

**Evaluating the Use of Mediation in Land Use Decision-Making**

by

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B.A. Government  
Colby College, 1990

Submitted to the Department of Urban Studies and Planning in Partial Fulfillment  
of the Requirements for the Degree of

Masters in City Planning  
at the  
Massachusetts Institute of Technology

June 1998

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## **ABSTRACT**

Land use decisions involve tough choices for local planners and Planning Board members. Currently, the land use decision making process has many limitations. These limitations naturally have a negative impact upon the decisions issued using this process. One proposed remedy is the process of assisted negotiation or mediation. Advocates of assisted negotiation claim that their process produces “better” decisions than the conventional process. The purpose of this thesis is to assess whether the decisions reached through assisted negotiation are an improvement over decisions reached through the conventional process.

The first stage of my research was locating and evaluating decisions produced by the assisted negotiation process. I focused on 16 facility siting decisions that used assisted negotiation to reach decisions. For this study, 62 interviews were conducted with the proponents, opponents, government officials, and the mediator in each of the 16 cases. Evaluation criteria were developed that could be tested by using questions from the interview protocol. The first set of criteria measured participant satisfaction. The second set measured efficiency, stability and creativity. Using the proposed criteria, I located three cases that had high participant satisfaction levels. Two of the three cases represented routine issues faced by planners and therefore were selected for comparison with conventional cases.

The selected cases involved the siting of surface mine facilities. Each assisted negotiation case was matched with a similar case in the same geographic region that was resolved by more conventional means. Final agreements were compared using a list of common conditions attached to most surface mining permits. While the assisted negotiation cases yielded higher satisfaction levels, the results were less conclusive regarding efficiency, stability, and the creativity of the decisions. Further adjustments to the criteria for making such an assessment are discussed in the final chapter.

Thesis Advisor: Larry Susskind

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## **Acknowledgements**

This thesis was researched and written with aid of a lot people, most of whom were involved in a larger study conducted by the Consensus Building Institute of the use of mediation in land use disputes. I would like to thank Larry Susskind for giving me the opportunity to work on the CBI study and providing guidance throughout the process of developing and writing this thesis. I want to thank my reader, Terry Szold, for bringing fresh perceptives to my research. I wish to thank Sid Straley and Polly O'Brian for their assistance with all the day to day issues involved in managing CBI research effort. Also, I want to thank Dan Moss, for his work during the initial phase of the CBI study and developing the interview protocol. I really appreciate the work of the interns at CBI who conducted many of the interviews used in this study. Among this cast of characters were Robin Champion, Cassel Kroll, Laura London, Eric Paley, Cheri Peele, and Terry Wade. A special thanks to the 70 participants who took the time out of their day to talk about their experience and to supply additional information on their cases. Finally, a special thanks to Minakshi Mani for reading several of my drafts and for all of the home cooked meals during the thesis process.

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# CHAPTER 1

## Introduction

The current system of land use decision-making has many limitations. One potential remedy for some of the limitations of the current system is use of assisted negotiation. Advocates of the process of assisted negotiation claim that decisions reached through their process are, in fact, an improvement over the conventional process. The purpose of this thesis is to develop criteria for evaluating mediated land use decisions to determine if indeed, there are improvements in decisions reached through the use of mediation as compared to the conventional process. I hope that the development of these evaluation criteria will engender lively debate and encourage others to work on evaluating land use decisions.

## Difficulties with Land Use Decisions-Making

Land use decisions represent difficult choices for planners and public officials. There are several reasons why land use decisions are troublesome. The first set of reasons has to do with the fact that land is a limited resource with many competing interests vying for its use. The second set of reasons has to do with the conventional process for making land use decisions. The obstacles and limitations of the conventional process are explored below.

Land is a limited resource. A variety of uses may be appropriate on a given parcel of land. Some uses can co-exist on the same parcel. However, land uses are often not compatible, and one type of land use precludes another. For example, a site could be used for a gravel mine or as farmland, but most likely, the two activities could not exist on the same piece of land at the same time. In addition, mining may make that land unusable for farming in the future. Decision-makers are frequently called upon to approve a use for a parcel. Sometimes the proposed use is in conflict with the present uses of a site or may prevent future uses. Thus, the fact that land is a limited resource with multiple uses makes deciding the appropriate use difficult.

Many parties are affected by land use decisions. The usual list of affected parties includes developers, abutters, citizens groups, and government agencies. While this is a basic list, there is a considerable diversity of interests within each category.

Take the role of developers in the decision-making process. Developers want a clear and predictable decision-making system so that they can accurately establish a reliable timetable for project financing. Yet, developers as a group are not a unified or monolithic interest group. They may be nonprofit organizations or for profit organization, and thus have different motives. Developers may take the form of local universities, churches or hospitals. The developer may be a local firm, a regional player or even a global investor. The nature of the developer will offer different challenges to public officials in their attempt to reach a decision on a project.

Another complex interest is the notion of the “public interest.” The idea that there is one public interest to be served is not an accurate one, rather, there are multiple “publics.” The views of these multiple publics are seldom in sync with each other. Land use decisions often require public officials to be able to decipher subtle differences in public interests. For example, consider the diversity among residents in a neighborhood near a proposed development project. Residents could be divided into different groups such as abutters, members of a homeowners association, and members of a local environmental group. The views of the abutters may be quite different from those expressed by residents who are members of the homeowners association. Land use decisions require that planners and public officials discern both obvious and subtle differences in public interests. Again, the use of land and the multiple public interests make land use decisions difficult.

Outside of these reasons, there are obstacles related to the decision making process for land use. Today, land use decisions are made within a well established legal framework. Since the 1926 Supreme Court decision in *Village of Euclid v. Ambler Realty Co.*, the right of local government to use their police powers to guide the type, location, and pace of development has been an accepted practice. While the Euclid ruling affirmed the rights of communities to plan their collective future, it also encouraged communities to formalize their land use decision-making process through drafting comprehensive plans for land use. To draft and implement comprehensive plans, a formal decision-making process arose. While the details of the land use regulations will be different for each town across the county, there are common elements in the process of administering

land use regulations. A general description of land use planning and decision-making is therefore in order.

Land use controls are derived from police powers that are granted to municipalities or counties by state government through enabling legislation. What is essentially transferred from a state to local governments is the power to legislate land use controls. The exact legislative body responsible for passing land use controls will differ from state to state. Town meetings or city councils are examples of local legislative bodies that commonly are responsible for enacting local zoning or voting on changes to zoning codes.

The responsibility for the administration of land use policy rests with the Planning Board or a County Board of Commissioners. Again depending on the state, the primary responsibility for land use decisions rests with either a municipality or with a county government. For the purposes of this discussion, the decision-making process will be considered as essentially the same whether the primary role is played by a county government or a municipal government. These Planning Boards may be composed of appointed or elected officials. Usually, Planning Board members are lay persons to the field of land use planning, so most boards are advised by a professional planning staff.

The general framework for regulating land use is known as zonings. Essentially, zoning divides a community up into different land use zones. In a particular zone some types of land uses are permitted, while others are prohibited. Some of the traditional zoning categories are industrial, single family residential and general business. Traditionally, residential zones exclude all other uses, while other zones, such as general business, are open to a wider range of uses. These land use zones are then transferred on to a map of the municipality.

Planning Boards review new development projects to ensure that projects meet the established zoning restrictions. With these types of decisions, the Planning Boards usually provide public hearings as a method of involving citizens in the planning process. The decisions of the Planning Board can be appealed. In some states there is a state level Land Use Board of Appeals that can review local decisions. However, in many states the next step in appealing a Planning Board decision is a trial court or a court of appeals.

There are two commonly used forms of relief for changing a zoning classification. Property owners can go before their local legislative body to request a change in zoning. If the property has unusual topographic features, a property owner can apply to the local Board of Appeals for a variance from certain zoning requirements.

The conventional process for making land use decisions has several major limitations. Some of the criticisms of the conventional process are with the limited way the public is involved, the inefficiency of litigation, and the winner-take all method of issuing decisions. There are other criticisms of the conventional process, however, these three major criticisms are particularly relevant to my research.

A major criticism of conventional process is that public hearings are often an ineffective method for involving citizens in the decision-making process. Public hearings are not widely advertised. The advertising for a public hearing takes the form of notice in an obscure section of the local newspaper. Some residents receive notice by mail of a public hearing. Usually, only abutting property owners are notified by mail of a public hearing. In addition, hearings are often held at inconvenient times for citizens to participate. (Checkoway 1981:567)

Public hearings are a formal process and often there are rigid procedural rules of how the parties can interact. The lack of interaction among participants at the public hearing is another serious problem. At the hearings, project proponents make a presentation to the Planning Board. Board members may ask questions of the proponents but often proponents may not ask questions of board members. If there is an organized opposition to a project, they are also allowed to make a presentation. Again, board members can ask questions of the opponents, but often it is a one way conversation. The general public is allowed to offer comments on the proposed project, yet often they can not ask questions of either the proponents or of board members during the public hearing. (Checkoway 1981:568) While some public hearings may be run in a way that allows for communication between all of the participants, the hearings are still more formal than a round table discussion of issues.

Finally, public hearings often take place late in the planning process when it is seemingly too late to make major modifications to a proposed project. Often, the

concerns of the public are not reflected in the criteria that board members must use to make their decision on a project. Hence, public officials make decisions that do not acknowledge the concerns voiced at public hearings by citizens. In response, citizens feel that their input has little influence on the land use decision. The dissatisfaction of citizens often leads to court challenges or future problems when the decision is implemented.

A second major criticism of the current decision-making process is that litigation is an inefficient option for resolving disputes over land use decisions. The cost of appealing a planning board decision can build up quickly. There are court filing fees, attorney fees and frequently, there is the cost of hiring expert witness. The parties can spend a significant amount of time just waiting for their court date. In theory, a local board decision can be appealed all the way to the Supreme Court, however, it takes years to reach that level of judicial review. In the well-known case, *First English Evangelical Lutheran Church of Glendale v. County of Los Angeles*, the parties spent a total of 12 years in court. The case took ten years to reach the Supreme Court, which issued a partial decision on the merits of a temporary regulatory taking but remanded the decision back to the California Court of Appeals. Another two years passed before the California Court of Appeals issued the final decision. (Dennison, 1993:1) The resources that municipalities devote to defending land use decisions are significant strain on their limited budgets. The time spent in court by developers has a negative impact on their financial timetable and can break a project. Local citizens groups often have a hard time even paying the application fees for an appeal.

A third criticism is that the decisions issued by planning board or by court are “win –lose” decisions. In reviewing a proposal, a planning board can approve it, reject it, or approve it with some conditions. When a board attaches conditions to a proposal, they are limited in the types of conditions they can request from an applicant. Again, planning boards have to review a project against fixed evaluation criteria. Their ability to address issues outside of those criteria is finite. Further, both the developer and the affected parties often view these conditions as “an unsatisfactory compromise by both sides.” (Dorius 1993:599) Drafting conditions in an atmosphere that discourages dialogue

between the different groups is difficult. In the end these conditions may only result in imposing burdens on the developer and offer little useful benefits to the other affected parties.

When a board's decision is appealed, courts typically decide in favor of one side.

As Richard Babcock observed:

“Because zoning litigation is an all or nothing proposition, the judge is constantly forced to make decisions in which he does not wholeheartedly believe. Either the city wins and the property owner is absolutely prevented from pursuing his development, or the city loses and the plaintiff achieves his objective regardless of the impact on the neighborhood.” (Babcock 1966:168)

Since land use issues are complex, it makes little sense for the decision to only reflect the interests of one group in the process. Yet, Babcock laments: “There is no machinery by which he (the judge) can declare the zoning a “little bit invalid.” (Babcock 1966:168) However, communities across the country are experimenting with a variety of techniques for improving land use decisions. One process that claims to produce better decisions is the practice of assisted negotiation or mediation.

### **Assisted Negotiation Decision Making**

Assisted negotiation refers to the involvement of a neutral party (selected by the stakeholders) who acts either as a facilitator or as a mediator. In the land use arena professional neutrals have been used to facilitate the drafting of comprehensive plans and to mediate the resolution of specific land use disputes. Practitioners of assisted negotiation argue that when the parties in a dispute can meet outside of the rigid hearing format of the traditional planning process, they have an opportunity to learn about mutual interests, clarify concerns, and engage in collaborative problem solving. In addition, since the parties are more informed about each other's true interests, the various parties can offer adjustment that are of little cost to them, but of great significance to the others. Advocates of assisted negotiation also claim that the agreements reached are substantively improved since participants are able to capture “joint gains.” These would probably not have been recognized through a conventional planning process where participants tend to get locked in to zero-sum style confrontations.

While the theoretical claims are clear, there few systematic evaluations of the results of assisted negotiation in the land use planning. There are anecdotal reports and

case studies of successful mediation, but these studies rarely examine the situation several years after the parties have signed a final agreement. Furthermore, there have been no attempts to directly compare decisions made in the mediation process with decisions made in the conventional process. While many studies have implied a comparison between the conventional process and mediation, these comparisons have been indirect.

A representative treatment of this type of evaluation is Edith's Netter's case study published in *Zoning and Planning Law Reports*. In her article, Netter examined her role as a mediator in two high profile land use disputes. Netter points to the quality of decisions from mediation as a major attraction:

"Mediated solutions often result in "better" projects or policies. Both logic and experience tell us that people working in a collaborative manner are more likely to consider a broader range of solutions than those at odds with one another. Through collaborative processes people create solutions they had not even thought of before engaging in negotiations. Often the "new" solution benefits more than one party - redesigned development project could result, for example, in improving marketing opportunities for the developer and fewer adverse impacts for the neighbor." (Netter, 1995: 18)

Many of the studies of assisted negotiation make similar claims and offer similar explanations. In her article, Netter does not try to prove her assertion that mediation produces a "better" decision. While stories are helpful in illustrating for land use planners the potential benefits of mediation, in terms of research, the conclusions are limited.

In addition, these case studies are often written by a mediator about his or her own experience. The mediator is telling the story. The decision reached by mediation is evaluated based on the mediator's perception of how the participant's viewed the settlement. Again, this is not to dismiss the value of hearing the stories from the mediator's perspective. It is worth noting though, that the mediator has a point of view and that his or her judgment should not be the only source for an evaluation.

Assisted negotiation is not without its critics, but even the critics lack a systemic evaluation of assisted negotiation. According to Douglas Amy, a respected skeptic of assisted negotiation: "It is a mistake to view mediation as the solution to the political problems that afflict the courts and other traditional policy making institutions. Indeed it is prone to the very same problems of expense, exclusion, inequity and distortion that are present in all the other approaches to environmental decision-making." (Amy, 225:1987)

Unfortunately, Amy does not support his charges with anything more than anecdotal evidence. Again, while the stories of poor decisions are instructive, practitioners can use little of this information to evaluate their own agreements and decision-making processes.

One of the few comprehensive evaluations of assisted negotiation was conducted in 1986 by Gail Bingham. Over 150 instances in which dispute resolution was used were examined, with 70 of the cases involving site specific land use disputes. Bingham's aim in conducting the study was to determine the factors that contributed to "successful" dispute resolution. While the success of a process and the quality of the decisions that result are related, Bingham is careful to point out that certain aspects of quality in are difficult to ascertain and are therefore not examined in her study. According to Bingham, "Since the conclusions about the quality of an agreement in any dispute resolution attempt depend heavily on the values of each individual party, it is hard to determine when or how well agreements resolved the issue." (Bingham, 1986: 71) Instead of evaluating the quality of agreements reached through dispute resolution Bingham focuses on the extent of implementation as a key indicator of "success." Another indicator of success is the existence of an agreement and its meaning in the eyes of the participants.

"Thus, the first and simplest measure of how successful a dispute resolution process has been in resolving the real issues in dispute is the frequency with which it has resulted in agreements being reached. The logical extension of these assumptions is not, however, that an agreement per se necessarily constitutes a success, but that reaching an agreement is a success when the parties themselves judge that the outcome is better than the most likely outcome using some other strategy." (Bingham, 1986: 70)

Bingham relies on the participants' own evaluation of their options. By ratifying an agreement, participants signal that in their assessment, the agreement is the best possible outcome. In Bingham's study, interviews with participants aid in her determination of success. She summarized her results at the case level, however, with no presentation of actual interview data. Since the study does not provide a discussion of the methodology used nor a copy of the interview protocol, it is difficult to determine how participant's views were synthesized.

Outside of interviews with participants, Bingham does attempt to substantiate the participants' general views by investigating general trends in litigation. A big factor in the judgment by participants that dispute resolution efforts "worked" rests on their

assessment of the time and cost involved in litigation. (Bingham, 1986:132) Bingham attempts to quantify this judgment of the relative efficiency of litigation by analyzing data on environmental cases and civil cases from U.S. District Court in the early 1980s. The median duration of civil suits for environmental matter was 12 months, compared to 7 months for all civil cases. Of the cases that actually went to trial, the median duration was 23 months for environmental cases and 19 months for civil cases. By comparison, the median duration for site specific cases that reached an agreement using dispute resolution was only 5 to 6 months. (Bingham, 1986:136) The comparison offered by Bingham is broad comparison between litigation and mediation. What is missing is a direct comparison between individual mediated cases and conventional cases.

Another aspect of success is the extent to which agreements have been implemented. Bingham compared how well agreements were implemented against other attributes of her cases. In her study, cases were categorized into site specific cases and policy cases. As far as implementation was concerned, Bingham found that site specific disputes that reached an agreement had a higher rate of successful implementation than policy disputes that reached agreement. According to Bingham, 80% of site specific disputes successfully implemented their agreements as compared to 41% of policy disputes. (Bingham, 1986: 77)

One explanation offered by Bingham for the difference is that stakeholders in site specific disputes have an easier time defining the problem that has brought them to the table than their counterparts in public policy disputes. In public policy disputes, how the problem is defined and getting all the parties to accept that there is a problem are major challenges. Identifying the interested and affected parties in a site-specific dispute is more straightforward than in public policy disputes. Unrecognized interests in a public policy dispute will cause problems at the implementation stage. (Bingham, 1986:77-83)

Like Bingham, Susskind and Cruickshank believe that participants' perceptions of the process and the settlement are a meaningful measure of the quality of the outcome. In evaluating whether an agreement is truly "good", Susskind and Cruickshank propose that it be examined in terms of its fairness, efficiency, wisdom, and stability. In determining

fairness, attempts at getting participants to evaluate the substantive quality of an agreement are misplaced.

“In short, there is no single indicator of substantive fairness that all parties to a public dispute are likely to accept. In our field work, therefore, we avoid ironclad determinations of “fairness.” We simply affirm that in a public dispute, a good process produces a good outcome; and a better process, a better outcome.”(Susskind and Cruickshank, 1987: 24)

In evaluating decisions, Susskind and Cruickshank prefer to focus on the participants perception of the process as opposed to an evaluation of the substantive components of the agreement.

Susskind and Cruickshank attempt to differentiate fairness from traditional political compromise by asking the following four questions: “Was the offer to participate genuine, and were all the stakeholders given a chance to be involved? Were opportunities provided for systematic review and improvement of the decision process in response to concerns of the stakeholders? Was the process perceived as legitimate after it ended, as well as when it began? In the eyes of the community was a good precedent set?” (Susskind and Cruickshank, 1987: 24) The traditional compromise decisions that result from simply splitting the difference between opposing groups are without any lasting satisfaction since both sides resent having given something up. This idea that decisions reached through assisted negotiation are not compromises is crucial to understanding why advocates of assisted negotiation believe that this process produces better outcomes.

Another important element is the efficiency in reaching the agreement. An element of efficiency is the lasting satisfaction by participants with the agreement. By not revisiting issues in an old dispute, participants are free to pursue other interests. Susskind and Cruickshank also measure efficiency based on the time and cost involved in generating an agreement. Again, the participants are the most qualified individuals to comment on whether the process took too long or was too expensive.

Of the four criteria proposed by Susskind and Cruickshank, the wisdom of a decision comes closest to requiring an assessment of the substance of an agreement. Wisdom is the first casualty in the conventional planning process when the parties in a controversial case turn to expert witnesses. The goal of the expert witness is usually to

discredit their opponents' information instead of improving the body of knowledge regarding the dispute. In situations where there is a heavy reliance on expert witnesses, decision-makers tend to pick winners and losers among the experts. In the atmosphere of such advocacy science, the richness or complexity of the issues that a site might offer is lost to a choice between two experts.

As a remedy for advocacy science, Susskind and Cruickshank propose joint fact finding and breaking problems down into more manageable pieces as two approaches for arriving at a wise settlement. (Susskind and Cruickshank, 1987:30) In addition, a wise decision is not locked in time but remains malleable in the face of advances in science, changing cultural attitudes and shifts in demographics.

Incorporating opportunities to re-negotiate a settlement in the face of new information is part of making participants feel comfortable with their decision. This comfort leads to a greater stability of an agreement. Susskind and Cruickshank place stability in a broader context than how well the agreement is implemented. Components of a stable agreement are its feasibility and the strength of the relationships built during the process to ensure that the agreements are implemented.

From this brief review of literature in assisted negotiation, the basic need for developing evaluation criteria is apparent. The attempts at evaluating assisted negotiation have been largely case studies, with little empirical support. Most importantly, the previous evaluations have not truly compared the decisions reached by assisted negotiation with decision produced in the conventional planning process. This thesis will attempt to fill some of the gaps in the evaluation of decisions of assisted negotiation. In the following chapters, evaluation criteria are developed and applied to a collection of decision produced with the aid of a professional neutral.

## **CHAPTER 2**

### **Overview of Analytical Framework**

This chapter focuses on development of the evaluation criteria and their application. Facility siting cases were located that used a mediator to reach a decision. Next, participants in the mediation were interviewed. A two part evaluation criteria was developed and applied to the interviews. The first part measures participant satisfaction. This satisfaction index acts as the screen for locating cases for further study. The second part of the evaluation criteria incorporated measures of efficiency, stability, and creativity into a second index that was applied to each case. Based on the results, certain facility siting cases were “matched” with similar cases that were resolved using the conventional planning process. The matched pair analysis is discussed in the next chapter.

### **Locating Assisted Negotiation Cases**

This thesis relied heavily upon research that I was involved with while working for Consensus Building Institute (CBI) on a study of the use of assisted negotiation in land use disputes. In the CBI study, cases of assisted negotiation were identified and interviews were conducted with the major participants in each case. Based on the interviews and case information, a prescriptive guide for public officials on the use of assisted negotiation was produced for publication by the Lincoln Institute of Land Policy. The cases collected by CBI and the corresponding interviews with participants in each case were used in this thesis. The evaluation criteria developed in this thesis were based upon the interview protocol used by CBI staff.

Since the CBI study was a significant source of information, a brief overview of the methodology of the CBI study is in order. CBI staff sought the nomination of a wide range of land use cases by well known mediators. CBI identified 100 land use cases that involved assisted negotiation. The sample included both cases in which disputes were resolved as well as instances in which the process broke down and the disputing parties ended up in court.

One potential bias in the CBI data is that many of the cases were nominated by mediators. Naturally, mediators want to “put their best foot forward” when nominating

cases for evaluation. A study of a collection of best case examples would not be reflective of the typical experience in using assisted negotiation.

It also should be noted that the method for gathering cases did not rely on random sampling. Since CBI cases were not randomly drawn, the results should not be interpreted as a "Gallup poll." For example, a figure stating that 53% of the participants felt that cases were settled does not mean that 53% of all assisted negotiation cases in the US were settled. The statistics drawn from the CBI database are illustrative and pertain only to the 100 cases studied by CBI.

The CBI data are still useful in spite of it not being drawn randomly. Since the field of dispute resolution is small, the only realistic way to gather cases is by talking with mediators. Even land use planners have comparatively limited experience using assisted negotiation. Typically, a land use planner may have participated in one or two cases that used assisted negotiation in his or her entire career as opposed to mediators, who have worked on dozens or more land use disputes. Since the sample size (100 cases) of the CBI study is relatively large in comparison to the level of use of assisted negotiation, the data are useful for examining general trends. Mediators are also in a good position to nominate cases since they are neutral in reference to the substance of the land use dispute.

The assisted negotiation cases in the CBI study fell into the following six categories: Comprehensive Planning, Growth and Development, Facility Siting, Natural Resource Management, Infrastructure Design, and Environmental Cleanup.

**Table 1 Distribution of Land Use Cases**

	Midwest	North	Pacific Coast	Rocky Mt.	South	Grand Total
Comprehensive Planning	0	0	8	2	6	16
Development and Growth	1	4	6	4	3	18
Environmental Cleanup	0	3	2	1	0	6
Facility Siting	3	6	5	1	1	16
Infrastructure Design	4	6	4	3	3	20
Natural Resource Mgt.	3	13	4	4	0	24
Grand Total	11	32	29	15	13	100

For the purposes of this thesis, only the facility siting cases were examined. Facility siting disputes are common events in land use planning. These disputes are

particularly destructive since they tend to polarize entire communities. Within the facility siting category, the cases range from siting low level radioactive waste facilities, to homeless shelters, to open pit gravel mines. With these types of facilities, opponents are often concerned about the impact on property values, the environment, and on their way of life. Facility siting cases tend to have a high degree of technical complexity, making a site plan review of the proposed facility difficult. Local officials often support proposed facilities in an effort to generate economic development. Any lessons that can be learned on how about better handle facility siting cases would be a worthy contribution to the field of planning.

### **Types of Facility Siting Cases (16 cases)**

#### **Low Level Radioactive Waste Siting (2 cases)**

These cases involved state wide efforts to address the question of how to find acceptable locations for the disposal of low level radioactive waste. The governing boards that handle the licensing of the facility organized stakeholder advisory committees to try and create a more publicly acceptable siting criteria for evaluating applications for low level radioactive waste disposal. Mediators were involved in facilitating the discussions of these citizen advisory board on drafting site review criteria .

#### **Hazardous Waste Incinerator (1 case)**

A large chemical company formed a community involvement group (CIG) with representatives of environmental and civic organizations. Among the first issues addressed by CIG was a proposal by the chemical company to build a hazardous waste incinerator. A facilitator was used for the CIG process.

#### **Homeless Shelters (3 cases)**

These cases involved the siting or relocating of homeless shelters both in small communities and in a large metropolitan area. Neighborhood groups and local businesses raised objections to the proposed locations of the shelters and sought to find alternative locations for them. City and county government officials tended to support social service agencies and church groups in their efforts to site the shelters. Mediators were brought in to resolve the disputes between local business and shelter advocates.

#### **Quarries and Gravel Pits (6 cases)**

These cases began with the site review process for permits to allow either the expansion or the opening of open pit gravel mines. Abutters and neighborhood groups objected to the mines due to concerns over traffic, hours of operation, noise and dust, drinking water contamination and possible structural damage to their homes. The matters were referred to mediation after one of the parties appealed the decision of the local planning commission or board of county commissions.

#### **Hospital Relocation (1 case)**

A Hospital wished to consolidate and upgrade its facilities from two downtown campuses to a single location in a suburban neighborhood. Residents in the upscale neighborhood objected on the grounds property tax losses in the future. Downtown neighborhood

residents, many of whom were elderly, low-income or people of color, objected on grounds that the neighborhood would lose its principal employer, as well as the services of the hospital. A public advisory group was formed, facilitated by a neutral outside party, to examine the consolidation and relocation of the hospital.

**Landfill Siting (1 case)**

This case involved a proposal to site a solid waste disposal facility, occupying 60 acres, for the disposal of municipal solid waste, commercial waste and non-hazardous industrial process waste. Representatives appointed by the affected municipalities formed a joint committee to review the site plan. The main concerns were over the impact of the landfill on a nearby lake and upon an adjacent town. An outside mediator was brought in to try and resolve the dispute between the two communities and other stakeholders.

**Low Income Housing (1 case)**

A developer proposed a low income housing development which under the laws of that state, removed much of the control of the local planning commission in reviewing the site plan. Town officials were concerned regarding septic failure and about the impact on the tax base. Upon appeal to the state's Housing Board of Appeals, the case was referred to mediation.

**Mushroom Composting (1 case)**

A permit application by a turf products company to site a facility for the storage and sale of mushroom compost raised concerns of neighboring property owners. A concerned citizen group formed and appealed the permit application. Citizens were concerned about airborne particulate matter and possible health effects. The state's Environmental Hearing Board referred the case to mediation.

**The Interviews**

The concept of an outside expert imposing evaluative criteria on land use decisions has little appeal among land use planning and dispute resolution theorists. Many of the authors previously mentioned suggest that participants in land use planning processes are the most qualified to assess the processes used in making land use decisions. In keeping with the current thinking that local participants "*know best*", the foundation for assessing a land use decision in this study is based upon interviews with participants who were involved in cases that used assisted negotiation. This is an evaluation based on the attitudes of participants toward the process that they went through in trying to resolve a facility siting issue.

In the Spring of 1997, the CBI staff developed a 31-question interview protocol. This interview protocol was pre-tested on a group of Canadian land use cases that were mediated by the Office of the Provincial Facilitator in Ontario. (Moss, 1997) In an attempt to keep the interviews under 30 minutes, the protocol was pared down to 25 questions. See Appendix A for a copy of the interview protocol. The protocol included

both open-ended questions as well as closed ended questions where the interviewees were asked to rank their responses.

Among the facility siting cases, 62 interviews were conducted. Between three to five interviews were conducted per case with proponents, opponents, local planning officials and the mediator. The interviews were conducted with an assurance of confidentiality, so the actual case names and the names of participants are not cited in this thesis.

### **Evaluation Criteria: Part One**

In developing criteria to evaluate the results of assisted negotiation, my guiding premise was that the satisfaction of the participants was a meaningful commentary on the land use decision. Several authors link the satisfaction of the participants in a land use decision with the overall quality of that decision. For example, Porter, Philip, and Lassar, refer to “customer satisfaction as a clue” to the quality of the overall decision. I focused on both the satisfaction of the participants with assisted negotiation processes and their satisfaction with the implementation of the agreement. Again, the decisions are evaluated based on participant attitudes as expressed through the interviews.

Three questions from the interview protocol were used to approximate levels of satisfaction with the land use decision. In order to be considered a decision worthy of further study, all the participants interviewed in a case had to rate the process as follows; either **very favorable** or **favorable**, the case had to be considered **settled**, and rated as either **very well** or **sufficiently well** implemented. These measures were applied to all 62 interviews and the results were tabulated case-by-case. In the corresponding chart assessing satisfaction levels, the answers for each case are summarized. When the replies were either all positive or all negative they were summarized by the lowest ranked reply. For example, in a case where four people were interviewed and two people thought that the process was very favorable, yet the two participants thought that the process was only favorable, the case was summarized as favorable.

Of the 16 cases, 3 cases met all the conditions for high satisfaction. The highest rated decision by far was that of the CIG advisory group set up to address the siting of a hazardous waste incinerator. It was the only case that received the highest unanimous

### Protocol Questioned used to Measure Satisfaction

1. What was your evaluation of the process? Would you rate the process as “very favorable”, “favorable”, “unfavorable”, or “very unfavorable”?
2. Please choose among the following responses to describe the outcome of the process, “settled”, “settled, but further litigation ensued”, “recommendation issued”, “not settled, but progress made”, “not settled, no progress made.”
3. In your opinion how well was the settlement implemented? Please choose among the following responses: “very well”, “sufficiently well”, “insufficiently”, or “poorly.”

**Table 2 Facility Siting - Satisfaction Levels**

	Number of Interviews	Evaluation of the Process	View of Outcome	Evaluation of Implementation
<b>Over All Satisfaction</b>				
American Stone Quarry	4	Mixed	Not Settled	NA
<b>Re-opening Abandoned Mine</b>	<b>3</b>	<b>Very Favorable</b>	<b>Settled</b>	<b>Sufficiently Well</b>
Lonestar Gravel Mine	4	Mixed	Not Settled	NA
Libby Landfill	4	Mixed	Mixed	Mixed
Low Level Radioactive Waste I	5	Mixed	Not Settled	NA
Hospital Relocation	4	Mixed	Mixed	Mixed
<b>Expansion of Existing Mine</b>	<b>5</b>	<b>Favorable</b>	<b>Settled</b>	<b>Sufficiently Well</b>
Mushroom Composting	4	Mixed	Mixed	Mixed
Delta Gravel Mine	3	Favorable	Settled	Mixed
Low-Level Radioactive Waste II	4	Mixed	Mixed	Mixed
NP Homeless Shelter	4	Favorable	Mixed	Mixed
Quail Hollow Quarry Dispute	4	Very Favorable	Mixed	Mixed
Low Income Housing	3	Very Favorable	Settled	Mixed
Safe Harbor Homeless Shelter	3	Favorable	Settled	Mixed
Salvation Army Homeless Shelter	4	Unfavorable	Not Settled	NA
<b>Hazardous Waste Incinerator</b>	<b>4</b>	<b>Very Favorable</b>	<b>Settled</b>	<b>Very Well</b>
Mixed = Interviewees conflict in their answers to the question or were unable to answer the question. NA = If the case was not settled question regarding an agreement were not asked. Cases in <b>bold</b> met all of the conditions for high satisfaction and were selected for further study.				

ratings for all of the questions that comprise the satisfaction index. Other highly rated cases were found among the quarry and gravel mine site disputes. Both the re-opening of the abandoned mine case and the mine expansion case had strong positive ratings from all of the participants interviewed. For the purposes of this study, I sought matched pair cases based on the results of the satisfaction criteria. The matched pair analysis is the subject of the chapter 3.

### **Satisfaction Levels - Evaluation of the Process**

Participants were fairly positive about their experience with assisted negotiation. A full 80% of all of participants in the facility siting cases viewed the process as being either “favorable” or “very favorable.” In examining the results at the case level, participants were united in their overall evaluation of the process of assisted negotiation. Out of 16 cases, 8 had unanimous agreement among participants that the process was favorable. Only in one case did all of the participants believe that the process was “unfavorable.”

Participants frequently referred to the “good investment” resources in their assessment of the assisted negotiation process. Many participants were caught off guard by the productivity of the assisted negotiation process. An attorney for a county government involved in a mine siting case reflected on his experience this way:

“Well first of all it was a dispute that I didn’t think could be resolved by the parties themselves, but it happened. Second of all, it would have had to go before two courts, and would have consumed so much more time and energy. This was just a much better forum that the parties could use to resolve their dispute. It got them talking and allowed them to work in a cooperative manner.”

Beyond the perceived bargain, the increased trust among participants and the corresponding collaborative working environment were also cited as the basis for a favorable rating. Parties also appreciated the opportunity unravel misunderstandings or clarify differences in opinion. An abutting land owner to the American Stone Quarry cited the change in attitudes among participants in her favorable evaluation of the assisted negotiation process.

“In the public hearing before the mediation, when we would say that your blasting damages our homes, the quarry representatives would stand up and say you’re lying, we aren’t damaging your homes, you’re lying. Through the mediation we were able to convince some people that the quarry does have an impact and that we weren’t lying. Its

like someone scratching on a black board, its going to upset some people and not affect others – but its not a matter of one party lying to the other. The mediation helped us sort this out.”

Another participant in the American Stone Quarry dispute did not take such a holistic approach to evaluating the process. A county official involved in the process though it was “unfavorable” since “the process ended without any clear sense of closure. A lot of people spent a lot of time and energy and we don’t have a lot to show for it.” The lack of an agreement after all the time and money invested in the process was a common frustration among the participants who offered an unfavorable evaluation of the process. The issue of time and the cost of the process were further explored in the second part of the evaluation criteria.

### **Satisfaction Levels - View of Outcome**

Surprisingly, participants disagreed over whether their case was considered settled or unsettled. In all, 55% of all participants thought that their cases were settled. However, at the case level, there were five cases in which participants disagreed over whether their case was actually settled. Several participants acknowledged that the process produced a settlement, yet they still thought that there were underlying issues that were not addressed in the final agreement. Part of the difficulty in answering this seemingly simple question may have been that public policy issues are continually revisited. The mediator in the mine expansion case described the difficulty this way, “it’s as settled as to the extent that anything can be settled in public policy.”

Of the participants who thought that their case was not settled, 44% of these participants also believed that significant progress was made, in spite of not reaching a solution through assisted negotiation. Many participants thought that working relationships among the parties involved had been improved, and that this benefit lasted beyond the assisted negotiation process. One state official, who was involved with the siting of a low-level radioactive waste disposal, appreciated the improved working climate with opponents of the disposal facility.

“The progress that we did have was getting to know our opponents quite well. We actually became friendly with them. That didn’t further us on our goal but it did make it a lot easier to on day to day dealings with these folks. In other states there had been some violence over their process but we were able to avoid that completely.”

## **Satisfaction Levels - Evaluation of Implementation**

Finally, how satisfied the participants were with the implementation of the settlement was crucial to determining their assessment of the decision. A total of 40% of the participants thought that the agreement reached had been well implemented. In one case, the participants agreed to meet a year later to discuss any implementation problems. When the participant met, they agreed that things were going well and there were no problems.

On the individual case level, only three cases had all of the participants in agreement that the cases were “sufficiently well” or “very well” implemented. Perhaps the participants had different views of what they had agreed to, or implementation was not as thorough as they had expected. In some cases, the participants did not feel that they had enough information to comment on the progress of implementation. Part of the problem in examining cases that are several years old is that people’s lives change. Participants may have moved or changed jobs, so they are not as concerned with the implementation of the agreement as they would have been earlier.

Often an assessment of implementation is a tricky matter. In the NP Homeless Shelter case the reasons behind the lack of implementation were complex. Although the site of the proposed shelter was appropriate in terms of the town’s zoning code, local business leaders did not feel that it was an appropriate location. Shelter advocates did not want to divide their community so they proposed a mediation process. The parties reached an agreement and the shelter was opened, however, the agreement was never fully implemented. According to the mediator:

“It was really a face saving agreement for the business community and was never implemented because the hard-line business types were too tired to keep pursuing it, and it always came back to the philosophical idea of why should I help the homeless.”

The business community in this case may have become apathetic by the end of mediation process. Since the shelter was going to be sited, the “business types” thought that they had lost a major battle. However, it is equally possible that the shelter turned out to be innocuous, so the need to focus on implementation dissipated.

## **Evaluation Criteria: Part Two**

Satisfaction with an agreement acts only as a beacon for the underlying quality of the decision. According to Susskind and Cruikshank, efficiency and stability are also factors in evaluating whether a mediated decision is a good one or not. (Susskind and Cruikshank 1987:21) The second part of my evaluation criteria measures other variables that compose a sound decision. Again the CBI interview protocol was combed for questions that might gauge efficiency, stability and creativity. Two questions from the interview protocol were combined to measure efficiency. If participants thought that they could not agree on their own and thought that the process cost less and took less time, then the case was considered to be efficient.

Participants were also asked to reflect on the relative stability of their agreements. If they thought that their agreements were more stable than one produced by another process, then it was considered to be stable. Creativity of the decision was also assessed by participants through a simple question. Participants were asked if they thought the agreement was creative or the “best possible outcome.” Under the list of protocol questions, the responses highlighted in bold are the preferred replies to the second part of the evaluation criteria.

### **Efficiency Levels**

If the participants were at a true deadlock, reaching an agreement would be a noticeable achievement. An agreement reached when the disputing parties themselves admitted that the situation was beyond their ability to resolve it suggests a suitable measure of efficiency. In both of the highly rated mining cases, the results were surprisingly mixed. As one participant described it:

“I think that they were ready to settle, but they needed a forum - a better forum to get it done. To put it another way, the settlement didn’t surprise me. I’m not sure if they would have agreed on their own but when they went into mediation, I had an expectation that a settlement would be reached.”

Hindsight may have come into play in answering the first question, making it less useful as a measure of efficiency. Since the interviews were conducted after the assisted negotiation process had been concluded, participants who reached an agreement may have modified their views as to how difficult the initial stages of the process had been. In

## Protocol Questions Regarding Efficiency, Stability, and Creativity

1. Could the parties have agreed on their own? *Yes, No,*
2. How would you compare the time and cost of this process with the time and cost that probably would have been required if you had litigated or appealed your case? Please choose among the following responses: *“mediation cost less and took less time”, “mediation cost less but took more time”, “mediation cost more but took less time”, or “mediation cost more and took more time.”*
3. In your opinion, was the settlement more stable than one which probably could have been reached through another process? *Yes, No, Don't Know*
4. Was this a “creative” settlement? In other words, did it produce the best possible outcome for all sides given what you now know? *Yes, No, Don't know*

**Table 3 Facility Siting - Efficiency, Stability and Creativity Levels**

	Agree on Their Own?	Cost and Time	Stability of the Agreement	Creative Agreement?
<b>Efficiency, Stability, and Creativity</b>				
American Stone Quarry	No	Mixed	NA	NA
<b>Reopening Abandoned Mine</b>	<b>Mixed</b>	<b>Less Cost and Less Time</b>	<b>Mixed</b>	<b>Creative</b>
Lonestar Gravel Pit	No	NA	NA	NA
Libby Landfill	No	Mixed	Mixed	Mixed
Low Level Radioactive Waste I	No	Mixed	NA	NA
Hospital Relocation	No	<i>Less Cost and Less Time</i>	Mixed	Mixed
<b>Expanding Existing Mine</b>	<b>Mixed</b>	<b>Mixed</b>	<b>Mixed</b>	<b>Mixed</b>
Mushroom Composting	No	Mixed	NA	NA
Delta Gravel Pit	No	Mixed	More Stable	Mixed
Low-level Radioactive Waste II	Mixed	Mixed	Mixed	Mixed
NP Homeless Shelter	Mixed	Mixed	Mixed	Mixed
Quail Hollow Quarry Dispute	Mixed	Mixed	Mixed	Mixed
Low Income Housing	Mixed	Mixed	More Stable	Creative
Safe Harbor Homeless Shelter	Mixed	Mixed	Mixed	Mixed
Salvation Army Homeless Shelter	Mixed	NA	NA	NA
<b>Hazardous Waste Incinerator</b>	<b>No</b>	<b>Less Cost and Less Time</b>	<b>More Stable</b>	<b>Creative</b>
<p>Less Cost and Less Time refers to assisted negotiation in comparison to other processes. No, More Stable, Creative, Less Cost and Less Time = Unanimous replies to the question by the participants interviewed in the case. Mixed = Interviewees conflict in their answers to the question or were unable to answer the question. NA = If the case was not settled questions regarding agreement or implement were not asked. Cases in <b>bold</b> met the conditions for high satisfaction and were selected for further study.</p>				

the cases of failed assisted negotiation efforts, participants views of their opponents as being unreasonable were then proven in their minds due to the failure to reach an agreement.

The classical approach to measuring efficiency is an assessment of time and cost involved. Participants were asked to compare their costs during the mediation process with their private estimates of what they would have expected to pay during a more conventional planning process or in court. When the assisted negotiation was rated as both costing less and taking less time than litigation or the conventional planning process, then it was considered to be efficient.

Among all participants in facility siting cases, 80% thought that assisted negotiation “cost less and took less time.” However, at the case level, participants were not as united in their assessment of time and cost. Only in three cases did all of the participants believe that the process of assisted negotiation “cost less and took less time.” Interestingly, two of these cases had been selected earlier by the satisfaction index as potential high quality cases.

Frustration with the court system was apparent among those who felt that assisted negotiation was more efficient. One mine operator thought he would have won in court, but he estimated that it would have to taken him six years to appear before the State Supreme Court. A neighborhood activist in the mushroom composting case summarized the experience of many participants regarding time and cost issues when she said:

“Mediation sped up the process which had dragged out forever in court. There were no longer lawyers trying to prolong the conflict, trying to extend it in order to make money. It’s like the theory of the firm -- the lawyer’s best interest is to make money for himself or herself, and this is fundamentally opposed to trying to reach resolution of a conflict. Prior to mediation there was a reverse race, spending money and seeing whose would last the longest.”

The most frequent conflicting reply among participants was that assisted negotiation costs less but takes more time than the conventional process. In all 11% of participants felt that assisted negotiation took more time than their alternative in the conventional planning process. Participants might have had an unrealistic assessment of how much time would be required for assisted negotiation and therefore were shocked at

how long the assisted negotiation process lasted. Half of the participants who felt that assisted negotiation took longer had no prior experience with the process.

### **Stability Levels**

Stability is the acid test for a decision. Indeed, stability is especially relevant in assisted negotiation cases since most of the agreements reached this way are do not rely on the conventional regulatory structure for implementation. The question in the interview protocol that was used to measure stability also provided participants an opportunity to express any lingering regrets as well as to engage in a hypothetical comparison between assisted negotiation and the more conventional process.

Of the three cases that received a positive rating under the satisfaction index, one case achieved unanimous agreement that the settlement was more stable than one that might have been reached through the conventional process. In the other two cases, one interviewee in each case was unable to determine if the agreement was more stable. Only one participant in all of the facility siting cases thought that the agreement were not as stable as one that could have been achieved through the conventional process.

Participant ownership of the process was mentioned as contributing to the overall stability the settlements reached through assisted negotiation. In reference to the mediation of a homeless shelter dispute, a county official described factors contributing to stability:

“(the agreement was) more stable because people bought into the solution. The issue didn’t involve money but emotion and social policy. Once the emotional issues were addressed, a settlement was produced that has an enduring quality.”

Another twist on participant “ownership” was that the agreement was viewed as being insulated from changes in political fortunes. One miner owner explained the underlying stability of the agreement this way: “because it’s a contract between parties, not a permit decision with a government agency and government attitudes and policies always change.” Participants expressed a commitment to the process and to their fellow participants in following through with their promises.

Participants also thought that the assisted negotiation process provided an opportunity to address detailed issues in writing. Several participants thought that the

court system or the local planning commission would not have the expertise or the time to examine the issues in their case to the extent possible in assisted negotiation.

Several participants thought that the result of the assisted negotiation process was as stable as a decision issued by a court or a government agency. The reasoning behind this was that the assisted negotiation process was on a parallel track to a more conventional planning review process. In these cases, the informal settlements reached through assisted negotiation were ratified by the formal planning review process.

### **Level of Creativity**

Participants were more willing take a stand on the creativity of the settlement than on the stability of the agreement. In my opinion, this is the most direct question concerning the participants' perception of the quality of their decision. Since land use issues are complex, creativity plays an important role in generating decisions that meet the complex issues involved in each case. An innovative approach to a land use problem has a value that outshines what was routinely produced before its existence. This value is the essence of quality.

Two of the three cases with high satisfaction ratings were seen as having creative outcomes by all of the participants. One participant in the remaining case was unsure if the agreement was creative or not. Ten participants in other facility siting cases were not so reserved, and thought that the agreements were not creative.

Government officials are in an advantageous position to assess the overall creativity of negotiated agreements since they are involved in reviewing and making similar decisions on a regular basis. Of the 12 government officials interviewed in facility siting cases, 9 thought that the settlements reached using assisted negotiation were creative. Government officials, as well as other stakeholders, were often able to identify elements of the agreement they perceived as especially creative.

“Yes it is creative, especially the conservation easement for mining site, and the willingness to purchase land with grant moneys (\$3.2 million). Even organizations that were pro property rights felt that this agreement was a model for the future. It was a combination of paying some, getting some free, and giving property owners the ability to use the property the way they want to (even if not totally).” County Official

“The traditional planning process could have never produced this agreement. The most important aspect was that everyone bought into the agreement in the end. The thing that I

believe was most creative was getting the public access to the waterfront from the city.”  
State Official

“The agreement was an improvement from the first proposal. We were able to get a large chunk of land preserved as open space and the wetland was protected. The residential area was fairly dense, but we got the commercial space that the town needed for its tax base. The use of an outside engineer to monitor and review the development plans and construction was, in my mind, very innovative.” Local Planning Board Member

Land use concepts such as mixed use development and conservation easements, while not new, are widely regarded as innovative by most members of the professional planning community. The presence of these innovative concepts in the settlements reached through assisted negotiation, therefore, influenced the perceptions of government officials of the creativity of the agreement. Yet, if the only element that separates a creative agreement from an average agreement is the application of innovative land use concepts, wouldn't government officials apply these tools in most circumstances?

Perhaps the atmosphere in an assisted negotiation process allows for the use of innovative land use tools in ways that are not possible in the conventional planning process. In the conventional planning process, there is little interaction among the parties in facility siting cases. The lack of interaction among participants at a public hearing may force public officials to either support or reject the proponents facility. While public officials can attach conditions to an approved site plan, these conditions may not fully meet the interests of either the proponents or opponents of a project. The lack of interaction among participants in the process does not allow for agreement to be tailored to the specifics of problem as perceived by all parties.

In examining settlements, theorists in dispute resolution focus on whether the decision reflects either a “win-lose” outcome or a “joint gain” outcome. (Susskind, Cruikshank, 1987:33-34) The conventional planning process tends to produce decisions that are “win-lose.” Several theorists believe that when parties can meet in an informal setting and learn about each others interests there is a chance for collaborative problem solving. In a problem solving environment, innovative land use concepts are more likely to emerge. It seems that the realization of joint gains is tied, in many cases, to creativity. To see connection and interrelationship between participants or issues is a form of creativity.

As was indicated early, many stakeholders did not view the settlements as especially creative. The majority of the stakeholders who viewed the settlement as not very creative represented business representatives. In reviewing some of the comments by business interests, their views on creativity were complex, if not contradictory.

“No, I think that the quality is about the same. However, I can now go to public hearings and not be attacked.” Gravel Mine Operator

“No, because we sensed from the beginning that we could reach an agreement.” Business Owner

“No, the locality was inflexible in helping reach creative accord. Obviously a poor outcome for my company.” Developer

“No, it was not particularly creative. I think it forced everyone to focus on real issues instead of symbols, which is a very practical approach, but its not creative.” Gravel Mine Operator

These comments illustrate how difficult it is to draw clear conclusions based on the statements of participants. Each person has his or her own definition of creativity. Some participants acknowledged general benefits associated with the assisted negotiation process, yet they thought that the resulting agreement was similar to what they otherwise would received in the conventional process. Other participants qualified their negative assessment of creativity based on another variable such as, the parties being worn-out by the time they entered the assisted negotiation process. In some cases, participants thought that the outcomes produced by assisted negotiation were not creative at all and believed that the conventional process would have produced identical settlements.

Finally, innovative land use concepts and generous offers will not automatically produce a settlement, let alone a creative settlement. For example, in the mine expansion case, the mine operator pledged that upon completion of the mining, the mine site would be landscaped and made part of the regional park system. The mine owner entered into a conservation restriction and put up a bond for the restoration work to guarantee that the mine would indeed become a park. However, offering to make a mine site into a park does not automatically produce a creative settlement in every case. In another mine case, in a more rural setting, there was a similar effort at capturing joint gains that failed.

“The quarry and the water authority gave us things we really didn't need. For example, the quarry promised to build a 10 acre park. Well, I live on a 100 acres farm, why do I need a 10 acre park. The minimum lot size around here is 5 acres, so land is not the

issue. It was like they thought we were living in the suburbs. They didn't look at what we needed." Abutter

Turning every quarry site into a park is not the solution for every mining dispute. The context of the dispute is important. Joint gains are only captured when interests are met. In order for joint gains to be realized, participants have be able to see the world though each others eyes, and this is not an easy task.

### **Overall Analysis of the Criteria**

In examining both parts of the criteria, it is clear that participant satisfaction is only a "clue" to locating good decisions. The three cases that fared well in terms of satisfaction had less consistent results in terms of the second part of the evaluation criteria. However, it does appear that the second part of the criteria is a more demanding set of standards. In examining the performance of the three high satisfaction cases relative to the other facility siting cases, the overall performance high satisfaction cases is respectable. Of the three cases that had high satisfaction levels, only one case had an undistinguished performance in the second part of the criteria. Again, the phrase used by Porter, Philip, and Lasser, of "customer satisfaction as a clue" appears to bear fruit in the results of the criteria.

The idea of measuring satisfaction by combining the results of three questions appears to have been useful in isolating good decisions. Participants were generous in their evaluation of the process, but this view did not as easily translate into their evaluation of other factors addressed in the rest of the criteria. For example, if the only measure of satisfaction was the participants views about the process, decisions would have been selected where not all the participants could agree that their case was even settled.

A bias in my criteria is that it favors settled cases. Requiring that participants view their cases as "settled" is reasonable component of the evaluation criteria. However, this requirement does over look benefits that occur in unsettled cases. Several participants mentioned increased trust and improved working relationships with opposing groups as noticeable benefits, despite their case not being settled. It is conceivable that these participants will bring these new attitudes into their next land use negotiation.

Implementation appears to be an effective thinning tool in separating cases. Of the eight cases that had favorable ratings, only three cases had participants united that their agreement was well implemented. However, it was interesting to note that there were conflicting views among participants over implementation the agreements and their relative stability. Some participants who thought their agreements were well implemented were still uncertain whether the results were more stable than an agreement from a more conventional planning process. Again, only one person in each of these cases was unable to theorize if the agreement was more stable. Several participants thought their agreement was as stable as an agreement produced in the conventional process. Even more interesting was that in several cases where participants were “mixed” their evaluation of the implementation, they were united that their agreement were more stable. Implementation and the perceived stability of the agreement are important element in evaluating a decision, so the apparent disconnect between these two factors is important to notice.

The question of whether the parties thought they could have agreed on their own raised interesting points in relationship to the other conditions in the criteria. Some participants thought that parties were ready to meet and resolve the issue - with or without a mediator. Out of the six cases where all the participants agreed that their case was settled, four of these cases had some participants who thought that the parties could have agreed on their own. Of the high satisfaction cases, two of the three cases, had participants who thought that agreement was eminent. Behind the thoughts of participants who held this view, was an idea that the parties were worn out by all of the public hearings, planning board meetings, and court appeals.

Another way of viewing the pre-disposition of parties for an agreement is seen in examining this question in relationship to the participants rating of the overall process. Many participants who were united in their view that the process was favorable, disagreed over whether they could actually have resolved the matter on their own. Going to the extreme, of the eight cases in which participants agreed that there was “no” other way they could have reached a settlement, only two of the those cases had favorable ratings of

the process. Again, it is difficult to determine if the assisted negotiation process distorted participant perceptions of the willingness of the parties to reach an agreement.

It seems that creative solutions make for extremely pleased participants. Of the four cases that rated the process as “very favorable”, three rated the outcome as creative. The participants who gave their process the highest rating of “very favorable” were the only participants who thought that their agreements were “creative.” In one of the three cases, participants were divided over implementation. A creative solution may still have implementation problems.

### **Next Steps**

It is important not to get too carried away by the results of the criteria. The evaluations of the cases were based on unanimous replies among participants. Unanimity among participants may not be realistic or productive. Also, relying on participant perceptions, while very democratic, does not guarantee accuracy. For example, participants often disagreed over basic factual information such as how many meetings were held or how long the process took. If there is disagreement over factual information (like dates or numbers of meetings), why should we expect participants to be more accurate in their assessment of the stability of the agreement or its efficiency compared to other processes?

In order to further verify my results a broader comparison needed to be drawn between cases that were resolved using assisted negotiation and similar cases that were resolved through conventional means. By comparing matched cases, the perceptions of the participants in the assisted negotiation cases could be tested against both the results and perceptions of participants who went through a more traditional planning process. The three cases that were high on the satisfaction index were selected for further study. The results of the comparison between the assisted negotiation cases and conventional cases are presented in the next chapter.

## CHAPTER 3

### Selecting Appropriate Matched Pair Cases

Advocates of assisted negotiation assert that their process produces "better" decisions than the conventional planning process. To test this assertion, assisted negotiation cases with high satisfaction levels were selected for a direct comparison with similar cases resolved through the conventional process.

Only three assisted negotiation cases were eligible. In addition to having high satisfaction levels, the cases selected had to also be representative of routine issues facing planners. It would be difficult to find matched pair cases for exotic facility siting cases. In addition, the lessons learned from studying unusual cases would be of little value to the every day work of planners.

The hazardous waste incinerator case, which had very high satisfaction levels, was found to be inappropriate for the matched pair part of this thesis. In this case, a large chemical company formed a community involvement group (CIG) to examine a variety of issues relating to the company's production plant. Among the first issues addressed was the chemical company's proposal to site a hazardous waste incinerator on its premises. While the incinerator proposal was being reviewed by the CIG, the proposal was withdrawn by the chemical company on the grounds that a hazardous waste incinerator was more costly than originally anticipated. (Cohen, Chess, Lynn, Busenberg 1995:12) The CIG is still active on a variety of chemical production issues. Due to the murky nature of the way the facility siting issue was finally resolved and the broad mandate of the CIG, this case was deemed inappropriate for the next phase of this study.

The remaining two cases with high satisfaction levels involved applications for conditional permits for surface mining operations. Mine siting cases are common events in town planning offices across the US. In fact, six of the facility siting cases in the CBI database involved surface mining permits. Due to the frequency of surface mining cases, a more detailed examination of how these decisions are made is useful to both the profession of land use planning and the field of dispute resolution.

The participants in the two mediated surface mining cases were contacted, and asked to nominate similar cases that were successfully resolved through the use of the

conventional planning process. Mining cases were considered to be similar based upon the type of mining operation proposed, the scale of the mining operation, the degree of permit review required, and the complexity of the issues involved. The first pair of cases involved proposals to re-open small scale abandoned mines. The required permitting process was relatively straightforward. The second pair of cases involved proposals for the large scale expansion of existing mines. The issues were more complex. In terms of the permitting process, the mining companies had to amend their respective counties' comprehensive plans to allow for mine expansion in addition to getting a mining permit.

Participants in the conventional cases were interviewed using the same interview protocol as the assisted negotiation cases. The conventional cases were evaluated using the same criteria proposed in the second chapter of this thesis. In addition, the actual settlements were compared using a list of common conditions that are attached to surfacing mining permits.

### **Background Issues with Surface Mining**

Open pit mines are often in conflict with other uses, such as farming, recreational uses and wildlife habitat. Many planners and public officials feel caught in a difficult situation while reviewing an application for opening or expanding a mine since it appears that only one type of land use will prevail. For example, the site could be used as a gravel mine or as farmland. In the minds of many participants in these cases, both uses cannot occupy the land at the same time. Public officials often shared this perception of exclusive uses for a site. With the siting of surface mines, public officials see less room to maneuver in balancing public and private interests. Again, you either have a gravel mine or a farm, but not mining and farming together.

In an atmosphere of suburban growth, the demand for gravel is high. Ironically, surface mines are often victims of economic growth cycles that are their "raison d'être." Mines that were once located in rural backwaters suddenly find themselves surrounded by suburban backyards. Gravel mines are, in effect, competing for the same land that initially caused their growth.

With a decreasing supply of land and an increasing number of parties involved in using land for radically different objectives, siting surface mines will only become more

difficult. As Roger McDonald, a former gravel mine operator and former president of the Massachusetts Aggregate & Asphalt Association, described the predicament of siting gravel mines:

"The bottom line is that Massachusetts is the Saudi Arabia of aggregate, but you can't get your hands on it. The problem of availability of sand and gravel has everything to do with the permitting process, and nothing to do with geologic availability. The industry is in gridlock. There hasn't been a new gravel mine opened in Massachusetts for a number of years. Why would you want to risk a million dollars by going through the permitting process, only to learn that it doesn't matter and see your proposal killed."

So what. Why should people be concerned that it is increasingly difficult to site a gravel mine? After all no new gravel mines means a clear victory for sustaining our natural environment. The only people being harmed by the mine siting problem are rich mining entrepreneurs. The fact that no new mines are being sited indicates that the conventional planning process is working. Neighborhood groups and other public interest groups are successfully articulating their interests in the planning process, which is successfully responding, in a democratic way, to community needs and interests.

On closer examination, the gridlock of mine permitting process has disturbing implications. Any benefits resulting from the gridlock in mine siting may be temporary. According to one state official, who regulates the aggregate mining industry:

"Its getting harder and harder to site gravel mines in this state. I'm not sure this is such a good thing. I think that the impact of this will be fewer and fewer small mines and more large scale operations. It's just not worth the time and money to go through the permitting process for a small operator. With fewer opportunities, there will be few operators left."

Larger mines will result in greater ecological disruption. The larger the facility, the greater the impact upon an area's watershed, wildlife habitat and available open space. Larger mine operators have more financial resources to obtain permits for opening mines. These large mine operators will be less vulnerable to the planning review process since they can easily afford to take the matter before any level of the court system. Environmental organizations and neighborhood groups will be at a greater financial disadvantage in their attempts to block the mining permits. These large mine operators will simply out spend the environmental organizations and neighborhood groups to get their site permit. It is also likely that these large mine operators will not be local people. Decisions affecting the mine site will be made in a distant corporate headquarters.

National or multi-national corporations will be making the decisions that will have a lasting impact on the local economy and landscape.

Beyond the economic and environmental imperative for studying the decisions produced in the siting process of gravel mines, there are several predictable issues in mine permits. Planners and public officials should not be caught off guard these predictable issues in surface mine siting disputes. By studying the decisions made in different processes for siting surface mines, effective ways of addressing the more predictable issues can be ascertained and passed on for use by other municipalities grappling with surface mine siting questions. However, every site will have unique issues and there is no simple recipe for handling all surface mining permit applications.

One of the first issues raised in a surface mining case is noise generated by different aspects of the mining operation. Abutting property owners and neighborhood groups are the most concerned group with noise issues. Most states have noise standards addressing surface mining. In applying for a mining permit, mine operators have to explain their compliance strategy to the planning commission that is reviewing their project. Expert witnesses in acoustic modeling are called upon by the mine's proponents and opponents to explaining how the compliance with noise standards has been met or not met. Another part of the noise debate is the allowable hours of operation. Should the mine be allowed to run all night or should its operation be restricted to certain hours? Restricting the hours of operation is often a condition attached to an approved permit.

Depending on what is being mined, the dust level that the mine generates is another technical modeling exercise that mine operators are often required to perform in order to get a permit. The impact of the mine on water quality is another concern of abutting property owners. This issue will be affected by the proposed depth of the mine. As with noise, these issues are the province of expert witnesses.

The off site impact of increased truck traffic is a common issue. The extent that off site factors can be taken into account in granting a mining permit will depend on the state and local regulations. Residents are concerned with the noise and diesel fumes produced by the increased truck traffic. The impact on the road system is a concern of

public officials. Often road improvements, such as t an additional turning lane at the mine entrance, are conditions of mine permits.

From the mine operator's perspective, transportation is an equally important factor. One of the factors in locating mines is the impact of transportation costs. The closer the mine site can be located to construction sites, the lower the transportation costs. The prospects of lower transportation costs lure mine operations into suburban locations to meet suburban demand. In a recent report, the National Stone Association summarized the impact of transportation cost as follows:

"At 10 cents to 15 cents per ton -mile, hauling distances of 20 to 30 miles can more than double the delivered price of the aggregate. Based on this figures, the construction costs of one mile of residential street will increase by \$15,000 to \$20,000 for each additional mile the stone is hauled."

Open pit mines are ugly. Local residents fear that they will be left with a desolate pit once the mining operation is finished. Post mining land uses of the site are discussed during the mine site permitting process. The level of responsibility of the mine operator to reclaim the site varies from state to state. In the cases featured in this study, the mining company must provide a conceptual restoration plan to local officials. The complete restoration plans are reviewed by a state agency.

### **The Conventional Planning Process**

All of the four surface mining cases that were compared began within the conventional planning process. Where the cases differ, is that two cases were settled within the conventional planning process and two cases were settled with the assistance of an outside mediator. However, even the mediated cases spent a considerable amount of time in the conventional process before entering mediation.

Since all of mining cases examined took place in the same state, there is a fair degree of uniformity in the planning process that the mining companies went through to receive their permits. To assure the confidentiality of the interviewees, both the location of the mines and the participants in the cases will remain anonymous. In the state where the cases occurred, both the county governments and the state agencies are very active in the planning process. The county governments were the entry point for the mining company permit applications.

The first matched pair cases dealt with re-opening abandoned mines. The initial site permit reviews were conducted before a county Hearings Officer. The Hearing Officer had the following options in reviewing the mine permit: approve the permit as it is filed, approve it with conditions, or reject it. In these mining permit cases, public involvement took the form of a public hearing on the merits of the permit application. The Hearings Office followed guidelines on determining who was notified of the public hearing and how they were notified. The Hearings Officer placed an ad in the local newspaper announcing the public hearing. Also, notices were posted at the proposed mine site and notices were mailed to property owners who live within a certain distance from the proposed mine site. The public was allowed to speak at the hearing, but they were barred from asking questions of the mining company or questions of the Hearings Officer. The Hearings Officer reviewed the mining applications for their conformity with county zoning requirements, noise and dust standards, environmental requirements, and general consistency with the goals of the county's comprehensive plan. The mining company had to show the presence of a reclamation plan, but the review of that plan was handled by a state agency. The mining company or the members of the public could appeal the decision of the Hearings Officer to the Board of County Commissioners.

The second pair of cases involved the expansion of existing mines. The issues were too complex for a Hearings Officer, so the cases went straight to the Board of County Commissioners. The Commissioners are supported by a professional staff in reviewing the mine permit applications for compliance with same standards and regulations. As with the Hearings Officer, the Commissioners could approve an application, attach conditions to its approval or reject it. Public hearings were also held with similar protocols for determining who was invited or encouraged to attend.

The County Commissioner's decisions were challenged, and the cases went before the state's Land Use Board of Appeals. However, with appeals cases, only the parties with legal standing were allowed to speak or make a presentation at the public hearing. The Land Use Board of Appeals could affirm the decision of the county or remand the decision back to the county commissioners. In remanding the decision back to the county, the Land Use Board of Appeals cited statutory areas that the county should take a

closer look at or areas where the applicant did not sufficiently meet the regulatory requirements.

In mine expansion cases, the mining company had to apply both for a mining permit and propose an amendment to the county's comprehensive plan to allow the land to be zoned for mining. In this state, the comprehensive plan of each county has an inventory of sites of "significant mineral and aggregate resources." In order to expand a mine site or open a new mine, the site has to be on this inventory. If the site is not on the inventory, then the mining company has to amend the county's comprehensive plan in order to reclassify the affected land as a significant mineral resource. Since mineral resources are only one category of natural resources, the State requires that the county identify other conflicting natural resources on the site. Further, the county has to do a Economic, Social, Environmental, and Energy (ESEE) study to determine the consequences of protecting the mineral resources to the exclusion of any protection of conflicting natural resource values or surrounding land uses. When a comprehensive plan is amended, various state agencies are involved in reviewing those changes for their consistency with the state's goals in its comprehensive plan. In one of the cases, the Land Use Board of Appeals reviewed the county's comprehensive plan while in the other case a state conservation agency reviewed the comprehensive plan. In addition, state agencies have to periodically review county plans and can remand the plans back to the county for being insufficient.

The decision of the Land Use Board of Appeals can be formally challenged in the State Court of Appeals. Although it is possible to challenge a decision earlier, the court system prefers that the parties involved have exhausted all other options for relief before turning to courts for a ruling.

### **Comparison of Re-opening Abandoned Mines Cases**

The first set of cases compared were two site plans filed by the same mining company to re-open abandoned mines. Both of the abandoned mine sites were grandfathered from extensive reviews or the need to amend the county's comprehensive plan. The cases were straightforward site reviews with no exotic issues. In order for county officials to approve the mining permit, the mining company had to demonstrate

through its site plan and accompanying analysis its compliance with state and county standards. Both cases took place in the same county and involved many of the same people. The abandoned mine sites were located in different parts of the county, so the representatives of the neighborhood groups were different.

In both cases, the opponents to the plans to re-open the mines were neighborhood groups consisting mostly of abutting property owners. Many residents were shocked by the prospect of the mine re-opening and had come to accept the site as informal open space. An underlying fear of property owners was the potential devaluation of their property due to the re-opening of the mine. The abutters were also concerned over the hours of operation of the mine. Neighbors to the site want to know how long the mining operation will last. In both cases, the neighborhood groups had limited resources. On technical matters, both neighborhood groups hired outside experts to review and offer testimony regarding noise levels and dust levels produced by the mine.

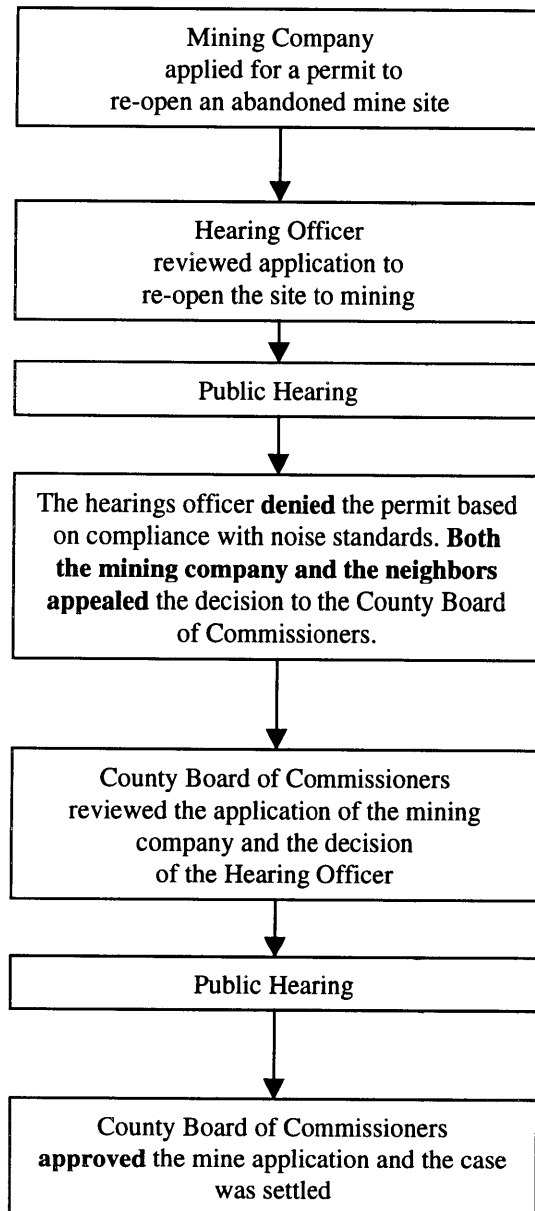
Both cases took roughly two years to reach a settlement. The mediated case entered the planning process first, with the mining company submitting their plans to the county in the fall of 1993. In the summer of 1995, the case entered mediation and was settled by the fall of 1995. The conventional planning process case started with the mining companies submitting a site plan in the fall of 1995. The County Commissioners issued their final decision on this case in December of 1997.

The timing of the ending of the first case (Fall 1995) with the beginning of second case (Fall 1995) is not a coincidence. According to the attorney for the mining company, company officials were so alarmed by how long the first case had taken that they decided to be pro-active in their next application. The mining company submitted their site plan years before they anticipated they would need to re-open the mine.

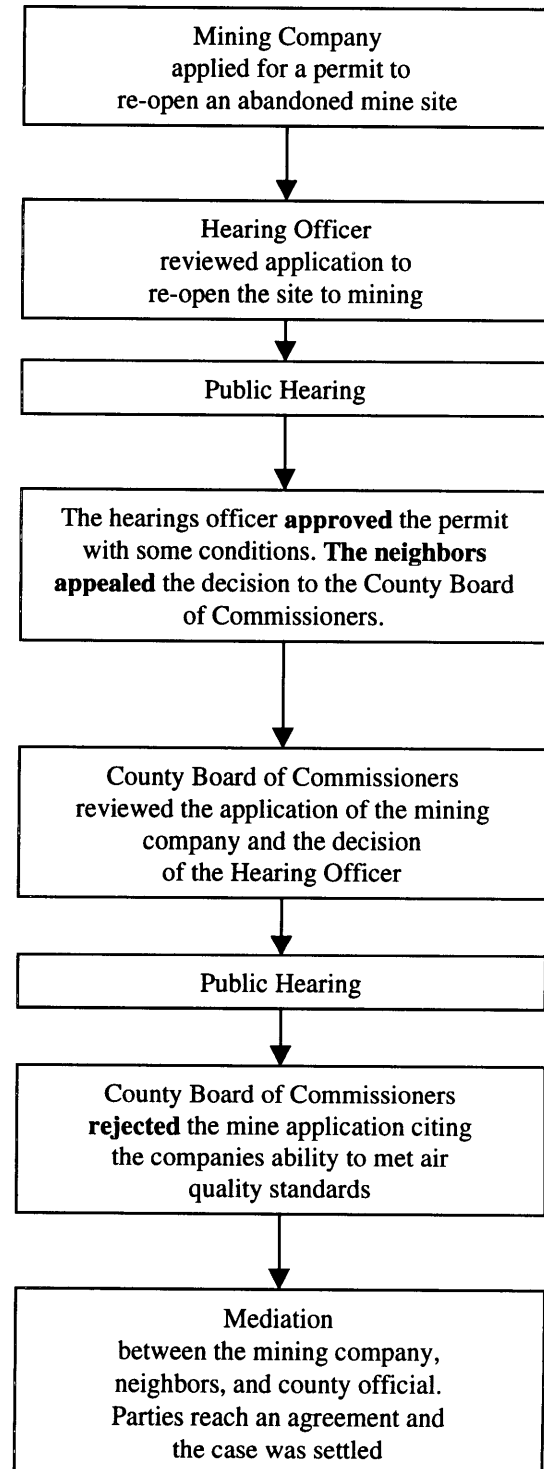
As can be seen on the accompanying chart of the process used for both cases, the decisions of Hearings Officer were challenged by neighborhood organizations, based largely on technical grounds over the mines' compliance with noise standards and dust standards. Both cases were appealed to the Board of County Commissioners, which reviewed the decision of Hearing Officer and the application of the mining company.

**Table 4 Process Flow Charts for Re-opening of Mine Site**

**Conventional Process Case**



**Mediated Case**



In the mediated case, the neighbors convinced the Board of County Commissioners on technical grounds that the mining company was unable to meet noise and dust standards. Based on the technical arguments, the Commissioners denied the permit. After 3 months, the parties entered a mediation process and the case was settled.

In the conventional case, the Hearing Officer denied the permit on technical grounds. However, the Hearings Officer expressed in her decision that the mine was capable of meeting the required standards. The Commissioners approved the application of mining company, with conditions drafted by the original Hearings Officer. The neighborhood group did not appeal the decision to the Land Use Board of Appeals, so the case was settled.

### **Criteria Comparison of Conventional and Mediated Cases**

Both cases were compared against the criteria proposed in second chapter of this thesis. Overall, the participants in the conventional case were heavily divided in comparison to the participants in the mediated case.

**Table 5 Criteria Results for Mine Site Re-opening Cases**

	Conventional Re-opening Mine Case	Mediated Re-opening Mine Case
<b><i>Over All Satisfaction</i></b>		
Number of Interviews	4	3
Evaluation of the process	Mixed	Very Favorable
View of the Outcome	Settled	Settled
Evaluation of Implementation	Mixed	Sufficiently Well
<b><i>Efficiency, Stability, and Creativity</i></b>		
Parties agree on their own?	Mixed	Mixed
Cost and Time	Mixed	Cost less, less time
Stability of the Agreement	Mixed	Mixed
Was the Agreement Creative?	Mixed	Creative

### **Evaluation of the Process**

The first condition of the criteria was an evaluation of the process by participants. In the mediated case, the participants all thought the process was “very favorable.” A common theme among participants in substantiating their positive evaluation of the process was how much time and money was saved. Participants also mentioned the benefits of a collaborative working environment and avoiding hard feelings.

In the conventional case, both the representatives from the neighborhood group and the mining company thought that permit process was "unfavorable." The neighbors thought that their comments were ignored by decision-makers and the mine operator felt that the county sat on the permit for far too long. Only the county public official thought that the process was "favorable." Interestingly, the county official interviewed was aware of the high level of dissatisfaction with the planning process and offered the following explanation:

"The hearings process naturally creates a divide and distrust. Applicants don't have to go out of their way to contact neighbors since they know that they are going to be approved unless they fail to meet the criteria stated up front. I would like to see a requirement for a pre-hearing charette for these types of site plan reviews. Once people are before the hearing officer, what they say is on the record, so people become inflexible and there is much less communication."

The perception of the county official regarding reasons for the dissatisfaction was confirmed by similar comments from representatives of the neighborhood group. The rigidity of the public hearing process and the lack of communication between the parties were cited by residents as contributing to their negative rating of the conventional process. The mining company was frustrated by the lack of technical expertise of the Hearing Officer in reviewing the acoustic information and having to wait for the county to draft air quality control standards before their permit could be approved.

### **View of Outcome**

Surprisingly, in both cases, all participants agreed that their case had been settled. The members of the neighborhood group in the conventional case were not pleased with the conditions of the approved mine site plan, but they were resigned to the decision issued by the County Commissioners. Also, the neighborhood group thought they did not have the resources to appeal the County Commissioners. In the mediated case, the County Commissioners denied the permit, so the burden of the appeal was on the mining company. The neighborhood group was content with the concessions offered by the mining company while the mining company was pleased with being able to start their operation.

## **Evaluation of Implementation**

It was difficult to compare the two cases based on the participant's views on implementation. In the mediated case, the parties met one year after signing the agreement to go over any problems. At the meeting, everyone agreed that the implementation was going smoothly. In the conventional case, the mining company applied for their permit in anticipation of a long site plan review process. According to the company's attorney, the mining company planned on re-opening the mine around the year 2001. Since the mine is not yet open, the neighbors were unsure whether mine would live up to the conditions established in the permit. Apparently, the residents tried to bring up the county government's poor enforcement track record in the appeals process. County Commissioners told the residents that they could not reject mine site permit based on the county's enforcement record. The mining company and the county officials thought that the implementation was sufficient.

## **Efficiency**

In the proposed criteria, one of the measures of efficiency was whether the parties could have agreed on their own. In the mediated case, one participant felt that both sides were very tired of fighting, so they were willing to reach a compromise. In the conventional case, the neighborhood representatives were optimistic that they could have reached an understanding with the mining company. After the Hearings Officer denied the permit, the neighbors and the mining company met informally in the hallway to discuss options. The informal hallway meeting did not produce an agreement.

Regarding cost and time, in the mediated case, participants thought that mediation ended up costing less money and taking less time. According to participants interviewed, the mediation portion of the case cost a total of \$8,500. The county received a grant of \$2,000 to cover the cost of the mediator. The parties each contributed \$250 for the mediator's expenses. The county official thought that by having both parties pay a fee they would have more of a stake in the process. The attorney for the mining company estimated that the mining company spent around \$6,000 for legal work in writing the actual mediated decision. There were two half-day mediation sessions and the entire process lasted for several weeks.

Interestingly, this experience does not appear to have influenced the decision by the mining company to pursue its case through the conventional process for the second permit. In the conventional case, the same attorney represented the mining company. In the previous case, she thought that mediation cost less and took less time. For the convention case, she thought that mediation would have both cost more and taken more time.

In the conventional case, the representatives from the neighbor group thought that if the case had gone into mediation, they would still have their major expenses of hiring technical experts and legal council to review the agreement. The county official interviewed also believed that the mediation process would have cost more than the conventional process. In the prior mediated case, this same county official wrote a grant proposal to the state office of dispute resolution requesting funding to cover the costs of the mediator. Perhaps his assessment of cost included the time required in writing the grant proposal or he was stating that the prior mediation was not free.

In the conventional case, the parties spent a total of \$50,000 on a combination of expenses including; legal fees, case filing fees and hiring expert witnesses. The mining company alone estimated that they spent around \$40,000 in order to get their permit. The neighborhood group did significant fund raising by telephone solicitations, holding garage sales and spending personal saving. The neighborhood groups spent \$5,000 on legal fees, a filing fee for the appeal and to hire an acoustic expert. A major expense for the neighborhood group was a \$1,000 fee to appeal the decision of the Hearings Officer. The neighborhood representatives cited the cost of the filing fees as one reason why they did not appeal the case to the Land Use Board of Appeals. The fees paid by the parties appealing the decision of the Hearing Officer are intended to make the county's review process self-supporting. In this case, that does not appear to have occurred. While the county received \$1,000 from the filing fee, the county official interviewed estimated that they spent \$5,000 in staff time reviewing the site plans.

There are several points to keep in mind when comparing the figures between the conventional case and the mediated case. First, the figures are from participant

interviews and may not be completely accurate. Second, the mediate case does not include the cost of the conventional process leading up to the mediation.

While the cost comparison is not as direct as \$50,000 to \$8,500, the figures are still instructive. If the mediation is treated as another stage in the appeals process, the “*cost of entry*” for the neighborhood group was significantly less in the mediated process. (\$1,000 v. \$250) Since the mediator was an outside consultant and his costs were covered by a state grant, the amount of county staff time required was small. The mining company had legal expenses. Again, if the mediation is viewed as an appeal, the mining company paid less in legal fees. In this county, if the permit is approved, the applicant’s legal team can actually write up the permit conditions. Hence, if the mining company had won in a formal appeals process, they still would have had legal costs in drafting the final agreement. In this pair of cases, there were cost savings associated with mediation that were not available in the conventional process.

### **Stability**

In both cases, participants had a difficult time determining whether they felt that the settlement was more stable than one reached through another process. Some participants thought that since the mediated settlement was a contract between parties, it was more stable. While other participants felt that such an agreement was less legally binding and therefore less stable. The resignation among the neighbors in the conventional case was summed by one resident: “Their permit is very stable, they can do anything they want and they have protection until the cows come home.”

### **Creativity**

Finally, in the assessment of creativity, participants in the mediated case thought that there were creative solutions in their agreement. In the conventional case, only the county official thought that the conditions attached to the mining permit were creative.

As one representative from the neighborhood group put it:

“It wasn’t really creative. We got more concessions than if we hadn’t shown up at all, but I don’t think those concessions were really radical.”

By attaching conditions to the permit, public officials were going out of their way to try and meet the concerns of the residents who showed up at the public hearing. However, public officials are constrained by what types of conditions they can attach to a permit.

While residents acknowledged that they did get some benefits, they may not have understood the constraints upon public official in attaching more conditions.

### Comparing Settlements

In both of the mining cases, the permits were granted with conditions. A list of common conditions attached to mining permits was compiled in order to visualize their distribution in each process. The conditions attached to the mediated case were more detailed than those achieved through the conventional case.

**Table 6 Settlements of Re-opening Mine Site Cases**

Conditions for Allowing Mining	Mediated Case	Conventional Case
<b>Time Restriction</b>		
Limited Hours of Operation	Yes	Yes
No Mining Allowed On Saturdays	Yes	No
Fixed Lifespan of Mine	Yes	No
<b>Noise and Water Quality</b>		
Follow-up Noise Monitoring	Yes	Yes
Follow-up Water Quality Monitoring	No	No
Agreed Upon Noise Monitoring Methods	Yes	No
<b>Dimensional Restriction</b>		
Depth of Mine Restricted	No	No
Reduced Size of Mine Site	Yes	Yes
<b>Environmental Conditions</b>		
Efforts at Forest Conservation	Yes	No
Extensive Wildlife Conservation Efforts	No	No
<b>Future Issues Addressed</b>		
Post Mine Site Land Use Agreed Upon	No	No
Forum for Addressing Future Disputes	Yes	No
Criteria Spelled Out for Halting Mining	Yes	No
<b>Infrastructure</b>		
Road Improvements	No	Yes

Of particular note is the degree to which the mine was restricted in each process in terms of time restrictions. In the mediated cases, the mining company agreed to operate for a total of four years and would not operate on the weekends. In the conventional case, the mining company only had weekday operating restrictions. The mine can operate on Saturdays and the permit has no fixed expiration date. Many of the neighbors in the conventional cases expressed doubts over the county's ability and interest in enforcing restrictions on the hours of operation.

The treatment of noise and dust produced by the mine were examined in both settlements. Again, the mediated process produced a more detailed series of conditions

for abating noise and dust from the site. In both cases, the mine was required to hire an outside consultant to monitor the noise levels once the actual mining operation commenced. However, in the mediated case, the participants went several steps further than monitoring. The methodology and instrumentation for measuring dust levels were agreed to by all of the parties. Further, the mining company agreed to temporarily close the mine if certain dust levels were detected during mining operation. In the mediated case, the participants agreed upon a technical criteria for evaluating the mining operations. In particular, conditions for revoking the mining companies permit were spelled out. For the mining company, the agreed upon criteria offered predictability in how to address the concerns of the neighbors. By meeting these tailored performance standards the mining company ensures that there operation will not be interrupted.

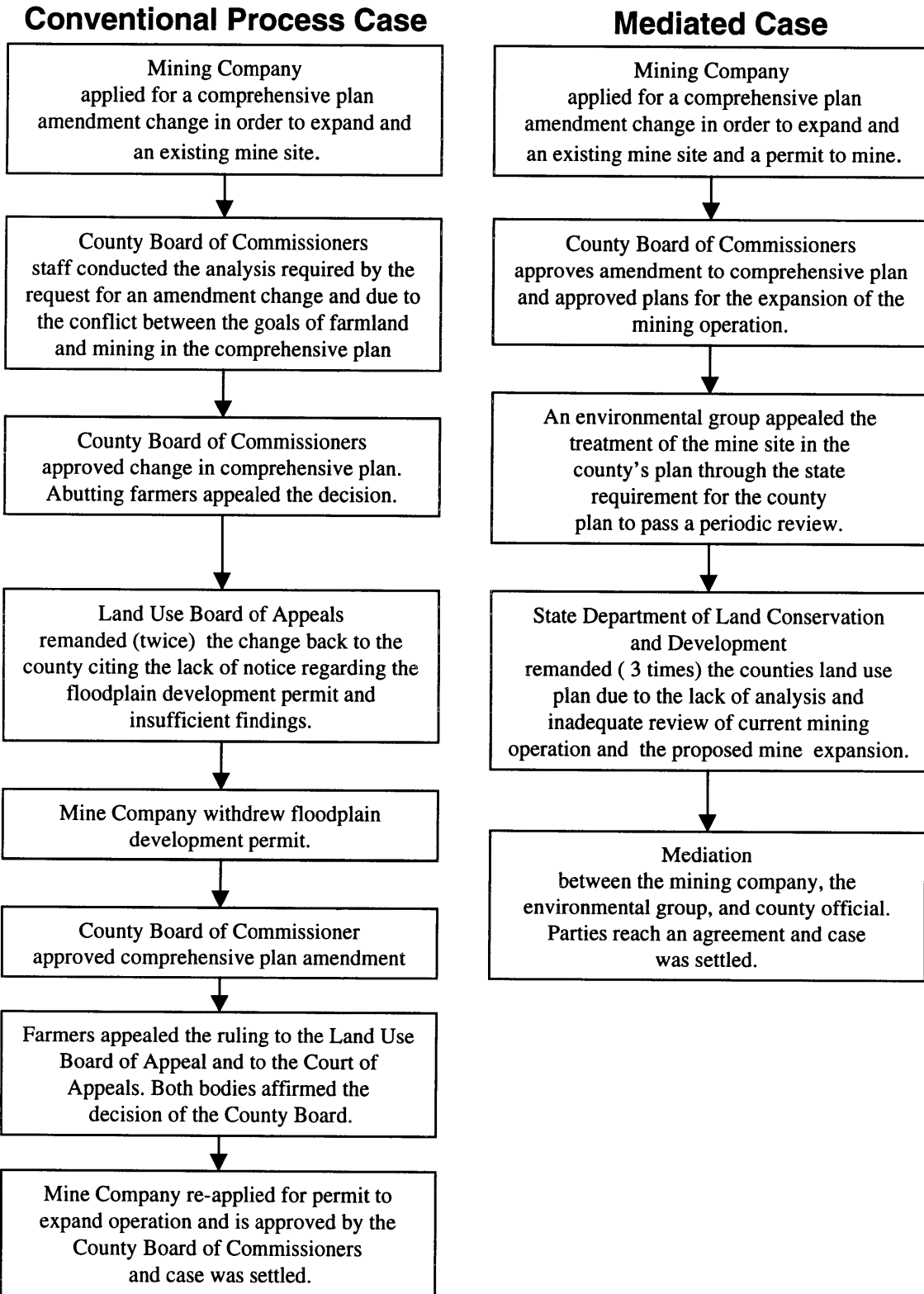
The neighbors in both cases were more concerned with noise levels and dust levels than ecological impacts. Part of this may be due to the fact that the restoration plan is reviewed by a state agency and therefore, the local site review process may not be the appropriate forum.

In the mediated case, the public works department did not think that the road improvements were necessary. Significant road improvements were conditions in the conventional case. The mining company was required to build a turning lane and an acceleration lane on the main road that passes the entrance to the mining facility.

### **Comparison of Expanding Mines**

Expanding an existing mine sounds like a simpler affair than re-opening abandoned mine sites, however, the next pair of cases involved far more complex issues and several more administrative layers of review. The mine operators applied to the county government for a permit to expand their mining operations. As was stated earlier, if the entire site is not part of the county's inventory of significant mineral resources, then the mining company has to propose to amend the county's comprehensive plan. The county has to do analytical studies to determine the consequences of listing the site as "*significant mineral natural resource*" upon other natural resources or surrounding land uses. In both cases, a state level authority reviewed the changes to the comprehensive plan for consistence with state goals and requirements. Both cases had long histories of

**Table 7 Process Flow Chart for Mine Expansion Cases**



(Due to the length of the cases and multiple steps, this flow chart is only a rough summary of events. Public hearings are not displayed on this chart)

between five to seven years in order to reach a settlement. In that time, there were many public hearings on the amendments to the comprehensive plan and the proposed expansion of the mines. In both cases, county officials approved the initial amendments to the comprehensive plan and corresponding mine permits. The opponents appealed and in both cases, a state agency remanded (several times) the decisions of the county government.

In terms of the participants in the mine expansion cases, both cases involved different counties and different mining companies. Environmental issues were important in both cases. In the mediated case, a nonprofit environmental group raised concerns over forestry issues. The mine site borders a huge municipal park. The expansion and buffering of the park were significant issues. However, in the conventional case, the major opposition came from farmers. From the farmer's perspective, this was the first time that there was a proposal for gravel mining on prime farmland. Protecting farmland is a goal for both the county and the state, so county officials were in a dilemma over which land use would prevail for the site. A group of farmers brought the mine permit to the attention of the Fish and Wildlife Service (USFWS). The farmers hoped that the Endangered Species Act would stop the mine expansion.

Another similarity between the cases was that both mining companies received awards for their environmental stewardship associated with the settlements reached in these cases. The State Geology and Mineral Resources Agency, the state agency that regulates mining, has annual awards for "Voluntary Reclamation", "Salmon Enhancement", and a "Good Neighbor" award. A panel composed of representatives from two environmental groups, two state agencies, and one mining company selected mining operators that were worthy of awards and evaluate these projects against a loose set of criteria. In assessment of this panel, the decisions in both mine expansion cases were well above average in terms of quality. In the conventional case, the mining company has been nominated for "Reclamationist of the Year." In the mediated case, the mining company won last year's award for "Reclamation Planning."

## Criteria Comparison of Conventional and Mediated Cases

Both of the mine expansion cases were compared against the criteria from the second chapter. The distinction created by criteria between the conventional case and the mediated case was less clear with the mine expansion cases as compared with the mine re-opening cases. There were still differences in the overall quality of the decisions produced by the two processes.

**Table 8 Criteria Results for Mine Site Expansion Cases**

	Conventional Mine Expansion Case	Mediated Mine Expansion Case
<b><i>Over All Satisfaction</i></b>		
Number of Interviews	4	3
Evaluation of the process	Mixed	Favorable
View of the Outcome	Settled	Settled
Evaluation of Implementation	Mixed	Sufficiently Well
<b><i>Efficiency, Stability, and Creativity</i></b>		
Parties agree on their own?	No	Mixed
Cost and Time	Mixed	Mixed
Stability of the Agreement	Mixed	Mixed
Was the Agreement Creative?	Mixed	Mixed

## Evaluation of the Process

One of the most interesting patterns was the participant's evaluation of the process. Only the county official thought that the process was *favorable*. The county official described his reasoning this way:

"It was an open process, we gave notice to the public, we didn't try to place time limits on speakers. Usually for these types of cases, we have two public hearings, in this case, we held six public hearings. The public was actively involved in the process."

Both opponents interviewed in the conventional case were neutral about the process. They recognized that the problem presented by the expansion of mine were complex and that there was some effort at balancing the public and private interests. As the Federal official from USFWS put it:

"Components of it were good and some were bad. The concept of the site review process is good but the reality of an overloaded staff breaks the system down so it fails to live up to its potential."

The farmer interviewed thought that the conventional process "*could have been worse.*" From his perspective, there was a lot of political pressure from the Governor's Office on the local officials to approve the mine permit in order to keep state highway construction cost low. So with this degree of pressure, this farmer recognized that some county officials were trying balance different public interests.

As in the previous mine re-opening cases, the mining company, rated the process conventional process as being "*unfavorable.*" The mining company was the "winner" however, it appears to have been a pyrrhic victory. The degree of frustration was evident in the remarks of the attorney for the mining company:

"It doesn't matter how strong a case you have, all that you need is two of the three votes by the county commissioners. You could have God and 10,000 bishops supporting you, but all it comes down to getting the necessary votes. We did what we had to do to get the votes."

With this attorney, the entire conventional planning process was boiled down to getting the votes of the county commissioners. He thought that opponents to development projects, in general, were given disproportionate power in the process and could impose significant legal costs upon the proponents.

In the mediated case, all the participants thought that the process was favorable. One of the parties thought that the mediator's advanced degree in Forestry gave him and the process technical credibility. The environmental group cited the confidentiality of discussions among participants as a reason for their favorable evaluation of the mediation process.

### **View of Outcome**

Participants in both the mediated and conventional cases viewed their case as being settled. This was an identical result to the experience of the parties in the mine site re-opening pair of cases examined earlier. In the conventional case, the opponents were worn out both financially and emotionally. The opponents appealed county's decision to both the Land Use Board of Appeal and to the State Court of Appeals. They lost both appeals and so viewed the case as settled. The mining company's attorney summarized the finality of the settlement this way: "Its over, there was a winner. In this case, it was an all or nothing deal. We needed two votes and we got two votes." For now, both sides

view the case as settled and did not put much thought into the impact of the settlement on future relationships.

All of the participants in the mediated case thought that the case was settled. According to the environmental group, the state regulatory agencies told both them and the mining company to work out an agreement or else they would write the conditions of the permit. While the environmental group resented the circumstances by which they brought into mediation, they too viewed the case as settled.

### **Implementation**

At the time of the interviews, both cases were already in mature stages of implementation. In the conventional case, only the mining company was satisfied with its efforts at implementation. All of the other parties thought that the company had been dragging its feet in complying with the conditions of the mining permit. One of the conditions of the permit was that the Mining Company was supposed to have a habitat restoration plan approved by staff from USFWS. According to staff with USFWS:

"It's been two years since the mining company got the approval of the county. They were supposed to have a detailed plan ready for me by January of this year and they are late. They don't have their act together yet."

In this case the fear of potential implementation issues steered the mining company away from mediation. The attorney for the mining company was very skeptical over whether a mediated solution would have worked since the parties would not have given up their legal rights to challenge the agreement in an appeals court. The mining company thought that the farmers could not be held accountable in a mediated agreement.

In the mediated case, the parties were content with implementation of the settlement. One of the crucial components of the settlement in the mediated case was that the mining company granted a conservation easement to the environmental group for the mine site. In enforcing the conservation easement, both sides can still use the court system. However, both sides are offered different types of protection through the conservation easement.

The conservation easement addressed the accountability issue for both parties. The conservation easement reduced the uncertainty over the ecological fate of the area for the environmental group. In terms of monitoring, the environmental group can inspect

the site once a year and inspect the site any time to investigate violations of the conditions of the conservation easement. Since the mine site bordered a municipal park, the mining company was worried about eminent domain proceedings. Within the conservation easement, the mining company has a "interference with mining" clause that will void the easement if a public agency takes acts that make it "economically infeasible" to mine the site. In addition, the mining company was concerned about liability issues and future dealings with the environmental group once the easement was granted. The environmental group provided indemnity to the mining company if its actions caused mining to become economically infeasible and for liability issues associated with site visits. The agreement's internal checks and balances make it a self-enforcing agreement.

### **Efficiency**

In both conventional and mediated cases all of parties thought that they were not capable of resolving the dispute on their own. In the mediated case, only the mediator thought that the parties could have met alone and resolved the issues. The mediator believed that the parties perceptions of time and cost issues were significant factors in bringing them to the mediation table.

In the conventional case, both the attorney for the mining company and the representative of farming interest thought that mediation was no more efficient than the conventional process. It took five years for the conventional process to settle the mining dispute. The mining company spent \$500,000 dollars on legal fees and on expert witnesses. The county spent around \$50,000 in staff time reviewing the proposals and the farming group spent \$92,000 on legal council and its own expert witnesses.

In the mediated case, the attorney for the mining company felt that his client could have won in court but it would have taken another five years and another \$100,000. The mediation component of the case history lasted for about a two months, with one all day mediation session. The county got a grant from the state for \$5,000 to pay for services of a professional mediator. According to the mediator:

"I don't think that the public process really failed, I think that the dispute would have been settled one way or another but what it did come down do was time and money."

The projected legal costs and the impact on production time table were significant elements in getting the mining company to the mediation table. However, in comparing

the costs of the two processes it seems that the participants in the conventional case may have overlooked some potential cost savings. A \$5,000 grant from the state for mediation services would have been a small financial chance to take by the parties in the conventional case. In the conventional case, the parties spent over \$640,000 on legal fees and expert witnesses, yet, they still perceived mediation as an inefficient option.

### **Stability**

In evaluating the relative stability of the agreements produced by the conventional planning process and mediation, participants had a difficult time determining if their agreements were more stable than ones produced by another process. In the conventional case, several participants thought that since the decisions issued by the county commissioner's were legally binding, they were more stable than an agreement produce by an informal mediation process.

An interesting twist with the mediated case was that the county commissioners ratified the agreement. With the county's ratification, there were no legal differences between the mediated settlement and a conventional agreement. The mediator believed very strongly that mediation works best as a parallel process to the conventional planning process. According to the mediator, the voluntary and informal nature of the mediation process allowed the parties to entertain a wide range of ideas. Mediation was not a substitute for the conventional process, but a way of feeding more flexibility and creativity into the conventional planning process.

### **Creativity**

In the conventional case, there was a deep division over whether the conditions set within the mining permit were truly creative. At one end of the spectrum was the county planner, who viewed the conditions attached to the mining permit as being very meaningful.

"I think we got some good concessions from the mining company. In the original proposal 400 acres were going to be mined with little mitigation. The ultimate decision was for 180 acres open for mining. There was an addition of a significant buffer area around the mine, the best farm land was set aside, the resulting 80 acre pit will be reclaimed back to its original farm conditions. A well monitoring program was agreed to gather information on contamination before any expansion would be allowed. A 40 acre oxbow lake will be reclaimed for turtle habitat."

According to the county planner, creativity was getting concessions from the mining company. These concessions represent an effort by county official to balance the conflicting public interests. The attorney for the mining company also viewed the agreement as creativity, but for different reasons. According to the attorney: "We needed to get two votes so we really tried to craft a proposal that they could politically support." The mining company attempted to appease public officials by making concession to perceived public interests. The mining company did not directly negotiating with the public interest groups but dealt with the perceptions of these interest held by the public officials.

On the other end of the spectrum was a farmer, whose land borders the mine site. While the farmer acknowledged that other interests such as wildlife habitat received meaningful conditions in the final permit, he thought that farming interests did not benefit from any creative approaches. As he saw it:

"No, I don't think the permit conditions were very creative. The county could have considered alternatives to approving the mining of prime farmland. Perhaps providing a subsidy for transportation costs associated with mining in the mountains. They could have looked at alternative sites."

The farmer's ideas of finding alternative site for the mine or creating a special transportation subsidy for the mine was expecting a lot from county officials. In the permitting process, public officials would have a hard time imposing such conditions on a mine permit. While it may not have been possible to act upon these ideas in the permit process, the ideas themselves may still have merit. A subsidy for the transportation costs could have assisted the mining company in locating to a less sensitive area. Unfortunately, public officials are not in a position to suggest such an alternative while reviewing a permit application.

In the mediated case, the environmental group hesitated to classify the agreement as "creative." Again, the environmental group felt that they had a strong case in court and that the governor's office had forced the case into mediation. According to the environmental group, the governor's office gave them a choice of either reaching an agreement with the mining company in mediation or the state conservation agency would

write the permit. Given the context, the environment group felt it was the "best possible outcome," but they still felt like they were "settling for scraps."

The mining company also thought that they could have gotten a better outcome in court. According the attorney for the mine, if they had won big in court, they only would have positioned themselves to be a target for a "major assault by environmentalists." The mining company thought it was able to avoid an even bigger fight in the future by using mediation. Both the mediator and the state official involved in the process thought that the agreement was the best for both sides.

### Comparing Settlements

In both of the mine expansion cases, the permits were granted with conditions. As with the earlier cases, the final settlements were examined for a common conditions found in decisions approving mining operations.

**Table 9 Settlements of Mine Expansion Cases**

Conditions for Allowing Mining	Mediated Case	Conventional Case
<b>Time Restriction</b>		
Limited Hours of Operation	Unknown	Yes
No Mining Allowed On Saturdays	Unknown	No
Fixed Lifespan of Mine	Unknown	No
<b>Noise and Water Quality</b>		
Follow-up Noise Monitoring	Unknown	No
Follow-up Water Quality Monitoring	Unknown	Yes
Agreed Upon Noise Monitoring Methods	Unknown	No
<b>Dimensional Restriction</b>		
Depth of Mine Restricted	No	Yes
Reduced Size of Mine Site	Yes	Yes
<b>Environmental Conditions</b>		
Efforts at Forest Conservation	Yes	No
Extensive Wildlife Conservation Efforts	Yes	Yes
<b>Future Issues Addressed</b>		
Post Mine Site Land Use Agreed Upon	Yes	Yes
Forum for Addressing Future Disputes	Yes	No
Criteria Spelled Out for Halting Mining	No	No
<b>Infrastructure</b>		
Road Improvements	Unknown	Yes

One of the important issues in both cases was the degree of environmental stewardship expected from the mining company. In the conventional case, the farmers brought the permit application to the attention of USFWS. According to staff with USFWS, there had been a documented sighting of the Western Pond Turtle, a turtle

species under consideration for listing as a threatened or endangered, at the mine site. Ironically, due to the habitat degradation caused by surrounding farms, the area was no longer the residence of the Western Pond Turtle. The farmers were not concerned with habitat loss, but hoped to use the Endangered Species Act to stop the mine.

In response to USFWS concerns, the county commissioners required the mining company to submit a reclamation plan to USFWS in order to restore the mine site as habitat for the Western Pond Turtle. While the USFWS staffer was optimistic about the impact of the reclamation, she felt that the actual value of the restoration effort may be quite limited.

"The county should have been looking more comprehensively at habitat issues. In this case I think that the commissioners never really understood the big picture. They focused on the turtle, but not the habitat of the turtle. They couldn't understand, nor did they have a regulatory mechanism for understanding the wildlife issues are bigger than what happens on one site. I think the commissioners believe that by doing some reclamation the Western Pond Turtle will return but without addressing any surrounding property or watershed issues this is just not going to happen."

In the mediated case, the existing mine borders the largest municipal park in the State. The mine proposed clear cutting a significant number of acres of timber. Through the mediation process, a "Preserve" of the most ecologically sensitive area was set aside. The mining company signed a conservation easement with the environment group. Within the conservation easement, land required for the mining operation would operate under a detailed forest management plan. The draft plan must be reviewed by the environment group before the mining operation could begin their operation. The mining company was required to restore the forest to its native old growth structure. A hiking trail easement was also granted by the mining company. The environment group was granted inspection rights to the Preserve and a process was outlined for resolving inspection disputes. The inspections by the environment group do not include the actual mine site, and the environmental group gave a waiver of liability to the mine for their site visits.

While both agreements contained concessions to benefit the environment, it appears that the mediated case achieved more meaningful environmental benefits. In the mediated case, the parties were eventually able to focus on each others substantive

interests. The detailed tailoring of the agreement to the interests of the parties resulted in a high quality decision. In the conventional case, the farmers used the Endangered Species Act to block the mine, so it is not surprising that the resulting reclamation plan is not environmentally comprehensive. Meaningfully environmental benefits are achieved when the underlying interests of the parties are met.

## **Conclusions from Process Comparison**

### **Satisfaction with Process**

A basic premise in this thesis is that participant satisfaction is a "clue" to the locating good decisions. Dissatisfaction was more widespread in the conventional cases than in the mediated cases. In both conventional cases, only the county planner thought that the process was "favorable." Conventional wisdom suggests that since the mining company "won" in the conventional process that they would be satisfied with the process. However, in both conventional process cases, the company representatives thought that the process was "unfavorable." The winning side was dissatisfied in the conventional process.

### **View of Outcome**

All of the participants interviewed believed that their case had been settled. Among the opponents in the conventional process cases, there was a noticeable tone of resignation in their acknowledgment that their cases were settled. The opponents in both conventional process cases were emotionally and financially worn out. Since the opponents were not in a financial opposition to appeal the decisions, they had to rely on the county for enforcing the conditions of the permit. In the mediated cases, one environmental group resented how they were brought to the table but they did view their case as settled. In the mediated cases, the parties set up processes for handling future disputes as part of their final agreements.

### **Implementation**

Both processes had enforcement mechanisms as mine permit conditions. The mediated cases relied on both the required regulatory enforcement and a series participant based enforcement mechanisms. In the first mediated case, the parties met one year after signing the agreement to go over any difficulties. Again, there was clear process set up

for handling future disputes. In the second mediated case, the disputing parties signed a conservation easement, which included provisions to ensure the cooperation of both parties.

In the conventional cases, county agencies were relied upon to do the bulk of the enforcement. For example, the department of public works had to verify that road improvements had been made by the mining company. Several participants thought that the county agencies were either over extended or that the enforcement was not adequate. In the first conventional case, the mine will not be open until 2001, so implementation issues were premature. In the second case, the mining company was late in complying with environmental planning requirements of the permit.

### **Efficiency**

Mine companies based their permitting strategy upon a rough calculation of their chances in the conventional permitting process. If the permit application is unopposed, then the conventional process can be quicker and cheaper than using an assisted negotiation process. However, it appears that few mine permits are smooth sailing. The temptation of a quick victory is very strong. The strategy of the mining companies is summed by one county planner this way:

"The applicants know that if they met our criteria that will have to approve their proposal and the that the views and opinions of the neighbors don't count. Without any incentive, if the applicant knows that the law is on his side then there is no way he is going to enter into mediation."

Mining companies prefer to take their chances in the conventional process as opposed using an assisted negotiation process. In the first pair of cases, which involved the same mining company, the company was alarmed by the length of time required by the permitting process and intensity of the opposition they encountered in the conventional process. Although this first case was later settled with mediation and the company recognized the time and cost savings due to mediation, they did not use this information in their next permit application. The mining company applied for a permit years in advance, anticipating a lengthy legal battle. Again, the attorney representing the mining company thought they could easily get their permit in the conventional process and "didn't need to use mediation."

Among the conventional cases, neighborhood groups did not think that mediation would have saved them money, since they still would have required outside experts to review the settlement. While such an outside expert review can be set up within mediation, this idea had never occurred to the neighborhood groups. The neighborhood groups were also unaware of state grants to cover the costs of mediated processes.

### **Stability**

Participants felt uncomfortable with making statements regarding the relative stability of their agreements. When pressed by the interviewer, a common perception among participants was that decisions reached in the conventional process were more stable than mediation. The participants thought that the decisions issued by the county commissioners were "legally binding", hence more stable. In the mediated cases, several participants thought that since their agreement was more of a contract between the individual parties it was more stable than a conventional decision. In their view, conventional agreements were vulnerable to changes in political fortunes, hence, less stable than a mediated decision.

### **Creativity**

County officials viewed the conditions attached to the permits in both the conventional cases and the mediated cases as being creative. Except for the first conventional case, mining companies shared the same opinion with county officials in viewing any and all conditions attached to a permit as being a creative outcome. Opponents in the conventional cases did not view the conditions as being creative or out of the ordinary. While opponents acknowledged that they were able to extract some concessions through the conventional process, they did not view these concessions as being particularly innovative.

### **Settlements**

Both the conventional process and the mediated process attached conditions to the permits for the mines. In both conventional cases, the conditions attached were attempts by public officials to address the concerns of public interests. While planners and public officials thought that the conditions were creative, the conditions were limited in depth and scope. One planner acknowledged the limitations of the conditions this way; "Often

in these situations we are in a straightjacket and can't go far in requesting the mitigation of impacts.” Public officials are responsible for insuring that the applicant's plan meet published criteria. It is difficult for public officials to require an applicant to address issues outside of the site review criteria.

It is also difficult for public officials to know how to address the interests of the other parties. Public officials may not live near the site, have no experience running a gravel mine and are not familiar with the habitat needs of wildlife. Public hearings are the mechanism for raising the awareness of public officials. The level of interaction among participants, hence learning opportunities, is low at public hearings due to restrictions on who may ask question. Only the public officials are allowed to ask questions. When an environmental group makes a presentation on a mine permit, the mining company can not ask them clarifying questions. The wildlife restoration plan in the second conventional case is a perfect example of well meaning public officials tried to address an issue that they really did not understand. As a result, there will be a wetland reconstructed, but its ability to actually restore the population of the Western Pond Turtle is limited.

In both mediated cases, the conditions attached to the permits tried to address the concerns of the mining company and the public interest groups. The mediated agreements were tailored to the conditions and circumstances in each case. In examining the settlements, the conditions in the mediated settlements had more depth. For example, in the first mediated case, the hours of operation were limited beyond weekend day restrictions and the life span of the mine in limited to four years. In the second case, the agreement addressed the current management of the forest, set aside land for a preserve and dealt with restoration issues. A system of checks and balances within the agreement protects both parties.

## CHAPTER 4

### Overall Findings

Satisfaction does appear to be a reasonable “clue” locating good decisions but only a clue. The second part of the criteria that measured efficiency, stability, and creativity, proved to be more difficult to apply. Some participants, who were satisfied with the process, had trouble commenting on the efficiency or stability of the decision. The high satisfaction decisions fared well in comparison to the other decisions, given the degree of difficulty presented by the set of criteria. However, a more obvious contrast between high satisfaction decisions and other decisions was expected. Again, based upon this research, the satisfaction level of the participant is a useful but not an exhaustive clue.

Another finding was that the presence or absence of innovative land use planning concepts does not assure that the decision will meet the interests of all groups or be a “good” decision. Participants appreciate innovative land use concepts when there use addresses a legitimate interest. As illustrated in the case where the stone quarry offered to build a park for rural residents, what constitutes a “good” idea is context driven. Innovative concepts, such as turning a quarry into a park, are meaningful because of their context, not in spite of it. Another way of exploring this tension is to ask if a decision represents a wise outcome. The assertion here is that innovative land use concepts need to be wisely as opposed to widely applied.

The sample of facility siting cases was not a random sample and, therefore, the conclusions I can draw regarding facility siting in general are quite limited. There were interesting trends, however, among the cases that are worth noting.

One finding was that among the facility siting cases that used assisted negotiation, the surface mining cases appear to have been handled more effectively than other types of facility siting issues. One explanation for this result was offered by Gail Bingham's study of dispute resolution. Bingham asserted that assisted negotiation was more successful in resolving site-specific dispute than policy dialogues. (Bingham, 1986:77) Further, Bingham believed that participants in site specific cases had an easier time defining the problem has brought them to the table than participants in more general public policy

disputes. Bingham's findings parallel the results reported in this thesis. For example, homeless shelter cases did not fare well using my proposed. While homeless shelters certainly have a site-specific component, what often dominates these disputes are concerns about community values. The context of siting a homeless shelter is more akin to a debate over broad social policy. Granted, there are value disputes among participants in mine siting cases, however, the debates in mine siting cases are more typically to discussions of technical standards. Due to sampling limitations, my results can not claim to "prove" Bingham's assertions, rather, her theory offers a possible explanation for my results.

Of the three cases I selected, two seemed appropriate for matched pair analysis. The idea behind the matched pair analysis was to see if there were differences between the decisions produced by the conventional process and mediation. Going a step farther, the analysis attempted to test the claim of advocates of assisted negotiation that their process produced "better" decisions than the conventional process. Again, the analysis relies on participant perceptions to draw conclusions. By examining the matched pairs I determined that the satisfaction levels of the two assisted negotiation cases were higher than in the conventional cases. The only condition that participants in the conventional cases could agree upon was that their case was settled. This was surprising, considering the level of discontent among the participants in the conventional cases. In both conventional cases, only the county planner evaluated the process as favorable. Even the mining companies who were the "winners" in both conventional process cases were not pleased with the decision-making process. There is a clear message in the cases examined for professional planners that the conventional process does not satisfy the public.

Yet, the conventional process did settle both cases. So, how do agreements produced by a process that did not satisfy the public fare when compared to agreements in which the participants reported that they were satisfied? It proved to be more difficult to distinguish between the decisions using the proposed criteria.

In the first pair of cases, it appeared that the assisted negotiation case produced a better agreement. The participants were unanimous in their belief that the process "cost

less and took less time" and that the agreement was "creative." However, this pair of cases had some unusual twists that cast doubt on the results. The matched pair involved the same mining company with the same legal team. The assisted negotiation case was resolved before the conventional case. What the mining company seemed to have learned from its experience with assisted negotiation was that mine permits could be successfully challenged by a group of residents. If the benefits of assisted negotiation case were so great, why would the mining company not try to pursue a similar arrangement with the residents in the second case?

The temptation of a quick victory was a big factor in the mining company's decision to pursue their next permit through the conventional process. This temptation seemed to overcome any consideration of potential benefits resulting from the decisions that had been produced in the assisted negotiation case.

In the mine expansion cases, the complexity of the both cases made clear distinctions difficult. This assisted negotiation case also had a twist that influenced the assessment of the final decision. The environmental group believed that it was forced by the governor's office to the mediation table. While all of the participants were satisfied, the lingering resentment of the environmental group re-surfaced. Again, satisfaction among participants is only a clue to locating good decisions.

The final agreements in all four matched pair cases were examined. A list of common conditions attached to mine permits was created to evaluate the degree to which the agreements addressed participant interests. In both cases, the assisted negotiation cases went further than the conventional cases in meeting participant concerns. It appears that the conditions attached to permits in the conventional process addressed only the most basic concerns. A very interesting element in both assisted negotiation cases was the agreement among the parties about how to handle future disagreement over that particular mine. This condition may explain why participants in both assisted negotiation cases view the agreements as well implemented.

### **Suggested Adjustments to Methodology**

Based upon the experience of developing and applying the criteria to land use decisions, a variety of lessons were learned. These lessons should help other planners

and mediators in their evaluation efforts and aid in fine tuning the decision-making process in land use planning.

My assessment was affected by the requirement that there be unanimity among the participants. In future applications of these criteria, it might be useful to relax the requirement of unanimity among participants. The presence of some dissent among the participants does not automatically mean that the decision was flawed.

On the other hand, allowing for dissent among participants would produce different results. Both the Low Income Housing case and the Delta Gravel Mine case missed qualifying as "high satisfaction" decisions because one participant responded negatively to one question. These "just missed" cases fared well in the second part of my analysis. In these two cases, relaxing the requirement for unanimity among participants may have been warranted.

Even the high satisfaction decisions would have been affected by increasing the tolerance of discontent among participants. In particular, my assessment of the mine expansion case in the second part of my evaluation would have been more dramatic. This case was described as "mixed" due to the requirement of unanimity. In several instances, this case missed total consensus by one response.

Obviously relying upon interviews with participants is not sufficient as a measure of the quality of the underlying decision. When participants disagree over information, such as the number of meetings held, how can evaluators expect participants to report accurately on other considerations? In addition, relying upon participants to remain up to date on the issues, many years later may not be realistic.

I tried to separate "good" decisions from "poor" decisions. What I was not able to determine is how much "better" a good decision was than a mediocre one. Part of the problem has to do with the data collected. My interview protocol used ordinal categories such as "favorable" or "unfavorable" to separate replies. The separation of data into mutually exclusive groups represents the full degree of usefulness of ordinal data. To increase the usefulness of this kind of analysis the protocol questions should be changed to solicit interval level data from participants. With interval level data, a statistical mean can be determined for each case so that the magnitude of the different responses is

discernible. In addition, the need for unanimity among participants is diminished with the use of interval data. The dissenting participants will change the mean, yet, not mask the views of the other participants.

Each facility siting case examined as a history and political context that influenced the final decision. To make claims about a decision without examining the history, can lead to false conclusions. Each of the cases in which participants were highly satisfied had interesting histories that make sweeping claims on the quality of those decisions difficult. The highest rated case was the Community Involvement Group (CIG) formed to handle issues relating to a large chemical plant. One of the first issues that was addressed by this group was a proposed siting of the hazardous waste incinerator. After reviewing an independent report on the CIG role in the siting issue, it appears that the chemical company withdrew the project based on new economic assumptions regarding the profitability of a hazardous waste incinerator. (Cohen, Chess, Lynn, Busenberg 1995:12) The members of the CIG who opposed the project were pleased with the outcome, and the company was not upset with CIG since the process did not kill the project. While the CIG is widely credited with doing excellent work on chemical production issues, on the facility siting issue it is hard to give the CIG full credit for the decision to not build the incinerator. Consulting case history is a necessary step in any evaluation outcomes of decision making processes.

Finally, further research is needed to add other elements to the criteria. Susskind and Cruickshank believe that participant perceptions of "fairness" and "wisdom" are meaningful measures of decision making quality. Fairness and satisfaction are similar but not identical. It is possible that participants could be satisfied with a decision, yet still believe that it was unfair in some ways. The wisdom of a decision was briefly touched upon in examining several of the decisions. For example, turning every quarry into a park is not wise public policy. A wise decision takes a greater context into account. More work needs to be done on determining indicators of wisdom in decision-making.

### **Concluding Thoughts**

Every land use decision facing planners represents an opportunity to improve the communities that they serve. Planners are routinely called upon to evaluate site plans and

ideas that will shape their communities. How do planners know that the decisions they help issue will benefit their communities? In trying to answer this question, I developed criteria for evaluating decisions that were formulated with the aid of a mediator. I have attempted to determine if mediated decisions are “better” in the minds of participants than decisions reached through the conventional process. Yet, this effort is not a complete answer to the question posed above.

This evaluation did not examine the physical outcomes resulting from the decisions produced by mediation or the conventional process. Further research should examine the physical outcomes of mediated decisions. A comparison of outcomes between conventional cases and mediated cases would be a real benefit to both planners and mediators. However, through my thesis research, I have come to believe that an assessment of outcomes should be conducted by interviewing the participants who were involved in making the land use decision and have to live with the consequences. Such an evaluation should focus on the “quality” of the outcome. While quality is a difficult term to define, I think that by breaking quality down into components such as participant satisfaction, a useful definition of quality emerges. Only by examining the quality of the outcomes based on interviews with the people who have to live with the decision, will we have a solid understanding of whether planning decisions have truly benefited the community.

I hope that these criteria spark discussion among planners about what sort of decisions the profession is striving to attain. Just as a good comprehensive plan articulates a vision for a community, planners need to have an evaluative vision for decision-making. If planners do not reflect or evaluate their land use decisions, they run the risk of repeating mistakes and missing opportunities to enhance the communities that they serve.

## **Appendix A**

### **Consensus Building Institute Interview Protocol**

1) I have some basic information on the case in which you were involved, but I would like to hear your views on what happened. Could you give me a brief summary of the mediation effort?

#### **Reasons for Trying Mediation:**

Script: I'm going to ask you some questions about the process you went through. When I say "mediation" I'm talking about mediation, facilitation, and other forms of assisted negotiation. The important thing from our stand point is that a professional neutral was employed to help you try to resolve the conflict. Do you feel the process your went through fits this category?

1) Before you were involved in the mediation process, did you attempt to pursue your interests in some other way in this case (litigation or an administrative appeal)? If so, can you tell me more about that?

2) Why do you think that effort failed?

3) Prior to the mediation process, did you have a view about the strength or weaknesses of assisted negotiation ( as compared the other options you have to pursue your interests)?

#### **The Process:**

1) Who convened the initial mediation effort? How were the parties selected? Were an new stakeholders added?

2) In your opinion, what were the biggest obstacles to achieving a good settlement using mediation?

3) What did the mediator do or try to do in order to overcome these obstacles? How effective were the techniques that the mediator used?

4) In general, what was your evaluation of the process? Please choose among the following responses: "very favorable", "favorable", "unfavorable." "very favorable." Why?

**Settlement and Agreement:**

1) Please choose among the following responses to describe the outcome of the mediation process: “settled,” “not settled, no significant process,” “not settled, but significant progress made,” or settled but further litigation ensued anyway.” Please explain.

2) (if settled) Could you describe the settlement and comment on your sense of its fairness?

3) (if settled) Do you agree with the statement: “My interests were well served by the settlement.” Would you say the you “strongly agree,” “agree,” “disagree,” or strongly disagree?” Why”?

If you disagree with the statement do you feel another process would have better met your interests?

4) (if settled) Do you agree with the statement: “ In general, all the parties’ interests were well met by the settlement.” Would you say the you “strongly agree.” “agree,” “disagree.” or “strongly disagree?” Why?

5) (if not settled) Even though there was no final settlement, were there any issues clarified, relationships improved, or minor agreements reached that made the mediation worthwhile in your mind?

6) (either settled of not settled) In your opinion, how important was the mediator in achieving agreements among the parties? Would you say the role of the mediator was “crucial,” “important,” “somewhat important,” or “not important?” Could the parties have agreed on their own?

**Time and Cost:**

1) Roughly how long did the mediation last?

2) How much was the mediator’s or facilitator’s bill? How were the costs of the mediator covered?

3) Could you estimate your costs ( including any attorney/consulting fees) for participating in the process? (how many hours per month did work on the mediation portion of the case)

4) How would you compare the time and cost of mediation with the time and cost that probably would have been required if you had litigated and/or appealed your case? Please choose among the following responses: “mediation cost less and took less time,” “mediation cost less but took more time,” “mediation cost more but took less time,” or “mediation cost more and took more time.”

**Implementing the Settlement:**

1) Was there any agreement reached regarding how to implement and/or monitor the settlement? Were these agreements realistic?

2) In your opinion, how well was the settlement implemented? Please choose among the following responses: “very well,” “sufficiently well,” “insufficiently,” or “poorly.”

3) Looking back on what happened, how stable was the settlement? In your opinion, was the settlement more stable than that which probably could have been reached through another process (litigation or administrative appeal)? (yes, no, don’t know)

**Broad Questions:**

1) (if settled) I am assuming that the settlement met the basic interests. But was this a “creative” settlement? In other words, did it produce the best possible outcome for all sides given what you now know?

2) In your opinion, what types of land-use disputes are good candidates for mediation or what types of land use cases are inappropriate for mediation? Please explain.

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