

## CHAPTER FOUR

### EVALUATION – ANALYSIS AND LESSONS LEARNED

#### OVERVIEW

This chapter presents an evaluation of the use of participatory action research (PAR) in an environmental dispute resolution (EDR) process. Specifically, I evaluate the use of participatory action research in resolving the North Trail dispute in Gold Hill, Colorado. The dispute is described in Chapter Two of this thesis; the intervention, the process that emerged and its discoveries are described in Chapter Three. The substantive and technical results of the PAR research are presented in the *Community Trails Mediation Guide* found in the appendix.

Before launching into the evaluation, I would like to make the reader aware of an overarching challenge in evaluating this EDR/PAR intervention. Drawing conclusions about the intervention has been greatly complicated by the need to draw practitioner-based conclusions in adapting and performing the intervention. Differentiating the research streams for evaluating the EDR/PAR intervention from adapting intervention strategies, self-assessment as an instrument of the intervention and the trails-related research was difficult. To compound matters, I expected a literature would exist to examine local trail systems, their role and the means to resolve such disputes. When such a literature was not found, the level of effort required to finish what had been begun was greatly increased. It is a long anticipated pleasure now to be able to evaluate the effectiveness of the effort.

The next section, “Case Study Research Design,” explains how I organized the research in order to elucidate the subtle and not so subtle findings of the case without getting lost in my own day-to-day experience. Keep in mind that, for simplicity’s sake, the trails research is found in the *Community Trails Mediation Guide* and the intervention evaluation is found in this Chapter. Chapters Two and Three provide the context of the intervention and a detailed description of the intervention.

The evaluation does not include systematic quantitative analysis. The research remains exploratory, qualitative and inconclusive. It is expected however that inferences may be drawn for practitioners and academics alike. To perform the evaluation, I triangulated a set of qualitative approaches. Each approach looks at the process and its outcomes from a different angle. A causal network (a priori) that organized the design of the intervention and an analysis of the characteristics of the process (a posteriori) are presented.

The evaluation begins with a chronology of key events and an assessment of the failure to reach agreement on the North Trail. The dispute is complex and intractable due in part to the disparate power of stakeholders and an ambiguous legal framework. Reaching a substantive and technical understanding of the issues took time and a great deal of work. Fortunately, resolution of the North Trail dispute still remains possible. Resolution may simply take more time than this researcher/practitioner can accommodate in terms of submitting my MS Thesis.

Failure to resolve the North Trail dispute is not inherently damaging to the overall value of the intervention. As the causal network presents, a series of social stepping-stones can lead the way to reaching resolution. Each of these steps has independently derived value for the community and a broader audience. Some of these steps have been reached. Still, the entire set of residual effects of the intervention cannot yet be determined. In particular, the most tangible output of the process, a *Community Trails Mediation Guide*, is not yet in its most complete iteration (See Gold Hill Edition in the appendix). The Gold Hill Edition of the *Community Trails Mediation Guide* will be distributed upon request after the Gold Hill Town Meeting on April 10, 2006. Later, the most comprehensive and refined edition of the *Community Trails Mediation Guide* is planned for distribution to an audience broader than Gold Hill. Sharing this research with other communities and administrative entities is expected to prevent and resolve future disputes not only in Gold Hill, but elsewhere. Those results obviously cannot be measured at this time.

The results of applying several qualitative evaluation methods are found under the section, “Qualitative Reflections.” This section presents lessons learned in a self-reflective assessment of possible process improvements. A systematic assessment of participant responses and my

observations about Phase One of the intervention are organized by theme. The themes for this assessment are drawn from a review of literature on collaboration and dispute resolution; organizing notes from this review resulted in a set of theme categories under which to code participant responses.

As a result of conducting a range of evaluation approaches, it has been possible to disassociate the analysis from an overly inductive framework that relies on existing analysis of collaborative or dispute resolution processes. Such an evaluation would not have allowed for a thorough and original exploration of the characteristics of this particular case.

“An effective strategy [in for instance this case, the coding of evaluation findings] is at first literally to ignore the literature of theory and fact on the area under study, in order to assure that the emergence of categories will not be contaminated by concepts more suited to different areas. Similarities and convergences with the literature can be established after the analytic core of categories has emerged.” (Glaser and Strauss, 1967:37)

Of critical importance in this evaluation is a direct assessment of PAR in setting up the foundation for, and in attempting to mediate, an environmental dispute. As the process played out, a cyclical oscillation between action research and participatory action research occurred in ensuring community-wide empowerment. PAR can theoretically prepare the terrain for an EDR process to occur. The means and effects of PAR to resolve EDR critiques about stakeholder disparity, the effect of localized outcomes on national initiatives, and cultural sensitivity is presented in this Chapter. As mentioned earlier, substantive results of the PAR are found in the *Community Trails Mediation Guide*. A process-related result of the PAR was de-escalating the dispute. This is also discussed in this chapter. Indirect PAR results such as enhancing community integrity and building local capacity to resolve disputes are also presented in this chapter.

Also note that the use of the term PAR refers to a cycle of PAR/AR/PAR. PAR is conventionally employed in short-term interventions in which the inquiry lasts perhaps one day to two weeks. In this case, the inquiry lasted three years and was conducted without funding. As a result, action research interludes were required due to the difficulty of engaging locals in the depth of sustained and detailed research required to understand local trail issues.

This evaluation also assesses the feasibility of replicating this EDR/PAR approach in other settings and for other types of disputes. The feasibility analysis includes a review of barriers to implementation. The chapter concludes with the key discoveries of this evaluation.

## **CASE STUDY RESEARCH DESIGN**

In this case study, I analyze a participatory action research approach to mediating a public dispute. I employed research design principles learned in two graduate research methods courses in at the University of Michigan: one in the Organizational Studies Program at the Department of Social Psychology and the other in the Resource Policy and Behavior program at the School of Natural Resources and Environment.

### **The Chain of Evidence**

Of particular importance in a case study are “multiple sources of evidence” (Robson, 1993:52). As a result, the greatest challenge in case study analysis is keeping track of the data. This can become even more challenging when the researcher is also the one who implemented the intervention. In conducting this evaluation, collecting qualitative data with a wide range of techniques resulted in big piles of documents all nicely sorted into relevant topic files, but still intertwined in ways that were confusing. As a result, I prepared data displays to demonstrate a clear chain of evidence for drawing conclusions.

A “chain of evidence” is essential for demonstrating credibility (Yin, 1989:103). The credibility of the data can be demonstrated in two ways: one, “a codified procedure for analyzing the data”; and

two, “standard devices” used in qualitative data presentation (Glaser and Strauss, 1967:229). The standard devices that I employed included:

- “Quote directly from interviews or conversations that he has overheard;”
- “Include dramatic segments of his on the spot field notes;”
- “Quote telling phrases dropped by informants;”
- “Summarize events or person by constructing readable case studies;”
- “Describe events and acts;”
- “Give at least background descriptions for places and spaces;” and
- “Sometimes offer accounts of personal experience to show how events impinged upon him[/her]self” (Glaser and Strauss, 1967:229).

Another important reason to keep track of the evidence is so that others may replicate elements of the EDR/PAR process for either cross-evaluation or for specific EDR/PAR intervention objectives on another case or in continuing this one. An “evolving systematic analysis permits a field worker quite literally to write prescriptions [guidelines] so that other outsiders could get along in the observed sphere of life and action. ...[these guidelines] are workable guides to action and therefore their credibility can, on this account too, be accorded our confidence” (Glaser and Strauss, 1967:226-227).

The data management, conclusion drawing and replication requirements of this participatory action research case study required easy-to-use reference guides to the research design. Getting through this research meant maintaining the manageability of disparate data sources and a range of research techniques; it meant staying organized and enduring a great deal of tedious cross-referencing across data sets. It also entailed keeping a tidy set of computer files that matched the organization of the reference guides. Even in the final writing of this thesis, the original organization of files required reconfiguring to accommodate new insights into effectively arranging the material.

The principal reference guides are a diagram of the “causal network” (Robson, 1993: 395) and data displays. The data displays are tables of the collected data used for analysis and presentation purposes. These displays are provided in the section entitled “Systematic Assessment of Phase One.” In combination with data displays, the Causal Network provides a clear understanding of the “chain of evidence.” A well thought out “chain of evidence” allows for “clear cross-referencing to methodological procedures and to the resulting evidence” (Yin, 1989:103).

The “causal network” displays the intervention objectives. It shows the relationships between the variables and the data collection activities that accompanied each variable. The causal network (See below, Diagram 1, Causal Network of the Intervention), in combination with the charts, should clarify research questions and the steps employed in performing the intervention, allowing the reader to link these steps directly to the evidence.

Throughout this case study, recounting actual events involves narrative presented in Chapter Two and Chapter Three. The narrative intertwines representative entities at differing units of analysis. Certain sub-units affected by the intervention merit “independent review rather than examining the comprehensive nature of the case without distinction” (Yin, 1989:49). Either the researcher corroborates research results through a systematic cross-checking and triangulation of responses; or individuals collaborate, deliberate and cooperate to discover shared meanings or understandings.

An important mechanism for verifying the significance of a finding based in qualitative data is triangulation of the data. Multiple data-collection techniques and sources are important forms of triangulating results for verification purposes. Triangulation can be accomplished independently by a researcher, or also in group decision-making contexts, among stakeholders. For instance, interpretations of local custom are often implicitly negotiated among residents of a locale. The mediation process could support explicitly negotiating the meaning around wilderness, trails and

community. By triangulating key elements, the criterion for objectivity arises via “intersubjective agreement” (Robson, 1993:74).

In this case study involving a dispute resolution intervention, both occurred. When parties could not dialogue, I distilled a sense of concerns or direction. When they could talk together, I relied on the joint outcome of that discussion. Individuals with independent opinions may discover that they hold shared opinions, e.g. about the perceived effects of trail loss on community integrity. The credibility of a group consensus opinion is derived from independent thinking. These shared opinions are based on broad consensus opinion, or triangulated conclusion relies on specific inferences made by particular individuals.

### **Participation and Authorization**

Participation outreach resulted from indirect invitation through locally posted invitational flyers and from direct invitation after identifying stakeholders.

All participants in the EDR/PAR process are coded for display in the analysis in this study. The names of specific participants are known only to me and to other participants.

The coding scheme used in Appendix Two-B, Gold Hill Trail Access Perspectives, contains a differing set of statements than Table 20, Stakeholder and Place Name Codes and Descriptions. The coding used in Appendix Two-B is not provided in this thesis document to avoid linking a particular statement to a particular party. Such a link was not deemed necessary for the study and maintains the privacy of participants to those outside of the community.

In conducting informal investigations in person or by phone, a formal release was not obtained from participants. I considered that a request for release would be off-putting, is unnecessary, alters the casual nature of our rapport and may have circumvented data collection altogether.

In the structured meetings associated with the intervention, a release or authorization to share input from participants was circulated for signature. Participants in the *Mediation Workshop* were asked to sign a release. The text at the top of the Workshop sign-in sheet read:

#### *Trails Workshop Sign In*

The workshop is a way to gather your input on a variety of trail issues in Gold Hill. It is also a part of the data gathering for a case study on local access trail dispute resolution for a MS Thesis at the University of Michigan. Individual participants will not be identified. Please “sign in” and then check next to your name if the case study is acceptable to you. Thank you.

Consultant to China and wife, Doctor, Tree Trimmer, Engineer/Bike Enthusiast, Dedicated Trails Volunteer, Former Partner and a local, Trail Runner/Moccasin Trail Segment Owner, Forest Steward plus others attended the Workshop. Two former Gold Hill School Teachers and locals attended, both of whom are also naturalists. Owner of Morning Sun and Trail Runner/ Landlord’s Wife were absent. For clarification regarding these individuals, please refer to Table 20, Stakeholder and Place Name Codes and Descriptions.

Permission was obtained at the *Workshop* for participant input to be utilized in preparing this study and in preparing the *Community Trails Mediation Guide*. Names and affiliations of those at the *Workshop* were also used as a statistical reference for participation (See below, Diagram 2, Participation in Phase One). The earliest version of the *Guide* was the “Trails Booklet-Working Document and Community Memory Tool.” The text at the top of the *Guide*’s check out sheet read:

#### *Trails Study: [Trails Mediation Guide] Check Out*

The [*Guide*] is a way to gather your input on a variety of trails issues in Gold Hill. Write on the blank pages or anywhere. It is a tool for you to use at the Workshop. It

is also part of the data gathering for a MS Thesis at the Univ. of MI by [my first name]. Please return at the end of the Workshop or in the next week so your perspectives can be incorporated in the next draft [of the *Guide*]. Thank you.

Trail Runner/North Trail Segment owner too, Realtor/Former Gold Hill Dude Ranch Owner, Professional Ecologist, Summer Camp ranch owners, Morning Sun Photographer, Catalyst, Englishman/Poet, Trails Historian/Gold Hill Descendant, and others made notations on the Working Document. If key stakeholders did not attend the Workshop, I hand-delivered copies. Of special note, the Seller's Agent received a hand-delivered copy which he returned with no notations.

## **Data Collection**

### ***Units of Analysis***

In this case, the unit of analysis varies because the dispute and its attempted resolution varied by time, place and social structure. Social structures are groups of people acting within specific norms. Multiple data types and levels of analysis increase the validity of conclusions and are inherent in "multiple sources of evidence" (Robson, 1993:52). By triangulating the sources that support a conclusion, the robustness of the evidence trail is enhanced. In this study, triangulation occurs across levels of analysis and between levels. For instance group events draw out a more divergent set of opinions than perhaps individuals might state independently; convergent evidence makes for a stronger case.

### ***Locations***

The data was collected at a range of events including a Trails Open House and Potluck (*Mediation Workshop*), and Trails Committee meetings; as well as by telephone and through in-person interviews. Data collection settings included a doctor's office, my office, outdoors on walks, in the homes of locals, the Community Room of the Gold Hill "Fire Barn," the Gold Hill Elementary School, and the Carnegie Museum of Boulder history.

Data in a particular setting or event could be applied to any of all three principal research objectives: the EDR/PAR intervention, the evaluation of EDR/PAR interventions and/or the role of local trail systems. Initially, the information gathered funneled into the primary action research activities of the EDR/PAR intervention: coordinating the Trails Committee, preparing the *Mediation Workshop* and researching the *Trails Mediation Guide*.

The *Mediation Workshop* was a forum for shared learning and dialogue around the issues of trails. As previously mentioned, it also served as a data-collection setting. Data collection at the *Mediation Workshop* also relied on recording unstructured interviews, group dialogue, and posters. At the *Workshop*, the process of facilitating the meetings and presentation included writing comments and other types of information on flip chart pages.

### ***Techniques and Timing***

Data was gathered in person through direct contact, with the exception of review of the *Trails Mediation Guide* by participants after the Workshop. The techniques resembled those for ethnographic, primary research, including participant observation, unstructured interviews, loose conversation and facilitated dialogue at the *Mediation Workshop*.

No questionnaires or surveys were employed, although during the *Workshop* individuals were asked to rate trail use and preference.

Digital voice recorders were used in a few instances. A tape recorder is cumbersome, I felt confident in my notes, and most of the research data was collected in this way

Data collection included large broadly cast nets like the *Mediation Workshop*, Trails Group meetings, postings at the Gold Hill General Store as well as semi-structured and unstructured interviews, either in person or by telephone. There was an overlap in the types of information that resulted from each technique. Data collections techniques varied little by purpose.

The purpose of the data regulated the timing of data collection. Each activity was timed to meet a specific Trails Group goal: funding and validation by Boulder County Commissioners, approval by Town Meeting members, preparation for a Trails Committee meeting, and getting ready for the Trails Workshop. The *Trails Workshop* took place on March 15 and 16 of 2003.

Prior to the *Workshop*, data was collected for the *Trails Mediation Guide*. Data collection for the *Trails Mediation Guide* took the form of participant observation, note-taking at Trails Group meetings and semi-structured interviews. Direct contact in gathering data for the *Trails Mediation Guide* coincided with data collection for formulating the mediation process and understanding the interests of the parties. Interviews were conducted most often by phone with stakeholders and experts such as historians and attorneys.

The *Trails Workshop* required the most preparation and involved the largest volume of data to be sifted and sorted. At the *Workshop*, the greatest variety of data-collection tools were employed. Direct contact and lots of energetic encouragement on my part drove data collection at the *Workshop*. The most significant tools for data collection were large-format posters with question headings, timelines and maps pasted up on the walls. Markers were available for participants to write as they saw fit on any one of these. Post-it-notes were also provided in case that writing format created more ease and greater freedom of expression.

A large part of the data specific to the site of Gold Hill is found in the *Community Trails Mediation Guide*. The *Mediation Guide* serves as a broad filter for collected data on trail matters. As previously discussed, the *Guide* in its earliest form (“Trails Booklet-Working Document and Community Memory Tool.”) was the primary instrument for data sharing and gathering at the *Mediation Workshop*.

In addition, the *Trails Mediation Guide* served as a working document at the *Workshop* and to collect, and in future rewrites store, viewpoints and points of fact. Participants could also use the *Trails Mediation Guide* to jot down notes. Participants were asked to keep the *Mediation Guide* in order to make whatever additional notations they might like and then to return them to me within two weeks time. This information was presented in revised, post-Workshop *Trails Mediation Guide*, of which the sixth iteration is in the thesis appendix. The *Guide* also contains information from secondary sources of data: mostly letters, papers and books.

### **Qualitative Data**

The data collected in preparing for and in conducting the *Mediation Workshop* were mostly qualitative in nature. Qualitative data takes the form of impressions, opinions, as well as beliefs about fact and the motivations of others.

Qualitative data is “fundamentally well-suited for locating the meanings people place on the events, processes and structures of their lives” (Miles and Huberman, 1994:10).

The stakeholder analysis for implementing the EDR/PAR intervention explored perceptions and strategies. A summary of stakeholder concerns is presented in Table 1, Potentially Affected Parties by Residency and Position Towards Trail Access, in the Introduction and in Appendix Two-B, Gold Hill Trail Access Perspectives in Volume Two of the *Community Trails Mediation Guide*. The *Guide* also presents research on local trail systems and ways in which landowners can remedy concerns in order to maintain an open trail segment.

A great deal of the collected data for this case study emerged from unstructured, informal requests on the phone or in person. Prompting and active listening elicited open-ended responses of varying length. The resulting bits of phrase -- sometimes just one or two words -- provided grist for the analytical mill and prompted more research questions.

“[G]ood qualitative data are more likely to lead to serendipitous findings and to new integrations....” (Miles and Huberman, 1994:1).

“...[Qualitative data] help researchers to get beyond initial conceptions and to generate or revise conceptual frameworks. ... the findings from qualitative studies have a quality of ‘undeniability.’ Words, especially organized into incidents or stories, have concrete, vivid, meaningful flavor that often proves far more convincing...” (Miles and Huberman, 1994:1).

The advantages of qualitative data rely heavily on the way it is interpreted. This in turn is dependent on the way in which the data is categorized. Besides the data used in evaluating the intervention, data was collected as part of the intervention. Data coding, sorting and sifting were required. To explain how I distinguished data collected for the EDR/PAR process, which is itself a data collection tool, from data collected to evaluate the intervention, the following table was prepared.

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Table 11.  
CATEGORIZING COMMENTS INTO THEME GROUPS

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RECOMMENDED APPROACH TO CODING

- Affixing codes
- Noting reflections
- Sorting and sifting
- Isolating patterns and processes, commonalities and differences
- Elaborating a small set of generalizations
- Matching generalizations to an existing body of constructs and theories  
(Miles and Huberman, 1994:9)

WHAT I DID TO CODE THE DATA

- Data was in a word processor file
- Starting with the first statement or comment in the file, I gave it a subheading or theme-group name in bold.
- I looked at the next statement to see if fit that subheading, if so I put it in that same theme group. If not, I labeled the comment with a new theme-group name.
- And so on until I reached the end of the word processor file.
- Then I went back to the top of the file and reviewed what I had done in the first pass.
- I refined the theme-group names and the statements batched under each...sometimes making a new theme category, but rarely eliminating one.

NEXT,

- I compared theme-group names across stakeholder type (Support v Opposition), or across data sources within a stakeholder type (L3 v L15), or across collection tools (interviews v comment boards).
  - If I didn't pick up on anything that I had missed in my earlier interpretations, I moved on to the next batch of comparisons.
  - If I did, I made adjustments to theme-group names or to what was contained in each theme group.
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## Evaluation Data for Lessons Learned and Systematic Assessment

As a participant observer, I am familiar with a wide range of social and environmental data on Gold Hill and the context of the dispute, but that information could be skewed by my expectations for specific outcomes. I have attempted to “devise appropriate checks” to what may be “biased or selective” accounts (Robson, 1993:56).

“Process may be very difficult to assess. A simple survey of participants or a measurement of outputs will probably not provide a meaningful assessment. Either could lead to a conclusion that a process was unsuccessful when it was actually successful or vice versa. For example, participants responding to a survey could say they were satisfied with a process when they were actually manipulated or misled, or they could say they were dissatisfied when they actually accomplished a great deal but had unrealistic expectations.” (Innes, 1999:642)

The use of multiple methods of investigation “licenses the enquirer to adopt [a] more flexible and overtly involved stance” (Robson, 1993:53). As discussed in the Introduction, a range of approaches have been employed to evaluate the EDR/PAR intervention.

Still, with regard to the credibility of the findings it has been essential to actively remain neutral both in the process and in the review of the process. A literature review anchors one evaluation approach. The literature review provides a set of externally derived objective criteria in the evaluation. The literature review was used in the Systematic Assessment of Phase One as presented in a section further on. Another approach was based on participation. This data is presented in the section on participation in the process. A feedback log was also kept during the process for making note of participant concerns and for keeping track of my own observations and self-reflection. Table 12, below, is an overview of the collected data used for the Phase One evaluation.

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Table 12.

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### DATA DISPLAYS FOR PHASE ONE EVALUATION OF EDR/PAR INTERVENTION

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Diagram 2. Participation in Phase One

Diagram 3. Spectrum of Public Participation

Literature Review:

Table 17. EDR/PAR Process- Phase One Assessment Criteria

Table 18. Facilitation of EDR/PAR – Phase One Assessment Criteria

Table 22. Participant Comments on Facilitator, Process and Outcomes – Phase One

Table 23. Reflections on Facilitator Role, Process, and Outcomes – Phase One

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## THE CAUSAL NETWORK

The causal network presented in Diagram 1 serves to evaluate the intervention and also guided the design of the intervention. The EDR/PAR case study focuses on a short-run intervention although a long range scenario is also presented. The dependent variables are the anticipated outcomes of the selected intervention. These outcomes are de-escalation of the dispute, local capacity-building and reaching a shared understanding of the local trail system including the interests of the disputing parties. The choice of the independent and dependent variables was driven by literature review and my training and practice in mediation and PAR.

Relying on research organization methods gleaned from my SNRE research methods class, I prepared two diagrams: Diagram One-A, Understanding Trail Access by Locals and Diagram 1, Causal Network of the Intervention. I abstracted expectations about social behavior into independent



and dependent variables in order to make inferences from the data. In this way I could place myself in the role of the observer despite my close involvement in the case.

The Causal Network permits easy reference to the primary variables, their hypothesized measures and the actual pieces of evidence tied to each. In Diagram 1, Causal Network of the Intervention, the intervention and its outcomes can be explored over the short and long run. The Causal Network presents the expected sequence of causal factors contributing to resolution of the North Trail dispute or any other local disputes over trail access.

Two causal variables are evaluated in this case study and represented in the causal network flow diagram. These variables are environmental dispute resolution and participatory action research. Environmental dispute resolution (EDR) seeks to resolve disputes through collaborative probing of the interests and creative generation of solutions. Participatory action research (PAR) relies on community involvement to enhance a social or ecological setting through deliberate inquiry into the setting.

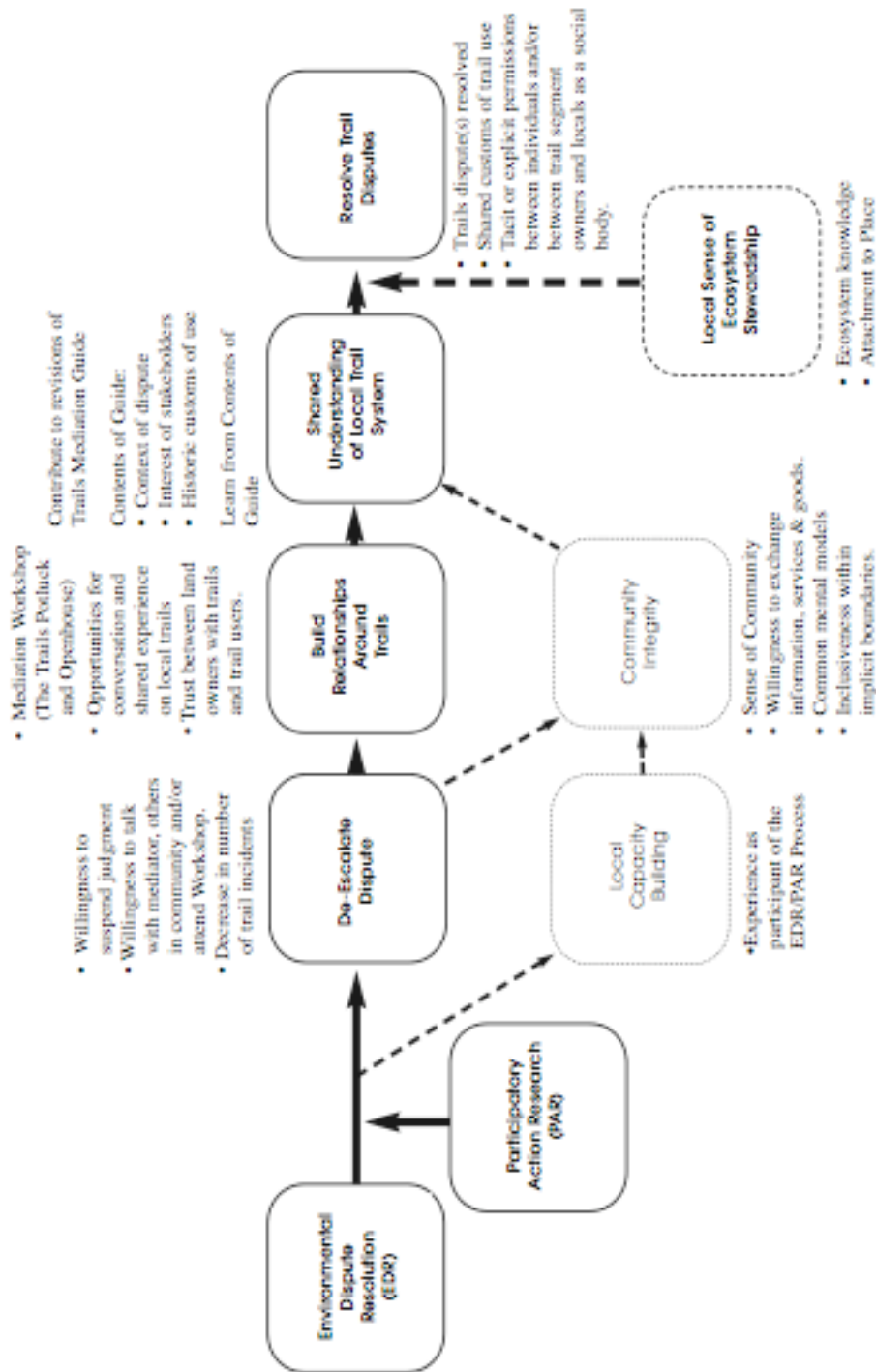
The causal network visually presents the theory that PAR has a moderating effect on an EDR process. In the case of flow diagrams, mediation is another word for moderation. Mediation refers to the intervening effect of the moderator, PAR in this case, on the direct effect of the initial variable, EDR in this case. Mediation (and moderation) analysis are a key part of what has been called *process analysis*. As in many causal models, the mediation component of the theoretical model is the most interesting. As has been stated previously, this MS thesis tests the effect of PAR as a mediating variable on the processes engendered by the initial variable, an EDR intervention.

In the short run, the Causal Network presents the hypothesis that “Environmental Mediation” (an independent variable (IV)), when “Participatory Action Research” (another IV) intervenes, can “De-escalate Dispute” (a dependent variable (DV)). As a result of suspended judgment (a measure of de-escalation), stakeholders may begin to reach a Shared Understanding of the Local Trail System both geographically and socially.

In the midterm, relationships build around trails, and previous customs of trail use may be reinvigorated after adaptation to the change in the status quo. When satisfying norms of behavior around trail use lead to solid social dynamics, trail access may return to pre-dispute levels and social structures of stability may be restored. These social structures are hypothesized to be local customs or local policy.

This also presents a potentially broader causal outcome. Ecosystem awareness and desire for stewardship can lead to restoration of traditional trail access customs. It is expected that traditional trail access for recreation and harvesting (see *Trails Mediation Guide*) can support ecosystem management by ensuring community connectivity to the natural forest setting. Trail access offers a feedback mechanism to human participants on ecological shifts to which they might choose to attend.

Diagram 1.  
CAUSAL NETWORK OF THE INTERVENTION



By ongoing referral to the Causal Network, the task of identifying the relationship between data collected for the *Trails Mediation Guide* and data collected for the evaluation became easier. The Causal Network permitted a more comprehensive grasp of data sources and how best to display the data for the purposes of analysis. The evaluation of the EDR/PAR intervention occurs towards the end of this Chapter.

First, it is useful to qualify that the intervention was indeed an EDR-based intervention. An alternative reason for testing mediation by process variables like PAR is trying to understand the mechanism through which the initial variable, EDR, affects the outcome. In this case, the overarching goal of the intervention was EDR as moderated by PAR.

## **QUALIFYING THE INTERVENTION**

### **The Guiding Principles of the EDR/PAR Intervention**

I would like to explain the reasons why the descriptor of environmental dispute resolution is useful in understanding this case. There is some question about whether this case qualifies as a mediation process. The importance of clarifying this point cannot be underestimated. As a result, I explain the basis for labeling the overarching thrust of the intervention. The approach is perhaps innovative and unconventional, but it remains a dispute resolution intervention. EDR has to do with the goal of dispute resolution and the principles that govern reaching that goal; PAR has to do with a way of getting there.

One might disqualify the intervention to resolve the North Trail dispute because the intervention did not actually result in a face-to-face meeting of the parties or in resolution. Rather other landowners with trails, local trail users and other interested parties attended a Trails Mediation Workshop to sort out their understanding of the issues and contribute input to the overall effort to resolve the North Trail dispute.

Because direct one-on-one dialogue did not occur (although such had been planned for in the design of the workshop), one might surmise that this intervention was not a mediation or conflict resolution process. I disagree for several reasons. The context for dialogue may not have been appropriately suited to all parties, but did manage to elicit the means for resolving the dispute in one of many forays of discussion.

Even though the dispute may not yet have been resolved, the intervention was a dispute resolution intervention. The dispute was not resolved for a range of reasons discussed further on under “Reflections.” These reasons include ripeness, knowledge and resources for engaging the process. The case is complex and the amount of time allocated to its resolution has not allowed the dispute to become sufficiently ripe for resolution. That alone however does not disqualify the intervention as a dispute resolution intervention.

Mayer (2004:35-38) describes conflict resolution in the ways that were employed in the design and practice of this EDR/PAR intervention. The intervention had “a focus on integrative potential” in the conflict. The intervention used a “needs-based approach” with “a focus on communication.” The intervention had “a commitment to empowering disputants.” The EDR/PAR intervention was “process focused” and “system focused.” The PAR approach to EDR resided in creating sustainable social outcomes. PAR allowed and will continue to allow participants within and without the community to understand that “[c]onflict lies embedded in a system of relationships, needs, power exchanges, and historical dynamics” (Mayer, 2004:37).

That said, additional distinctions have been made in the Introduction and through the thesis in order to avoid confusion about the lexicon used to describe this particular EDR/PAR intervention. See Table 19, Lexicon for the EDR/PAR Intervention, in the appendix.

### **Case Review and Intervention Type Criteria**

In addition, I’ve examined the case on the basis of the critique that it was a community dialogue effort rather than a dispute resolution effort. I’ve identified seven criteria based on the case

itself that qualify the intervention type as dispute resolution versus for instance, community empowerment. If it is not one, it does not necessarily have to be the other. The intervention can be both EDR and PAR with a main thrust of EDR. These criteria include the origin of the intervention, the community's capacity or awareness about the need to respond constructively, the vision or goal that the community holds in allowing an intervention, the complexity of the situation, the actual activity types that were performed, the goals of the convener or facilitator, and the types of milestone events that arose.

The following is a review of the seven intervention-qualifying criteria as reflected in the North Trails dispute case:

*Origin of the Intervention* – The intervention arose in response to a dispute over access to a local trail. Hence, dispute resolution process would be a natural label for the intervention. In addition, the issue and dispute center on natural resource use which falls under the rubric, environmental, as conventionally employed by the environmental conflict resolution field.

*Complexity of Situation and/or Issues* – The issues and context within which trail disputes arise are complex. (See Diagram One-A: Understanding Trail Access by Locals.) Types of access are quickly evolving for technological, social, economic and political reasons. In addition, the technical ramifications of landowner strategies to cope with trail access and the community impacts of loss of trail access are diverse and complex. The complexity of the dispute benefits from a dedicated EDR intervention that sets up a foundation for resolution by sorting out complicated details.

*Community Awareness, Capacity and Desire to Respond Constructively* – In this case, the Gold Hill community is familiar with mediation as a social tool for resolving conflict. Many locals hold values and are well-versed in non-violent action, peace-building and conflict resolution. The community wanted to find a long-lived solution to a trail dispute crisis that would be useful to and sustainable by all parties. The sustained interest and participation of locals in addressing threats to the local trail system are also indicators of desire and capacity to respond to a crisis constructively. The community also had a general awareness that the issue was recurrent and needed exploration.

*Resulting Community Vision or Goal* – Independent of my intervention as a coordinator and facilitator of a mediation process, the local community set its sights on a mediated outcome based on a solid understanding of the issues and possibilities. Locals wanted to reach mutual understanding about underlying interests in positions held. This goal is a foundational principle in mediation and often referred to as interest-based bargaining (Fisher and Ury, 1987). What are the integrative possibilities in the conflict that “does not require one party to sacrifice its essential interests in order for another party to meet its [essential interests]” (Mayer, 2004:35). The community had a sense of responsibility to pursue an obligation to find common ground.

*Facilitator or Convener Goals* – I bring a particular sensitivity to colonial influences on a local way of life and resource use. I discussed with Mayer the need for diversity in the practice, the energy of advocacy for social justice and the importance of leveling the playing field in ensuring a sustainable outcome. It is perhaps this sensitivity which has brought me to this effort to resolve the local trail dispute and really understand it. The use of the label EDR reflects a search into improving EDR not only on the basis of my “student” observations, but on the basis of expert critique as

expressed in the Introduction to this Thesis (Mayer, 2004; McCloskey, 1996; Britell, 1997). I wanted to engage conflict resolution in which advocacy is not shunned. I wanted to deeply understand the dispute in order to “help” resolve it. I wanted to understand peaceful transformation of hierarchical, structural imbalances. I wanted to rectify inappropriate uses of power, no matter how inadvertent that misuse.

*Types of Milestone Events* – The triggering event (an altercation on a local trail) arising from changes in ownership and recreational use of the area, mobilized a response, administrative and financial support of a dispute resolution event (the Workshop) by Boulder County Commissioners, the Trails Mediation Workshop event, the creation of the North Trail Bypass, an effort to deepen the knowledge base for resolving the dispute, and the gathering at Consultant to China’s house to create a fertile social ground for positive affect and relations between disputants.

*Intervention Activity Types and Purposes* – The activities of the intervention were intended to create an environment for resolution. The activities of the community as accomplished tangentially and directly in the name of a dispute resolution process are in fact certainly efforts to resolve a dispute. Efforts included attempting to engage in direct dialogue, and in alternative communication forms that might allow a message to heard and understood indirectly, and providing opportunities for community-based collaboration and cooperation (Trail Committee meetings, mapping project, Trails Mediation Workshop) to understand the factors contributing to, and possibly capable of, resolving the North Trail dispute.

### **Stakeholder Empowerment**

The goal of the intervention was community empowerment for all stakeholders in engaging a dispute resolution process. The community as empowered does not reflect just one side of the issue, but all parties. Community empowerment as defined in this case is not about empowering one set of individuals against another. It is not about the underclass as empowered over the ruling class.

The Gold Hill EDR/PAR process provided information that addresses concerns for all parties, not just the landowner or the locals that want access. Even though it appears that the New Landowner is satisfied with the outcome, the presumption remains that the outcome is not ideal and that the landowner may simply not have the time or resources to engage the complexity of the issue. He may simply not see the situation as clearly as could be. The intervention as it was left in Phase One, did not communicate to the interests and process needs of the New Landowner. Phase Two outcomes reveal to participants how their input affected the information base for the resolving the dispute and understanding the issues.

Community empowerment through organizing and PAR serve to level the playing field in support of reaching the goal: dispute resolution. Community empowerment and dialogue support a mutual understanding. Without empowerment, the community could not have articulated its concerns and sought actively for mutual understanding that supports conflict prevention and resolution. Without empowerment, the local community would have not been able to strengthen its capacity to understand and co-create its own destiny.

PAR is a means for community empowerment through social relations and knowledge. The root of empowerment is of course, power. Power takes multiple forms. In this case, PAR assists in two forms of power: knowledge and relational capacity. Knowledge is expertise and can lead to influence in making decisions about the future. Relational cooperation within a community or in relations outside the community can also lead to influence over outcomes. Many needs must be met in order to reach stable outcomes.

Another reason for retaining the EDR framework for understanding this case is that although the process included community empowerment through the use of PAR, the purpose of the PAR was to support a dispute resolution process. The reasons for using PAR have already been explained and include understanding the issues, providing option for resolution and creating incentives to negotiate in order to result in a stable social outcome for the community.

To further clarify, this intervention was a dispute resolution process, rather than community dialogue process. The goal of the intervention was resolution of a dispute. The goal was not to have a community dialogue. In other words, the process engendered by the intervention ends once the community reaches resolution; the process does not end once the community has an opportunity for dialogue.

In addition, the use of the word “workshop” rather than “dialogue” to describe the events of March 15 and 16, 2003 was given substantial consideration at the time. Dialogue implies two sides talking something out, whereas the Workshop was more about a non-threatening opportunity to set up the terrain for talk without precluding direct talk. A workshop is more about understanding concepts either about trails or about dispute resolution. A workshop is more relational and can serve as a base for gathering information.

## **PARTICIPATION IN THE INTERVENTION**

### **Importance of Participation in an EDR/PAR Process**

Participation by all stakeholders is critical to resolution. Without participation, a stable social outcome is not possible. The level of influence over public choice by those affected in this process has not been strong due to the failure to have all parties involved. Nevertheless, the intervention empowered stakeholders, but does not yet create an adaptation of social conditions or customs to deal with new threats to a common pool resource.

As the coordinator of the EDR/PAR intervention, I actively searched for and facilitated the involvement of those potentially affected. Effective participation involves participants in defining how they participate; the EDR/PAR intervention provides participants with information and structures from which they can benefit to participate in a meaningful way.

PAR supported a relatively strong level of positive and organized participation, as opposed to crisis responses that seldom create anything other than rancor with little concrete result. Other organized initiatives in Gold Hill have included the formation of historic zoning guidelines and the formation of the Gold Hill Town Meeting, Inc. to administer town affairs. The volunteer fire department is another effective organizational tool for meeting community needs. This latter group has developed into a stable organization after some early problems with norming.

Diagram 3, Spectrum of Public Participation, provides a couple of frameworks for comparing projects or interventions on the basis of the level and kind of participation of stakeholders. One perspective for looking at public involvement relies on the core values of the International Association for Public Participation (IAP2), a professional association of public participation practitioners. Another is Arnstein’s “ladder of citizen participation.” These frameworks for understanding the level of influence that local people have in political and public decisions can be brought to bear in the interplay between Boulder County and Gold Hill locals

Boulder County was involved in the process as a funding agency and supporter of a mediated solution. The County also provided expert legal advice concerning aspects of state law that affect access to private and public land. The site plan review process was the primary event in which County administrators officially heard the concerns of locals. The R&PPA proposal was another. In

the latter two forums, nothing substantive has been done thus far by the County to remedy the North Trail dispute or understand the potential impact of a county-wide trail system and mitigate that impact. The *Community Trails Mediation Guide* may provide an administrative level of understanding that can prevent disputes through the formulation of an informal policy. The *Guide* may serve as a tool for social change. Social movement theory may also explain this community initiative to create a level playing field in resources that are brought to bear in understanding both public and private land trail disputes and resolving them.

The EDR/PAR intervention could be categorized as one of collaboration (IAP2, 2000), where locals seek the advice of experts or administrators. Locals sought advice on trail access in preparation for eventual resolution of the dispute or in preventing future disputes. The direction of advice seeking is from local to county rather than from county to local. “Look to citizens for advice and innovation in formulating solutions and incorporate your advice and recommendations into the decisions to the maximum extent possible.” (IAP2, 2000)

With regard to the purely local initiative, the process would fall into the most participatory level of involvement naturally, by the scale of the project and the sole participation of locals. It would still remain important to be deeply inclusive. If resolution were to occur, participation by locals would be at the level of empowerment.

Arnstein’s ladder can be adapted to understand community-based decision making. Based on Arnstein’s ladder, the EDR/PAR process thus far might be labeled as consultation; resolution of dispute has not occurred and citizens are not in control of the local trail system. Once, and if, resolution does occur, the intervention may be clarified as one of citizen control (Arnstein, 1969). Unless Boulder County incorporates code changes to prevent local trail disputes, the county’s role will have served solely to placate, which “Allows citizens to advise or plan ad infinitum but retain for power-holders the right to judge the legitimacy or feasibility of the advice” (Arnstein, 1969).

The proposed local policy on trails shown in Volume One of the *Community Trails Mediation Guide* may be one step in the direction of site-specific citizen control of both public land recreational plans and local community integration and ecological health.

### **Participation in Phase One**

Forty-five stakeholders participated in Phase One of the mediation process. Stakeholders are parties that have an interest in a social situation and its outcome. This indicates strong interest and involvement by locals in Phase One of the process. Those forty-five people participated in the process either by being part of the Trails Committee, attending the Workshop, taking part in oral history or informal interviews, facilitating the Workshop or reviewing and commenting on the *Trails Mediation Guide*. Thirty-four percent of resident landowners participated in Phase One of the EDR/PAR process. Non-resident landowners did not participate other than by letter, providing an oral history of use of the North Trail. Eight (20%) non-resident stakeholders participated.

Six of the Trails Committee members were active members in terms of commitment and regular volunteer effort. These people were Dedicated Trails Volunteer, Consultant to China, Trail Runner/Landlord’s Wife, Engineer/Bike Enthusiast, Tree Trimmer, and Catalyst.

Locals participated in facilitating and attending process events like the Trails Committee meetings, town meetings and the workshop. Fourteen people attended Trails Committee meetings. Trails Committee meeting attendees were Doctor/Neighbor, Consultant to China-Husband and Wife, Stain Glass/East Trails Advocate, Landlord/Best Friend and three others. Several others helped with hosting a teens project and preparing food for the Trails Workshop. This latter person, General Store Cook, was paid. Others expressed interest in the activities of the group and were supportive, but never attended any meetings.

Diagram 2.  
PARTICIPATION IN PHASE ONE

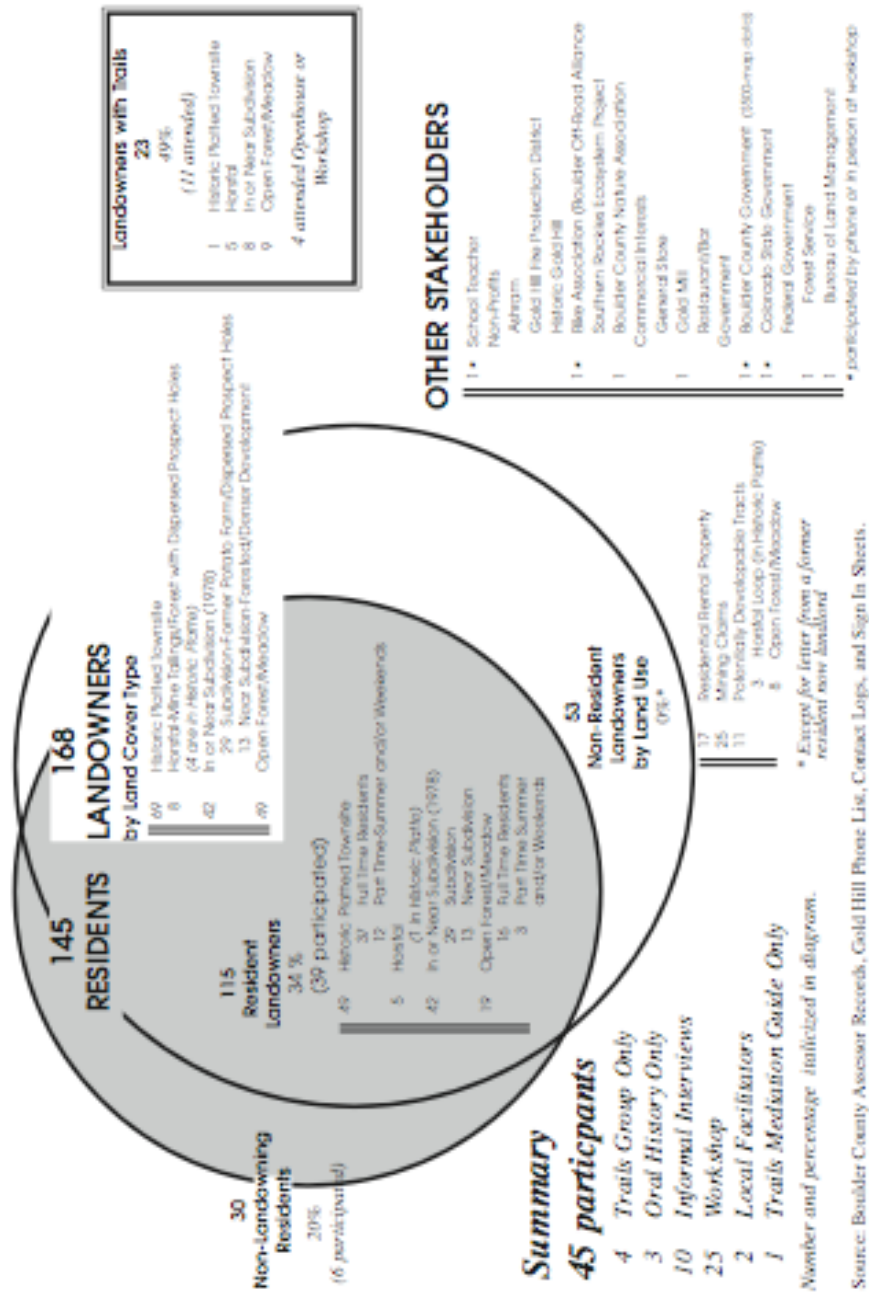




Diagram 2 (on the previous page), Participation in the Phase One, presents the distribution of local involvement by type of activity. Specifically, the diagram shows the number of participants in the various activities of the EDR/PAR process during Phase One. The participants are identified by residency status and land tenure.

Of the 168 private landowners in the Gold Hill study area, only twenty-three have trails crossing their land. Of those the majority are on open forest meadow or in the five acre subdivision of the old Pughe potato farm. The venn diagram shows that half (eleven/49%) of the twenty-three landowners with trails participated in the EDR/PAR process. Four of them also attended either the Open House or Workshop. The Open House preceded the Workshop.

Four landowners with trails attended the Workshop or the Open House. See specific names in Case Design under participation/authorization. All told, twenty-five locals attended the Workshop. Reminding and informing community members about the event was important to encourage strong attendance at the workshop and to ensure that all the parties to the North Trail dispute participated. Despite being unsuccessful at this latter task, phone calls by me and other Trail Committee members to everyone on the Gold Hill phone list made a difference. Other important tasks to ensure attendance were making sure everyone felt safe and overcoming a history of distrust in special meetings of town members. The flyers and the name change for the event, a Workshop, rather than a Dialogue were all intended to set the stage for a friendly, non-confrontational event.

Prior to the Workshop, Summer Dude Ranch for Children Owners and Professional Ecologist had provided their opinions and concerns to Trail Runner/Landlord's Wife. Long-Distance Runner/Hospice Worker provided insight and guidance as well.

Finally, participation may have been better if I had not needed to change the date for the March Workshop from March 8 and 9 to the weekend before the seven foot snow fall that hit Gold Hill in the following days. On the days of the Workshop, the weather was beautiful.

Table 13, below, presents the activities of locals in Phase One of the PAR effort. Catalyst spent many hours in trail map research and legal issues. Trail Runner/Landlord's Wife spent twenty hours searching for maps and interviewing neighbors. GPS work done by locals included five hours by Dedicated Trails Volunteer and four hours by Earth Friendly Trail Design and Maintenance Volunteer. Patient Cartographer spent thirty-six hours of pro bono time at the engineering firm of Engineer/Mountain Biker.

Dedicated Trails Volunteer spent seventy-five hours over two years scoping the alignment and creating the initial trail imprint. Earth-Friendly Trail Design and Maintenance Volunteer spent six hours or so assisting her with alignment, erosion control, and redirecting a couple of switchbacks. He obtained a book on low maintenance ranch roads (wildlandsolutions.com). He used his boot to scrape trail borders to encourage water to run off, rather than down, the trail eroding it. In addition, some rocks that had been placed to show the trail were removed in order to allow water flow at key points.

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Table 13.

INDICATORS OF PARTICIPATION

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The hurdles of date changes perhaps dented attendance more than we anticipated.

M1-ON ATTENDANCE

At least five people specifically stated they could not come due to the change.

M1-ON ATTENDANCE

M1-TASKS DONE BY TRAILS GROUP MEMBERS

Distribute flyers

Make phone calls and send out emails

Coordinate for child care

- Plan an FAC
- Offer time at the school reunion
- Make an incident log
- Share their perspectives
- Get historic maps
- Interview some landowners
- GPS the trails
- Make the maps
- Call back with questions
- Attend meetings
- Make a donations box
- Make posters on local ecosystem
- Fill out Plant Inventory
- Give contact names
- Help with thinking things through
- Create Statement of Accounts
- Come to facilitator meetings

Source: Table 24, *Reflections on Facilitator Role, Process and Outcomes – Phase One*

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## **Phase Two Participation**

Participation in Phase Two was much lower than in Phase One. This can, for the most part, be attributable to the activities of the three primary local coordinators/activists: myself, Dedicated Trails Volunteer and Catalyst. Catalyst had moved away from Morning Sun and was heavily involved with writing projects with his new wife. Dedicated Trails Volunteer built the bypass as her contribution. I was involved in preparing the PAR results.

Another local, my former boyfriend, provided a great deal of food for thought and financially supported me during this next level of research. His contribution to the content of the *Trails Mediation Guide* is substantial in terms of concept generation and review. I also rented out and later refinanced my house. Non-local indirect participation could be attributed to my other funders. My mother and step-father also supported me financially while I worked on the thesis and the final version of the *Community Trails Mediation Guide*.

## QUALITATIVE REFLECTIONS ON THE PROCESS AND OUTCOMES

This section presents reflective inquiry for use by practitioners and practice-oriented academics. It is expected that this practice-oriented review of the intervention will provide directions for further academic exploration and for improving the practice of an EDR/PAR.

Reflective inquiry is a cyclical process of self review by a practitioner. Reflective action inquiry is a natural process of thoughtful action followed by reflection which is again followed by thoughtful action. Phase Two of this intervention is a result of self-inquiry in acting, describing, reflecting, planning and acting with thoughtfulness again. The act of writing the thesis also contributed to deepening the opportunity for reflection.

## **Landmark Events and Turning Points**

### ***The Events***

The milestones in this case include the fencing of the new landowner's land, the physical barrier to passage on the North Trail at this fence line, the triggering altercation between the New Landowner and Catalyst, the formation of the Trails Committee, the decision to change coordinators from Catalyst to me, instances of other trail disputes in the study area, the official support from the Boulder Board of County Commissioners (BOCC), the activities of local children on ecosystem

awareness at the local elementary school, the Trails Mediation Workshop (March 15 and 16, 2003), the lack of agreement (see below), the interest of new trails committee members, the R&PPA BOCC hearing, the site plan review BOCC hearing, the distribution of Versions Three and Four of the *Trails Mediation Guide* in 2004 and 2005, and the gathering attended by New Landowner at Consultant to China's home.

The key turning point in these events was the disappointing failure to resolve the dispute during or prior to the Trails Mediation Workshop and the site plan review process. If the dispute had been resolved, I would not have engaged in the next level of research completed in Phase Two. It is hoped that the adoption of a town policy on trails as presented in Volume One will prove to be another key turning point in preventing and resolving trail disputes.

Other important events include the Gold Hill town meeting approval of a mediation process to resolve the North Trail dispute, the Trails Mediation Workshop, the lack of resolution of the dispute by the time of or just after the Trails Mediation Workshop, and the construction of the North Trail Bypass. Locals want a way to get from the Gold Hill town site to the Switzerland Trail in a wildland forest setting. The North Trail offered that opportunity and still does via the constructed bypass.

Other disputes in the study area were resolved without direct involvement from the Trails Committee. By the end of Phase One, the community had gained insight into:

- Landowner interests;
- Knowledge of old trails;
- Insight into legal matters; and,
- The meaning of "local" (See presentation in Ottawa, 2003).

### ***Ripeness for Resolution and Non-Agreement Alternatives***

The primary expected outcome of an EDR process is of course agreement. Innes (1999:634) refers to this as a first-order outcome. She also describes a range of second-order outcomes. An agreement to resolve the North Trail dispute was not reached. Evaluation of second-order outcomes suggest the EDR/PAR intervention may have served better to prevent dispute than to resolve existing dispute, although chances remain that existing dispute can be resolved. At the time of the Trails Mediation Workshop, the dispute was not ripe because there was not:

- Recognition of all parties as co-equals
- Sufficient power to influence
- Ability to commit

Sense of urgency (Cormick, 1980).

A continuum of stable outcomes is possible, ranging from long-term community relationships to simply resolving tensions through a dynamic which does not require as much interpersonal involvement. Paralleling the outcome continuum is a tactical process continuum, ranging from a process that focuses on mutual interests to one that focuses on individual needs. Quite simply, the outcome of the mediation depends on the process.

Second-order outcomes include attendance-participation, the mood of the meeting (participant response: "very nice"), progress towards mediation and increased awareness (Innes, 1999:647-654). In this intervention, new understandings were reached with the disclosures by three landowners with trails. One agreement in particular was the formal disclosure of Consultant to China's sixty year policy on trail access to his property. The three landowners said:

[I have a] corral with four trails emanating from it.

3/31 L16 PW-PERMISSIONS

Private property but local ok. No time to get involved really.

3/31 L17 PW-PERMISSIONS

I like [North Trail] bypass option.

3/31 L15 PW-SOLUTION

Although the EDR/PAR intervention did not resolve the North Trail dispute, it did result in outcomes associated with the dependent variable as presented in the Causal Network (Diagram 1). These include no other overt attempts to prevent access to trails, the maintenance of shared customs of trails use on other trails, tacit or explicit permissions between individuals and a forthcoming reinforcement of local customs – a local policy on trails. Since the North Trail dispute appeared intractable, I put on my to-do list the following:

- Type up input
- Revise Booklet
- Thesis
- New Trail Group Members
- Follow up with Landowners-send out letters to those on assessors list
- Another Workshop?

#### M1-NEXT STEPS

It may be that conditions for ripeness to resolve the North Trail dispute will exist with distribution of the sixth edition of the *Community Trails Mediation Guide* in the summer of 2006. The PAR effort could provide the foundation for ensuring a sound, wise and stable outcome. The PAR results as contained in the latest *Trails Mediation Guide* may themselves offer a new turning point. The PAR results may “end stalemate” (Innes, 1999:647-654) by offering the renewed means for:

- “A community to respond more creatively to change and conflict;”
  - “Feasible proposals to be produced;”
  - “A high quality, flexible and adaptive agreement;”
  - “Social stability;” and,
  - “Practices and institutions that are both flexible and networked.”
- (Innes, 1999:634)

Now, in 2006, it has also become apparent that one root of the dispute could simply be the reactionary responses of two individuals on a trail, the New Landowner and Catalyst. Dialogue and mutual understanding between those two individuals could go a long way to resolve the dispute. It would allow for a sense of reconciliation and reparation.

### **Lessons Learned in Facilitation**

#### ***Personal Observations and Experience***

This next section covers lessons about mediation of a conflict with the characteristics of the North Trail dispute, a dispute over access to the landscape in a non-resource-dependent community near a large metropolitan center but situated in wilderness. The section is a litany of my confessions of ill-judgment or ill-action and what I would do differently in the future.

“Reflective self-evaluation by facilitators can be a useful component for a larger effort involving other types and sources of information.”

(Innes, 1999:671)

Participant observation is a form of interpretation between cultures. My efforts in Gold Hill could eventually link wilderness advocates, recreation planners and administrators of land use code to important local phenomena. Participant observation implies a certain outside-ness. I adopted that stance both in the dispute resolution process and in the research on trail issues. I was in seclusion from primary forums of community for several years. Such seclusion allowed me to write about the community and the phenomena of trails.

Gold Hill has been fascinating to me for over twelve years prior to the disputes over trail use. By having gone to graduate school in Michigan, I have been able to obtain a distance from the community which has helped in my ability to see it anew and appreciate its unique assets.

Trails Group members have an average of nineteen years of residency with many locals also having experiences of living elsewhere. Still, all of us, unlike participant observation, are ongoing members of this community. It is my hope that with all of the data in the *Mediation Guide*, locals can come together, including me, to decide on how they would like to proceed in resolving local trails disputes through mutual inquiry.

My role has been to understand the parameters of the conflict and support the invention of options for mutual gain. I sought to understand the community, to understand trails, and to understand the eco-system. I sought to sustain dialogue and build understanding, important aspects of PAR, and opportunities to discover new ways of socially constructing reality. Of course, my personal engagement did also sometimes impede my ability to be neutral.

The practical experience of conducting this research as the coordinator of the Gold Hill Trails group was invaluable. I learned that the scope of a project like this one is too vast for any one person to tackle. I learned how to gauge future efforts in comparison to the scale of this one. By dividing its length in time and hours, I have a useful scale with which to measure. If it hadn't taken so much time, I wouldn't have had such a useful scale. This one will provide a solid foundation for proposing and conducting interventions in the future.

### ***Overall Process Review***

#### *What Would I do Differently?*

The PAR and mediation effort did not come across as neutral or necessary. Although I suggested that the Committee choose a neutral task like building relationships around trails, the process did not appear neutral to those who most strongly supported private property rights. It was hoped that aligning with a relationship-building, research-oriented purpose would perhaps encourage New Landowner to join in discussions. The focus of course remained to resolve the North Trail dispute, no matter how roundabout a way I might present the suggested intervention. Resolution did not prove to be a neutral goal.

In a future intervention, I would make a concerted effort to present my role and expectations for resolution in terms of community stability and in terms of individualized and catered research to meet the needs of landowners with trails.

I don't think I did a good job presenting the concepts I intuited early on or adequately explained my intervention goals. For my first meeting, I prepared a precise presentation of what I proposed, but this proposal was based on a literature review rather than my own language and wisdom.

During the transition to my leadership in coordinating the Trails Committee, a neighbor balked at the change. Her lack of support was particularly troubling to me. I was worried that she might disrupt the process which she never openly did. I received feedback from others that what I was attempting was more than was needed or too complicated. It all appeared much more complicated than I intended despite my repeated efforts to frame the process in easy-to-understand terms both in meetings and in flyers. Of course, some people followed my lead and as a result, the process did go forward. Still, I think I could do much better.

In a future case, I would make sure to have a mentor to review my proposed actions. Because I have learned a great deal in this EDR/PAR intervention, I would likely be more able to naturally express my intentions without over-rationalizing each point.

I also learned something critical to resolving dispute. The options that stakeholders have available to them can vary in reality and in perception over time and even within a group that appears to share a common BATNA.

I should not have aligned, indirectly or not, with Catalyst. This early alignment in principle may have jeopardized my neutrality. I appreciated his support for my attempts to resolve the dispute

and coordinate the effort. If Catalyst thought that strategically my suggestions made sense, I wonder in hindsight if that truly served to resolve the dispute.

In the future, I will consider community-wide outcomes more than the needs for justification or sense of indignation. If Catalyst had been excluded, there may have been more room for resolving the dispute and restoring access to the North Trail.

In coordinating the Trails Committee, I attempted to shift the focus from “the people to the problem” (Fisher and Ury, 1981), from personal animosities between New Landowner and Catalyst to a sustainable solution on the North Trail. I wanted to create every opportunity for mutual understanding to occur, but striving to attain a plateau of long-term relationship was not necessary.

In the future, I would distinguish levels of desired outcome in terms of community benefit and in terms of individual needs. I would also make room for direct personal engagement between stakeholders like Catalyst and New Landowner. The reparation of that relationship could have gone a long way to set up the foundation for resolving the North Trail dispute.

In an early attempt to increase involvement in resolving the dispute, I suggested we change the name of the committee to group. I thought that an appearance of informality might encourage certain locals to participate more freely. This backfired. The perceived legitimacy and neutrality of the social body were damaged by this name change.

In the future, I would not change names of an officially functioning body without testing the name change in a concerted and systematic fashion. I would devise a means to make sure that other connotations than those intended do not emerge with a new name.

One of the problems I faced in conducting this intervention was being too personally involved with local residents. I was a participant observer not only in terms of ethnographic understanding of trails issues, but also in terms of needing to act in an “operationally neutral” fashion with regard to conducting the intervention. I was sometimes affected by town politics or a perceived lack of support by a few individuals. I may have simply been too close to the situation as a novice conducting a community-wide intervention process, while also being a member of the community. It was hard to maintain the boundaries I needed while also ensuring good rapport.

On the flip side, being local afforded certain advantages. I would not have had the opportunity of conducting the intervention without being a local. Being a local afforded me a sense of trust and credibility that I would not have had otherwise. I had a good understanding of the local experience and could in a very committed way advocate for resolution.

In the future, I would make sure to have a mentor, but also to share the load for mediating a case in which I was also a community member. I would make sure to delineate boundaries more concretely, not be attached to the outcomes that serve my own ends (like having a testing ground for my own ideas and working towards a MS Thesis). I would also make sure to be clearer in expressing my intentions and goals in the intervention.

It was confusing to me to write the MS thesis, while conducting the PAR and the EDR and also producing the *Trails Mediation Guide*. I did much more work than I needed to receive an MS. I was confused about sorting out original research in terms of the trails issues and the PAR in an EDR intervention. I aimed too high and over-taxed my capacity to deliver.

“He[/she, the researcher] has been sufficiently immersed in this world to know it, and at the same time has retained enough detachment to think theoretically about what he has seen and lived through.”

(Glaser and Strauss, 1967:226)

In the future, I would never make this level of effort again. I barely survived on many levels and simply would not put myself through it again. It was too costly to me personally. At the same time, I expect that there will be personal benefits in terms of satisfaction with a project that I believed in. I would try to get funding and have more local help with both the research and the intervention. I would share the load.

I also had a considerable amount of work to sort out my own inner understanding of peaceful action without attachment.

In the future, I will spend more time in insight meditation as part of sorting out my inner workings, around conflict in general and the particular conflict at hand. Disentangling my role and allegiances would go a long way to make room for resolution. I appreciate and would study more the work of non-violence social justice activists like Thich Naht Hanh and the Dalai Lama. I also would spend time referring to the more detached works of those meditation teachers that are not activists like Suzuki Roshi (*Zen Mind, Beginner's Mind*) and Jack Kornfield (*A Path with Heart*).

I had an initial conflict of interest with the Seller's Agent that I was never able to overcome. He was friends with a neighbor who has since passed away and with my ex-husband. Those two affiliations affected my opinion of Seller's Agent detrimentally: one affected me in terms of trying to help a neighbor who drank too much, and I feared drank with Seller's Agent; the other, having to do with a divorce settlement that went awry due to input from Seller's Agent – a real soap opera. In addition, other stories and town gossip affected my ability to see the best side of Seller's Agent.

In the future, I would spend more time attending to his opinions and converting him into an advocate of the process. Rather than being a contradictory influence, I could align with individuals like Seller's Agent who serve as gatekeepers to create opportunities for resolution.

Old West/New West cultural variation is a factor in positioning and creating the context of the dispute, but it has nothing to do with resolving it fundamentally. I was not able to realize this fact until late in the dispute resolution process. The sixth edition of the *Trails Mediation Guide* reflects this recently gained awareness on my part.

In the future, I would make sure to see beyond typecasting and into the chance to see one another deeply as human beings deserving of respect, not holding emotional wounds to explain why the other is as he is. I would not spend so much time explaining two divergent views of individualism and community; rather I would actively look for fundamental common ground as human beings in the same community.

Finally, I have had to opportunity to converse or share information with New Landowner on two occasions: one at the site plan review hearing in late 2003 and the other in a local grocery store when we were standing next to each other in the same line. In both cases, I was preoccupied with other matters than my thesis and the EDR/PAR intervention. I did not have my wits about me to speak coherently to the needs of the New Landowner. I was very ill-prepared with a rush of jottings in the hour prior to attending the site plan review hearing. I had not touched the trails material for a couple of months and what I had completed in research was of such a broad nature it was difficult to apply it relevantly to the moment at hand.

In the future, I would make sure to have prepared a sort of background script for just such occasions. At the site plan review hearing, I should have addressed my comments to the New Landowner and not to the Commissioners.

#### *What Could Others Do Differently?*

The chance encounter of neighbors while on the private-land segment of the North Trail started the whole set of events. The segment is contested in the heart of both parties, one who has walked the land for many years and a newcomer who now finds home on the land he recently purchased.

In reviewing the list below, one lesson might be that if the neighbor of New Landowner had kept his dog on leash, the attack encounter with New Landowner's trained and highly protective dogs may not have resulted in the emotional consequences and reactions of both parties. Having dogs involved provided an excuse to act out a dispute over land access. Catalyst held a lot of presumptions and should have apologized.

The Trails Committee was not perceived as a neutral body. I cannot address the actions of members while not in my presence; still more effort could have been made to ensure that their

statements regarding trail access were aligned with their involvement in a neutral body with a neutral role.

In the future, I would spend more time making sure that the Trails Committee was coordinated around what they expressed in other settings. I would have supported an effort to coordinate the Trails Committee members in arguing that they were the right group to address the issues for a very clear set of reasons. These reasons were presented to, and accepted by the Committee in one of the early meetings:

- The mission is to build relationships in the community around trails.
- The Trails Committee is putting on the workshops to address trails disputes and emerging trail opportunities.
- The committee is operationally neutral, incorporates feedback and supports shared learning about issues affecting trail quality.
- The committee is an official committee of the Gold Hill Town Meeting.
- The trails committee works with the County when such cooperation also meets the interests of Gold Hill residents. One common goal is de-escalating trails disputes and finding workable long-term solutions.
- The trails committee is a research-based mediation project in Gold Hill.

### ***Rapport with Stakeholders and Co-Facilitators***

The ethics of mediation are found in the Ethical Standards of Professional Responsibility (Moore, 1996) prepared by the Society for Professionals in Dispute Resolution's (now the Association for Conflict Resolution). Local interests, future interests and remote interests must all be equitably involved in deliberations for the process to be called inclusive and collaborative. Conveners and mediators must not make any assumptions regarding stakeholders and interests prior to deliberations. The process must remain flexible to incorporate previously under-represented parties and evolving interests that might not be initially apparent to the convener or the mediator. Flexibility, co-learning and acceptance are central to the process. Mediators must be able to confront their own inadequacies and socially-constructed veils, while acknowledging bias towards any institutions involved in the dispute. When conflicts of interest arise, the group might then be called upon to rectify the selection of the mediator or come up with a remedy that allows the existing mediator to keep working.

“I also have come to realize that your belief that I might serve well as a facilitator may not be held by all and I would like to build first a level of confidence suitable to the task around my ability to be neutral and competent. Also, this same neutrality and competency on the committee overall will be demonstrated by the representation of all interests/stakeholder groups on the committee, and the ability of the committee to research the parameters of the issues and transfer knowledge about these parameters: geographic, ecological and social. The shared learning about the problematic parameters of recreational use by Gold Hill folk of Gold Hill vicinity trails then can shift into the options/solutions and learnings about those.”

“I will bow out of any activist yearnings (albeit I hold an interest in trail use) and serve as an activist for a mutually agreeable exchange and hopefully a non-litigated solution to the trail use question in and around Gold Hill. It will be up to the participants to demonstrate by their presence the belief that I can facilitate with neutrality. It can be argued that an outsider should be engaged for this purpose...still there is the expense and in any event all facilitators hold biases. I will work actively to not allow mine to impede the process.”

- Facilitator Email to Catalyst (10/2002)



In order to ensure my own “operational neutrality” I created a feedback log. This log is a source of qualitative evidence presented in the Phase One Literature Review-based assessment that follows later in this Chapter. I also organized a series of discussions with those locals that would help with facilitating the Workshop. Those discussions centered on ensuring that we were on the same page, that we all had a sense of how we would handle difficult situations, and that we were ready to support local capacity to facilitate dialogue and support an ongoing social safety valve at difficult moments in the life of the Gold Hill community.

### ***Phase One Process Improvements***

#### *What would I do differently?*

I spent a great deal of time trying to mobilize and to coordinate people. It bogged me down and prevented me from staying on top of my independent research tasks. I tried to turn over coordination responsibilities to others, but that did not work out. I will not go into all the details, but suffice it to say that I worked full-time keeping everything on track and moving forward in the few months prior to the Trails Mediation Workshop.

In the future, I would plan differently to save time, although I learned a lot doing most of the work to prepare for the Workshop. Of course, this made sense to me because I was the one who had thought up the specifics and was a responsible party. I really believed that what I had undertaken would work.

The working document for the Trails Mediation Workshop ended up being just a bare-bones sketch of what I had envisioned. Having run out of time just before the Workshops on Saturday morning, I stayed up all night on Thursday putting together a document that was only an outline of what I imagined. Other people were going to help with the Guide, but when the school-closure issue heated up, they ran out of time.

In the future, I would want to serve only in a consultant position or simply let go of process design so that others might have more buy-in and devotion. I would make sure to distribute responsibilities in such a way that any emergent threat could be absorbed by not having too much work piled up on any individual.

I tried to gather information through generic flyers at the Gold Hill General Store. In the future, I would mail out a sort of open-ended survey to locals. At that time I was overly opposed to the use of conventional surveys for data collection.

At the Workshop, some influential stakeholders on the Trails Committee were noticeably absent. Owner of Morning Sun and Trail Runner/ Landlord’s Wife were not present. It bothered me that they, who had previously been so involved, should choose to not support me and not attend. Trail Runner/Landlord’s Wife had a strong interest in managing the process and had good ideas about safety for participants that I did not fully understand.

During the scheduling and design phase for the Workshop, she and I had a run-in over its design. Trail Runner/Landlord’s Wife wanted to make sure that the social setting made her feel safe. She wanted to organize meetings with landowners with trails without necessarily initially involving the whole community. This strategy may have served to integrate New Landowner.

In the future, I would hope to not take this failure so personally. I would also make sure to listen more carefully to suggestions and concerns, in order to improve the process and encourage buy-in. My perception of her recommendations was tainted by previous experiences with her in which I did not find her course of action or emotional involvement commendable. I would in the future learn to disassociate such attributions from the substantive matters at hand – as Fisher and Ury (1987) suggest.

Fortunately, Trail Runner/Landlord’s Wife also needed to spend time on the school-closure issue, but did help with children’s activities for the Workshop. She coordinated the hire of a childcare person for the Workshop. She also helped arrange for the beautiful “People and Nature” flags that flew on the two days of the Workshop.

For the workshop, I did not make the authorization procedure sufficiently clear on the sign in sheet. For instance, Consultant to China is not opposed to presenting his approach to trail access on the land that he's owned for sixty years. Still he did not check off his name on the sign-in sheet at the Workshop. All participants checked off their names except Consultant to China and Forest Steward. Forest Steward was however, on the Trails Committee for trail maintenance, an information relay for a local landowner with a closed trail, and was later involved in the lion-monitoring project. On the second day of the workshop, one of the retired teachers did not check off her name in approval either.

In the future I would make the instructions more clear.

Trying to get everything to fit in a short amount of time was difficult for me. I spent several days working on this and then presented a proposed schedule to the local facilitator group for feedback. Planning the workshop served to get us on the same page more than any training might. It took much more time than I expected to work out questions of timing, setting and refreshments.

Most of our work as facilitators was planning or sorting out the agenda for the Workshop. I had too many things going on and had a hard time paring down. I also asked Catalyst for his input because he had experience facilitating groups. He was not however part of our local facilitator team for this event because of obvious biases.

Charismatic Group Leader was very supportive of attempting to make agenda items meet objectives with limited sets of time, so I proposed an expansion of our workshop into two days. The mediation goal for Saturday was trails awareness and to "share perspectives and information." The goal for Sunday afternoon was dispute resolution. The dispute-resolution goal for Sunday anticipated a discussion of "the results of shared understanding" achieved on Saturday.

Trail Runner/Landlord's Wife wanted to make sure that the social setting made her feel safe. Charismatic Group Leader was very supportive of attempting to make agenda items meet everyone's needs. School Mom/Economist helped with negotiating the various expectations of the facilitators until the school issue heated up.

For several reasons, I was not able to stay on the planned schedule. The actual schedule is presented Chapter Three. Sunday ran longer than expected. We skipped the discussions on "understanding the perspectives of others" and "assessing shared interests." The older speakers took more time than expected and left little room for discussions. Consultant to China took a lot of our time. I simply skipped discussions. I was not able to control this as well as I should have.

In the future I would let everyone know that responses would be timed.

During the workshop on Saturday, I had a hard time keeping information flowing into the Timeline while other important, but random conversations were occurring. I wanted to host a good party social event that people would enjoy and they did. Still, we may have been able to accomplish more direct objectives, if I had not wanted to try every trick of which I could think.

I learned a great deal about scheduling sequences of events in a community learning workshop.

In inviting an International Mountain Bike Association representative to the Workshop, I had been very careful to explain the need for confidentiality around the North Trail. Now I am sorry that I did invite him. I have since found local trails (North and East) on a public map of Boulder County for off-road mountain biking. Perhaps this representative shared information and word got around to the mapmakers at Sky Terrain.

In the future, I would spend more time directly addressing confidentiality in a formal way before inviting any outsider to an informal event. I was suspicious when he indicated that he already knew where the trail was and he didn't learn anything new about its location at the Workshop. He was invited for several reasons including establishing outreach to "outsider" recreationalists. His presence helped local community members discuss issues around local use v. general public access.

Only one teen attended the teens event. I hoped we could involve local teens by hosting a "party" on environmental and nature themes. I saw it as important to draw teens who seemed to be disjointed from the community into the trails process. A lot of teens really liked growing up in Gold Hill. I was concerned about a lack of civic engagement by local teens and no mechanism for utilizing

their visionary and energetic capacities. In hindsight, I was also doing outreach to my son and it was beneficial to the one teen that attended, but nothing else. I counted on a local woman to help with the event. She didn't follow through and I already had my hands full with what I had planned in other areas of environmental outreach, facilitation scheduling, and writing the *Trails Mediation Guide*.

In the future, I would do my own outreach to the teens and not rely on anyone else. If I could not do it directly, then I wouldn't do it at all.

I wondered about calling off the Dialogues if New Landowner and Seller's Agent did not appear. I probably should have, in order to force the urgency of resolution. If it had not been for the coordinated plans of others and the reservation expense at the Gold Hill School, I might have called off the event for the short-run. Such a stroke may have highlighted New Landowner by his failure to attend a community event. In the end, it was preferable to use the workshop opportunity for local learning and it appears that he would not have felt comfortable at the Workshop.

In the future, I would make a stronger effort to talk directly with New landowner by phone, by letter, or better, yet in person. I should have organized a lunch invitation or an invitation for tea in the local café. I had my own issues of judgment that affected my ability to converse with him. I would in the future persevere by mail and phone calls, to arrange an opportunity to interview an important party like New Landowner.

#### *What Could Others Do Differently?*

The principal G.I.S. specialist in the Boulder County Land Use Department was very reluctant to provide ownership data for our mapping project ,even though this information is in the public domain. In addition, the director of Open Space, who was also a County Commissioner, wanted us to provide the GPS data in exchange for the road, water way, topographic and ownership digital files. In the end, the fact that the Trails Committee was a contractor for the County enabled us to get the data. The initial reluctance fell into two issue areas.

In the future, I think that Boulder County will have a clearer understanding of the socio-cultural factors that made it necessary to be protective of the GPS data.

Trail Runner/Landlord's Wife was also going to put together the chart on landowner options. Instead, I did this work as well. The reasons for this are simple. It was my idea and she didn't have the computer resources to do it.

In the future, I will make sure that I secure technical assistance for locals engaged in participatory action research, to make sure that they can complete an assignment in the most useful way for others.

The treasurer of the Gold Hill Town Meeting could have been more helpful in resolving the insurance issue and supporting funding for the Trails Committee's initiative. In fact, the town meeting did not contribute any financial resources to the effort because of the perception that Boulder County funding was sufficient.

In the future, I would be more attentive to showing a direct link between the expected outcomes of the process and the initial expenditures by any convening or funding agency.

#### ***Phase Two Process Improvements***

##### *What Would I Do Differently?*

I had a difficult time managing the scope of research required to understand the local trail access issue. I became very interested in a range of topics and spent hours researching them. I engaged in what might be considered "runaway" research, which may not have been the best use of my time. A drawback to case study research is that "in advance of time and involvement in the setting, the focus can not be specified, except in very broad or general terms, nor can boundaries be put" (Robson, 1993:60).

The original plan for the *Trails Mediation Guide* was a small text that briefly addressed the topics of local trails, ecosystem stewardship and options for mutual gain. As I learned more, I thought it critical to cover the spectrum of information needed to resolve the dispute with the highest-order outcome. The research activities specifically reflect the emergent quality of the research

in this case study. Still, the research effort took on a life of its own. The single-paged text I was writing grew to over three hundred pages of research. As I kept going, the *Trails Mediation Guide* emerged as a potential surrogate to dialogue- to encourage, fuel and temporarily replace the dialogue that has not yet taken place. That seemed like a good outcome, but insufficient to resolve the dispute.

As research and the process progressed, it became apparent that much of what I thought would be readily available in terms of reports or practice was not. In order to make sense of local trail disputes, I persevered in trying to understand each subtopic. In so doing, the breadth of research required kept expanding. Every door I opened led into a whole world of experience, some of which was clear cut and some that required adaptation to the context of local trail systems. The problem also became that what started out as PAR became an individually assumed action research burden for me.

The whole PAR process was very labor intensive (over a year of full time effort). I served as a sort of living incubator. I had a hard time admitting defeat and did not quite know how to proceed with no funding. Once I started the research, I found it so engrossing and interesting that I simply did not know when to stop. I had support from my boyfriend and did not work at this time. He also found the material intriguing and we had many long detailed conversations about the issues and research. In some ways, the research of Phase Two was a fascinating and enriching experience.

The research was a great burden on me financially and in terms of my health. My voluntary investment of substantial time (2230 hours from 2002 to 2004) has occurred for several self-motivated reasons: personal learning, personal satisfaction and fulfillment of the requirements of a M.S. thesis in Resource Policy and Behavior. I began the work because I support participant observation as a means to validate and fine-tune public policy. I have done more research since 2004 and this will be in the sixth edition of the *Community Trails Mediation Guide*.

I also thought that what I had learned through the EDR/PAR intervention in Phase One was insufficient material for a M.S. Thesis. In this regard, I was probably wrong. I thought that something useful could be learned about non-resource-dependent communities in wildland stewardship and the role of trails in that regard.

In the future, I would try to find funding to be able to engage the services of more specialized researchers in each of the various components of research. Without that level of support, I would simply call it quits. If I did stop conducting research alone, I would also persevere in finding assistance even if it took years to find such assistance, either in the form of financial support or in the form of expert assistance in conducting research. There remains no other way to understand phenomena like trails and the ramifications of contemporary social patterns, than to pursue research and discussion in small communities whether urban, suburban or rural.

I should have followed up with the Land Trust Alliance on a proposal I made for a presentation at their October 2004 conference. Despite a late submission, they were previously interested in my proposal to present in 2003. The conference coordinators thought they would make room in the schedule and then realized they could not. I did not follow up on the topic in 2005. I should perhaps do so for 2006.

I should have been more cognizant of the community's capacity to help me in any aspect of the research. I was particularly disappointed to discover that in writing for three months straight, I had produced such a copious amount of information that few people in Gold Hill would have the time to pick it up and digest it. Many do not have the practice we gain in graduate school of skimming material quickly for understanding. As a result, my first editor scared off the next editor by stating that she had been able to read only nine pages in one week. I was flabbergasted, concerned and on the edge of depressed. I thanked the editor for her diligent attention to commas and split infinitives. She hadn't noticed anything else of interest.

In the future and as I have done, I will elicit the support of professional editors to guide the task of refining research for palatability and comprehensibility of a particular audience. I will also make sure that I receive assistance in conducting the research and writing the first draft.

The time it took to reach completion of a useful *Trails Mediation Guide* significantly impacted the sense of urgency about resolving the North Trail dispute. By the time I was done, the

urgency of resolving the dispute had begun to wane in the collective consciousness of the Gold Hill community. The sale of a large parcel of land which the South Trail traverses has rekindled the importance of providing a framework for resolving threats to the local way of life. In the final analysis, it may turn out that the scope of work was necessary for creating sound terrain for stable, long-lived outcomes.

There has also been a benefit in coming back to the PAR effort a couple of years after the initial research. This distance has allowed me to unravel both personal challenges and challenges of perception around the dispute-resolution process itself. With distance, I have realized much more about the underlying dynamics of the catalyzing dispute than I could have realized while in the thick of things. With distance I have been able to disentangle my activist mediator role from my academic action research role, both in evaluating the EDR/PAR intervention and in completing the local historic wildland trail research.

Until the *Community Trails Mediation Guide* gets out, my efforts and those of the Trails Committee may still appear to be one-sided.

In the future, I would be attentive to releasing research results to confirm the value of PAR as an empowerment tool for all stakeholders and not just the initial protagonists or claims-makers, like Catalyst.

#### *What Could Others Do Differently?*

Others in the community could have helped me more. Dedicated Trails Volunteer was my most faithful advocate and supporter. Another neighbor who was not so directly involved in the Trails Committee was also a great personal support and a support at Town Meetings for the EDR/PAR intervention.

In the future, I would spend more time cultivating this level of support by those that I felt were a bit judgmental. I think that if I had not been afraid to hear their critique, I could have built a greater base of affective support if not technical support.

I was disappointed by the way in which Catalyst dropped out of the effort. I still don't know why he did so, other than his move from Morning Sun and his involvement in consuming writing projects. The cause for his concern may simply no longer be present since he now lives on the south side of the study area rather than the west side.

In a multiple stakeholder exchange, well-funded participants often have access to greater arsenals of statistical and legal evidence. This was the case during site plan review of building plans by the property owner stakeholder in the North Trail dispute. The Boulder County Commissioners could have encouraged dialogue on trail use and critical wildlife habitat prior to approval.

In the future, I hope to have the personal and financial resources not to miss such critical opportunities to affect an outcome. If the Trails Committee had been able to mobilize a concerted set of comments by multiple members as organized by the preliminary findings of my research, I think that the County Commissioners would have had grounds to review the impacts of New Landowner's activities more thoroughly.

## **ASSESSMENT OF PHASE ONE: LITERATURE AND PARTICIPANT COMMENTS**

### **Steps in the Phase One Qualitative Assessment**

This assessment reflects my first approach to evaluating the EDR/PAR intervention. This assessment was completed in 2003 using input gathered up until the Workshop and using the first iteration of the *Trails Mediation Guide*. Despite the advice of Glaser and Strauss not to overly rely on a literature review, I performed one anyway. Fortunately, with distance from the project since then, I've been able to deduce other levels of assessment and evaluation of the EDR/PAR process. Still, this assessment is useful in several ways.

Participant statements and a literature review are merged in the tables found in the appendix. The process involved bridging from "theoretical thinking" to "practical thinking" (Glaser and Strauss,

1967:241). The bridging process supports the use of an existing lexicon for further practical discussion and theoretical analysis.

Data for evaluating the outcome of the intervention was collected with a wide range of tools: a feedback log, note-taking during debriefing sessions; and relies heavily on the impressions of the action researcher. A feedback log was used to track the mediation process and the perception by stakeholders of my neutrality as mediator. The feedback log is just one form of researcher- and process-critique utilized in the study. Debriefing occurred after the Workshop and on the occasion of the New Landowner's site plan review. Table 14, below, provides a list of activities within each research purpose.

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Table 14.  
DATA SET FOR THE LITERATURE-BASED ASSESSMENT OF PHASE ONE

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Research Purpose

Stage of Process

Intervention-Related Task

Collection Activity or Data Set

Participatory Action Research Intervention and Research on Local Trail Systems

Pre-Workshop

Stakeholder Assessment

Gold Hill Wilderness Use Incident Log

Land Ownership of North Trail

Land Owner and Trail User Statements

Potentially Affected Parties and Their Interests

Workshop Preparation

Historic Maps

GPS Work

Open House Comment Boards

*Trails Mediation Guide*

Interviews with Experts on Trails Related Topics

Oral History Interviews

Brochures

Reports and Other Studies on Trails and Ecosystems (See List)

Plant Inventory

Hanging Folder Files (See List of 7 Topics)

Research on Computer (See List of 8 Topics)

Workshop

Open House Activities

Notes on Comment Boards

Trail Ratings (quantitative)

Notes on Maps

Unstructured Roundtable Conversation

Environmental and Trail History Timeline

Dialogues

Speaker Notes

Flipchart Notes from Sunday, March 16, 2003

Casual Talk during Open House

Notes from Loose Post-its

Post-Workshop

Post-Workshop *Trails Mediation Guide* Notes

Updated *Trails Mediation Guide* (See Case Study)

Evaluation of EDR/PAR Intervention	
Overall	
Intervention Design	List of EDR/PAR Activities My Roles & Trails Group To-Do List
Participation	Process Participation Land Owners and Residents Owners of Segments of Trail in the Study Area
Pre-Workshop	
Trails Group	Compendium of Trails Group Outreach Trails Group Meeting Minutes
Workshop Preparation	Facilitators Meeting Agenda and Minutes Environmental Dispute Settlement Training Proposed Schedule Tasks before Workshop Opening Greeting for Workshop
Post-Workshop	Sketch of Open House/Workshop Layout Actual Schedule of Trail Workshop Activities Post-Workshop Feedback Log My Recollections-Facilitator Notes Post-Workshop Report to County

The table, "Data Sources by Collection Activity," is available upon request.

In order to complete this assessment I gathered and processed the data I had collected, refined the causal network for the thesis in order to remember what had been performed in what sequence, prepared data displays as described earlier in order to structure the analysis, I analyzed both qualitative and quantitative data (participation as shown in Diagram 2); then I presented the data. This section presents the results of this analysis through the use of five tables, two of which are found in the appendix.

Table 15.  
STEPS IN THE ASSESSMENT

- Gather Content and Process Data throughout and just after Implementation
- Organize and Prepare the Data
- Refine the Causal Network-Thesis based on Implementation Experience
- Prepare Data Display Structures for Analysis
- Analyze Qualitative and Quantitative Data
- Present Data

In conducting the post-workshop evaluation, the steps were not necessarily sequential as some cross-checking was involved to bring all the data along in the analysis. The main data analysis tasks were coding and sorting the data into usable displays.

The content analysis of data related to evaluating the EDR/PAR intervention relies on data displays for structure and the sorting process. Charting key factors of collaborative environmental

mediation relies on case analysis by prominent researchers in the field, and is presented in three deductive, literature review-based tables. These tables are presented in the appendix:

- Table 22. EDR/PAR PROCESS; and,
- Table 23. FACILITATION OF EDR/PAR.

To further clarify “the chain of evidence,” a series of data display charts was created to provide an overview of the data streams and to aid in tracking the vast and divergent amount of qualitative data (see Table 16). I have chosen not to present these charts in the thesis. The tables become unwieldy and unnecessary to present the results. Still, the diagrams did serve well to keep track of information for reference. Besides simply managing the data, another reason for keeping track of the data is that the thesis rests on drawing demonstrable conclusions regarding the evaluation of the EDR/PAR intervention. I can present the following tables to support the linkages between the data and the inferences that have been made.

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Table 16.  
OVERVIEW OF THE CHAIN OF EVIDENCE

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Steps in Implementation and Evaluation Research  
Collection Activity by Research Purpose and Phase (See Below)  
Data Sources by Collection Activity and by Unit of Analysis  
Presentation Data Displays by Research Purpose  
Categorizing Comments into Theme Groups

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### **Criteria for Evaluating EDR/PAR Intervention: Literature Review**

Charting key factors in successful dispute resolution stems from both the personal experience of prominent practitioners and case analysis by prominent researchers. The results of my review of the literature on EDR are presented in the two tables found below: Table 17, EDR/PAR Process, and Table 18, Facilitation of EDR/PAR.

The first table, Table 17, presents descriptive characteristics of EDR within a framework of overarching factors in successful process as identified by Innes (1999:641). These factors are fairness, inclusiveness, openness, accountability and legitimacy. Innes’ framework is the most comprehensive and highest level of abstraction while retaining a useful simplicity. The individual observations of other researchers provide a useful set of characteristics to understand each of the higher level themes in EDR. Table 18 presents these observations as coded to fit within Innes’ comprehensive framework.

Table 18 presents facilitator competencies with descriptive characteristics that illustrate these competencies. These competencies are understanding the principles of an EDR process, ensuring preparedness of the participants and events, and interpersonal relations of the facilitator in one-on-one and group settings.

Besides serving as a framework for evaluating the EDR/PAR intervention, the literature review will be a useful reference for me in future work.

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Table 17.  
EDR/PAR PROCESS - PHASE ONE ASSESSMENT CRITERIA

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- Fairness (Innes, 1999:641)
- Principles of civil discourse (Innes, 1999:648)
  - Collaborative and mutually respectful (Innes, 1999:634)



- Ground rules and behavioral guidelines (Moore, 1996:142)
- Were the interests of any of the parties co-opted? (McCloskey, 1996)
- Meeting management (Kaner, 1996)

Inclusiveness (Innes, 1999:641)

- Includes representatives of all relevant and significantly different interests (Innes, 1999:634)
- Identify key players (Susskind and Cruikshank, 1987:21)
- Participant choice (Moore, 1996:142)
- Participation is both instrumental and developmental (Morissey, 2000:63)
- Promotes collaboration in order to overcome prejudices, preconceptions and doubts (Gardner & Lewis, 1996)

Openness (Innes, 1999:641)

- Self organizing (Innes, 1999:634)
- Foster a sense of responsibility, ownership, and commitment (Wondolleck and Yaffee. 2000)
- Recognize that partnerships are made up of people, not institutions (Wondolleck and Yaffee. 2000)

Accountability (Innes, 1999:641)

- Incorporates high quality info—depends on ability to make informed choices! (Innes, 1999:634)
- Encourages participants to challenge assumptions (Innes, 1999:634)
- Compares well on costs and benefits? (Innes, 1999:647-654)
- Cost and Time (Moore, 1996:109)

Legitimacy (Innes, 1999:641)

- Driven by purpose that is practical and shared by the group (Innes, 1999:634)
- Employ meaningful, effective, and enduring collaborative processes (Wondolleck and Yaffee. 2000)
- Mobilize support and resources from numerous sources (Wondolleck and Yaffee., 2000)
- Legitimacy of person or party (Moore, 1996:174)
- Legitimacy of issues and interests (Moore, 1996:174)
- Legitimacy of emotions (Moore, 1996:174)

Table 18.

FACILITATION OF EDR/PAR – PHASE ONE ASSESSMENT CRITERIA

Process Understanding • (Wondolleck and Crow ,1990:263) and Skill

- Build on common ground established by a sense of place or community, mutual goals or fears or a shared vision (Wondolleck and Yaffee, 2000)
- Create new opportunities for interaction among diverse groups (Wondolleck and Yaffee, 2000)
- Focus on the problem in a new and different way by fostering a more open, flexible, and holistic mind set (Wondolleck and Yaffee. 2000)
- Personal, institutional and procedural credibility (Moore, 1996:87-89)
- Focus on interests rather than positions (Fisher and Ury, 1981)
- Develop options for mutual gain (Fisher and Ury, 1981)
- Reframe dispute so does not focus on sacrosanct values (Susskind and Cruikshank, 1987:21)
- Good approach, integrative interest-based expanding the pie (Moore, 1996)

Preparedness • (Wondolleck and Crow ,1990:263)

- Education of parties (Moore, 1996:143)
- Plan for mediation or fact-finding session (Moore, 1996:142)
- Location (Moore, 1996:142)
- Physical arrangement of setting (Moore, 1996:142)
- Open communication channels, free flow of information

- Commitment to negotiate by all parties (Moore, 1996:142)
- Identify possible deadlocks (Moore, 1996:160)
  - Substantive
  - Procedural
  - People problems

#### Interpersonal Relations

- Psychological conditions (Moore, 1996:142)
- Separate the people from the problem (Fisher and Ury, 1981)
- Build trust of the parties (Moore, 1996:179)
- Rapport and Credibility (Moore, 1996; Spradley,1979)
- Rapport with the parties (Moore, 1996:89)
- Rapport with community - Etic-emic (Spradley, 1979)
- Meeting management (Doyle and Strauss, 1976)
- Negotiation procedures (Moore, 1996:142)
- Move forward through proactive and entrepreneurial behavior (Wondolleck and Yaffee, 2000)
- Facilitator detachment from outcome

### **Results of the Literature-Based Assessment**

The merged literature review and statements by participants and me, the facilitator, are presented in Tables 22 and 23 found in the appendix. Table 22 presents “Participant Comments on Facilitator, Process and Outcomes for Phase One.” Table 23 relies on the Feedback Log I maintained as the Facilitator along with other sources of participant comments presented in Table 14, Data Set for Literature-Based Assessment. Table 23 presents my reflections on my role as facilitator and on the process and its outcomes in Phase One. Please review these tables as they comprise the results of this assessment and will not be described in great detail within the text of this Chapter.

Within these data display tables, statements are coded by theme categories identified in the literature review. No statements have been thrown out for any reason. All statements are coded to protect the anonymity of participants. The Phase One assessment utilizes statements collected before, during and after the Mediation Workshop on March 15 and 16, 2003. Data was collected into the month after the Workshop, except for the statements contained in my own reflections - compiled in the Fall of 2003.

In my self-reflective description of those process efforts that could have been improved, certain events draw from Table 22 and 23. The individuals with whom I spoke were generally supportive. I can surmise that they thought I did a good job of being fair, prepared, credible, inclusive, open and accountable.

The assessment is not a conclusive one, but does give a sense of the balance and intentions brought to bear in designing and facilitating the EDR/PAR process. Based on the statements in the data set, the assessment was generally perceived as fair, inclusive, open, accountable and legitimate. There was a need for outside resources to inform participants and to nurture a dialogue setting within which there could be a balance of power. The process did permit a search for options and incentives to negotiate.

In 2003, my earliest assessment of the process, I evaluated participation in Phase One (Diagram 3) as a measure of the PAR component of the intervention and as a measure of building relationships around trails (See the Causal Network - Diagram 1). In this presentation for Chapter Four, I have chosen to extract that record of statements and place them within the evaluation approaches that apply. At this point in the Chapter, the reader will have been introduced to some of these statements from the merged literature-to-statement data set. In the next section, a variable-by-variable discussion of the Causal Network is presented.

## EVALUATION OF PROCESS AND OUTCOMES USING CAUSAL NETWORK

### Overview

The Causal Network provides an overview of expectations for resolving the North Trails dispute. The network is based on the underlying social factors needed to create a terrain of mutual understanding and a desire for resolution.

The Causal Network is specific to this dispute and can also serve to evaluate whether this specific intervention met its objectives. To that end, a set of personal reflections as the facilitator/coordinator of the intervention is evaluated through the use of the Causal Network. In particular, the moderating effect of PAR in EDR is analyzed.

Since preparing the diagram in 2003, I see that it also presents the linear and causal relationship between Phase One and Phase Two activities. Phase One of the intervention was driven by the effort to “build relationships around trails.” Phase One involved preparation for a Trails Mediation Workshop and the development of a reference for local landowners and trail users on trail access. Phase Two centered on an effort to ensure “shared understanding of local trails system.” Phase Two was an effort to deepen the initial participatory action research with a cycle of action research on the context and issues that surround local historic wildland trails.

The independent and dependent variables of the Causal Network are analyzed in the order presented by the flow diagram. This order is not necessarily linear and does include iterative cycles that further the ultimate expectation to resolve the North Trail dispute and create a terrain for prevention of future trail disputes. For instance, capacity building not only leads to building relationships around trails, but is also an effect of engaging in activities that build relationships. Besides these two variables, other variables of both dependent and iteratively independent characteristics are evaluated in examining the EDR/PAR intervention. These variables are “de-escalate dispute,” “community integrity,” and “shared understanding of local trail system.” The following analysis assesses to what extent PAR served as a moderating influence to support these outcomes in the EDR process.

### De-Escalate Dispute

The PAR component of the intervention does lead to de-escalation in the dispute as experienced by Catalyst. (See Diagram 1. Causal Network). A series of tense encounters on the North Trail and the altercation with dogs in late summer 2002 strongly contributed to the escalated nature of the dispute between residents of Morning Sun and the New Landowner. The psychological quality of direct angry encounter primarily affected the Morning Sun residents and a couple of local trail runners who also owned land with trails. Others in the community were ready to mobilize to rectify the closure, but did not have the same level of retaliatory energy for disagreement. In evaluating the EDR/PAR intervention, an important objective is reflected in the following question:

*Did the process create an environment for the exchange of information and perspectives?*

I think that it did, both in Phase One and in Phase Two. Using PAR as a centerpiece for engagement by locals ensured that learning about the issues was at the forefront. Reaching a shared understanding is connected to de-escalating a dispute in the following ways:

- Preparatory process of mutual inquiry and learning can be engaged among community members prior to active dialogue
- Inquiry undertaken in a participatory manner can de-escalate dispute by opening a period of suspended judgment.

I encouraged a sense of inquiry by supporting, validating and organizing the research being conducted by Dedicated Trails Volunteer, Trail Runner/Landlord’s Wife and Catalyst. I encouraged others to join in conducting research so that we as a community could understand the situation more clearly before passing judgment. I took the focus off of New Landowner in order to create a social

environment for suspended judgment and de-escalation. Taking the lead set by Trail Runner/Landlord's Wife, I helped redirect the focus towards all the trails in the area and to all landowners, so the intervention really began and has concluded as an EDR/PAR intervention.

As the flow diagram shows, the variable of de-escalating conflict related to a willingness to suspend judgment as indicated by these two indicators:

- Willingness to talk with mediator, others in community and/or attend Workshop.
- Decrease in number of trail incidents

The New Landowner was not willing to talk. I cannot determine that his reluctance is solely attributable to his positions and judgments, but that appears to be the case. There remains hope that the *Community Trails Mediation Guide* will serve to open dialogue and understanding in the future. I do know that no significant altercations occurred on the trail since the triggering event between New Landowner and Catalyst.

It is still too early to clarify whether suspended judgment will lead to fewer future trail incidents. The proposed local trail policy presented in Volume One of the *Trails Mediation Guide* should help to reduce tensions on local trails.

Nevertheless, during Phase One, the general focus by local community members on trails issues rather than on typecasting New Landowner did not always appear strategically well-targeted. The 2003 version of Table 22 presents the following statement.

I am wondering, though, why your report does not acknowledge that the triggering event, the closing off of the North Trail by [New Landowner], has not been addressed due to [New Landowner] refusal to participate. The report as it stands suggests that everything is fine [When it is not]. I would like to understand your thinking on this.

3/29 L1 PW-TRIGGER

In response, I thought it was more important to focus on the substantive issues rather than on the people, as recommended by Fisher and Ury (1981). In this way, resolution of the dispute would be more likely. I purposely attempted to shift the focus to researching the way in which generic trail concerns of any landowner might be addressed.

L2 did a nice job talking about the North Trail bypass and its history  
M1-GOOD SPEAKERS

In my reflections, I note that the Workshop itself was a pleasant social experience in which interesting aspects of trail access and closure were discussed. Expert speakers and locals made the experience an instructive one. Feedback was good about the Workshop and many individuals enjoyed participating.

Another important question in evaluating whether the PAR component supported the EDR process effectively is:

*What enhanced cooperation and what escalated conflict?*

Conditions or factors that did escalate the dispute after the initial altercation included these two occurrences in the site plan review process.

County will not accept trail's existence as grounds to stop permit on new construction.  
7/03 L2 and county rep PW -STRATEGY

[Gold Hill Store Owner] refused petition on site plan review and trail closure in his store.  
7/03 L19 PW-STRATEGY

Nevertheless, incentives to negotiate were also brought forth during the course of the site plan review process. The following is a comment by a local.

To what extent will [L14] and [New Landowner] be relying on the Gold Hill community for fire protection, for site review support, for general good will? How consistent is their reliance on the community with their hostile act of expropriation? What is their theory of human motivation and the roots of reciprocity in this regard?

4/11 L1 PW-COMMUNITY VALUES

A Boulder County commissioner reiterated this message. During this EDR/PAR intervention, locals did step back to consider the interests of landowners and trail users. A locally-rooted attempt was made to research the key elements involved in resolution prior to my research in Phase Two. As Consultant to China stated in mid March 2006, the North Trail dispute is quiescent.

### **Build Relationships Around Trails**

De-escalating the dispute relied on creating opportunities for building relationships around trail use. The Trails Committee and the construction and use of the North Trail bypass built relationships around trails. Building relationships around trails, the Trails Committee mission was rooted in a certain observer-reflective neutrality that was not necessarily solely directed at de-escalating the dispute with New Landowner. This mission was more directed at healthy long-term community relationships and adapting local customs to meet changing demographics.

As the Causal Network shows, building relationships around trails centers on creating:

- Opportunities for conversation and shared experience on local trails; and
- Trust between land owners with trails.

The Trails Mediation Workshop was the primary focus not only to afford an opportunity in time to suspend judgment, but also to create a focus for making connections with others about trail issues. Locals commented in the following way:

There is the matter of reciprocity.

4/11 L1 PW-COMMUNITY VALUES

Would like for trails to remain open.

4/9 L18 PW-ON TRAIL ACCESS

In the EDR literature review, building relationships resonates strongly:

- “Built the capacity of citizens to communicate, understand and cooperate” (Innes, 1999:636);
- “Trust among stakeholders-new levels of trust” (Innes, 1999:647-654);
- “Building trust and cooperation” (Moore, 1996:161); and,
- “New relationships-alliances, personal networks, working relationships” (Innes, 1999:647-654).

As indicated in the flow diagram, de-escalating conflict leads to building relationships. A set of process variables and setting variables supported creating a relaxed environment for locals to talk about trails. Both process variables and setting variables contributed to enhanced cooperation and de-escalated conflict. The focus on PAR was a process variable; the workshop was a setting variable.

The purpose of the Trail Workshop was to gather additional insights from the community; to engage a conversation over time about local customs and how the community will do things, and; and to share the Trail Group’s research in an interactive style to encourage active listening and learning. The flyers that I posted read:

- We are actively creating a forum for everyone to be heard.
- Workshop is an excellent opportunity to have your voice heard.
- Understand trails issues and divergent perspectives.
- Decide on course of action or inaction according to the sense of the meeting gathered.
- Find new leaders to tackle next steps.

The setting at the Gold Hill School was similar to the traditional social events of the year; positive feedback seemed to indicate that the potluck was enjoyed by speakers and stakeholders alike. The atmosphere was low-key and conversational. Community members that attended the two-day Workshop seemed to enjoy the format and the learning it provided.

Locals liked attending the Open House and discussing the issues while looking at maps and comment boards. In addition, the Open House on Sunday served to bring people up to speed regarding events of the previous day.

Making sure everyone feels safe to gather requires overcoming the history of distrust and personal attack in the context of community meetings, including the Town Meeting. Many individuals not formally involved in Gold Hill political decision-making have familiarity with communication theory and practice, which has supported many of the Trails Committee efforts thus far.

The elementary school project was a wonderful opportunity to build connections between children, their parents, and the community at large, in relation to the local landscape. The local species posters made a wonderful addition to the Trails Mediation Workshop and were a good form of environmental education. The posters helped to raise awareness about the context of trail access in a wilderness landscape.

One of the most wonderful parts of the Trails Mediation Workshop was having wonderful speakers. I noted the following statements in my Fall 2003 reflections:

Most interesting part in preparation and in meeting

M1-GOOD SPEAKERS

Having the speakers there to break up the discussions and focus talk on content rather than emotions was also very beneficial.

M1-GOOD SPEAKERS

It led to a wonderful conversational style and introspection too.

M1-GOOD SPEAKERS

The Workshop worked well as an EDR-support tool. It also worked well as a PAR tool. The comfort and familiarity of an open house and potluck set the tone of friendly exchange prior to engaging the more formal workshop activities and discussions. The Workshop was in fact a fact-finding session. The Workshop served not only to build relationships, but also to build knowledge.

### **Shared Understanding of Local Trail System**

The Causal Network presents the theory that there is also an iterative component to building relationships, one that also leads to “learning and shared knowledge” (Innes, 1999:647-654). Building relationships contributes to building a shared understanding of the local trail system. In this case, mutual understanding or shared understanding was not reached with New Landowner, but the foundation has been set to do so. Many locals share a common understanding of what works and what doesn’t for different types of stakeholders.

A sound EDR process cannot occur without creating effective exchanges of knowledge and personal experience. PAR is an obvious complement to EDR in terms of creating knowledge. In a sound process information must flow freely. Innes (1999) writes about ideals like the following:

- If no [agreement is reached], then understanding about an issue is [might still be] good; (632)

- Stakeholders gained knowledge and understanding (647-654);
- Information and analysis that are accepted; produced knowledge (647-654); and
- Spread of information between stakeholder representatives, stakeholders and with community (647-654).

As shown in Diagram 1, the components of understanding the context of the dispute involved:

- Understanding interests of stakeholders;
- Understanding historic customs of use; and
- Reading and/or contributing to ongoing revisions of *Trails Mediation Guide*.

Innes writes of the need to develop creative ideas for action. “Innovative ideas can help to resolve problems and foster learning and growth” (1999:647-654). Two locals developed the idea of a guide to trails issues for the use of landowners who want to keep their trails open. A compendium of information can prime the pump for further mutual inquiry, introducing a framework for understanding a particular issue. The *Trails Mediation Guide* is such a tool. The *Guide* is a tool for understanding local customs as an incentive to negotiate. Oral history is an important resource in terms of understanding local customs and environmental history of the area.

When I realized factors relating to land tenure and financial inequity might contribute to intractability in resolving the North Trail Dispute, I reframed the dispute around conservation. I chose conservation for two reasons:

1. Conservation efforts had been claimed as important to the New Landowner by Realtor. Realtor also asserted that New Landowner sought the esteem of the community with regard to his conservation efforts.
2. In a community with the landscape characteristics of Gold Hill, trails are a link between civilization and wilderness. I expected that the EDR/PAR process would naturally uncover mutual interests relating to both community life and wilderness conservation.

I also understood that supporting healthy long-term community relationships would be an ideal outcome, but not a necessary one for resolving the North Trail dispute. Instead, the PAR allows landowners to prepare agreements that meet their distinct, individual needs. The *Trails Mediation Guide* contains that information without the benefit of New Landowner’s contributions. The text of the *Guide* is revisable, if and when he chooses to participate. In Phase Two, I refined the specifics of the broad-based and individual incentives found in Phase One. The *Community Trails Mediation Guide* contains substantive information on options for resolution, legal incentives to negotiate, as well as existing statutory and procedural incentives and disincentives for trail access.

The *Trails Mediation Guide* serves many purposes. As a research product being prepared by locals, the *Guide* served to support suspended judgment. It was a working document, a workshop support, and a demonstration of participatory action research. The *Mediation Guide* is designed to support iterative participatory research and is a repository for gathering ongoing local insight. The *Mediation Guide* can serve as a tool for continued problem-solving. To summarize its participatory action research and dispute resolution objectives, the *Mediation Guide*:

- Is a participatory community research report;
- Is an awareness-raising tool within and without the community;
- Serves as a repository for community knowledge and memories;
- Increases hands-on, constructive participation by community members;
- De-escalates dispute;
- Supports information exchange in the Mediation Workshop;
- Expands the socio- and ecological data base used in decision making;
- Is a forum for differentiating quantitative data from qualitative data;
- Is a potential surrogate to dialogue;

- Can help to prevent future misunderstanding after a potential arrangement or agreement has been reached.

The Community Version of the *Trails Mediation Guide* is oriented to Gold Hill residents and landowners. Comment and feedback is strongly encouraged. A research *Mediation Guide* prepared by locals and updated on an ongoing basis can complement local memory and deliberation. My reflections from 2003 follow:

In this way, it can serve as a lingering resource.

M1-ON THE *GUIDE*

It forms the basis of understanding local access in Gold Hill. It might not be useful for everyone as some folks simply like to talk in the Store and are not so oriented to getting local information this way, but it should still form a solid ground of reference that can then be shared with others.

M1-ON THE *GUIDE*

We got some great input despite the lack of apparent quantity. Insightful.

M1-OTHER ASSETS

In evaluating whether the EDR/PAR intervention was effective, the *Trails Mediation Guide* is a useful measure of process outcomes.

*Did the Mediation Guide create knowledge?*

*Did the knowledge help to resolve the dispute?*

The answer to the first question is an unequivocal, “yes.” The answer to the second question is “no” for now. The *Guide* sets the stage for understanding the issues and being able to effectively negotiate positive and stable outcomes. Some critical elements of an independent PAR intervention include:

- “Research informs action” (Gardner and Lewis, 1996);
- “A community-focused report is produced, i.e., *Trails Mediation Guide*” (Finding #11, Sclove, Community-Based Research Centers); and,
- “Information belongs to community” (Sweetser, 1997).

This case was effective in reaching those PAR objectives. Just as the Workshop had the overlapping outcome of understanding trails and building relationships, so does the *Mediation Guide* have overlapping outcomes that include:

- Strengthen bonds between community members;
- Perhaps help to maintain trail access for locals;
- Repository of knowledge gained while mediating dispute; and,
- Foundation for developing a local policy on trails.

The *Community Trails Mediation Guide* is a dispute-resolution tool that relies on PAR. A community-memory tool like this one grounds the role of counsel and deep reflection for contemporary communities. Locals don’t have a lot of time to address complex systems like local trail systems, particularly when contention exists and oppositional lines are drawn. In this case, knowledge was created and will linger as a reference of the Gold Hill community and for other communities.

Finally the Guide has served as a tool for environmental education, awareness and action. This is a moderating influence on reaching common mental models, sustainable customs and dispute prevention.



### **Build Local Capacity and Support Community Integrity**

The hypothesis presented in the Causal Network puts forward the idea that local capacity-building and community integrity are two separate moderating variables in an EDR process. Although the variables of capacity-building and community integrity are shown as causal factors leading to dispute resolution, they are also outcomes of an EDR/PAR process. An EDR process alone affords this quality, but it also appears that a concerted PAR/AR effort complements EDR in this way.

In any intervention, an important consideration is not what direct effects resulted, but also what remains in the lives of those affected, in this case locals. Individuals involved with the trails committee, those that helped build the bypass and those who took walks on local trails together after meeting each other in other activities of the intervention did build a network of locals and relationships around trails.

The premise for speculating that relationships would lead to foundations of trust that could support the resolution of the trail dispute was a useful one for organizing the initiative. The goal of relationship-building also did not put pressure on any party including New Landowner to get involved or come to some agreement. It did not however work in the most direct sense. The new landowner to this day has not become an integrated part of the community in terms of interrelationship on a regular basis in causal settings. His relationship with the community remains a formal one. Even though he doesn't share his personal talents or observations, he has shared resources. He has shared money with the school and the fire department.

“Sustainability is ultimately the ability of a system to adapt creatively to change and stress. The learning that takes place in consensus processes builds the capacity of key players in a community to understand and work toward sustainable systems in a continuous way” (Innes, 1999:654).

Environmental dispute resolution alone may fail to build community and individual capacity to prevent future disputes. The Workshop and the *Mediation Guide* created a residual effect by building local knowledge and capacity for collaboratively solving trail disputes and raise awareness about the role of community ecosystem stewardship.

The EDR/PAR intervention built local capacity to engage in collaborative processes. Collaboration can “set in motion cascade of changes, new skills” (Innes, 1999:647-654). PAR is also an opportunity to build local capacity to understand and resolve disputes. In the fall of 2003, I noted that:

As word gets out about the format and interesting conversational style of the gathering, the next session is likely to draw more participants.

#### MI-NEXT STEPS

Those who seem to have an interest or familiarity with these approaches have been encouraged to assist in the process and be part of a growing pool of facilitators for our community. The community is growing in its knowledge of mediation, consensus-based decision-making and interest-based bargaining. Deliberation and dialogue will likely remain essential components of resolving dispute. Critical questions that measure the value of an intervention in terms of building capacity include:

- *Do participants have a greater sense of civic involvement and trust?*
- *Are participants better able to work collaboratively to solve problems affecting the community and its forest environment?*

The answers to both questions remain uncertain. The Gold Hill EDR/PAR process has been a model of how the community might improve the way it makes choices. Whether locals will actually shift into higher competencies remains to be seen. Such shifts take practice. Gold Hill has had

problems maintaining a safe environment for dialogue and many locals have disengaged from civic involvement.

Despite a lack of conclusive evidence, I have observed that this intervention has enhanced communication quality in Gold Hill. The intervention moved the community along a spectrum to more civility. I continue to hope that my work will provide a model and example for enhanced communication in Gold Hill. Other substantive outcomes have been addressed under the variables of reaching shared understanding and building relationships.

“People and Nature” flags flew at the entrance on the day of the workshops due to the creative efforts of Trail Runner/Landlord’s Wife. They were symbolic and prepared by the children of the school. The flags resembled Tibetan prayer flags which some locals put around their houses. Trail Runner/Landlord’s Wife also helped the children decorate a huge donation box for the Workshops as a fundraising activity.

The Gold Hill School stayed open and its role as a living history resource was recognized by the Boulder Valley School District. In 2004 and in 2005, Gold Hill held a costumed “Living History Day for bus loads of Boulder Valley school children. The Gold Hill Museum has copies of the early versions of the *Trails Mediation Guide*.

As the flow diagram of the EDR/PAR causal model presents, there is also an iterative cycle between de-escalating dispute and ensuring community integrity. Community integrity includes:

- Willingness to exchange information, services and goods;
- Common mental models; and,
- Inclusiveness within implicit boundaries.

In the case of the North Trail dispute, sharing common pool resources like trail systems relies on community integrity within the confines of a localized boundary of relationships. In this way, everyone shares a common perception about the role of trails for individuals and for community life.

I also renewed my efforts to support the adoption of a common mental model for the community regarding trail use. I envisioned a model that supported the harmonious recreational and residential use of the surrounding forest landscape. This mental model is reliant on the lived experience of custom. It is expected that a local policy on trails will serve to support the mental model. My efforts sought to discover a foundation for sustainable cultural behavior by shifting the focus from personal animosity to positive community outcomes.

### **Summary of Conclusions Drawn from Causal Network Analysis**

The EDR/PAR intervention can not be evaluated solely in terms of its components, because activities overlapped in the results that they produced. For instance, the Trails Mediation Workshop was both a tool to build relationship and a tool to build understanding around trails. Overarching process goals are also critical to the evaluation. Innes (1999:647:654) sets forth evaluation criteria which this EDR/PAR process upheld. The process was:

- “Just;”
- “Serve common good or public interest;” and,
- “Sustainability of natural and social systems.”

This intervention was an attempt to resolve a dispute and an attempt to engage a community in participatory action research. In coordinating the mediation process, I aimed for an ideal outcome of mutual understanding and community building. Through the practice of EDR, I hoped to create an environment in which a “wise and stable” outcome would be possible. The expected direct social outcomes did not manifest. The dispute was not resolved, and the research fell mostly on my shoulders rather than being shared by the community at large. Still, the process was not a failure.

“Consensus building challenges typical thinking about success and failure, which makes it difficult to evaluate.” (Innes, 1999:638)

In this EDR/PAR intervention, there were residual and indirect benefits. The moderating effect of PAR in EDR is one that builds a residual knowledge base, deepens the knowledge and awareness available to understand a particular dispute, de-escalates dispute, and perpetuates an effort to resolve a dispute despite reluctance by any party to participate. When directed at stakeholder empowerment for all parties to a dispute, the effect of PAR can be transformative if not in the short run, then in the long run. PAR set the stage for overcoming substantive and process challenges.

“In any case, a process that ignores a vulnerable interest, fails to take important facts into account or does not challenge unnecessary constraints will probably not produce a good solution.” (Innes, 1999:641)

The intervention shifted the focus from individual prerogatives to broader concerns where there might exist common ground. In so doing, the perspective of individual psychological, economic and social needs were not overlooked. PAR supported research and problem-solving as a community and also attempted to underscore common mental models, values and ideals as a foundation for local customs and stable cultural behavior. Although the intervention did not lead to individual agreements, the process did build local competency in seeking mutual understanding.

The PAR/AR/PAR cycle paralleled innovative recommendations put forth in the Consensus Building Handbook such as “created practices and institutions that were both flexible and networked which permitted a community to respond more creatively to change and conflict” (Innes, 1999:634). Under these conditions, PAR may have a residual effect. The results of the PAR effort may still serve to engage the New Landowner even, now two years after the research was completed.

PAR made sure that no matter the lack of stakeholder involvement by critical disputants, a clear understanding of the substantive issues could still be derived through focused, community-based research of stakeholders holding similar characteristics, e.g. landowners with trails.

### **PAR REMEDY FOR CRITIQUE OF EDR**

Certain weaknesses in EDR processes may be partially remedied by PAR. In this case, PAR may have served to partially remedy critiques of EDR levied by environmental activists (McCloskey, 1996 and Britell, 1997). The primary threads of criticism of EDR interventions are the following:

- Localized outcomes can undermine the broader good;
- Stakeholder disparity and establishing legitimacy;
- Conflict in the political economy; and,
- Lack of diversity in the practice.

Addressing the last critique first; often individuals with a desire for social justice do not seek to engage in a process of EDR, let alone seek to facilitate such processes (Mayer, 2004). A stable outcome requires fairness to all parties no matter their cultural, gender, economic, educational or employment characteristics. A related criticism of EDR involves culturally adept practice. Such practice can function within a non-policy, non-academic, environment. Such practice is complemented by a non-sophisticated lexicon and generally informal context for gatherings.

The Environmental Dispute Sector of the Association for Conflict Resolution has made it a point to encourage diversity in the practice. I chose to pursue a slight innovation in EDR in order to bring to light the role of advocacy and socio-cultural awareness in EDR.

A dispute settlement intervention benefits from adaptation to local customs. PAR provided a lens of cultural and ethnographic sensitivity in a society that is most often driven by socioeconomic and recreational considerations. The process that I designed incorporated what was already known in the community, but that had not yet been articulated or elucidated, that is local customs of trail use.

The EDR/PAR intervention elucidates a local phenomenon of national import. EDR has been critiqued for its redirection of energy and attention from national environmental interests to regional or local issues. Through the PAR component of this EDR process, the coordination of local issues aligns with national environmental efforts. First, it is possible potentially to control damage to public wildlands occasioned by ORV use. Local trail policies and private control of trail segments can have a regulatory effect on ORV use.

With regard to the Gold Hill case, the experience of being a mountain dweller can appear backward culturally in comparison to the relative sophistication of many Boulder residents. This case demonstrates a cultural sensitivity to the people of Gold Hill and their preferences. The PAR component relies strongly on validating a locally-rooted experience and attachment to unrestricted access to the wildland landscape. Local custom is seen as a stabilizing influence in interpersonal relations and community integrity.

PAR, in the form of the *Trails Mediation Guide*, makes room for integrating the New Landowner into the community in a way that might overcome his concerns and make him feel like a local, too. This sense of belonging on his part could allow for an easy resolution of the conflict and a willingness to trust locals to be respectful and fair.

In an EDR process, participatory action research may serve to remedy power imbalances and cultural misunderstandings. In this case, PAR leveled the playing field by empowering knowledge formation. The *Community Trail Mediation Guide* is a surrogate to dialogue. The *Guide* allowed the voice of locals to be heard. The *Guide* also brought wisdom to the conflict in the form of a balanced assessment of interests and possible strategies for addressing concerns.

PAR in this case was a form of community empowerment. Locals were seeking an opportunity to have their concerns addressed. This has been the central challenge of the Gold Hill case. The new landowner did not openly acknowledge local claims. He did not appear to perceive that he might gain by participating. This initial reluctance appears to be influenced by case law on land tenure and existing land-protection regulations.

In this case, PAR actively elicited input from stakeholders and attempted to fill in informational gaps where stakeholder involvement was lacking. PAR elucidated a range of options for agreement that would not have been discovered otherwise. Of course, an actual agreement remains impossible if any stakeholder opts not to acknowledge the legitimacy of differing perspectives and claims.

PAR can encourage legislative or procedural changes that will affect local and national trail policy and prevent trail disputes. In terms of setting the stage for new laws and enforcing existing laws, PAR may be a remedy to some complaints. PAR, through the distribution of the , is a form of community advocacy and empowerment that can lead to national level policy shifts. This is so if the results of the research are found to apply to trail systems elsewhere

## **GENERALIZABILITY**

### **Benefits of PAR in EDR**

Beyond the evaluation presented thus far, other criteria can be used to assess the effectiveness of an EDR process. One set of criteria is presented in the book, *Breaking the Impasse* (Susskind and Cruikshank, 1987). Impasse can relate to conflicts of the type of the North Trail in which, for reasons of disparity and misunderstanding, a dispute appears intractable. According to participant statements and facilitator reflections, the process met conditions of “fairness, credibility, legitimacy and wisdom” (Susskind and Cruikshank, 1987). See Table 22 and Table 23 in the appendix. The effort worked well at creating an environment for détente and substantive knowledge creation in order to support the generation of options that might meet individual and mutual interests.

As an administrative intervention of the Gold Hill Town Meeting, the approach was “reasonable, sensible and responsible” (Bleiker, 1998). Still, it may not have appeared that way to some individuals in the community. The costs of the dispute in comparison to the costs of participation vary by whether one is a party to the dispute, a trails committee member, a facilitator, or

a member of the broader social or ecological community. The costs of not resolving a community-based dispute include:

- A loss of community assets or integrity;
- A failure to address local travel management on public wildlands,
- A failure to connect people to nature;
- People remain upset and social conditions are not healed; and,
- People waste time at ineffective hearings.

In the Gold Hill case, the call for mediation of the trail dispute came from several sources: locals, the Gold Hill Town Meeting, the Boulder County Commissioners, county and environmental attorneys and a sheriff. In this case, beyond the hope for a stable outcome through mediation, the benefits of participation have included:

- Deeper relationships between Gold Hill residents;
- Social capacity to resolve disputes;
- Better understanding of who and where “we” are as a community; and,
- A contemplative perspective on the future.

Researcher/practitioners may also receive indirect benefits from their involvement. Qualitative research to resolve a dispute affords a great deal of satisfaction in contributing in a meaningful way to stable social relations and ecological health. In my case and quite narrowly, I receive a Master of Science degree and have acquired a greater practical and theoretical understanding of the field of EDR and PAR.

Such deeply rooted research supersedes the quality of socioeconomic surveys driven by quantitative indicators like per capita income or trail miles per resident. The need for qualitative research is evident in creating a policy framework that measures progress of sustainability. Such research could also serve to prevent disputes over a range of natural, social, informational, technological and financial resources.

National-level advocacy under a unified thrust of effort works well when the conditions affecting political decision-making are truly democratic and not corrupted by well-funded corporate interests. In the case of corrupted government processes, local and community-based EDR/PAR initiatives are essential to bringing good sense and a sound technical understanding to a situation. Even when sound democratic processes do exist, local research can raise awareness when unintentional counter-benefits of a particular course of action arise.

### **Barriers to Implementing an EDR/PAR Intervention**

This section investigates a priori the feasibility of replicating the EDR/PAR approach in other settings and for other types of disputes. First of all, the process may not be one that is replicable. The opportunity costs to any researcher/practitioner may be beyond acceptable levels. The breadth of action required to understand the case-specific, state-specific and national ramifications of resolving local trail disputes is enormous, albeit fascinating (See Diagram One-A in Volume One of the *Community Trails Mediation Guide*).

In the case that a dispute doesn't result in settlement, de-escalating a dispute could detrimentally affect the likelihood of a stable outcome, creating ongoing ripple effects for years to come. For instance, if a process of collaboration de-escalates a dispute to the point of demobilizing interest without having resolved the dispute, the social and ecological damage can be significant. A series of such events over time and in many communities can alter the very society in which future generations live. This could be the case in the North Trail dispute and the future of Gold Hill.

A range of opportunity costs affect involvement in a PAR-grounded process of EDR. The costs of participation include the time involvement of local people in attending meetings, missing out on hikes and other pastimes. In overcoming these barriers, it is important to encourage positive affect in gatherings, not take things too seriously and keep things simple.

Those who do put in the hard work to understand and resolve a community dispute affecting access to the landscape should be compensated. Housing, meals, transportation and stipend would go a long way to offsetting opportunity costs. County government should fund local socio-cultural participant observer research in order to enhance the basis for making policy decisions.

Utility, feasibility, propriety and technical adequacy (Robson, 1993:181) are factors used to distinguish the effectiveness and applicability of any intervention, not necessarily an EDR/PAR intervention. The Gold Hill EDR/PAR interventions did not necessarily meet these goals. Although it may be useful in the future, it was not utilitarian in the short run in resolving the North Trail dispute. In terms of feasibility, the burden of effort fell upon one individual, which is not recommended for future interventions. Still, the intervention could be replicated with adequate funding. Funding would offset opportunity costs as well as offset tangible financial or emotional burdens in conducting PAR within one's own community.

In terms of propriety, the level of cultural sensitivity depends on who is making the determination of appropriate. I hear that language often used by individuals in authority positions, about concerns that they don't perceive as congruent with the status quo. In the Gold Hill case, certain locals may not deem it appropriate to question the premise for unequivocal justifications of private property rights and claims that "it's a free country." The technical adequacy of the *Community Trails Mediation Guide* is not within the boundaries of this thesis. It is expected that the *Guide* will be technically adequate due to review of a range of experts in the field of outdoor recreation, anthropology, social psychology, environmental policy and conservation biology.

Each case is different; I do not necessarily agree with Fisher and Ury's early conclusions about mediation. They write that getting involved in a mediation process is efficient. Efficiency is "avoiding transactional costs of digging into positions" (Fisher and Ury, 1981:14). In the context of a complex environmental dispute, it may not necessarily be efficient to get involved with a dispute-resolution process. Due to their pre-existing and specialized knowledge, county, state and national advocacy groups have the resources to prevent and resolve disputes through lawmaking that may be much more efficient.

The costs of an EDR/PAR process are simply the ones of unearthing the details of socially and ecologically complex phenomena. Without funding, such an effort is likely to be too costly for any one individual to perform. Replicating this EDR/PAR intervention would require attention to the availability and conditions of receiving financial resources.

### **Applicability to other Settings**

The presentation of this thesis is meant to be trustworthy and well-organized, but may remain inconclusive with regard to generalizability (external validity) of the intervention to other settings and with regard to the long-run effectiveness of the intervention (internal validity).

A certain lack of conclusiveness stems from the exploratory nature of the case study design and the unique social and ecological characteristics of Gold Hill. When combined with the innovative and student-driven quality of the demonstration of PAR in EDR, an evaluation of effectiveness is difficult to generalize. Many intervening variables affected the process as depicted in Diagram 1, the Causal Network of the Intervention. The singularity of case characteristics needs to be extracted into a general framework for application in the future evaluation of other EDR/PAR interventions.

One means to characterize a community could include the analysis that resulted from qualifying the intervention as one that had the goal of resolving and preventing local trail disputes. The Gold Hill case was described on the basis of a set of attributes. These attributes may serve well in evaluating whether an EDR/PAR intervention should be attempted to resolve any other particular locally-based dispute. In summary, these case attributes include:

- Origin of the intervention;
- Complexity of situation and/or issues;
- Community awareness, capacity and desire to respond constructively;

- Resulting community vision or goal for dealing with the crisis;
- Facilitator or convener goals;
- Types of milestone events; and,
- Intervention activity types and purposes.

Further complicating the capacity for emphatic conclusions regarding generalizability is the short length of the data collection period for this study. The evaluation period fails to include the full scope of potential residual direct and indirect effects of the intervention and in particular, the effects of local and general distribution of the *Community Trails Mediation Guide*. In the Gold Hill case, the long-term results of the intervention – a local policy on trails – could linger for years; Consultant to China suggested twenty.

Gold Hill is a small rural community comprised of individuals who for the most part are comfortable financially and quite aware of principles of social engagement that might lead to peaceful and stable outcomes. Whether this approach could be effective in communities with lesser financial or educational resources is hard to gauge, but is likely.

Still, the question of recreational access to a landscape is quite different than access for sustenance or commercial interests. Disputes over access may occur for stakeholders involved in a range of harvest activities like the mushroom harvest, the arnica harvest, the wild rice harvest or the buffalo harvest. The range of factors involved in any of these harvest types and eventualities could be mapped out and may merit investigation as part of resolving or preventing dispute. There may be social and ecological phenomena that have not yet been practically researched and presented for easy reference.

In other locations in the United States (U.S.), site-specific, community-based forestry has been explored (Brown and Marin-Hernandez, 2000; Chapp, 2001). There remains a gap in the use of PAR for EDR. PAR is more commonly practiced by practitioners from other developed nations and in non-U.S. settings of the northern and southern hemisphere. The results of this case study indicate that PAR does not need to remain an underutilized approach to planning or EDR in the U.S.

Finally, one factor that makes the application of PAR elsewhere highly unlikely is funding for a similar level of socio-cultural and interest-based research on a dispute-specific basis. It is difficult to conclude that an EDR/PAR intervention could be applied elsewhere without funding.

## **CONCLUSION**

### **What Did the Process Accomplish?**

The process moved the North Trail dispute along the spectrum from intractability to ripeness. When conditions of intractability and disparity exist in a public dispute, restoring social stability requires focused research to uncover opportunities that might beneficially affect those conditions. The Gold Hill intervention utilized PAR to that end. The PAR supported reflective research within the community with the purpose of resolving the dispute. Participatory action research (PAR) addressed power imbalances by supporting “constructive conflict engagement” (Mayer, 2004:3).

In the Gold Hill EDR/PAR intervention, locals and I, the researcher/practitioner, did uncover ways to resolve local trails disputes. Although the intervention did not resolve the particular claims that surround the North Trail, it may still. And even if the intervention may not ever resolve the North Trail dispute, PAR did move the community forward along a spectrum of capacity to prevent or resolve future trail disputes. No matter how one looks at it, the PAR component of the EDR intervention didn't hurt the community, the local landscape, or the process. If nothing else, the direct and indirect effects have benefited all three.

### **Exceedingly Costly**

The intervention was not particularly costly to any stakeholder, except me, the researcher/facilitator. Of those who volunteered the most significantly, Dedicated Trails Volunteer enjoyed her involvement and is satisfied with the outcome. Catalyst was very weary in the early

stages before I became involved, but has since moved on. Boulder County government contributed a very small percentage of its resources to move the process forward; there have been no downsides to the county's provision of G.I.S. data. The engineering firm employee who did the G.I.S. work did spend some time after-hours in preparing the maps, but indicated that he enjoyed using new technologies that he is not otherwise called to use. Other locals did not appear to be too taxed for time or funds; that is, they did not experience lingering cost repercussions either socially or psychologically. I've not heard anyone say that they wouldn't do what they've done again, except me.

In order to conduct an EDR/PAR intervention, someone on the team of facilitators needs to do more than a little research on the matters at hand. In this case, my role was to ensure that the process met the informational and psychological needs of the participants. In my situation in this case, compiling the research of other community members and filling in the gaps, I became a practitioner of EDR as well as action researcher. My role involved sustaining dialogue and building understanding. To do that, I needed to understand the parameters of the conflict and options for mutual gain. In order to understand the conflict, I needed to understand the community, the trails, and the ecosystem.

In Phase Two of the intervention and in Phase One for that matter, I shouldered too much of the work. I would not do it again. I hope that the results are useful, but I cannot recommend the process to anyone that doesn't receive adequate funding. In such process, one can't give up, which I didn't, but I wouldn't do it again without more help. If I had funds and help, I'd do it again in a heartbeat. PAR is lots of work. Consultants go where the money is and I can see why. If nothing else, I've learned to be less judgmental about what people choose to work on and what they don't choose to work on.

### **Why Try Anyway?**

I can see that the intervention was effective in broadening awareness and overcoming intractability. Even though I wouldn't do it again, I can recommend its application. An EDR/PAR intervention is effective in elucidating poorly understood phenomena that may lead to contention, and preventing future dispute. This trails dispute under conditions of private property, rancher and class privilege, and displacement, is too complex to address with only one tool or in only one way. Complex environmental and social issues in a climate of highly differentiated public and private ownership need a great deal of space, time and solid research to resolve. This PAR-based EDR intervention is an excellent way to do that.

The use of PAR did not detract from the EDR effort in any significant way. The PAR supported the objectives of EDR in understanding the substantive issues and moving toward integrative options that work for all stakeholders. PAR supported fairness, inclusiveness, openness, accountability, and legitimacy (Innes, 1999). The PAR component of the intervention supported a conflict assessment that could lead to a process and knowledge-base that was fair, credible, legitimate and wise – factors put forth as critical to good EDR practice by Susskind and Cruikshank (1987). PAR served as an improved form of conflict assessment by moving the frontiers of understanding beyond levels of current knowledge and expertise.

The PAR component of this intervention created a wonderful social and intellectual environment. PAR helped to clarify underlying interests even if some stakeholders don't have a chance to talk directly. PAR validated a set of grouped interests for a particular type of stakeholder in this case, landowners with trail segments on their land. And of overarching conflict-transformation potential, an EDR/PAR intervention allows stakeholders to hold the highest opinions of one another, opinions based on thinking the best of the other, based on believing ultimately in good intent even if it doesn't seem so on the surface.

In terms of a general framework for resolving complex local disputes, the PAR approach to EDR is worth trying. Knowledge-based, deeply-rooted social and ecological guides to resource use are essential for creating an environment of conflict prevention and resolution. Otherwise,



stakeholders who do not have access to PAR-based informational resources may never be able to resolve intractable disputes. Instead, communities can sit back and watch change happen around them with little or no influence to address conflict, let alone resolve it. PAR information can sustain human development and well-being on levels other than economic. Economic analysis has driven policy for years, and has in large part contributed to a great deal of the social conditioning that undermines social and ecological systems.

In Phase Two of the EDR/PAR intervention, I renewed my efforts to support the adoption of a common mental model for the entire community regarding trail use. I envisioned a model that supported the harmonious recreational and residential use of the surrounding forest landscape by a local community. The alternative would be to do nothing. Such actions could lead to more disputes, escalated retaliatory behavior, and expensive and socially destructive litigation. The Gold Hill EDR/PAR process provided information that addressed concerns for all parties, not just the landowner and not just the locals that want access to the segment of trail that was closed.

### **Direct Effects**

#### ***PAR De-Escalated the Dispute***

This community and research-based mediation model de-escalates community disputes. PAR redirected community discontent into a deeper understanding of the interests involved and options available in resolving the dispute. PAR constructively de-escalated the dispute and opened up a period for suspended judgment. In particular, if key stakeholders choose to avoid dialogue, participants can empower themselves and the conflict-avoiders through community research. PAR made room for patience and perseverance rather than escalated emotions over a perceived injustice. Mediation worked well as a foundation and guiding force for engaging the research in the context of fairness and the hope of reaching mutually satisfying outcomes. Ongoing mutual and self-inquiry in a local setting or village is an essential foundation upon which sustainable social systems and resource use, restoration and preservation can thrive. PAR supported focusing on substance rather than people.

#### ***PAR Expands and Improves EDR***

In this case, PAR in many ways fundamentally resolved critiques of EDR. With regard to the critiques of EDR presented in the Introduction of this M.S. Thesis, PAR expands and improves EDR. Critiques have centered on class-based stakeholder disparity; fractured cohesion in reaching national environmental movement objective; co-optation of broadly-based claims for the common good in site-specific, small-scale collaborative forums; and a failure of culturally proficient practice within diverse socially-constructed values, identities, worldviews, social patterns and behavior preferences.

In this case, PAR remedied these concerns about locally-based resolution of dispute and potential ongoing collaboration. First and foremost, PAR built knowledge and expertise around the resistant party in a way that might encourage his constructive involvement. Even if not, the knowledge now exists to avoid replicating similar conditions that might lead to trail closure disputes in Gold Hill, and maybe elsewhere. Given sufficient time, in this case, the PAR is highly likely to level the playing field. By empowering all stakeholders in understanding themselves and the strategies in which they might wish to engage, locals will best be able to meet their joint and individual needs.

In this case, PAR supports national initiatives to reduce the impacts of ORV use on public lands, by highlighting a potential alliance with locals. A critical finding of the PAR research in this case is that ORV use impacts not only ecological resources, but socio-cultural ones as well. In addition, a common interest in conservation bridges the stakeholders in the Gold Hill dispute. The PAR component of the intervention reinforces ecological resilience at the eco-regional level through a connection to community-based ecosystem stewardship in a non-resource-dependent community. In this case, PAR may contribute to local, county and state policy to prevent dispute on local historic wildland trails. Legislative initiatives could go a long way to prevent community disintegration that

has resulted from residential sprawl and aggressive recreational imperatives in open space and wildland areas across the Front Range of Colorado.

In this case, PAR focused on cultural, socially-constructed mechanisms for restoring social stability. Gold Hill customs for access to local trails have been highlighted in the *Community Trails Mediation Guide*. This locally-rooted initiative served to create a means to engage in conflict resolution that was culturally-sensitive to local residents. The tools used in resolving the dispute were adapted to the local setting. The *Guide* was reworked several times in order to provide a resource that was comprehensible to locals with limited time and limited patience for academic postulations.

## **Indirect and Residual Effects**

### ***Community***

PAR made a positive difference for people in this case. PAR has served to build a network within the community and may support alliances outside the community through the knowledge base that now exists on local trails. PAR left participants with a positive affect, with good feelings about being courteous, respectful and empowered to handle tensions and difficult situations. The PAR empowered individuals in the community to move towards resolution. PAR supported understanding all the systems involved. PAR allowed community members to retain the highest opinions of the future actions of the other. This is an essential psychological and sociological quality in order to transform conflict into a stable outcome. Community-focused research created an ongoing civil space for dispute resolution.

### ***Relationships***

This intervention accomplished a process of constructive engagement. This intervention was principled in both EDR and PAR. Such principles have been tested and made a difference in guiding this process to a happy outcome. This intervention built many “relationships around trails” except for with the principal controlling stakeholder, New Landowner. Still, as he moves into the area and starts to live in his new house, he may soften. If Catalyst can move in his direction, there may be opportunities to repair the damage done. Mutual understanding might be more a side effect of positive affect rather than a focus on solving problems.

In this case, the PAR-based EDR intervention built opportunities for lingering relationships. Long-term relationships in a community cannot be forced. From this perspective, process design implies keeping the space open for the best to happen. Sorting out a short-term problem without incorporating the layer of community relationship is possible, but not effective in maintaining social stability and creating individual wisdom, happiness and a sense of freedom. Relationships overcome fear of the unknown.

In this case, the intervention has afforded residual benefits for the local community. Locals have been exposed to a model for resolving conflict that relies on deliberation and fact-finding. PAR enhanced the quality of analysis that has been generally brought to bear on community problems. The PAR brought into focus delicate and subtle issues. PAR modeled the use of cultural principles as a basis for resolving social and ecological tensions. Local issues can now be observed and understood by regional policy makers and administrators. Many forms of qualitative and quantitative research are of such poor resolution, that local phenomena are simply not observable. As this case demonstrates, it can be fascinating to observe the ways in which social and ecological phenomena intertwine at the residential community level. Without observational power, even well-meaning policy is inefficient by design.

Building relationships within and outside of any community is essential to a healthy, organic, ecological and social system. These relationships are also essential to effective administration of regional policy. Sustaining interactions across boundaries (Wondolleck and Yaffee, 2000) is critical to forming practical knowledge and to creating sustainable futures.

### ***Knowledge Generation***

This EDR/PAR intervention generated knowledge. If nothing else, that has been accomplished. The knowledge base is of a broad spectrum and can form the foundation for new knowledge creation. It is of the spectrum that can allow for sound outcomes. The PAR in this case highlights the type of information that must be brought to bear to meet the demands of a complex world. That information must become a balance of socio-cultural data along with economic data that has so often served to guide ineffective social policy.

As a result of PAR, the case provides grounded research into the role of trails in maintaining amenity value in rural communities, in preserving ecosystems and in sustaining community viability. Results of the process include written guidance for the community in preventing and resolving future trail disputes; these results may be generalizable. PAR results could raise awareness about locally emergent issues like trail access around which national organizations could mobilize. The effect of private control over public/private trails could also remedy concerns over ORV use on public lands.

The most substantive contribution of PAR in this intervention was the *Community Trails Mediation Guide*. The *Community Trails Mediation Guide* is intended to serve as a malleable, living repository for knowledge that can be fashioned to serve as a community-memory tool; a sort of database which mimics living processes in ways much more organic and useful than typical databases. The *Guide* served to organize Workshop activities in early 2003, but it also serves to fertilize new relationships at a caliber that may adequately address individual landowner interests.

The *Guide* may not only level the playing field, it also validates local experience and values. The *Guide* informs to transform and reform legal structures that can prevent dispute. The *Guide* elucidates culturally rich issues, by looking at this one Front Range rural community deeply. It may bring local issues into the light of the national debate on wilderness and preservation. The *Guide* highlights trails for locals. It highlights trails as precursors to stewardship. Forest, meadows and wetlands served as a potential bridge between the parties. With adequate custom-based support, Gold Hill could become a community of environmental information exchangers. The community could reflect a culture of stewardship. Mediating community trails disputes can serve as a link to ecosystem management without top-down directives.

Loss of trails for locals impacts both a local ecosystem and integration in a resident community. Loss of a trail system dissolves bonds between individuals and a landscape. Such losses can hamper landscape restoration and further degrade ecological conditions due to a lack of stewardship and a loss of sense of place. In addition, for those residents most drawn to a stewardship relationship to natural landscapes, there may be a call away to other areas, a sort of demographic migration away from the community to one in which civic-mindedness and ecological respect are more intact.

Trails reside in complex and dynamic social and ecological systems. For Gold Hill, a twenty-first century U.S. community, a research booklet prepared by locals and updated on an ongoing basis can complement local memory in making current and future decisions about such complex systems. The effort served to build capacity and create knowledge for collaboratively solving problems facing the community and its forest environment.

### ***In an EDR Intervention, Is it Still PAR?***

Now, was the PAR in this case actually PAR? Well, it was and it wasn't. The research was action research as opposed to basic research and then it wasn't that either. Some of the findings presented in the *Community Trails Mediation Guide* can form the basis for future eco-anthropological research into the role of trails. The findings can lead to further conservation biology research on the human effect on an intact or restorable research. One might argue that neither eco-anthropology or conservation biology are true basic science. That leads us back to the conclusion that this case involved action research.

Then, was the PAR participatory. Participatory means that those affected are involved in the research. Well, I'm affected and I was involved. Others that were affected were involved in Phase

One. It is my expectation that locals will continue to be involved in understanding how to resolve and prevent trail disputes. If not locals in Gold Hill, locals elsewhere will likely build on the knowledge and strategies contained in the *Community Trails Mediation Guide*. The research was focused on locals, it was community-focused and it was cyclically community-based participatory action research (CBPAR).

PAR is socio-cultural research to fix or prevent problems; public disputes are problems that reflect core inconsistencies in society. Tenacious and intractable disputes reflect changes that are emerging and creating social or ecological tensions. PAR can support wise deliberation over the way in which change will be modulated by a community, region or state. The Gold Hill EDR/PAR intervention created a base knowledge for understanding trails. It prepared a foundation for understanding one dimension of local social stability.

In light of this case of using PAR in EDR, is PAR now something different than it was? PAR supported constructive participation in a conflict situation. PAR prepared the terrain for resolution. It resulted in secondary outcomes that can move in the direction of resolution.

Previously, participatory action research has been useful in supporting communities in making stable and fair choices affecting social and ecological resources. In this case, participatory action research served to strengthen the environmental dispute-settlement process in several ways. PAR met the call for peace and left residual social benefits for community members and the community.

### ***Local Customs, Culture and Social Stability***

Participatory action research is a wonderful vehicle for elucidating culture and customary practice. Participatory research validates the contemporary experience of local custom and sense of place. Oral history, workshops and a written repository of “community memory.” (*The Guide*) structured participatory research in this case of mediating local trail access.

Local customs of use require a sense of who is local, now vanishing. The fencing process has had the effect of impeding wildlife movement while also disengaging the neighborly relationships that have been a hallmark of community life in the rural West. Resources and external threats dynamically alter this understanding. “Bounding the local” contextualizes social reciprocity within a particular geographic scale. In the case of Gold Hill, the boundary of localness includes a permeable interface with others in Boulder and beyond which has both benefits and drawbacks to be managed.

An EDR/PAR process could result in sustainable cultural behavior that might not only resolve the current disputes, but also prevent future trail disputes. People may become accustomed to a gradual decline in quality of life and the aesthetics of the environment, without becoming aware in the short-term of the long-term repercussions. Mobilizing efforts to counter the thrust of financially secure interests with political clout is a tenuous battle. Many people simply do not have the time or energy to volunteer for more than one or possibly two causes. Enhancing the credibility and efficiency of volunteer efforts to understand themselves and their claims is essential to effective national dialogue on the environment.

In Gold Hill, as the pressures for outdoor recreational use increase, and newcomers migrate to buildable land parcels in these wildlands, private landowners one-by-one close their land to access by surrounding local communities; their desire for privacy and safety is besieged by those that they do not know. Trails are an asset to ecosystem health for both wildlife and humans in foraging and recreation. They are integral to the ecosystem as the pathways for movement of species (Low-email, 2003). These pathways are threatened by dislocation, extreme disparities in wealth that separate, real estate profit-seeking imperatives and ill-conceived tax abatement programs.

In order to understand community activist claims, social impact analysis was a useful framework for organizing the PAR. In addition, the approach provided an avenue for modeling and diffusing participatory democracy by sharing alternatives to existing forms of representative decision-making often fraught with conflict of interest and subsequent short-lived outcomes. Exploring observations and claims of both sides maintains neutrality and balances expertise to overcome

uncertainty and share perspectives and knowledge. Despite neutrality and public involvement focus, interveners like me, can bring science to a social setting through the use of social impact assessment.

### ***Ecosystems***

A parallel exists between local access to trail systems and community-based ecosystem management: both are impeded by fractured landownership. This parallel can enlighten the dialogue on ecosystem management. To maintain viability, both require social mechanisms for long-term information exchange. The PAR raises awareness about the fact that local trails and wildlife habitat are integral to community-based conservation and sustainable resource use. Trails are essential for resident communities to steward their proximate landscape environment. In this case, the PAR emphasizes that trails are linked to ecosystems. Loss of trail segments mimics fragmentation processes that are rampant across global ecosystems.

The Gold Hill case particularly pointed out for this researcher/practitioner, the role of the dwindling montane systems in ensuring the preservation of watersheds, habitat and migratory corridors. The restoration of montane systems is essential to restoring the Southern Rockies Eco-region, particularly in transition zones like Gold Hill, where plains give way to the Continental Divide in a short fifteen-mile stretch.

### ***Broader Usefulness***

This EDR/PAR intervention also engenders residual benefits for a broader social base than Gold Hill alone. The roots of today's ecosystem management problems are not only equitable and sustainable distribution of resources, but also working with complex interdependent issues. Solving problems informally provides the impetus for lingering information exchange. Community resilience is not built solely on the basis of material exchange but also on social capital exchange and the exchange of information outside of a community.

A locally based case of resolving a linkage dispute can have broad ramifications. For one, the case does set a precedent for attempting to resolve local trail disputes. The factors contributing to this dispute are not unique to Gold Hill, even though Gold Hill has many unique attributes. Across the globe, a loss of ecological resilience and cultural uniqueness afflicts local communities. Change is occurring at a rapid rate. The world that my parents were born into had been stable for generations. The world my son and I now reside in hardly resembles those roots and stable ways of interrelating and sustaining life. The social capacity to deal with these tensions is weak, not only because of the magnitude of change, but by its constant recurrence. The tensions cause conflict. Mechanisms for working with conflict are needed. EDR has been an effective approach. PAR may serve to support EDR in preventing the disputes and resolving them in the most efficient and integrative fashion. PAR grounds deliberation in order to modulate change constructively.

In the long run and without the described ecological familiarity and affinity, response times to change may not permit adaptation for sustainable co-existence of all living organisms in an earthbound system. For example, there may not be time to re-evaluate recreational or harvest practice by any private or public party, when it impacts a larger-scale common good like a forest ecosystem. Or local residents may not be able to attend to or mobilize against a destabilizing ecological intrusion like invasive plant species or migration northwards of insect and bird species attributable to global warming. Or local residents may not have time to network broadly across regions to defend against a large-scale and often-corrupt political economy that uses natural resources to produce goods and services for short-term gains, disregarding both short-term and long-term, often irremediable, social and ecological externalities or side effects.

### ***Is this Case Study Useful?***

The case study follows sound research design principles and does lead to some practical implications as well as areas that merit further study. The analysis of the intervention triangulated a range of approaches to evaluation. The initial research hypothesis involved my own interest and

intuition combined with a review of literature. In so doing, I delineated both practical problems and a gap in knowledge. At the outset, I articulated a certain set of objectives that not only address critiques surrounding EDR in preserving social justice, peace and environmental health; but that might also serve to create an environment for mutual understanding by de-escalating the dispute.

The dispute did turn down to a simmer, but mutual understanding was not reached. Still, many issues surrounding a community effort to resolve its own internal disputes have been understood. The case study research design and the principles of the intervention have been explained both in the Introduction and in this Chapter. The means by which data was collected and the methods used to analyze have been explained. This chapter reports the evaluation results and now concludes by tying the widely-ranging content of this case study into some coherent conclusions.

### **Conclusively-Inconclusively-Conclusively**

This case study systematically presents the implementation of a PAR effort as part of a mediation process. In this case, PAR improved local capacity for dispute prevention by enacting a process of learning about stakeholder interests and by creating the knowledge base to devise creative options for resolution. PAR constructively de-escalated the dispute and opened up a period for suspended judgment. PAR made room for patience and perseverance rather than escalated emotions over a perceived injustice

Inconclusively, a PAR approach may not suffice in ensuring cooperation around common pool resources like local trail systems. Cooperation depends on local resilience to the intensity of exogenous impacts. Exogenous social and ecological impacts on local community life do occur at an unfortunately constant rate. It is not yet clear as to whether this EDR/PAR intervention may serve to support local capacity to resolve all types of dispute over common pool resources. The intervention was dependent upon the specific actions of specific actors. Whether other types of disputes with other stakeholders can be handled effectively through EDR/PAR is uncertain. Still, it appears that this EDR/PAR intervention has improved local resilience to exogenous impact.

Additionally, it remains impossible to predict whether the North Trail dispute in particular will be resolved. It is equally impossible to ascertain to what extent other local landowners with trails will be willing in the future to work with the local community to resolve disputes on trail segments that cross their land. In return, it is uncertain to what extent locals will choose to live in a landscape in which trail access has been eliminated. Still, in this case, the *Community Trails Mediation Guide* will likely continue to serve as a trails dispute resolution and prevention tool.

Conclusively, this EDR/PAR intervention was a strategically effective and peaceful way to attempt to restore social stability. Over the course of several years, the intervention served to bring people together as complementary actors in resolving a trail dispute. The EDR/PAR intervention actively involved local stakeholders in resolving a localized threat to their serene way of life. The intervention built knowledge about community issues and ecological conditions. The EDR/PAR intervention served to model socially-unified composure, perseverance and hope in the face of a seemingly insurmountable barrier.