261.
- Van de Wetering, S.B. (2006). *The Legal Framework for Cooperative Conservation*. Public Policy Research Institute, Governance Report 1. The University of Montana. Collaborative Helena, MT.
- Van Vugt, M. (2001). Community identification moderating the impact of financial incentives in a natural social dilemma: Water conservation. *Personality and Social Psychology Bulletin*, 27(11): 1440-1449.
- Vaughn, E. and Seifert, M. (1992). Variability in the framing of risk issues. *Journal of Social Issues*, 48(4): 119-135.
- Vaughn, J. and Cortner, H.J., (2005). *George W. Bush's Healthy Forests: Reframing the Environmental Debate*. Boulder, CO: University Press of Colorado.
- Verner, J., McKelvey, K.S., Noon, B.R., Gutiérrez, J., Gould, G.I. Jr., Beck, T.W. (1992). Assessment of the current status of the California spotted owl, with recommendations for management, pp. 3-26. In: The California Spotted Owl: A Technical Assessment of its Current Status. Verner, J., McKelvey, K.S., Noon, B.R., Gutiérrez, R.J., Gould, G.I., Jr., Beck, T.W., (Technical Coordinators). Gen. Tech. Rep. PSW-GTR-133. Albany, CA: Pacific Southwest Research Station, Forest Service, U.S.D.A.
- Vig, N.J. and Kraft, M.E. (2000). *Environmental Policy*. Fourth Edition. Congressional Quarterly Press.
- Weiss, M. (1993). Firetrail: Are loggers behind the rash of fires in the West? *Mother Jones*. March/April 1993.
- Wilkinson, C. and Anderson, H. (1987). *Land and resource planning in the national forests*. Washington, DC: Island Press.
- Wit, A.P. and Kerr, N.L. (2002). "Me versus just us versus us all" categorization and cooperation in nested social dilemmas. *Journal of Personality Social Psychology*, 83(3): 616–637.
- Wondolleck, J.M. (1988). *Public Lands Conflict and Resolution: Managing National Forest Disputes*. New York: Plenum Press.
- Wondolleck, J.M. and Ryan, C.M. (1999). What hat do I wear now? An examination of agency roles in collaborative processes. *Negotiation Journal*, 15: 117-134.
- Wondolleck, J. and Yaffee, S. (1994). Building bridges across agency boundaries: In search of excellence in the US Forest Service. Ann Arbor, MI: The University of

- Michigan. Research report to the USDA-Forest Service Pacific Northwest Research Station.
- Wondolleck, J. and Yaffee, S. (2000). *Making Collaboration Work: Lessons from Innovation in Natural Resource Management*. Washington, DC: Island Press.
- Wulfhorst, J.D. (2000). Collective identity and hazardous waste. *Rural Sociology*, v.65 n.2: 275-294.
- Yaffee, S.L. (1994). *The Wisdom of the Spotted Owl: Policy Lessons for a New Century*. Washington, DC: Island Press.
- Yaffee, S.L. (1998). Cooperation: A strategy for achieving stewardship across boundaries. In R.L. Knight and P.B. Landres, (Eds.), *Stewardship Across Boundaries*, pp. 299-324. Washington, DC: Island Press.
- Yaffee, S., Phillips, A., Frentz, I., Hardy, P., Maleki, S., and Thorpe, B. (1996). Ecosystem Management in the United States: An Assessment of Current Experience. Washington, DC: Island Press.
- Yin, R.K. (1994). Case Study Research: Design and Methods, Second Edition. London: Sage Publications.
- Young, J. (2003). *Plumas County: History of the Feather River Region*. Charleston, SC: Arcadia Publishing.
- Zuckerman, S. (1992). New forestry, new hype? Sierra Magazine; 77:2 40-47.