DEFINING SUSTAINABILITY: A CASE STUDY OF A WOODY BIOMASS PROJECT IN THE PACIFIC NORTHWEST

by

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This thesis explores a working group's efforts to establish a cellulosic ethanol production plant in the Northwest. Specifically, the study explores how a collaborative frames sustainability, or sustainable development, when seeking public support while attempting to minimize conflict regarding an industrial project that some would, and others would not argue promotes responsible use of a natural resource. Additionally, this research examines who gets to be involved in defining what sustainability really "means" and what the reasons are for including some stakeholders in this process while others are excluded. It also considers the challenges related to defining sustainability in a specific community in the Northwest that is known for its commitment to sustainable development but at the same time has a history of being home to natural resource extractive industries, such as the timber industry. Finally, it examines the usefulness of an environmental conflict resolution model for evaluating these organizational processes.

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CHAPTER I

PROBLEM STATEMENT

Introduction

On July 10, 2007, a county government agency in Oregon, on behalf of a working group that was made up of a public agency, private businesses and businessmen, and non-profit organizations, submitted a grant proposal titled "Multi-Collaborative Effort to Utilize Woody Biomass for Cellulosic Ethanol Development in Western Oregon," to the United States Department of Agriculture's Forest Service. The proposal sought $124,000 in National Forest Restoration Working Partnership Grant-funds to "help jump-start a multi-party collaborative initiative to attract grants, equity, and debt to help build a cellulosic ethanol industry in western Oregon" (Grant application, 2007).

The project mission, as per the proposal, was to "think globally and act locally" and to "build on the vision of the United States government to explore opportunities for biomass utilization and renewable transportation fuels" (Grant application. 2007).

During the previous year's State of the Union address, President George W. Bush had announced the new Advanced Energy Initiative (AEI), which was intended to help the United States overcome its dependency on foreign sources of energy. The U.S. Department of Energy's *Breaking the Barriers to Cellulosic Ethanol* report, which was released in June 2006, stated that:

> The triple energy-related challenges of the 21st Century are economic and energy growth, energy security, and climate protection. The United States imports about 60 percent of the petroleum it consumes, and that dependency is increasing. (U.S. Department of Energy, 2006)

This working group's initiative, then, can be seen as a direct extension of a larger national effort to focus on development initiatives that could mitigate the country's dependency on foreign sources of energy, in particular oil. But the initiative also exists within other frameworks, namely that of bringing jobs to rural communities, reducing potential damages caused by out-of-control forest fires, and establishing a regional transportation fuel production facility that could keep more money circulating in the local economy, thus ultimately benefiting local residents.

Concurrently with these two objectives, however, there continues to be an ongoing and perhaps increasingly critical debate among numerous groups, both internationally and domestically, about the benefits of using biomass to reach a variety of energy-related, economic and environmental goals (Searchinger et al., 2008).

Background

Several documents advocating the need for biomass-utilization to increase U.S. energy independence have been published in recent years, including the United States Department of Agriculture/United States Department of Energy's joint 2005 *Biomass As Feedstock For A Bioenergy And Bioproducts Industry: The Technical Feasibility of A Billion-Ton Annual Supply*; the Oregon Forest Resources Institute's *Biomass Energy and Biofuels from Oregon's Forests and* Oregon State University's cross-departmental study, entitled *Oregon: Biofuels and Biomass.*

A more recent report, which was released in Oct. 2007, is the Oregon Environmental Council's *Fueling Oregon with Sustainable Biofuels.* What these reports claim to have found, among other things, is that there is 368 million dry tons of "sustainably" accessible biomass available in the United States. And approximately 60 million dry tons of fuels treatments and 41 million tons of logging residue could be removed from forest lands annually.

In addition, a USDOE forecast estimates that 10 percent of industrial chemicals and materials will be produced from renewable resources by 2020, and approaching 50 percent by 2050. Furthermore, the USDOE estimates that a 10 percent share, the annual value of these chemicals, will be $400 billion, which is approximately twice the value of all forest products produced in the United States today. What these figures clearly show is the potentially sizeable economic benefits of steering economic development in certain directions to take advantage of potential future market opportunities.

Why some would want to steer Oregon's economy towards biomass can to some degree be illustrated by the amount of money that has been spent on wildfire suppression nationwide recently. The U.S. Government has spent $8.2 billion in the past decade alone to suppress wildfires that have burned 49 million acres of land nationwide. In Oregon, for example, federal forest scientists have identified over 12 million acres of forestland where the fire condition is class two or three. This means that Oregon has more lands at fire-risk than any other state in the country (Grant application, June 2007), which again illustrates the potential for a woody biomass industry in Oregon.

While there are many who advocate the use of woody biomass utilization to mitigate climate change and to achieve greater energy independence through increased domestic renewable energy production, there are some, including the Pinchot Institute for Conservation, who voice concerns about the effect a new and rapidly expanding demand on U.S. forests for wood-based energy could have on the forests, and of the net atmospheric impact of biomass conversion. According to the Institute:

> Conservationists almost universally support renewable energy development. But they want to see it 'done right', especially when it comes to potentially placing new demands on forests. While there are general notions within the conservation community of what the 'right' way is, this has not been well-defined or translated into operational terms that can be clearly communicated, implemented and monitored. There are differing perspectives even within the conservation community itself regarding the nature of the challenges, the best means of addressing these challenges, and priorities for near-term action. (Pinchot Institute for Conservation, 2007, p. 1 executive summary)

Moving Forward

Having secured funding from the USDA Forest Service, the working group is now in the early stages of developing a plan to utilize and process 50,000 green tons of woody biomass to produce two million gallons of cellulosic ethanol on public and private forest lands in Oregon (Grant application, 2007). Concurrently, and in addition to the working group's initiative, the city that is the home-base for many of the working group members' organizations is on a self-proclaimed mission to become one of the most sustainable cities of its size in the United States within the next 20 years and has consequently moved to involve itself with this process that is referred to as "sustainability," although they are not in any way directly connected to the working group's woody biomass project.

What these two, and countless other sustainability initiatives reflect, is the desire by public agencies, private businesses, and non-profit agencies, to improve the "quality of life" (a contested term among the many interested party's in such efforts) in their communities through "sustainable development" initiatives (also a contested term) that try to address social, environmental, economic, and energy-related concerns.

Out of these processes emerge several important questions. For example, who gets to define the meaning of sustainability, and who gets to participate in the process through which sustainability initiatives are crafted and implemented? What voices are included in these debates, what voices are excluded, and what are the working group's rationales, if they have any, for these decisions?

Put another way: Who gets to define who is and who isn't a stakeholder, and what constitutes "quality of life?" Also, how do various stakeholders view this project, both those who have been identified by the working group and those who haven't been? And what do their views say about the working group's efforts?

Sustainability

A close look at the warehouse of accumulated human knowledge suggests that humans have been interested in sustainability, i.e., living in harmony with nature and one another, for quite some time (Mebratu, 1998). The term sustainable development, however, has only been around as a modern, political concept since the late 1980s. That's when the United Nations-sponsored World Commission on Environment and Development released its report, *Our Common Future* (Brundtland, 1987). The report, which caused a flurry of papers to be published on sustainability and sustainable

development in the late 1980s and early 1990s (Newman, 2005), proclaimed the need to promote economic development alongside environmental best-practices. This, the report argued, was essential to ensure that sustainable development would seek to "meet the needs and aspirations of the present without compromising the ability to meet those of the future" (Brundtland, 1987, p. 42).

In the U.S. and around the world, governments, international institutions, non-governmental agencies and the private sector are trying to come up with measures that can alleviate and prevent further damage caused by unsustainable development practices. One such series of initiatives is the Millennium Development Goals, which is a set of benchmarks that the UN has set out to meet by 2015 (United Nations, 2007). This initiative includes promoting the adoption of measures to combat climate change, improve human health, reduce pollution, and deal with problems associated with poverty and overpopulation.

Concurrently with increased human interest in (and awareness of) the need to promote sustainability and sustainable development are the consistent publications of reports that suggest the human population is living far beyond its resource means and damaging the environment to the point of no return. The contradiction between the desire by some to act responsibly and the actual things that are happening on the ground might illustrate two things. It shows the complexity of a globalizing and increasingly interconnected world where the gap between rich and poor is growing rapidly, as well as the gap between the aspirations of some human beings and the social, environmental and economic realities we are faced with at the beginning of the 21st century. These

challenges include climate change, global warming, wars and environmental problems related to diminishing natural resources, such as water, and the reduction of productive lands on which to grow food. But these contradictions also remind us that there is still potential for change, simply because people don't seem to have given up hope that they can change things for the better.

Consequently, I believe it is important that development efforts are scrutinized, simply so that we can learn more about the processes that lead to development practices and methods that minimize the human footprint on the environment and lead to greater equality in general.

The Purpose of the Study

The purpose of this case study is two-fold. First, given that sustainability continues to be a "contested" term, I'm interested in exploring how the working group, consisting of seven different organizations with both conflicting and common interests situates itself within and contributes to discourses on sustainability and sustainable development (local, regional, national, and international) to achieve a concrete goal – namely to explore the feasibility of establishing a cellulosic ethanol plant in Oregon.

I will be studying the evolution of the working group's notion of what sustainability means, and how this notion manifests itself through this collaborative process, keeping in mind that the working group, if it wants to move the project forward, needs to come up with a definition that both attracts possible project-partners and keeps people who might be in opposition for a variety of reasons from sidetracking their efforts. I will also be examining how this process stands up in relation to an ethical decision-

making framework based on sustainability principles and principles of collaborative public management and democracy.

Many environmental organizations argue that using woody biomass to produce cellulosic ethanol is not sustainable, especially in the long term, because woody biomass, although abundant on many public forest lands now, is not likely to be an infinite natural resource if the use of woody biomass catches on and ends up taking place on an industrially significant scale.

In other words, what will happen to the environment if an emerging woody biomass industry ends up becoming so large that it becomes extractive rather than restoration-oriented in nature? After all, forest restoration is the primary reason the working group was awarded their $124,000 Restoration Partnership Grant to begin with.

Importance of the Research

This study is important because it explores the challenges and opportunities of a collaborative project that involves multiple stakeholders. The study is timely because it is increasingly recognized that sustainability, or sustainable development, is best accomplished through collaboration between stakeholders with different interests, perspectives and objectives (Harris, 2007; Newman, 2005).

> This is a positive change from both top-down approaches to sustainable development and overly normative goal-based approaches; if sustainable development is to properly address the complexity of social and ecological systems, it must continue to move towards a model that is both process-driven and dynamic. (Newman, 2005, p. 633)

What's At Stake

The group's project could, from the point of view of the working group (and others who are interested in seeing these kinds of renewable/alternative energy projects materialize) potentially help restore forest health in Oregon, provide access to a source of alternative/renewable energy source locally and revitalize rural communities that have suffered since the timber industry has had to drastically scale down its operations in the wake of tighter environmental regulations (Grant application, 2007).

Critics of the group's project, as we will see, including environmental groups, argue that there is still inconclusive evidence related to the environmental impact of removing woody biomass from forests. In addition, they raise questions about the feasibility of transporting, processing, and distributing the end product in a manner that doesn't leave a negative environmental footprint. They are also concerned about the net atmospheric impact of using woody biomass as a source of fuel vs. regular fuel.

In addition, the technology needed to convert woody biomass to bio-ethanol is not currently widely commercially available. Some, including an Oregon-businessman and private land owner actively involved in developing the woody biomass industry, suggests that this technology is still five to 10 years away from being available and feasible to implement on an industrial scale.

Methodology

My research comprises a mix of qualitative research methods, including participant observation, document analysis, and stakeholder interviews. It is important to note that my participant observation was conducted while interning with a county-level

economic and community development program that is the lead applicant on the USDA Forest Service Forest Restoration Partnership grant that provides the funding for the working group's feasibility studies. This created certain opportunities and limitations for this study. For instance, I got access to perspectives and information from the working group that I may otherwise not have had, simply because I was directly involved in the practical aspects of carrying out one of the feasibility studies. For instance, one of my specific duties was to summarize stakeholder interviews and present the results to the working group at a group meeting.

However, my close connection to and involvement with the working group may also have prevented me from discovering or identifying issues that could be of importance to my research. Some information may also have been kept from me because the working group knew that I was in the process of doing a research project on the group and might fear that revealing certain perspectives, views and strategies might "jeopardize" their efforts.

During my participant observation, I explored the internal dynamics of the working group to try to understand the power relationships within the group and how those relationships affected the group's decision-making in relation to how they wanted to present this project to the public, as well as what stakeholders they chose to approach. I also analyzed information that I helped produce, as well as other information, such as stakeholder outreach interviews, both from stakeholders that have been identified by the working group and stakeholders that I identify through my own "independent" stakeholder analysis. The point of my own stakeholder analysis is not to be exhaustive

but rather to provide an additional set of criteria against which to measure the working group's outreach efforts, and to provide a setting where the working group's choices can be critically examined by looking at how they went about their efforts, what questions they asked and whom they contacted.

Environmental Conflict Resolution (ECR)

I draw on environmental conflict resolution, as well as a theoretical framework tied to collaborative public management and democracy, to assess the sustainability concerns of this process and project. This is so that I have a specific set of relevant evaluative criteria to discuss how this project in its early stages constructed a local definition of sustainability in agreement with or in conflict with other local voices, as well as larger debates regarding sustainability. I believe these evaluative frameworks are valid and can be important tools as society tries to move in the direction of more sustainable development and practices because the foundation of both these models fit ethically with the underlying premises behind the sustainability movement.

Employing the environmental conflict resolution model, as well as a framework that explores collaborative public management and democracy in relation to a specific collaborative project, offers up a test of whether these two models combined can increase our understanding of the processes that drive development projects with environmental concerns forward. Furthermore, this approach may offer new insights that could give us a better understanding of what's needed to bring people together to work in ways that satisfy "everyone," and ultimately in ways that benefit society and the environment as a whole.

These two themes are addressed in more detail in Chapter 4, when I examine the Ideal Factors of Environmental Conflict Resolution, as well as seven normative ideals for assessing the democratic merits of collaborative public management. These seven normative ideals include inclusiveness, representativeness, impartiality, transparency, deliberativeness, lawfulness and empowerment (Leach, 2006, p. 100).

Research Questions

RQ1: What stakeholders have the power to frame?

RQ2: Who gets to be involved in defining what sustainability, or sustainable development really "means?

RQ3: What are the challenges of defining sustainability in the Northwest?

RQ4: Can an environmental conflict resolution model, in combination with perspectives on collaborative public management and democracy, provide guidelines and insights into what went right, what went wrong and how this process could be brought more in line with both environmental and democratic concerns?

The working group for this case study was not randomly chosen; it was a fortuitous opportunity. In addition to the working group consisting of a variety of participants interested in pursuing a project that incorporates elements of sustainability, my unique access to the inner-workings of the group process was a key factor to my choice because it gave me a unique opportunity to explore how an organization deals with issues of sustainability in terms of developing projects.

Limitations to the Research

Because this is a study of only one case, there are limitations in generalizing these findings to other venues for a variety of reasons, such as differences in the cultural,

political, economic, and environmental realities of cities and groups existing in various regions.

However, because Oregon in many ways could be considered to be a state where sustainability and sustainable development is at the forefront of policy discussions, development, and governmental decision making, and because the study looks at broader issues of sustainability and stakeholder relations that can be applied to cities, organizations, and other institutions that have the authority to implement policies or fund projects, the findings of this study are assumed to be relevant, potentially even applicable, to other cities and regions where similar issues are playing out.

Outline of Thesis

Chapter 2 provides an introduction to sustainability and sustainable development, as well as a rationale for why it might be important to study sustainable development initiatives more critically. Chapter 2 also includes a history of sustainable development, definitions of sustainability, and how the meaning of the term has changed over time. Chapter 2 also addresses the specifics of the working group's project. Chapter 3 provides a description of the research methods that were used in the study. Chapter 4 presents the findings for the case study. Chapter 5 provides a summary of the findings, the overall conclusions, and recommendations.

CHAPTER II

LITERATURE REVIEW

Sustainable Development: A Brief History and a Larger Context

This chapter provides a brief history of, and explores the terms sustainability and sustainable development, in a larger context. Additionally, the chapter tracks the evolution of the term sustainability and the changes it has gone through over the last 20 years. Perhaps more importantly, this chapter also identifies competing points of views between people who believe that sustainability can be achieved by "tweaking" our current societies into becoming more technologically advanced, and those who advocate a more radical restructuring of society to address existing environmental, economic, energy-related, and social challenges.

The modern, political concept of sustainable development was launched with the release of *Our Common Future* (Brundtland, 1987). But the international community, and especially the industrialized nations, had, for some time before the report was released, recognized that their rapid economic growth in the 1950s and 1960s had come at great cost to the natural environment. The Stockholm Conference on the Human Environment took place in 1972 and gathered representatives from 113 countries, but only two heads of state. The most important thing to come out of this conference was the establishment

of the United Nations Environmental Program, which was tasked with coordinating the international effort to solve global environmental problems (Bjørnæs, 2005).

After the release of *Our Common Future*, the UN worked for several years to organize a global conference, which would subsequently lead to a universal declaration and convention on sustainable development. The UN Conference on Environment and Development took place in Rio de Janeiro, Brazil, in 1992. The conference was organized around the creation of three documents: Agenda 21, The Rio Declaration, and Forest Principles, but delegates also opened the Convention on Biodiversity and the Framework Convention on Climate Change for signing (Bjørnæs, 2005).

After pressure from several countries, the UN subsequently established the Commission on Sustainable Development, which was tasked with monitoring member countries' progress toward reaching sustainable development goals. Following UN-conferences (Rio+10, World Summit on Sustainable Development, 2002) focused on the fact that sustainable development goals were not being met. As a result, member nations have been forced to examine what has gone wrong and discuss ways to make measurable progress (Bjørnæs, 2005).

The latest sustainable development initiative to surface is, as mentioned earlier, the UN Millennium Development Goals. These eight goals include eradicating extreme poverty and hunger, achieving universal primary education, promoting gender equality and the empowerment of women, reducing child mortality, improving maternal health, combating HIV/AIDS, malaria and other diseases, ensuring environmental sustainability and developing a global partnership for development. What this trajectory illustrates is a

broadening of the sustainable development concept from its early foundation, especially as it relates to human well-being and social justice.

Sustainability – Definitions and Semantic Change

Over the past 20 years, sustainable development has been defined in a multitude of ways. O'Riordan commented on the difficulty of defining this ambiguous term before *Our Common Future* was published. He described the effort as an "exploration into a tangled conceptual jungle where watchful eyes lurk at every bend" (1985). More recently, Spedding (2005) has argued that the abundance of sustainability definitions, and how those definitions are being used in contemporary discourse, has caused the term to lose much of its meaning:

> The claim that something is 'sustainable' is now made by anyone who wishes to persuade others of the merits of his or her argument. It has become such a fashionable buzz-word that an applicant for a grant feels obliged to insert it, even knowing that it is both unnecessary and meaningless. Government ministries use it, often with several different meanings, in their lists of objectives. In reality, the word simply means that the process can continue indefinitely, but it is often used to mean whatever the user wants it to mean – while most commonly it is undefined and probably meaningless. (p. 315)

Fergus and Rowney (2005) add that early use of the term sustainable development "had the potential to stimulate discursive engagement with respect to the future development of the human species within an ethical framework based around the values of inclusivity, diversity and integration" (p. 25). However, after conducting a semantic analysis of the term, the two authors now contend that the term sustainable development has been:

> simulated into the language of the dominant scientific-economic paradigm, a language in which the discourse of Sustainable Development becomes more of a debate on scientific facts and methodologies and in which success is measured by

> the ethic of finance, as opposed to a fully inclusive, integrated discourse based on an ethic of values and diversity. (p. 25)

Perhaps the most common and often cited definition of sustainable development stems from *Our Common Future*, which suggests that "sustainable development seeks to meet the needs and aspirations of the present without compromising the ability to meet those of the future" (Brundtland, 1987 p. 42). Others, including Pearce, Makandia and Barbier (1989), used many of the same constructs in their definition, suggesting that sustainable development should ideally lead to a general increase in peoples' quality of life, measured by progress in education, environmental health, human health, and economic stability.

While some argue that the number of sustainability definitions has caused the term to lose some of its meaning, others, including Daly, suggest that the lack of concise definitions is not necessarily bad because "it has allowed a considerable consensus to evolve in support of the idea that it is both morally and economically wrong to treat the world as a business in liquidation" (1990, p. 32). Heinen (1994), furthermore, has pointed out that no single approach or definition of sustainable development or framework is consistently useful given differences in institutional structures, types of societies, and variety of scales of these entities.

Recent Trends

More recently, sustainable development has been regarded as "development that integrates and optimizes economic vitality, restores and maintains environmental life support systems, and ensures social equity – the three pillars of sustainability" (Hawkins, Lovins, & Lovins, 1999; Pugh, 2000; Roseland, 1992; cited in Le Van, 2003, p 4). In

1993, the International Council for Local Environmental Initiatives (ICLEI) redefined sustainable development as "development that delivers basic environmental, social and economic services to all without threatening the viability of the natural, built, and social systems upon which these services depend" (ICLEI 1993; cited in Brugmann, 1996, p. 364). The latter definition, according to Le Van (2003), more clearly defines the needs of the present and future generations, while paying attention to the relationship between social, economic, and ecological goals.

Because of how the term sustainable development is employed in contemporary discourse, and because organizations and social institutions can exist in many places on the continuum between un-sustainability and sustainability, many recognize that cooperation on local, regional, national, and international levels is needed to overcome issues such as environmental degradation, problems associated with overpopulation, pollution, as well as economic and social instability, which are all issues that if left unaddressed will cause life on this planet to become increasingly problematic, especially for the world's poor (Harris, 2007).

How much this larger context is part of the current process is important for my study of the working group's efforts to pursue cellulosic ethanol production in Oregon, especially in terms of how they plan and carry out the project's public outreach efforts and public education efforts.

Sustainable Development Challenges

While researchers are using advanced theoretical models to discover new paths toward sustainability and sustainable development, as well as to analyze existing efforts

to implement sustainable development practices in a wide variety of areas, there are some who argue that sustainability, which by definition suggests that something would go on indefinitely (Spedding, 2005), is unattainable given the structural and economic make-up of the modern world (Foster & York, 2005).

One of the theoretical models that has been developed in an attempt to explain the antagonistic relationship between the natural environment and modern societies is the treadmill of production theory, which is "based on a recognition of both the dependence of societies on the natural environment and the dramatic effects of modern societies on natural resources and ecosystems" (p. 294). Proponents of this theory argue that:

> environmental sustainability cannot be achieved within the context of elite-dominated, particularly capitalist societies with their focus on the expansion of production for the generation of private profits. In short, the treadmill theory argues that to overcome the modern environmental crisis the fundamental structures of modern society must be dramatically altered. (p. 294)

Proponents of ecological modernization, on the other hand, challenge the notion that the only way to solve the environmental crisis (which seems to be at the root of so many other problems) is to have a radical restructuring of modern society (Mol & Spaargaren, 1998). While ecological modernization theorists acknowledge "the need for some fundamental transformations within the modernization project to restore some of its structural design faults that had caused severe environmental destruction," they do not agree that it's necessary to "remove the institutions of modern society that are involved in the modern organization of production and consumption" (p. 19).

Green Capitalism

Some, including author and environmental activist Paul Hawken (2000), suggest that "Green Capitalism," in which the fundamental structure of the current capitalistic economic system remains unchanged, will lead to a healthier natural environment simply because commodity producers will self-regulate due to public outcry about environmentally unsound manufacturing practices (2000). Heather (2006), however, questions Green Capitalism as a solution to environmental problems because, for one, businesses are unlikely to self-regulate in the absence of government legislation and/or regulation. Second, given that in the free-marketplace (yet another contested term), profits are ultimately made from extracting natural resources, companies will still need "unfettered access to natural resources to compete effectively," (2006, p. 104), thus resulting in a continued search for pristine natural resource extraction opportunities. According to Heather, Green Capitalism – still based on capitalism - is an economic system that can only reproduce itself by growing – and therefore won't be a solution to environmental problems because the system "keeps in place the underlying structures that produce so much waste" (p. 104).

The working group's effort to establish a cellulosic ethanol plant in Oregon is an example of an ecological modernization project – i.e. the project would utilize modern technologies to minimize the impact of industry on the environment. However, working group members have somewhat different opinions of what an acceptable industry impact on the environment might be, and, as a result, different opinions of what sustainable development might ideally "look like."

To set up a preview of some of the tension that is already in place within the working group, the following quote from the working group's grant application states:

> This project will demonstrate the collective capability of a diverse group of partners – *many of whom have had sharp differences in the past over forest management* – to be able to work together on common goals that could advance landscape-scale forest restoration projects. This project addresses the "triple-energy" related challenges (economic and energy growth, energy security and climate protection) identified by the U.S. Department of Energy and the "triple win" identified in biomass/biofuels reports by the Oregon Forest Resources Institute and Oregon State University (restoring Oregon's forest health; renewable energy alternatives; and revitalizing Oregon's rural communities. (Grant application, 2007)

Exploring the internal contradictions within the working group, and the process by which efforts are made to resolve them, is important for this study because these differences could pose a challenge to the group's collaborative effort to establish a cellulosic ethanol production facility, as well as reveal where the environmental conflict resolution model may succeed or fail. This is especially true given the clear but not often articulated delineation of authority that exists within the group. Simply because it's a collaborative effort doesn't mean that some working group members don't ultimately have more power than others, and will use that to further their own goals. I will include the analysis of differential power of members and stakeholders in my analysis of the in-depth interviews with working group members.

ECR and Collaborative Public Management and Democracy

With the kinds of environmental conflicts and potential environmental conflicts society is faced with today, some researchers suggest there is an ongoing change in how humans and institutions handle conflict (Emerson, Nabatchi, O'Leary, & Stephens, 2003).

2003). The appearance of Environmental Conflict Resolution (ECR) reflects the desire to solve potential or existing conflicts not only through lawsuits but by bringing different parties with different interests, agendas, and needs together in a collaborative setting that seeks solutions to common problems through dialogue and negotiation (Emerson et al., 2003).

Emerson et al., citing a variety of sources, suggest that:

> Environmental conflicts are fundamental and ongoing differences among parties concerning values and behavior as they relate to the environment. More specifically, environmental conflicts are actual or potential disputes involving the environment, natural resources, public lands, or all three. They usually involve multiple parties who are engaged in a decision-making process and disagree about issues traceable to an action or a policy that has potential environmental effects. (p. 4)

Researchers have found that environmental conflict resolution models share five characteristics (2003). The five characteristics are that:

> participation is usually voluntary for all participants; the parties or their representatives must be able to participate directly in the process; any and all participants must have the option to withdraw from the ECR process and seek a resolution through a more formal process, such as litigation; the third party neutral must not have independent, formal authority to impose an outcome but rather should help the parties reach their own agreement; and the parties must agree to the outcome or resolution of the dispute; and the purpose of the process is to help parties reach their own solutions, which requires their consent to the decision or recommendation. (p. 6)

I decided to use the environmental conflict resolution model to explore whether such a model might be helpful in determining whether the working group's overall approach to their development of the woody biomass project could have benefited from incorporating elements of ECR in their project development planning, especially in how

it chose to go about doing its stakeholder outreach effort and public education components.

Collaborative Public Management and Democracy

In addition to evaluating this project from an ECR point of view, I've also decided to examine the working group's stakeholder outreach efforts based on a framework that explores collaborative public management and democracy. I do this to see how the working group's intentions – facilitating the use of a natural resource from Federal forest lands to produce cellulosic ethanol for the public good – measure against an evaluative framework that examines the working group based on inclusiveness, representativeness, impartiality, transparency, deliberativeness, lawfulness and empowerment (Leach, 2006).

It shouldn't be a secret to most people that democracy means different things to different people (Kenney, 2000, p. 48, cited in Leach, 2006, p. 100). To me, democracy means a way of doing business that seeks to be as inclusive as possible and which provides a system of making decisions about public life that represents and is representative of the will of the people. "Virtually all meanings (of democracy) pay tribute to the original Greek term *demos*, "the people" and then specifically define who should go about making decisions collectively (Kenney 2000, p. 48-49, cited in Leach, 2000, p. 100).

Summary

In reviewing literature related to sustainability and sustainable development, I have tried to briefly illustrate how the terms sustainability and sustainable development

emerged and, as they have become part of mainstream discourse, have changed and taken on new social and practical significance. I have also illuminated the degree to which the meaning of sustainability continues to be a matter of significant importance to policy and, ultimately, to the environmental impacts caused by current models of development (Fergus & Rowney, 2005).

Furthermore, I have tried to make the case for why it is important to continue to explore ways to achieve sustainability and sustainable development on both large and small scales, and to provide a justification for the importance of looking at how larger debates over sustainability are translated into specific local projects.

CHAPTER III

METHODOLOGY

Description of Research Approach

The purpose of this research is to explore how a working group in Oregon is trying to create what might be considered an "environmentally ethical" industry within a set of potentially contradictory political and ethical environmental perspectives. In addition, the purpose of this research is to explore how this group navigates public opinion while situating itself within and contributing to debates around sustainability and sustainable development, to achieve the goal of establishing a cellulosic ethanol production facility somewhere in Oregon.

A mixed-methods approach was employed using structured and unstructured interviews, participant observation, and written materials to gather qualitative information about the ways in which the working group's efforts reflect a commitment to sustainability or a particular definition of sustainability and sustainable development, and the group's desire to establish within the definition of sustainability that they constructed, an industrial scale cellulosic ethanol production facility.

To ensure high response rates, and for obtaining more in-depth and detailed information, in-person and telephone interviews (when necessary) were chosen to gather information. A combination of structured and unstructured questions was developed for

each interviewee. This was done to build in flexibility in the information gathering process. The structured portion of the interviews allowed for a comparison of the answers provided by the members of the working group, while the unstructured portion of the interviews allowed for exploration of issues as they emerged throughout the interviews.

I have also kept a research diary since becoming involved with the working group. This diary provides insights and observations related to the inner workings of the working group, and how their priorities and focus has changed over time. It also provides insights into how this working group is reaching beyond its original mandate by involving itself with other alternative/renewable energy projects locally.

I use this research diary as a way to explore and situate interview responses in relationship to my own observations as an intern with the group, and in relation to the stakeholder analysis that the working group undertook, and the one that I did myself. Using a mixed-methods approach allows for triangulation (comparison of two or more forms of evidence). Lindlof and Taylor (2002) suggest that:

> underlying most uses of triangulation is the goal of seeking convergence of meaning from more than one direction. If data from two or more methods seem to converge on a common explanation, the biases of the individual methods are thought to "cancel out" and validation of the claim is enhanced. (p. 240)

Selection of Case Study

Yin (2003, cited in Dupagne & Garrison, 2006, p. 13), refers to case study research as "an empirical inquiry that investigates a contemporary phenomenon within its real-life context." As such "... it [a case study] is best used to understand complex social and organizational issues" (2006, p. 244). From a methodological point of view, "case

study research is inherently qualitative because it is bounded to understanding a specific case rather than seeking generalizations beyond that case (Stake, 2000, cited in Dupagne & Garrison, 2006, p. 244). According to Yin (2003, cited in Dupagne & Garrison, 2006, p. 244), a case study also often "relies on multiple qualitative data sources, such as documentation, archival records, interviews, and direct observations, to provide corroborating evidence on a phenomenon."

A case study was determined to be appropriate given the complexity of the issue under consideration and the changing nature of the terms and definitions of the problems being addressed. The case study approach was also chosen because of the unique opportunity presented by this community project: A collaborative group more or less publicly committed to a sustainability approach, a local political infrastructure committed to supporting sustainable development, and the researcher's unique access to the working group through the internship.

Selection of Interview Subjects

The working group consists of seven individual members who represent a variety of organizations, including a public county community and economic development program, a sustainability-oriented nonprofit organization, a business consulting firm, a regional environmental organization, a nonprofit that helps facilitate small-business development, the Forest Service, and two chemists. Other individuals are also involved with the project, but not as working group members. There has, however, been talk about increasing the number of working group members because the scope of the working group's activities is expanding. While some of these members/organizations had worked

together in the past, for most of them, this project is the first time that they have worked together.

I interviewed five members of the working group and five people who were identified as potential stakeholders by me in relation to the woody biomass project. All of the individuals from the working group were asked questions about the background, evolution, and history of the woody biomass project. I also asked the five working group members questions related to how this project is being driven forward, what the successes/failures of the working group has been so far, what the delineation of authority has been, and is, within the group, and how the individual working group members view sustainability and sustainable development both from a personal point of view and as representatives of their respective organizations.

I chose to interview five working group members based on their involvement with and different positions in the working group. The five individuals I chose to interview for my own "stakeholder analysis" were chosen for a couple of reasons. First, I simply wanted to reach beyond the stakeholders that were identified by the working group to seek out more diverse opinions about woody biomass and woody biomass utilization. However, I also wanted to interview stakeholders that the working group had identified and interviewed, with the explicit goal of seeing how responses to similar question (mine and the working groups') would differ based on whom the interviewees were being asked questions by.

By doing so, I was hoping to explore the degree to which responses are based on situational circumstances, and whether different responses might tell us something about

the environment in which this collaborative effort is being driven forward, and the nature of the debate over what would ultimately be defined as sustainable.

These "alternative stakeholder" individuals, who represent a wide range of organizations from environmental groups to state agency employees to business owners and private landowners, were selected based on their knowledge of, or interest in learning more about woody biomass and woody biomass utilization, as well as some of the interviewees' interest in sustainability and sustainable development. Three of these individuals were contacted because they had already been identified and grouped in order of perceived importance by the working group. The other two were contacted based on my own identification of them as being in positions to represent points of view that the working group had potentially overlooked in their own stakeholder identification process.

My own stakeholder analysis is not intended to be exhaustive, rather it is included to explore and try to understand why some stakeholders were identified as important by the working group while others weren't.

Design of Interview Questions

Lindlof and Taylor (2002) suggest that two types of instruments, interview schedules and interview guides, are used by qualitative researchers to prepare for interviews. For this case study, I chose a combination of the two approaches. According to Lindlof and Taylor, "The point of the interview schedule is to ensure that all interviewees hear roughly the same questions in the same way – although spontaneous follow-up probes are usually allowed in order to clarify remarks or to ask for elaboration" (p. 194).

Interview guides, on the other hand:

> simply consist of groupings of topics and questions that the interviewer can ask in different ways for different participants. There may be a preferred order for asking the questions, but the interview guide does not dictate that order. Nor does the guide dictate how the questions will be asked, because the social dynamics of interviewing change from one participant and context to the next. (p. 194)

The interview questions were designed to address the research questions identified in Chapter 1. How does an organization frame sustainability or sustainable development when seeking public support, while trying to avoid opposition, regarding an industrial project that some would, and others wouldn't argue promotes sustainable use of a finite natural resource? Who gets to be involved in defining what sustainability, or sustainable development really "means," and what are the reasons, and possible implications of, including some stakeholders in this process while others are left on the sideline? What are the challenges of defining sustainability in a specific community in Oregon that is known for its commitment to the principles of sustainable development? And, can an environmental conflict resolution model, in combination with perspectives on collaborative public management and democracy, provide guidelines and insights into what went right, what went wrong, and how this process could be brought more in line with both environmental and democratic concerns?

Working group interview subjects were asked questions regarding the evolution of the woody biomass project; what the current focus of the working group is and whether it has been successful in pursuing its goals; what the working group's decision-making structure is, what sustainability and sustainable development means to the

working group, as well as how working group members individually would define sustainability.

The subjects identified for my "independent" stakeholder analysis were asked a series of questions regarding their interest in and awareness of sustainable development practices, their knowledge and perception of woody biomass and woody biomass utilization, their expertise in relation to natural resource extractive processes, and their view of the working group's efforts to establish a cellulosic ethanol production facility in Oregon. Working group interview questions and stakeholder analysis questions are included in Appendices A and B. A definition of what woody biomass and woody biomass utilization is, is included in Appendix E.

The interview questions were designed to be open-ended to ensure that I would be able to collect qualitative information in relation to the interview subjects' perceptions of sustainability, sustainable development, as well as respondents' perceptions of woody biomass and woody biomass utilization. The questions were also created in such a way that I could compare answers from the working group and the answers from the stakeholder analysis. The working group members were asked 6 open-ended questions and the stakeholders were asked 10 questions. Some of the stakeholder interviews specifically established personal information about each interviewee.

Conducting the Interviews

I conducted my 10 interviews over a 5-week period from March 3 to April 8, 2008. The working group's efforts had then been going on since the summer of 2007. Three of the working group interviews were conducted in person and two were conducted

via telephone. The interview guide for the in-depth interviews with working group members can be found in Appendix E. Two of the "independent" stakeholder interviews were conducted in person, two were conducted over the telephone and one was conducted via email. None of the in-person or telephone interviews were tape recorded. Based on the researcher's own previous experience as a newspaper reporter, tape recorders can distract the interviewer because the "machine" is listening. This can sometimes lead the information-gatherer to not pay sufficient attention to the nuances of what's being said during the interview, not to mention put the interviewee on the defense (Guion, 2006). The in-person interviews were written down by hand and subsequently typed into the computer. Telephone interviews were typed into the computer as they took place. The email interview was copied and pasted into a Word document.

Conducting and Analyzing the Research Materials

The approach to analyzing in-depth interviews as described by McCracken (1988, cited in Dupagne & Garrison, 2006 p. 246), was used to analyze the in-depth working group interviews. There are five stages to analyzing in-depth interviews, according to McCracken's approach. These stages include:

> ... observation of a useful utterance, development of expanded observations, examinations of interconnection of observed comments, collective scrutiny of observations for patterns and themes, and review and analysis of the themes across interviews for development of thesis. (p. 246)

Qualitative information from written materials was collected through my internship with the working group. Program publications, program website information and published articles directly or indirectly related to the working group's efforts, were

also referred to and utilized to give the researcher a historical and contextual perspective on the working group's efforts and what they have accomplished so far.

CHAPTER IV

FINDINGS

Introduction

This chapter presents the case study findings for the working group, including the findings from a comparison of two stakeholder outreach interview efforts. In addition, this chapter contains materials from my own participant observation. First a profile of the working group, as well as brief individual profiles of the working group members, is presented. A list containing information about the working group members can be found in Appendix D. Second, I provide a comparison of the two different stakeholder outreach interview efforts. Third, I provide the findings from my participant observation. Last the findings from these three different research approaches are evaluated in relation to the Ideal Factors of Successful Environmental Conflict Resolution and Collaborative Public Management and Democracy.

Case Study Profile: The Working Group

The working group is a collaborative effort between several stakeholders, including a county-level development agency, a sustainability-oriented nonprofit organization, a business development non-profit, a business consulting firm, an engineering firm, a cooperative-oriented nonprofit, a regional environmental organization and two scientists. This project has materialized for several reasons, but primarily

because there is recognition among many people both in the private and public sector, at the national, regional and local levels, that something needs to be done to address some of the economic, social, environmental and energy-related challenges that face the United States today.

In addition, the woody biomass project could perhaps be seen as a direct result of sustainability policy discussions that have been taking place in Oregon in recent years and which are continuing through various sustainability initiatives that are taking place, both at national, regional and local levels.

The Forest Service Restoration Partnership Grant that the working group members are collaborating on has four basic components. The first component is related to doing four feasibility studies, including a woody biomass resource assessment to determine how much woody biomass is available within a particular area; determining what the price of purchasing the woody biomass is; finding out where the woody biomass is located, and what the transportation challenges of moving those natural resources from their place of origin to a processing facility might be. The second component involves conducting a stakeholder analysis that is intended to facilitate education and outreach efforts to increase the public's understanding of woody biomass and woody biomass utilization. The third component involves taking stock of woody biomass processing capacity locally, and the fourth component is focused on strengthening forest biomass business capacity through training and skill development, for example, of forest contractors who would gather and transport the woody biomass resource to a processing facility.

In addition to these four project basics, the working group has set out to conduct an early screening of cellulosic ethanol conversion technology. This is being done to identify a list of most-promising conversion technologies intended to be used in discussions with investors and technology providers who might be interested in participating in the project. The second additional fact-finding mission is related to identifying initial private sector capital and joint venture investment sources, and what's needed from a business-economics point of view for funding of a biomass facility in the area where this project is taking place.

In addition to the seven core members of the working group, the group has, as mentioned before, working relationships with other agencies and entities that are helping carry out the various feasibility studies that will be used to determine whether it is feasible to move forward with the woody biomass project.

There are several goals and objectives for this project. For one, the working group is hoping to

> demonstrate the collective capability of a diverse group of partners – many of whom have had sharp differences in the past over forest management – to be able to work together on common goals that could advance landscape scale forest restoration projects. (Grant Application, June 2007)

The project also hopes to address the "triple-energy" related challenges, defined as economic and energy growth, energy security, and climate protection, which have been identified in studies conducted by Oregon State University and the Oregon Forest Resources Institute, and which are all concepts closely tied to the principles of sustainable development.

Outcomes

Since the working group began working on the woody biomass project last year, it has accomplished several things. After being awarded the $124,000 Forest Service Forest Restoration Partnership Grant, the group has successfully secured two additional grants, which means that the collaborative has been able to secure close to half-a-million dollars worth of funding for alternative/renewable energy feasibility studies up to this point.

One of these additional studies is called Renewable Energy Feasibility Fund Study and the second study is called County Ryegrass Straw Conversion to Renewable Energy and Biofuel Production Project Feasibility Study. The county in which the working group's project is taking place is coincidentally the county in Oregon that has the largest number of renewable energy grants going at the same time. According to working group members, the county could potentially be asked by the State of Oregon to present their approach to renewable/alternative energy development at a state-organized seminar/workshop sometime in the future.

The working group is also in the process of completing several feasibility studies specifically related to the woody biomass project. The working group has, through its efforts over the last year, been able to raise some awareness of the opportunity to utilize woody biomass for a variety of purposes through the news media, community outreach and conference presentations. In addition, the working group is also in the process of conducting a stakeholder analysis intended to identify barriers and opportunities to cellulosic ethanol production in Oregon.

At the beginning of this process, the group identified close to 50 stakeholders that could potentially have an interest in learning more about woody biomass and woody biomass utilization. The stakeholders were organized into groups 1, 2 and 3, according to how important the working group considered the various stakeholders' potential contributions to be. Group one was targeted for the first stakeholder outreach effort. At the time of writing, the group has completed eight interviews out of 50 identified stakeholders, which is less than 20 percent of the total number of groups identified. A deadline was set for April 21, 2008, to allow working group members who were tasked with completing stakeholder interviews to collect at least 15 to 18 interviews, which would add some depth to the stakeholder analysis effort. By the April 21, 2008 deadline, no further stakeholder interviews were received by the researcher.

Case Study Profiles of Individual Working Group Members

The following provides a brief description of the five working group members who were interviewed. This information can also be found in Appendix F. Respondent A heads up a public county economic development agency and has previous experience running a commercial TV station. Respondent B works for a nonprofit organization that focuses on sustainability. Respondent B's primary expertise is in developing and organizing collaborative processes, primarily with forest-related stewardship contracting initiatives. Respondent C works for a nonprofit organization that focuses on small-business development and workforce training activities. Respondent C has previously worked in the timber industry. Respondent D works for a nonprofit that focuses on cooperative style business development in rural communities throughout the Northwest.

Respondent E represents a large Oregon-based environmental organization. Respondent E also has a background in environmental policy, advocacy and education, according to that organization's website.

Current Activities

The working group is currently in the process of completing its stakeholder analysis, which will provide the information needed to facilitate the preparation for an education and community outreach effort that will be used to inform the public about the potential for woody biomass collection and utilization. In addition, the working group is continuing to explore viable technologies that can be used to convert woody biomass into cellulosic ethanol, as well as looking at completing the feasibility studies that are needed to push the project forward. The working group is also in the process of identifying project partners, i.e. people who would be able to "run" with a project and get industrial production going as soon as the working group is ready.

Summary of Interview Responses

The purpose of these interviews was twofold. In addition to being a way to gather information about the working group and the process it is engaged in, the interviews were also intended to examine the general orientation of the individual working group members towards this project.

In this section, the working group interview responses are summarized. The interview questions fell into five topic areas and the response summaries are organized accordingly. The five topic areas are Evolution of the Working Group; Current Focus of the Working Group; Successes and Failures of the Working Group; Decision Making

Structure; Sustainability: What is it and what does it mean to the Working Group?, as well as Personal Definitions of Sustainability.

The questions were designed to find out in detail about how the working group has emerged, where its efforts have been focused, and what the group process has "looked like." The questions were also designed to make the interviewees reflect on the organizational processes and priorities, as well as their thoughts about sustainability and sustainable development. While all members of the working group were not interviewed, the researcher felt that the range of views expressed represented the range of views found on the working group as a whole. Given the open nature of the interviews, each interview went in related but sometimes different directions.

Evolution of the Working Group

The Evolution of the Working Group question was designed to get a solid understanding of how this collaborative process emerged at a particular point in time, and with what participants. The responses indicate that this project primarily emerged as a result of individuals working on similar things becoming aware of each other, and subsequently deciding to work together as a group. Respondent C, for example, had become aware of a $1 million federal renewable energy grant through the United States Department of Energy, but wasn't going to apply because he wasn't in a position to do so because of grant application requirements. Respondent C then reached out to respondent A, who represented an entity that would be legally eligible to able to apply for the grant.

Respondents A and C then wrote the U.S. Forest Service grant together and subsequently decided to invite more people of their own choosing and formed a

collaborative effort to study woody biomass and woody biomass utilization that could potentially lead to a cellulosic ethanol production facility in Oregon. Respondent A and B, who were interviewed simultaneously, said that for a while people had been "doing their own thing" in relation to sustainability projects, but that this was the first local effort to try to do something coordinated. "It was the right project at the right time and it got the group launched," said respondent B.

Before submitting the grant proposal, respondent A attended a January 2007 renewable energy conference with respondent C and others who are now involved with the working group in various capacities. In February and March, respondent A attended two seminars with a focus on renewable energy. Ultimately, respondent A figured that with the state's attention toward alternative/renewable fuels, and the larger debates about energy dependency, that this was something to bring to the county level. "We were sort of all surprised that we got the grant," said respondent C. Respondent C then added that "to be quite honest, I have not really been pleased with the performance of the partners." Respondent C said that some participants have been more interested in the woody biomass project than others, and that some of the partners are just "floating along." Respondent C didn't want to mention names, but wasn't afraid to stress the fact that he's not satisfied with how the project has moved forward. He said that some of the group partners have not really been "focused on deliverables," deliverables in this case being defined as completing work tasks associated with the working group's efforts to drive the woody biomass project forward. These deliverables range from completing various feasibility studies to conducting stakeholder interviews.

While the collaborative effort is aimed at achieving certain goals, such as finding out whether it will possible to establish a cellulosic ethanol production facility in Oregon, respondent D illustrates that the interests of the working group members and the organizations they represent on the working group are different. Respondent D said his involvement with the working group came from having previous relationships primarily with respondent C. Respondent D added his initial work with the group came through the forest restoration partnership grant. Respondent D said that he become involved because the working group contacted him and said "there's work to do and we've got money to pay you." Respondent D added: "My goal for the restoration partnership may be a little different than what other people's agendas are... Everyone sort of has their own agendas," he said.

Respondent E said that the sustainability coordinator from her organization who was the initial contact with the working group for the woody biomass project no longer is on staff at her organization and that she took over his responsibilities. Respondent E said she was also under the impression that respondent C was the person whose ideas drove this effort forward in the beginning. Respondent E added that her organization was asked to participate as a working group member because it has been involved in sustainable biofuels projects in the past.

Respondent B said the working group was the initiative that launched subsequent feasibility studies into producing renewable/alternative energy from food waste, straw and biodiesel locally. Respondent B added that an upcoming conference in Bend,

Oregon, on woody biomass utilization wouldn't be happening if it wasn't for the forest restoration partnership grant that was obtained late last summer.

This exploration of the evolution of the working group indicates that the working group is a dynamic collaborative that operates within a flexible and not particularly well-defined organizational environment defined by the 'who-knows-who' approach. Because the working group members are busy individuals with many other responsibilities, there has been some concern about participants not being able to finish their work on time. This is clearly illustrated based on the small number of stakeholder interviews that were completed by the first deadline, which was March 19, 2008.

There is also some evidence that this lack of time and resources has caused internal frustrations within the group. What the first question also suggests is that people are participating in this working group for a variety of reasons, and that there isn't a well-defined goal that unites all of the partners around a single idea, even though this is how the working group could potentially be viewed from the outside. The latter is also illustrated by the fact that the working group is pursuing other grants that aren't directly related to the woody biomass project, which might suggest that the initial woody biomass project has taken a backseat role, and successful grant-getting seems to be emerging as a structural goal of the working group.

Current Focus of the Working Group

The Current Focus of the Working Group question was developed to determine what the working group is doing currently and, with that in mind, where it seems likely to

be heading in the future. The question was also designed to get an insight into what the different working group members perceive to be the current focus of the working group.

Respondent A said that the current focus of the working group is to continue completing feasibility studies that will propel the woody biomass project. Respondent B added that any project cycle starts out with the gathering of a lot of information, i.e. finding out what the costs are going to be, what technologies are available, and whether they have been proven to be viable and commercially proven. Another current focus of the working group is finding out what the public thinks about the project, which is taking place through the stakeholder outreach interview process and subsequent analysis of interview materials.

Concurrently, the working group is expanding its efforts in relationship to other potential renewable energy projects locally, such as food waste and straw. Both respondents A and B agreed that at this point in time not enough information has been gathered to produce any kind of conclusive data as to the viability of moving forward with any of these projects, including the woody biomass project. Respondent A said there is now a need for more money to do more studies that go beyond looking at feasibility studies to project-specific development studies. Right now the feasibility studies are broad and generic. The working group is applying for more money to prepare for these project-specific studies. Both respondent A and B also talked about the need for a variety of different business plans that would provide some insight about the economic viability of these projects.

One of the reasons that the working group is spending a lot of time and money to establish a knowledge base, according to respondent B, is because it wants to mitigate as much risk as possible for the individuals who might decide to spend time and money on the woody biomass project. Both respondents A and B said that if the working group was to do something before it had enough information and a processing facility went "belly up," then that project would likely ruin it for all subsequent similar projects, simply because people don't want to invest time and money into something that has been proven to be capable of failing.

While respondents A and B were focused on the need for more studies and more project specific studies, respondent C was of the impression that the current focus of the working group was to have a monthly meeting that is intended to hold "all members accountable and to the fire on their deliverables." "That's kind of where we are at now," respondent C said.

Respondent D, conversely, didn't necessarily provide much information about his perceptions in relation to the current focus of the working group. Instead, he spoke more about his organization's interest in the two projects for which funding has been secured to do feasibility studies. "The restoration project is building partnerships for woody biomass utilization on federal lands. I would really love to see that occur, but I think my participation is focused more toward the other projects that are moving forward," respondent D said. "That said, I would love to see personally, and I believe my organization thinks this too, that there is amazing opportunity in these (woody biomass) resources for industry development."

Respondent D also seemed more interested in reflecting on this question in a larger sense, namely that of these local and regional renewable energy projects are an opportunity for people in the Northwest to develop businesses that wouldn't be controlled by out-of-state-interests. He expressed a concern that if people who live in this region don't act on this opportunity now, then in a few years money will be flowing out of rural areas to distant investors who did jump on the opportunity to invest in a new forest products industry.

Respondent D said what is important to his group in terms of how this project is moving forward is "local equity, land owner equity, and worker equity." Respondent D, however, seemed to suggest that different interests between working group members isn't necessarily bad for the overall effort to create a renewable energy industry in the Northwest. "Really, all of us have our own organizational agendas, (but) there's a lot of crossover between us that facilitate the projects so that they can move forward."

What these responses clearly suggest is that there is a wide range of perceptions about the current focus of the working group. Respondent C seemed mostly concerned with working group members being held accountable on deliverables, while respondents A and B expressed that the current focus of the working group is more about seeking additional financial resources to do more studies and building a larger knowledge base, as well as allowing the working group to do project-specific studies that will allow the working group to move forward with a specific project with minimal risks to investors and others who might decided to invest time and money into projects.

While respondents A and B said the current focus of the working group is to attract more funding that will allow the group to move forward with studies that are project specific, respondent E said she thinks the group's effort currently is very un-focused. Respondent E said she "knows what they are trying to do," but added that there are three different people who are trying to lead the process and therefore the efforts are uncoordinated. Respondent E added that her perception of the group's current focus is that they are trying to figure out several things related to the feasibility of the woody biomass project, including resource availability, transportation issues and available technologies.

Respondent E, who was the only person who mentioned the stakeholder analysis effort as being a "current focus" of the working group, also expressed that the outreach/education effort should ideally involve interviewing people who would have a stake in those various aspects related to the feasibility studies and that all of that information subsequently should be brought to the working group for review. She said that at the beginning of an outreach/education effort "you focus on the people who have some understanding of the issues" before bringing it back to organize the outreach education portion. "It (the outreach effort) can easily reach out to several hundred people," she said.

Respondent D, on the other hand, answered this question with a larger perspective in mind, looking at the current focus of the working group as an example of an effort to produce something of value to local residents in the Northwest. Individual members of the working group get a variety of things out of being part of this group, including

funding to complete woody biomass project-related work tasks, release time from their organizations and the possibility of getting in on the ground floor of a development project.

Successes and Failures of the Working Group

The Successes and Failures of the Working Group question was designed to explore whether working group members had similar perceptions about what success might be and whether success or failure in any way was related to the stakeholder outreach efforts.

Respondent A said he thinks the working group has been "extremely successful" in the early part of the lifecycle of the project. Respondent A said that there is growing support from a variety of constituents, including from entrepreneurs, as well as "kudos" from state agencies. Respondent B, however, said that one of the problems, if not failures of the working group, is that it has been successful on content but has failed to capture information about the process that is taking place. This means that the working group isn't capturing the learning that is taking place throughout this process, which again makes it difficult for the group to evaluate its efforts. The working group is moving forward at such a rapid pace that it seems likely that it's hard for the group to reflect on what they are doing from many different perspectives, including paying careful attention to whether their efforts align with the "triple-bottom line" framework that development projects these days are often evaluated against and which this project has explicitly aligned itself with.

Respondent B said that when a process moves forward too fast, "you're not capturing the learning and thinking that is taking place." Respondent B also expressed a concern that "at this point there has been too much of people pulling in their own directions."

Respondent A added that each of the projects that the working group is involved with is growing, adding people and getting bigger and bigger. He suggested that the original working group may soon move into a management position of the various grants that the group is attracting, where the working group basically keeps track of and manages the different projects that are under development.

While respondent B said that the working group has been unable to capture the learning that's been taking place because of the speed at which this project is moving forward, he said that there are inevitably some things that "fall through the cracks," such as being able to keep track of the process that is driving the woody biomass project forward. Respondent B, however, said that the woody biomass project is taking place on a regional scale, whereas many other sustainability projects that are taking place throughout the nation are happening on a local scale. Respondent B said "their ability to align their projects with local conditions is sharper than ours." But, he added, "The smaller ones can't go so broadly in their effort to spur investment as the working group."

Respondent C thinks the working group has been successful in some ways, but has failed in other ways so far. One of the successes of the working group, according to respondent C, is the fact that he and one other member of the working group have become well-versed and up to date on the technology aspect of woody biomass

utilization. Respondent C said his involvement with the working group has allowed him to get a "pretty good hold on conversion technologies," which he suggested might come in handy down the road and be useful as project opportunities start to present themselves.

An irony about the working group's project, and which respondent C suggests indicates some degree of failure, is the fact that the Forest Service employee who was appointed to the group, hasn't been participating in the working group's efforts at all.

Respondent C said this person sat in on a working group meeting in the summer of 2007, but has been a "no-show' ever since. Respondent C added that this individual has not been participating on conference calls either, which, given the geographic dispersal of the working group members, is a method often used to facilitate working group meetings. "Here we have the Forest Service contributing, and he isn't even involved with the project," respondent C said.

Respondent C said the irony is that the reason the working group will be successful is because it will help county government jumpstart its effort in going after other grants ($50,000 to do study on food-waste to renewable energy, $250,000 for biomass/agricultural study).

> In one sense this (the forest restoration) grant has been successful because it has broadened the amount of money and slowly built up more partners and/or associates," he said. "In that sense, that's where the real positive has come ... It is sort of helping county government establish a renewable energy liquid fuels strategy.

Respondent C, however, had a more long-term view of the working group's efforts. He said that "these (woody biomass) projects are 10 to15 years into the future" and added that what's been happening so far is a really short part of a very long process.

One of the problems with the working group, he said, is that participants are busy doing other things and that they have to work on the woody biomass project when they aren't fulfilling other obligations.

Respondent C also said he has been surprised by the lack of interest in the county in relation to the woody biomass project. Respondent C added that he went on several road shows to talk about the woody biomass project with another working group member. One event had 20 people show up, another 7, one 0, and the last event 4 individuals. Part of the problem, respondent C suggested, is that the price of gasoline hasn't reached high enough for people to really pay attention to these alternative/renewable energy technologies.

Respondent C said Oregonians have a unique opportunity to reduce their reliance on imported sources of energy by utilizing what's available in the region. "But the question is whether people want to rise to the challenge," he said. Respondent C is not too optimistic about the prospect of people rising to the challenge, simply because of the many social "distractions," such as stressful personal and working lives, lack of involvement in the political process, and an obsession with popular entertainment, that makes it difficult for Americans to focus on some real and important issues. "Part of that distraction is the world that we live in," respondent C said.

Respondent D thinks that the working group overall has been successful so far. Respondent D said he is used to "seeing these things take a long time," and added that there is lots of foundation that needs to be laid before projects can move forward.

Respondent D added that "everyone wants something that is photogenic, something that they can touch." He said that the working group has brought lots of light and knowledge to the fore about woody biomass utilization and have also identified additional and potentially viable renewable/alternative energy projects in the process.

Respondent D, like respondent B, suggested it is important to do a variety of careful studies before making any decisions, including general studies but also studies that are more site-specific. "Without clear information you cannot move forward and expect things to work properly," he said. Respondent E, on the other hand, said that it's too early to say whether the working group has been successful because there are still deliverables that are unfinished, and that it's hard to measure the rate of success before the results of all of the feasibility studies are completed and evaluated.

Decision-Making Structure

According to respondents A and B, there are two levels of decision-making structure in the working group. There are contractual relationships, and the county controls those contracts. But the first level of the contract is subservient to the normative level, respondent A said, which in terms of this project is supposed to suggest that working group members participate on an even playing field as members of this group. Respondent A said the group is operating as a "learning community." Respondent A also said that to some degree it is unfortunate that the decision-making structure hasn't been more talked about in the working group. Respondent A said that it is a "semi-dysfunctional notion" that the first level of decision-making structure trumps the second

level because the county hasn't used its ability to influence the working group process at all.

Given that the county served as the lead applicant on the Forest Service Forest Restoration Partnership Grant, and upon receiving the grant also awarded the subcontracts to the people who are now involved as working group members, means that the county ultimately has the legal authority to single-handedly decided how this project should move forward.

Respondents A and B said that once the grant had been secured, everyone actually got the opportunity to modify their scope of work, which means that the intended scope of work as outlined in the forest restoration partnership grant proposal may not be equal to the work that is being done right now. Respondent A said that he and others were unwilling to step forward and tell participants that they should do certain things, such as keeping up with and finishing their scope of work tasks, adding that participants "are treating each other as adults."

This organizational approach has resulted in respondent B having to take on a project management role, which means that he is less capable of focusing on the stakeholder outreach and education component, which was his primary responsibility from the outset. This project management role has so far been unfunded but has been written in as a component in subsequent grant proposals. Respondent B said he took on the additional role as a project manager because he was "committed to the process and making this project work." On the next two alternative/renewable energy grants that the working group has obtained, funding has been set aside for respondent B to take a project

management role, said respondent A. Respondent A also said that there will be set aside time for information sharing during those two projects, so that people know what they are working on, and what others are doing.

These organizational procedures would facilitate the writing of reports that can be shared with a variety of people, including county officials, state government representatives, potential project investors, and others with an interest in learning more about the working group's efforts. These reports, made possible by more information sharing among working group members, could also end up being vehicles for recommendations to similar entities in relation to moving these alternative/renewable energy projects forward.

Both respondents A and B said that it is really important to keep track of information because there are so many moving pieces in relation to the projects the working group is involved with. Respondent A said that what has actually happened so far is that people have been taking on the next step, going deeper and wider in trying to find out what needs to be done for things to happen. "You grow or die, and I think we are growing," respondent A said.

While respondent A said that the working group is a "learning community," respondent C said that respondent A, who represents the public county government entity that was the lead applicant on the forest restoration partnership grant, can "crack the whip" if he wants to, because he is the one who awarded the subcontracts. Respondent C said he had, in fact, taken part in a conference call where a working group member

needed to be held accountable on his deliverables. "There is a very clear delineation of authority," said respondent C.

While respondent C feels that there is a very clear delineation of authority, respondent D said: "I think that if it was a draconian system it would be more well-defined … It's not that it's too loose, it (the delineation of authority) just has never been articulated," he said. He added "As a collaborative, I think it sort of makes sense. Everyone sort of has their own agendas and we draw circles where the corners overlap, and that's really been the base of the entire group and restoration project." Outcomes of the forest restoration partnership (i.e., the working group's woody biomass project), if feasibility studies conducted by the working group show that there is potential in pursuing cellulosic ethanol production from woody biomass, could lead to this project being replicated and scaled up to landscape-scale forest restoration projects throughout the Northwest. At this point in time, however, there is no clear definition about what the various outcomes might be.

Respondent D added that not having too much regulation has ensured that the group's overall progress hasn't been slowed down. He said that people seem to have done "pretty well with email" in terms of staying in contact about what they are doing. Respondent D, however, said that now that the working group is halfway through the process of doing the feasibility studies related to the woody biomass grant, there is "More need for cross pollinating between the working group members. These interviews are examples. How do we use them? How do we use them to inform our outreach effort?"

An engineering firm that is a member of the working group is doing woody biomass resource assessment studies to determine the woody biomass feedstock availability, price, and location and transportation challenges, and stakeholder outreach interviews have been carried out by several working group members under the supervision of respondent B. A study related to forest biomass processing capacity has been carried out by a graduate student at a Northwest university. Feasibility, at this point, seems primarily to have been defined in economic terms, although the group is certainly considering environmental factors also, including the environmental footprint of processing and transporting the woody biomass.

It is unclear how the working group has been involved in defining the details of these feasibility studies, although the forest partnership grant most likely had specific feasibility components tied to it, which the working group has had to explore and take into account as part of the grant requirements.

Respondent E said that she doesn't know too much about the decision-making structure of the working group because she wasn't in at the beginning when the group was formed. Respondent E, however, said that she's not of the impression that this is a group that is driven by consensus. Respondent E said that most of the people who are sitting around the table kind of have their own agendas. Respondent E also said that there is one program manager who should make sure that assigned work duties get done.

Sustainability: What it Means to the Working Group

The "Sustainability: What is it and what does it mean" question, was designed to get a good understanding of working group members' perceptions of sustainability on

both a personal and organizational level. But it was also designed to explore how working group members view sustainability in relation to the woody biomass project and whether their personal perception of the concept is in any way in conflict with the project goals.

Respondent B said "people don't know what it (sustainability) is." At this point, respondent B added that there is no distinction between how he views sustainability as an individual and as an employee of a nonprofit. Respondent B said that nonprofits are mission driven and added that the "compensation isn't that great," thus suggesting that monetary compensation isn't the most important reason for him being involved in this group. Because respondents A and B were interviewed at the same time, questions to some degree ended up being a question and answer session, as well as a dialogue about sustainability between respondent A and B. While respondents A and B answered questions separately, they also both interjected opinions throughout the interview when a question was targeted to one of them in particular.

Both respondents A and B said that "what is needed is something on a larger scale that has positive social benefits." With woody biomass, respondent B said, there are lots of fears about forest management. He added that it's become very hard to trust the Forest Service and the Bureau of Land Management. One recent example that has caught a lot of attention, and which might illustrate the environment that the working group's project is taking place in, is the Bureau of Land Mangement's revised forest management plan, which would allow for more logging on federal public forest lands. Respondent A said "They (people who are skeptical of woody biomass utilization) are rightly raising

concerns ... there are real concerns about past (forest management) practices." Respondent A added that it's not going to be easy to change that perception given the history of industrial forest practices in the Northwest. Respondent B added that "We (the working group) have to spend time and money to find (the) common ground."

Both respondents A and B said that it is important to use a public process to find common ground between those who promote logging and those who want to "lock it up" because they are of the belief that there needs to be some kind of active forest management. At this point, respondent A left to add money to his parking meter.

Said respondent B:

> at some point people thought that "cutting down trees was doing the right thing ... people were paid to take trees out of rivers to improve navigation. These days people are paying people to put trees back in (to the rivers) to improve fish habitat.

Respondent B furthermore said that issues like the one mentioned above raises the question about unintended consequences:

> Are we simply going to do nothing, or are we going to spend the time it takes to get it right? This is very difficult given that technologies change so rapidly these days.... It's hard as a society to say whether we're doing the right thing.

Both respondents A and B said it's a matter of trying to do the right thing at the right time, recognizing that you can perhaps only look three to four years down the road, given the speed of technological development. Respondent B said it's important to keep the precautionary principle at the forefront, so that people who carry out development initiatives can avoid doing any harm. Respondent B defined the precautionary principle as not taking action that could potentially be harmful to the environment, even though there could be certain short-term benefits tied to taking certain actions. Talking about the

stance that some environmental organizations are taking against woody biomass utilization, respondent B said that environmental organizations think it is incumbent upon the federal government to make sure that the federal government itself is not doing anything wrong. He then said "I think that that's valid."

A problem, which the respondents don't mention, is that in the current political climate, the ability of federal agencies to watchdog federal projects has been gutted by the Bush Administration, which according to some researchers, have "abandoned efforts to support collaborative action with states in environmental protection"... "in favor of an effort to recentralized oversight in a manner consistent with historic attempts to establish an administrative presidency model" (Rabe, 2007, p. 413).

While respondent A's definition of sustainability is similar to the one promoted by the Brundtland Commission, respondent B explained his definition of sustainability by using an example where he said that sustainability is "more like a funnel, and we've gone from an era of abundance to a narrow tract and we need to find out how we are going to increase opportunities for everyone." Respondent B said that he has a "strong social justice and equity angle" included in his definition of sustainability, adding that "if we are sustainable, we don't have poverty and we treat people with integrity."

At this point respondent B expressed that "The system is set up against us," indicating that he has reservations about the current economic system being capable of dealing with today's many challenges. Respondent A, on the other hand, said that you can't talk about sustainability in a way that would allow people to compare it to "socialism or communism."

Both respondents A and B said there is an unwritten understanding that market-oriented solutions exist to sustainable development, but both expressed disagreement with the way business is being done today, adding that it's pretty obvious what's happened when free market forces have been left free to roam, such as depletion of natural resources, environmental degradation and social and economic injustices.

While the interview with respondent A and B ended up being a discussion about sustainability, the interview with respondent C took a slightly different turn. Respondent C said that he "really approached sustainability from a completely different point of view. "Oregon's forests are in a miserable shape, there's a need to address these problems," he said. Respondent C suggested that one of the ways you can deal with these problems is to create a market that addresses the problem by utilizing the excess woody biomass that can be found in Oregon's forests for commercial purposes.

Respondent C said that right now there is no market for 2x4s. He then said "What is a high value product that you can create from this biomass? What I really see this grant as is an opportunity to address a little bit of the serious environmental issues related to our forests." Respondent C added that dealing with forest problems through the establishment of a cellulosic ethanol plant that develops less greenhouse gases and creates jobs at the same time would address some sustainability issues. "That's how I see this project fits in with that larger picture of sustainability," respondent C said. "We need to do something. It's interesting to see if we are willing to make changes," he said. Respondent C defines forest problems as there being too much woody biomass lying

around the forest floor, which, according to him, prevents healthy forest growth and turns forests into potential fire bombs in the event of forest fires.

More than anything, perhaps, respondent C expressed criticism of the environmental movement and said that it's a group that "we struggle with." He said that he has been around them for a long time and that he gets kind of "impatient with them." He said that both "camps" are facing the issues of sustainability but the "simplistic jargon is bad" (i.e., current and planned actions such as woody biomass utilization is bad for forests and the environment) and not very productive. "That's all this is, it's just rhetoric."

Ultimately, respondent C thinks there is a tremendous amount of woody biomass in the forests that can be used to create a value-added product that could be used as a source to produce transportation fuels, while also reducing the risks of serious damage to the ecosystem by large forest fires. Respondent C also thinks that the woody biomass project could create economic opportunities for struggling rural communities that have been affected by cuts in the timber industry, perhaps forgetting that the cuts came about because the timber industry wasn't being run on a sustainable model. But, said respondent C, "This project is not really about sustainability."

Again, respondent D also came at this question from a slightly different perspective. He was more interested in discussing why, with the "current economic paradigm" we don't analyze ownership in relation to sustainability. Respondent D was also more interested in exploring this question by looking at the make-up of America as a nation.

Respondent D said that "America, we're so young." He added that his grandfather (who was originally from the Netherlands) talked about that country where there were no forests left and things were highly regulated because they just didn't have enough natural resources for everyone to use. "Here, there are so few people, our entire economic might is built on the ability to rapidly translate latent natural capital into economic resources, and there is nowhere where this is more evident than in the Northwest. How does ownership of woody biomass facilities fit into this?" Respondent D said he is worried about nutrient management in relation to woody biomass utilization and being good stewards of a multigenerational source.

Respondent D added that businesses like Weyerhaeuser, "can just divest their lands and only replant because they are made to. They extract as much as possible and they are only looking at their spreadsheets. They don't care if they reduce the number of species or destroy watersheds." Asked specifically about what sustainability means to him, respondent D said that sustainability means the ability to manage resources in such a way that we can go back for more in the long term. "When you're done and ready to come back, there's something there, maybe even more than when you left it," respondent D said. Respondent D said that we are now in a deficit and that the natural generative process will allow it (the forest) to be a piggy bank for some time. He then said that there is an interconnection between economic sustainability and social sustainability, using the recent collapse of the housing market as an example. Respondent E didn't want to elaborate on this question, but basically said that sustainability to her means that you are

acting in a way that isn't going to have a negative impact on the environment or people in future generations.

Personal Definitions of Sustainability

This question was designed to tease out individual differences between the working group members' perceptions of sustainability, but I found that many of them answered this in question number five.

Personal Reflections on In-Depth Interviews

The following are my personal reflections about how the five in-depth interviews went overall, the setting in which each interview took place, what difference in length of interviews might have meant, as well as whether I found in-depth interviews in general to be a helpful information gathering tool given the specific research task at hand.

My interview with respondents A and B took place simultaneously in a student cafeteria at the university that I attended while doing this research. The setting was informal and lasted for 1.5 hours. I felt that this interview went well and that both respondents were open in answering their questions. However, I think the fact that I interviewed two key members of the working group at the same time limited the amount and type of information that I was able to gather, simply because there is a good chance that they might have discussed what to say and what not to say to me before the interview took place.

There is also a chance that respondents A and B may have held back information from each other because they didn't know how the other person would react to certain statements or observations about the working group and the woody biomass project. They

may have shared more and potentially more critical information with me had I interviewed them separately.

Another element that I think influenced the outcome of this interview was my involvement with the working group as an intern. I felt some unease about being an intern, while at the same time being engaged in a research project where I was examining the group that I was interning with. Before I begun asking questions, I was concerned with letting respondents A and B know that I was generally concerned about not conducting research or drawing attention to the working group's project. This intern/researcher situation, I think, had an impact on the way I conducted this interview and the information that I got out of it.

I am of the opinion that this interview was still worthwhile. And, even though the setting was not ideal, the responses did show me some of the internal differences in terms of how these two working group members viewed the project. More than anything, though, this interview revealed quite clearly to me how important setting and circumstances are in terms of dictating the outcome of interviews.

My interview with respondent C happened in a quite different environment. It took place in his office, an environment in which he presumably felt relaxed. And, he was by himself. This made me feel more at ease about asking questions, even though I was still very much aware of my dual role as an intern and researcher in relation to the working group. I also felt a little bit at unease about the interview taking place in his office, simply because it is not "neutral ground" and can lead to power imbalances between the interviewee and the interviewer.

This interview lasted for roughly an hour. Perhaps what struck me as most important about this interview was how openly critical respondent C was of other working group members, as well as how he viewed the environmental groups locally. I think this was partially a reflection of his age – sometimes people of some seniority have seen and been through many things both professionally and personally and aren't as afraid to share their opinions as perhaps younger individuals might be. But I also think that his this interview reinforced my feeling that while working group members are part of this project because they are interested in pursuing project goals, they are also independent and not afraid to make their voices heard.

My interview with respondent D took place over the phone. Respondent D is roughly my age (early 30s) and, based on our conversations, of similar political orientation. This interview lasted for 45 minutes. Even though I had met respondent D before at working group meetings, I did not know him very well. Nonetheless, he didn't hesitate to talk frankly about his participation as a working group member. What struck me as distinctly different between the in-person and telephone interviews is the sense of setting. With the in-person interview, I had eye-to-eye contact with the respondents and could observe facial expressions, body postures and language.

With telephone interviews – unless you interview someone using video telephony – it is very hard to get a sense of the significance of statements because you're not observing the interviewee.

While my first four interviews lasted from 45 minutes 1.5 hours, my last phone interview with respondent E only lasted for 10 minutes. I had called about a week before

to set up the interview, and explained my project to her. During that week, there is clearly a chance that she could have contacted some of the working group members to ask them about their perception of what I was doing. Since she was my last interview, this also means that they could have shared my interview questions with her in advance. The shortness and concreteness of her responses might be taken as an indication that this happened.

However, having participated during a working group meeting that used phone conferencing to allow all members to participate, I already had a sense that respondent E was not extremely enthusiastic about the working group's project.

What struck me as a significant observation in relation to respondent E's comments is the fact that interviews don't always have to be long for them to be meaningful and illuminating. Her brevity, for example, might be taken as evidence that she has seen how these projects usually develop before, and that they are not always in line with the way of thinking that her organization, and herself, would ideally like to see. In a way, I also got the feeling that her short responses was an indication that she didn't want to spend any more time dealing with this project than she absolutely had to. It

While there are many limitations to using in-depth interviews as a research tool, I think it was effective for this project because they allowed me to develop a deeper understanding of the process and a sense of the people who are involved in this project. However, I also think that in-depth interviews are most effective when they can be used and analyzed against other research materials, such as information gathered during participant observations.

Working Group Stakeholder Analysis

As part of my internship with the working group, I was tasked with summarizing the information that working group members came up with based on their stakeholder interviews. A total of eight out of 50 initial stakeholders were initially identified. The 50 initially selected stakeholders were identified during a working group meeting, where the working group members brainstormed individuals and organizations that they thought of as stakeholders in relation to the woody biomass project. The 50 stakeholders were split into three groups, with the stakeholders perceived to be most important to the working group put in group one, and so forth. The interviewers asked a total of 10 questions, which can be found in Appendix A. The eight identified stakeholders who were interviewed were part of group one, and were put in group one solely based on the working group's members perception of them as rightfully belonging there.

I was also asked to complete stakeholder outreach material that the working group members who conduct the interviews distributed to the stakeholders that they interviewed before those interviews began. The stakeholder outreach materials can be found in Appendix D. The following is the stakeholder interview summary of the first round of eight interviews that the researcher presented to the working group in April 2008.

Summary of Working Group Stakeholder Interviews

Members of the working group interviewed eight stakeholders to gauge their interest in participating in the woody biomass project. Four of the interviewees were from group one, two of the interviewees were from group two, and one interviewee was from group three. The eighth interviewee was someone who volunteered to fill out the

questions that the working group had designed during an outreach meeting in a rural community, in which the working group sought people and businesses who were interested in participating or investing in the woody biomass project.

Part of this round of interviews was aimed at gauging interviewees' understanding of woody biomass, as well as its potential usefulness as a natural resource that can be turned into various sources of energy and/or transportation fuels. These interviews provide a fair variety of perspectives from scientists, land managers, contractors, and environmental groups. More stakeholder interviews would increase the validity of this fact-finding mission. Lessons from these interviews will help the working group plan their next steps in developing the woody biomass project and its education/outreach efforts in particular.

Selected stakeholders were generally positive in their perceptions about woody biomass utilization and its potential to achieve several of the working group's project goals (reducing forest fuel, bringing jobs to rural communities, and creating a source of alternative energy). Their principle concern was in making sure that woody biomass utilization is done responsibly. None of the interviewees have much direct experience with woody biomass utilization, so the working group had an opportunity to provide some "ground-up" education. The following recommendations suggest next steps for the committee's education and outreach efforts.

- Address participants' concerns about woody biomass utilization technologies and science related to soil nutrition issues, as well as educating people about what woody biomass utilization actually is.
- Address concerns about financial feasibility both in terms of sufficient markets and contracts for local businesses, as well as transportation issues related to woody biomass removal.

- Highlight successful outcomes as the process develops to maintain stakeholder interest and enthusiasm.

Forest Restoration

Stakeholders from environmental groups primarily put a high priority on woody biomass utilization as a way to kick-start forest restoration. These stakeholders do not care how woody biomass utilization is done as long as it contributes to forest restoration, and is done responsibly. One respondent said all the young forest plantations that need to be thinned could benefit from appropriately scaled biomass utilization.

Experience with Woody Biomass Utilization

Practically none of the stakeholders interviewed have any direct experience with woody biomass utilization, but many of them are interested in learning more about it. One of the respondents has substantial experience in handling other biofuels.

Perceptions of Woody Biomass Utilization

The majority of stakeholders were positive to woody biomass utilization, for a variety of different reasons. One respondent said "It makes more sense to make energy here than to haul petrol from Saudi Arabia." Some respondents were a bit confused about what woody biomass exactly is. Does "woody biomass" mean chips for paper or anything other than lumber?" One scientist expressed belief in woody biomass as positive because it can help establish no-till practices. Despite being a skeptic, one respondent said she believes there are economic benefits from local woody biomass utilization production and that it's also a good thing for security reasons.

Barriers to Woody Biomass Utilization

Most of the respondents could suggest at least one potential barrier to woody biomass utilization. Environmental stakeholders expressed concerns about how much biomass to leave on the forest floor for soil productivity and soil health, as well as a fear that biomass utilization would become the driver of forest management and the public lands would be needed to "feed the beast," the best being the capitalistic system.

Another respondent was concerned about the big picture and the long-term sustainability of woody biomass utilization. Several respondents also cited concerns about transporting the natural resource to a conversion facility. One respondent said: "It's a "'catch 22'" the more fuel goes up in price the more haul costs go up." Others were concerned about taking out too much material and sacrificing the land's future productivity, especially if woody biomass utilization becomes more economic and feasible on a large scale. One scientist suggested several barriers, including tremendous hurdles for feedstock logistics; the need for sustained price increases of petrol and the need for government support. This respondent, however, was also of the opinion that it's unclear whether there is a need for forest thinning in the first place.

Economic Priorities

One respondent suggested that woody biomass utilization could contribute to carbon dioxide control and economic growth simultaneously. Additionally, he suggested it could improve regional balance of trade and that "We can do this well and make it a competitive advantage." Another participant would like to talk about how landowners fit into the Northwestern economy. "We've focused on things like aerospace export and

pushed natural resources, like agriculture and forestry, to the side. Now people are realizing the importance of forestry to the region. The market is huge and responsive. They are concerned about all the salvaged timber going into the market after our wind storm."

Participation and Further Information

Nearly all of the participants said that they would like to stay informed and email is the preferred method. None of the environmental stakeholders were interested in participating directly with the woody biomass group, but they would be willing to confer with the group on specific issues, for example woody biomass utilization in relation to soil health. Some respondents recommended additional stakeholders for further perspectives.

When asked about topics that they would like to learn more about, a few participants cited more specifics about what woody biomass is, what the various woody biomass utilization technologies are, as well as their potential impacts on forests. Some also wanted to learn more about the various economics issues and considerations associated with woody biomass utilization.

Independent Stakeholder Analysis

The following is the researcher's independent stakeholder analysis. This stakeholder analysis was not designed to function as an exhaustive "checks and balance" analysis in lieu of the working group's own efforts. The rationale for doing an independent stakeholder analysis has been elaborated on previously, but the basic premise was to seek out voices that had perhaps been excluded or marginalized in the

working group's own stakeholder outreach and to see whether they would add additional dimensions, nuances, and provide insights related to woody biomass and woody biomass utilization to produce cellulosic ethanol that can be used as transportation fuel.

I talked to five different stakeholders. Some of them had and others hadn't been identified by the working group as stakeholders in relation to the woody biomass project. I developed my own interview questions for this stakeholder analysis, which can be found in Appendix B. The reason that I developed my own questions was so that I could move out of the framework that the working group was operating within, ask questions on my own terms and see whether there were be significant differences in responses based on different wording.

While the questions in my and the working group's stakeholder analysis are different, though in some instances have a similar focus, I have chosen to summarize the independent stakeholder analysis using the criteria and themes that I used for the working group's stakeholder analysis summary. I did this in an effort to make it easier to compare and contrast the findings and to discuss what the differences of opinion on the various themes were, and what this might say about the working group's stakeholder outreach efforts so far.

Summary of Independent Stakeholder Interviews

I spoke to five different individuals for my own separate stakeholder analysis. Out of the five, two respondents were either very much in favor of, or against woody biomass utilization. The other three respondents, two of whom represent moderate environmental organizations, didn't know much about the working group's particular project because

they hadn't been informed about it (despite the fact that the working group has been meeting since last summer). These two individuals expressed varying degrees of optimism in relation to woody biomass utilization as a way to achieve certain forest restoration goals, but they stressed that they would have to learn more about benefits and drawbacks before they would give it their wholehearted support.

Their focus, however, was more on forest restoration, which is what the woody biomass grant initially was all about. The working group essentially got this grant to explore the feasibility of establishing a cellulosic ethanol facility somewhere in the Northwest that would contribute to improving the health of Oregon's forests through restoration, while bringing jobs to rural communities and enable the production of a transportation fuel locally. The grant money has been spent on finding out whether it is possible to use woody biomass for the described purposes, not to establish a production facility. The group would have to apply for additional funding to fund the construction of a cellulosic ethanol facility if the woody biomass-related feasibility studies end up showing it would be possible economically and advisable environmentally to establish a plant. The last respondent knew a fair bit about biomass in general, showed some familiarity with woody biomass utilization, and had experience working for a state-level environmental regulation agency.

Forest Restoration

There wasn't really a big difference in terms of the value that the independent stakeholder interview respondents put on forest restoration. However, I think they were clearer about this being a crucial component of a woody biomass projects than those

interviewed by the working group. Four of the five respondents who I talked to also expressed concerns about a woody biomass project and the possibility that such an industry could become extractive rather than restoration focused, which again could pose problems for forest health.

Experience with Woody Biomass Utilization

Because this is such a new technology and because there are very few operating cellulosic ethanol production facilities in operation around the country, few of the respondents interviewed for my independent stakeholder analysis had any particular working familiarity with woody biomass and woody biomass utilization. The only exception is the business man and landowner who is actively engaged in developing technologies that could be used to convert woody biomass to cellulosic ethanol.

Perceptions of Woody Biomass Utilization

The perceptions of woody biomass were fairly neutral, except from one individual who is strongly opposed to woody biomass utilization and any kind of industry that extracts natural resources from federal forest lands in particular. This individual was in fact identified as a stakeholder by the working group late last year. The working group placed this individual in group three and did not conduct stakeholder interviews with him. The landowner and businessman think that woody biomass utilization is going to be a great, new forest products industry once the technology to do the conversion is readily available. The two respondents from environmental organizations, as mentioned before, think woody biomass utilization might be a good thing in terms of kick-starting forest

restoration. However, they remain cautious about woody biomass utilization if the industry were to become too big.

Barriers to Woody Biomass Utilization

Although none of the respondents, except the businessman/landowner who is developing woody biomass conversion technologies, could be said to be experts on woody biomass and woody biomass utilization, all of the respondents in the independent stakeholder analysis were also able to identity potential barriers to cellulosic ethanol production. These barriers include the lack of suitable technology in terms of converting woody biomass to cellulosic ethanol, access to the actual woody biomass resources, the cost of transporting it from the forest to a processing facility, as well as the potential environmental concerns related to removing a large amount of woody biomass from the forest.

According to several of my respondents, scientists, for example, are still trying to figure out what positive effect the woody biomass has on forests if left where it is and the problems that could potentially arise if it was to be removed.

Economic Priorities

While respondents in the working group's stakeholder analysis identified woody biomass utilization as a way to create an industry that could have several positive elements (bringing jobs to rural communities, production of transportation fuels locally and reducing the risk of serious and costly forest-fires), respondents in the independent stakeholder interviews took a slightly different approach.

One of the respondents suggested that rather than thinking about the woody biomass project as a way to achieve certain goals by *extracting* a natural resource from forests, a woody biomass project and other restoration-oriented efforts for that matter might instead better be viewed as creating jobs by *investing* in the forests rather than simply extracting natural resources. The respondent, however, said that given the fact that forests have basically worked like "piggy banks" for the Northwest in the past, it might be a hard sell to do this.

Participation and Further Information

Several of the respondents in the working group's stakeholder interviews were interested in participating in and learning more about the woody biomass project, which is what the grant promised in terms of public outreach and education. While none of the respondents in the independent stakeholder analysis were interested in partnering with the group, three were interested in being kept up to date on the group's efforts. The primary reason that people didn't want to participate was simply because of a lack of time and the need to focus on their own organizational priorities.

One of the respondents, however, said that he didn't see the point of being a part of the project because the working group, which is legally under the authority of a county government community and economic development program, is not likely to be able to compete with private companies also in the process of developing plans for cellulosic ethanol production. This respondent pretty much said he didn't understand why the working group was bothering to do this project, given the fact that they would likely have a hard time competing against large timber companies who have access both to the

woody biomass resources on their private lands and can fund research and development on their own.

Interestingly, this individual, who represents a moderate environmental group, also said that sometimes the "radical" environmentalists sometimes tend not to be overly well informed about some of the environmental issues that they are being very vocal about.

Thesis Research Diary as Participant Observation

I started keeping a thesis research diary at the beginning of this project, and I've kept it up throughout the process, filling in notes as things happened, meetings took place, or as ideas and themes emerged as I got deeper into my project. According to Lindlof and Taylor (2002), "the validity of participant observation derives from researchers' *having been there*" (p. 135), and they add "that participant observers occupy uniquely liminal positions, in which they are situated – both literally and existentially – between various social groups, psychological states … and research goals (p. 136).

It is important to recognize this state of flux, because as a participant observer, the researcher is likely to find him or herself occupying a certain role in which the researcher trades control over his or her research agenda "for the information and access provided by the host" (Adams, 1999, cited in Lindlof & Taylor, 2002, p. 136.)

While much of the thesis diary resembles that of a regular diary, sometimes much talk about nothing, I want to incorporate some of the things that I discovered as a way to add perspective to my efforts to understand how the working group worked at an early stage of this project.

I think it is important to give the reader a sense of why I might have interpreted certain things in one way and not another, depending upon the circumstances of my observations and insights and the contexts in which they emerged. As is often the case with any type of research, it's never a linear process, and the insights often come at inconvenient times, such as in the middle of the night, during bike rides to school, or in some other place that isn't conducive to writing things down.

My thesis research diary reflects this in the sense that sometimes I was able to capture ideas and observations as they emerged, other times my notes were put into the computer maybe hours, sometimes even days after I had gotten the insight and/or made a certain observation. The way that this participant observation is organized will give the reader a sense of my thinking as I was a part of this project, as well as being a researcher, basically meaning that I had both an insider and outsider role that I had to negotiate during my interaction with the working group and my own research.

Before writing this section, I spent some time going through my diary, highlighting and selecting entries that I felt would be important to include in this summary. Sometimes I paraphrase and other times I quote directly to try to give as accurate as possible representation of my thinking at the time.

Entry 1, Thursday Oct 18, 2007

This entry captures the fact that I'm beginning to develop a sense of theories that I am thinking about using for my thesis. At this point in time, I've also been able to secure an internship with the working group, and I'm getting a sense of the work that I will be doing for them. During this entry, I reflect back on my first meeting with respondents A

and B. One of the things to note is that I interpret our conversation as them indicating that they are interested in promoting sustainability through the use of existing capitalistic and economic models. I also wrote: "They are also interested in conservation, but that is not their primary interest. It will be very interesting to look at how they conduct their outreach and what they emphasize." In addition to my meeting with the two working group members, I attended a regular board meeting of a local watershed council. I include this observation because it speaks to the different discourses around sustainability and good environmental stewardship on the national and international level, and on the more local arena.

> What struck me in particular about attending this meeting is the contrast between micro-level local conservation efforts and the discourse on conservation, climate change and global warming, and sustainability that is represented through the media.

Second entry, Monday Oct. 29, 2007

In this entry, I write about the first working group meeting that I attended, which gave me an initial insight into how the group works together. I wrote the following:

> It was very chaotic and nobody seemed to know what the other one was doing, including those talking over the conference phone. I'm not sure what the productive outcome of the meeting was. What was useful about this meeting, however, was seeing how easy it is to end up in a situation, especially when nobody knows who's communicating what, that could potentially derail an entire process. It was also interesting to see people with clearly different agendas trying to come to grips with a process that seems extremely dynamic and has lots of moving parts.

Third entry, Saturday Nov. 11, 2007

In this entry, I elaborate on the first public meeting that the working group held.

> I had the chance to attend the first biomass public meeting, which was kind of a disaster, at least for the biomass project. The presentation was not very well

> organized and (working group) presenters sometimes made mistakes in the way they interacted with the public.

In hindsight, I should have paid better attention to what was going on during this meeting. First of all, the working group didn't really intend to put on a meeting but because an email had gotten circulated, indicating time, date, and location of the first meeting, they had to go forward with it. The meeting attracted several people, many of whom represented local environmental movements. It was clear that these people were very skeptical about woody biomass utilization and how this industrial practice would affect federal public lands. It was also interesting to note how the more "radical" members of the audience were addressed by some working group members, and when and how long they were allowed to voice their concerns.

One lady in particular, who stood at the back of the room with a video camera filming the meeting, was not allowed to speak for very long. When she did, it was fairly clear that some of the working group members thought that she was a nuisance, not just because she embodied the more radical component of local environmentalists, but also she was creating an archive of information that at some stage could potentially be used against the working group.

Fourth entry, Tuesday Nov. 13, 2007

In this entry, I write about the meeting that took place at the county administration building, where stakeholders were identified and interview responsibilities were divided between working group members.

> ...we identified several (roughly 50) organizations, public agencies and private businesses who we need to think about reaching out to get an understanding of what obstacles/opportunities we are likely to face as we launch into the public

involvement portion of the project. What was perhaps most interesting was the group's seeming disdain, maybe a strong word, but nonetheless used, to describe local environmental groups. The word "Enviros" was thrown around a couple of times… At any rate, it was just interesting to observe the language and apparent group consensus about ways to describe a segment of the population.

What if this group, which is proclaiming to implement a project that is sustainable, doesn't talk about and identify the many different elements of sustainability. What does that mean? I think most of them are in the ecological modernization camp, given their enthusiasm about carbon credits… I wonder if they are truly committed to big picture thinking or whether they are just out to find quick fixes for local problems? It was also interesting to hear respondent A talk about the focus on investing in biomass projects on a local scale and that there is more money and more projects than there are people to implement them.

Fifth entry Tuesday Jan 21, 2008

In this entry I've been gone from my research for a while and I am beginning to wonder about my double role as an intern as well as a researcher.

One thing that I have thought about lately is framing my research as an alternative fact finding mission outside of the woody biomass group. This might alleviate possible fears, such as my research leading to more public awareness about the working group's efforts, that respondent A and B have about my research, and provide them with additional information that they can use they move forward with this project.

Sixth entry, Monday Feb. 25, 2008

In this entry, I ponder the working group's project in a larger sense.

One of the things that have been circulating in my head is how this biomass project exists in relation to other similar projects, in relationship to other sustainability initiatives, as well as within the larger discourse on biomass, both globally and here in the United States. I'm hearing an increasing number of critical voices in relation to the use of various kinds of biomass for energy purposes. What does it mean when parts of the scientific community go out so strongly against the use of a particular natural resources, but at the same time the government is providing large amounts of money for research and implementation, which in some sense seems to be a political maneuver to make it seem like they are doing something to combat the dependence on foreign energy sources, in particular oil. How can these local projects ultimately be successful, and even be implemented, if the science upon which these projects are based is, to

> some degree, inconclusive, under development or in the worst case, actually damaging to the environment in the long run? This takes me back to the national politics around resource management, which guided the construction of this particular grant. One could question whether being a recipient of said grant, then, is a win locally, and/or a tool that is being used by the authorities to buttress a particular environmental agenda.

Later on in the same entry, I reflect on what my "double role" means, considering that I've told respondents A and B what I'm doing for my thesis:

> One of the interesting things about this process is that I'm at this point not sure of my status with the working group. There is a chance that they have changed their attitude toward me, or they might not have. At any rate, not knowing exactly how certain individuals have received my initiative – even though publicly they thought it was fine – is an interesting component because it complicates my role as a researcher in terms of how I should move forward. Maybe it makes me too cautious and unable to ask the "tough" questions, or maybe I won't have any problems. But, as I said earlier, I think it is really interesting to see where this project situates itself in terms of local discourses on sustainable development, specifically in relation to woody biomass. So far I'm getting the sense that the working group wants to be as open and non-committed as possible so as to not get stuck should things not turn out the way that they want to.

The italicized print reflects the fact that I added to my diary after going through and highlighting information that I thought was interesting. I talk about the initial public information meeting that took place late last year:

> *What I do think is important to include in this diary entry, which I probably should have written down before, is how members of the working group talked about members of the environmental group at a meeting that took place late last year. The environmentalists were referred to as the* enviros*, which to me in this particular context, seemed to insinuate the "backwardness" of a certain group of individuals who are very vocal in this community (an alternative reading may be that someone said this because it felt right at the time in a particular group setting where there may have been a need to state certain allegiances and pit "them against us," while the individuals who said it could have different personal opinions that reflects a different kind of perspective, i.e., sympathy with the environmentalists who are spending time on these issues). Another thing that is interesting is the sense I got from some of the first meetings. Some members, in particular respondent C, do not seem to think that this outreach process makes any sense. One of the working group members, who received an email from this*

person, said respondent C "hates environmentalists." What does that mean in relation to what the purpose of this outreach effort is? Does it matter that the working group engages in this outreach/public education effort, or is it simply doing it to make it look like they are interested in hearing what people have to say, when in reality they are not. Is this education/outreach effort more about identifying potential project partners than engaging a diverse audience in complex discussions about sustainability and sustainable development?

Seventh entry, Tuesday March 3, 2008

This entry was written after I had my first interview, with respondents A and B at the same time on campus. I had been worried about this interview,

> Not only did I feel like they answered questions openly, were willing to talk to me and told me lots about the project, but there was also evidence of some disagreements/differences of opinion between the two respondents, which I was worried would not be seen.
>
> I transcribed the interview yesterday and filled in some comments along the way. Today I spent some time reading through emails that I've received over these last few months in relation to the biomass project. ....Respondent B also expressed an interest in me writing a little report about the workings of the biomass group for the group's benefit. It sounded like he thinks it is important to track activities and keep chronological narratives of events as they progress, I guess as a learning tool. Then again he may just want to have a document from someone so that he can point fingers if this project fails.
>
> *What's at stake?* This is one of the interesting things that emerged from my interview yesterday. This is not just about woody biomass, but it is about making the county able to save lots of money long term by making sure that money that is now spent on transportation fuels etc. each year instead goes to businesses that operate within the community. In some sense, this project is an economic independence project as much as it is a triple bottom line sustainability project.
>
> I guess another thing that was interesting to learn yesterday is the fact that respondents A and B are aware of and rightfully think that environmental groups have reason to be skeptical about forest management on public lands given the history of forest management, especially in Oregon. What does this contradiction mean? Does it mean that people have personal opinions but also job obligations to fulfill?

Eighth entry, Tuesday March 11, 2008

In this entry, I am starting to think more critically about the way the stakeholder analysis is being done. Working group members have not been meeting interview deadlines, and there is an upcoming meeting where the outreach/education effort will be talked about:

> What does it mean if some people value the education outreach component while others don't? Is it a sign that some people don't value that process if they aren't completing their interviews on time? And what might that say about the integrity of the working group's project itself? Additionally, is it significant that people could choose whom to interview? For example, respondent A picked all of the people at the city and county level, the so-called "electeds." People in general decided to talk to people with whom they for the most part had previous relationships with. This seems to be a simple way to maximize access and making sure that they can connect with the right people, but it also steers the information gathering process in a certain direction that has an impact on the information that is gathered. In other words, even though it wasn't a conscious decision, it was nonetheless a decision that was made without any discussion of the consequences of moving forward in this particular way. This further allows the process to be given a political twist that complements the politics of the definition of the grant initiative itself.

Ninth entry, Wednesday March 19, 2008

This entry reflects thinking related to whether these kinds of projects make sense from a big picture point of view:

> What are the chances that, because of the current climate, with global warming and climate change being so prominent in the public debate, we end up being paralyzed by analysis? Because we fear that the environmental problems we are facing have become so insurmountable, we have become almost paranoid about taking any action when we don't have the information that we feel needs to be there to justify our actions?

Tenth entry, Thursday March 20, 2008

> I've read through the stakeholder analysis that has been sent me so far and none of the people who have responded have come out outright and said that woody

biomass utilization is a bad thing. Does this say something about the people who have been contacted, or does it say more about the fact that not a lot of people know enough about woody biomass utilization to form an opinion? What does it mean that some of the environmental groups that have been identified, for example, want to stay informed about the group's work but don't want to be directly involved with it? Do they want to keep a distance and not make it look like they are getting involved with something that they could be criticized for down the road? Could it be said that this education/outreach component is going to be more about identifying people who want to invest rather than truly being an effort to identify the concerns that people might have about woody biomass utilization?

Eleventh entry, Friday March 21, 2008

This entry comes on the heels of an interview that I did in relation to my own stakeholder analysis:

When I talked with stakeholder one, I definitely got the feeling that he was speaking in different terms with me than he had with respondent B during their interview. How does one account for, in a public outreach education process like this, for the things that people say behind closed doors and the things people are willing to say in public? What about respondent B's email in response to the other group members related, I assume, to the fact that stakeholder one and his group didn't want to be involved with the working group on the woody biomass project? Did respondent B reply to the email the way he did to not upset his relationship with the working group? What is the significance if the project is to get a "moderate" environmental organization on board? I think it would seem that that would be fairly significant because it would basically mean that the group could represent itself as more credible across a range of political interests and boast of having the environmentalists on their side during the public outreach education/public relations effort down the road.

Twelfth entry, Wednesday March 26, 2008

Today was the meeting of the working group. There were several people in attendance, including respondent B, respondent A, respondent C, and respondent D. First of all we did project updates, and then one of the working group chemists did a presentation about cellulosic ethanol conversion technology. He is not too optimistic about the technology being developed to utilize woody biomass from Douglas fir trees. He really sounds pretty skeptical about the whole deal… I then did my little presentation about stakeholder outreach. I told them that I had only received 8 interviews and done my best to summarize the information that was included in them, while also making the caveat that I am no expert and that there

were scientific things that I could easily have missed out on that might be significant for the group's future work.

The ensuing debate about the stakeholder education/outreach process was really interesting:

Respondent C made a point about what to do with people who are, and historically have been, vehemently against any kind of natural resource use on federal public lands, and who are also against the current way of doing business in general. Respondent B said that the best idea would be to focus on the moderates, while leaving the "radicals" on both sides to themselves. Respondent B said that the political process would take care of them. Respondent A concurred with this approach. Then respondent B said that there is not really a reason to push the stakeholder interviews much more forward. There seemed to be several reasons for this. One, he doesn't want to spend a whole lot of time on this stuff anymore, perhaps because others who told him that they don't want to do it anymore. Second, he seems more interested in fulfilling a grant deliverable, than getting a broad range of opinions from a variety of stakeholders. Third, I think they think that they know what the ranges of views are and aren't interested in hearing anything else from others. Fourth, I think they are more interested in seeking out responses from people (project developers) who can be presented with information and then start their own projects. What does this say about the stakeholder outreach process? What is the point of doing it if it isn't done properly? Respondent B seemed to think that using the information that has been collected so far is good because it can lead to the development of a "ground-up education" initiative that will present a certain point of view that is favorable to the group. What was interesting was that respondent D seemed to be of the impression that the education/outreach effort was going to be a lot more comprehensive. He even seemed to be willing to make the extra rounds to get more interviews. I found it interesting that some of the group members weren't present at today's meeting. What does it say about a collaborative effort when some people choose to stay away? One thing that was interesting is the fact that the county, with its three grants, is at the forefront of developing a path to implement renewable energy initiatives in Oregon and that the state is looking at the county as a model for how to move these things forward.

Thirteenth entry, Monday March 31, 2008

This entry got me thinking about sustainability and the concept's relationship to the working group's project:

Is sustainability what everyone deep down want to talk about but are afraid to? Is that because intelligent people realize that things are so complex and interrelated as to seem impossible to resolve? If I remember correctly, this is what respondent A said during my interview with him. This might be a project that can get at what a sustainability project is. From respondent D, I kind of got the sentiment that how to engage sustainability on a practical level and what organizations are doing to engage this in their approach to doing business, is where things fall short? And does it even matter if people do talk about sustainability? One example is the prices for pulp right now, like respondent C and D mentioned, people are shredding perfectly fine timber right now because prices for pulp are so high right now. This means that the market is driving decisions, which is exactly the way things have been and will continue to be for the foreseeable future. People take advantage of situations to maximize profit in the short-term without thinking about the long-term consequences of their actions. And, like respondent D said, people are part of the working group project for slightly different reasons. How can you then, as a collaborative, find a common way to move forward when people are interested in different things? Is it really important that a definition is agreed upon, or is it more important to allow for flexibility that accommodates dynamic changes, even in collaborative settings where the expressed position is that people with sharp differences over forest management in the past come together to find common solutions to a pressing environmental problem?

Summary of Key Findings

In-depth interviews with Working Group

In my analysis of the in-depth interviews conducted with the working group, I was interested in learning more about the working group, both in terms of how the members viewed this project, what their perception of the project from various points of views were, as well as their understanding of and commitment to the principles of sustainability. Using the approach to analyzing in-depth interviews as described by McCracken (1988), I first identify and examine useful utterances that emerged during the various interviews. Then I develop expanded observations and examine interconnections of those observed utterances and comments more broadly. Ultimately, I examine observations for patterns and themes before I review and analyze the themes that

emerged from the interviews, as I perceive them. While this is only one of many possible readings of these interviews, I have attempted to make clear the basis of my interpretations so that other readers can make their own judgments as to their validity.

My interpretive conclusions are as much as possible based on systematic patterns that emerged in interviews and transcripts rather than more ambiguous stand-alone comments or words or statements.

Useful Utterances

During my in-depth interviews with the working group members, there were certain words and utterances that surfaced more often than others. These utterances included things such as "project-specific," feasibility studies," deliverables, "expanding efforts," "need for more money," "applying for more money," "business plans," "extremely successful." To me, these utterances suggest a working group environment in which the language of the dominant scientific and economic paradigms, are widely used. Other utterances, such as "worker equity," "social justice" "the precautionary principle," in comparison, appear rather infrequently, which could suggest a couple of things.

The working group members' use of language during this process could suggest that the words that appear more frequently than others indicate that the working group as a unit subscribes to a particular way of thinking that reflects their interest in economic development and not necessarily a commitment to engaging in a more complex process that aligns with the principles of sustainability.

Development of Expanded Observations

While there were certain words that were uttered more often than others, my expanded observations came about through an examination of a number of statements that reflect individual differences in relation to the environment in which the woody biomass project exists. Respondent B, for example, when talking specifically about sustainability, said that "The system is against us." This respondent, who is also the one who mentioned that he has a strong social justice component to the way he approaches his work, suggests a break with respondent A's thinking. During the interview with respondents A and B, respondent A, referring to the working group, said "You grow or die, and I think we are growing." These two comments suggest that while the working group as a unit is trying to move forward to achieve certain goals, there are individual differences between the working group members that reflect different political and economic beliefs and perhaps even ideological preferences. This can be further demonstrated by respondent C, responding to a different question during the interview, suggested that "This project is not really about sustainability."

Comparison and Review of Themes

What these different statements suggest is a complex group environment in which working group members are trying to collaborate when they quite clearly have different interests and preferences about how the project should be driven forward. At the same time, I think the in-depth interviews still reflect that while working group members don't agree on everything, at least they are trying to work together to try to come up with solutions to very complex problems.

Ultimately, I think while this is portrayed as a collaborative project, given that it's steered by a county economic and development agency, the outcome is more likely to reflect the usual way of doing business simply because that is the way forward that people in funding institutions expect to see. I think it will take a long time before county governments and grant funding organizations will be able to adopt the complex way of thinking that needs to go into projects that aim to adopt the principles of sustainability. Also, the very structure of the grant request sets clear boundaries for what is possible.

Working Group and Independent Stakeholder Interviews

While the findings in my own and the working group's stakeholder analysis weren't that different, there is reason to seriously question the validity of the working group's stakeholder outreach efforts based on the number of people that the group reached out to and interviewed. Given that the working group identified 50 organizations and individuals, and five individuals only managed to get eight interviews after having almost two months to complete the task, their findings are fairly weak and don't give them a lot of materials to work with in terms of preparing for its public education component. It's also interesting to think about this stakeholder outreach effort in light of comments that were made during a working group meeting, and which I reflect on in my participant observation.

Participant Observation

During my participant observation, I was able to sit in on working group meetings and be a witness to the project process as it unfolded. I think my participant observation, seen in relationship to my other findings, is what gives this research a richer perspective.

I think my participant observation in many ways reveals the different layers that the working group exists within. For example, while the working group spent a lot of time talking about and preparing for the stakeholder outreach effort, it did little to follow through on the execution.

My participant observation also reveals that the stakeholder outreach effort clearly wasn't as important as it may have been made out to be initially. Additionally, it also seemed like the working group did the stakeholder outreach effort more to fulfill grant requirements than to truly and deeply engage with the stakeholders who would have important contributions to share about the project, or who could be affected by this project.

ECR and Collaborative Public Management and Democracy

Participation is indeed voluntary for the members who are *on* the working group, and they are all capable of participating directly in the collaborative process as representatives of their organizations or parties. However, given that the working group is engaged in a project that promotes removing a natural resource from federal public forest lands, the problem, I would argue, lies in the make-up of the working group itself. If the working group was to be a true collaborative that seeks solutions to common problems across a wide range of personal and organizational beliefs, interests and agendas, then it might ideally have included a broader range of representatives, who could have provided input that would have brought the process more in line with the ideals of environmental conflict resolution, which is to find common solutions to common problems through a deliberative process that tries to avoid litigation.

When evaluated against the collaborative public management and democracy framework, the working group's effort fails to meet several of the standards advocated by Leach (2006). Given that there are seven working group members, the total number of voices represented on the group is limited from the get-go. If you add that the vast majority of the working group members are male, represent organizations and institutions that focus to a large degree on economic development, and the group doesn't include a good representation of environmental organizations to provide balance, the level of inclusiveness and representativeness can clearly be brought into question.

At the very first and only public meeting the working group has organized so far, a variety of community representatives attended. Some of those attendees were from the local environmental community, while others were from businesses who were interested in learning more about woody biomass and woody biomass utilization. It was clear from that meeting that people who advocated a more radical point of view – no-cut policies, environmental protection over natural resource extraction – weren't treated impartially by the working group. There was a clear preference by the working group members to hear from individuals who represented businesses who could potentially become project partners.

Given that the working group has tried initially to keep a low profile and conduct a stakeholder outreach and education effort to identify potential project partners without being too visible in the community, I would question the transparency of the working group as it relates to their openness with the public about the kind of work they are engaged in.

> Because public policies are at stake, the general public has a right to seek out (or receive through the popular media), information about the existence of a given collaborative process, who is participating, what is being discussed, and who is paying for it (Leach, 2006 p. 146).

While evaluating the working group's efforts based on its ability to deliberate, I would say that the working group has managed to accomplish effective deliberations within its own group setting. There is clearly room for dissenting voices and for critical comments related to the feasibility of various aspects of the woody biomass project within the group. While a participant observer, I saw this on several occasions as one of the working group chemists talked about some of the technologies the working group has been exploring for woody biomass conversion as currently highly unlikely to work. However, given the fact that the working group only had seven members, the deliberative process is already limited because there are people whose points of view are valid who don't get to participate in deliberations based on the exclusive nature of the working group.

While I have no information or insights that would allow me to evaluate the working group's efforts based on it upholding existing statutes and regulations, I can evaluate its work based on whether their process has been empowering. Again, an empowered process "enables participants to influence policy outcomes" (Leach, 2006 p. 148). If we view the working group as an entity unto its own, then the working group members would be empowered in the sense that they have an opportunity to affect policies as members of that group. This same privilege, however, is not extended to anyone outside of the group.

CHAPTER V

CONCLUSIONS

Introduction

This thesis began with the objective of exploring how a working group, consisting of seven different organizations with both conflicting and common interests, situated itself within and contributed to discourses on sustainability and sustainable development (local, regional, national, and international) to achieve a concrete goal – namely to examine the feasibility of establishing a cellulosic ethanol plant in the Northwest.

Chapter 4 presented the response findings from the working group member interviews, as well as the stakeholder interview summaries of both my independent stakeholder analysis and the working group's stakeholder analysis. Chapter 4 also presented the findings from my participant observation as an intern with the working group and my observations from taking part in working group meetings. This chapter presents the conclusions based on those findings and specifically addresses and answers the research questions. The chapter ends with lessons for practice and recommendations for future research.

Conclusions

In this section, the research conclusions for the working group case study are presented. The following are the research questions presented in chapter 1. Each research question is answered chronologically.

RQ1: What stakeholders have the power to frame?

My observations have led me to the conclusion that the working group has spent little or no time on how to frame sustainability or sustainable development. The primary focus of the working group has been to complete feasibility studies and to apply for more money that will allow the working group to do more studies. My impression is that the working group hasn't, at least not up to this point, been very interested in deciding how they are going to present this project to the public. Rather, the working group has been engaged in an effort that could indeed be said to be "low-profile," and I believe that has been done to try to ensure that the project doesn't attract a lot of negative publicity early on. However, by choosing to not define its efforts in relation to sustainability and sustainable development, the working group nonetheless ends up defining sustainability indirectly by their behavior because they say that sustainability is an important part of their project but don't engage in practices that mirror their statements. When something is not prioritized, such as the stakeholder outreach effort, it often means that it is not considered important

RQ2: Who gets to be involved in defining what sustainability, or sustainable development really "means"?

After doing this research, I believe that this is actually one of the more important questions to answer. I do believe that the working group is primarily interested in targeting and approaching people who are either supportive of their efforts, or willing to invest and become project partners in the woody biomass project. I think that individuals

or organizations that would strongly oppose the working group's efforts have been left out of the stakeholder outreach process to minimize the potential for negative feedback and potentially disruptive and damaging public comments.

I found evidence for this during my participant observation, when it was said that it wasn't necessary to engage the "radicals" and that the political process would take of those voices anyway. However, and I think it is important to bring up this point up - there are sometimes practical reasons for stakeholders being approached late, or not even at all. One of the respondents in my own stakeholder analysis, for example, said that sometimes he is just too busy and doesn't have the time to engage with everything that is going on locally in relation to environmental protection efforts. As someone who conducts outreach efforts himself, he said that sometimes it's just hard to find the time. So unless finding the time is built into the grant proposal in the first place, finding all of the stakeholders for such a project is very complicated, but to be socially just, needs to be addressed, to ensure that people who might have an interest in commenting or sharing their points of view about a topic get a chance to do so. In some ways, although I don't think that the lack of responses in the working group's stakeholder analysis is because the five members weren't able to contact people, I do think that sometimes the number of people who do get approached and interviewed varies depending on how easily the various identified stakeholders can be approached and asked questions.

That there are practical reasons that limit the number of stakeholders who are approached is not surprising. But perhaps the more important question to ask is whether this failure to engage more people is a manifestation of the structural limitations to

carrying out the mandate. Why isn't there enough time? Most often because not enough time and resources have been allocated to do the job, and while this may not be intentional it could certainly be viewed as the outcome of structural forces that limit the options for change or challenge to existing practices.

RQ3: What are the challenges of defining sustainability, or sustainable development, in Oregon?

I do think that there are many challenges in terms of coming to agreement about sustainability and sustainable development in the particular community in which the working group's project is taking place. Historically the community has had an active grass roots political movement and a supportive population, which is used to making its voice heard when it comes across things that it doesn't like. I do think that it is, and will continue to be, a real challenge for the working group to move ahead with the woody biomass project given the fact that woody biomass would have to be removed from federal public forest lands. There is too much history between the logging industry and environmental groups for the latter to simply agree that because woody biomass is fuel made from renewable resources that extraction and processing won't leave negative environmental footprints. In a way, it almost seems that the working group doesn't want to take up the volatile question of what sustainability means, because it could potentially throw them off an already tight timetable and could possibly undercut the economic drive that seems to be at the heart of the project.

RQ4: Can an environmental conflict resolution model, in combination with perspectives on collaborative public management and democracy, provide guidelines and insights into

what went right, what went wrong and how this process could be brought more in line with both environmental and democratic concerns?

After using these two models to evaluate the working group's efforts, I have come to the conclusion that the working group might have been better off if it had decided to involve more critical voices early on in the process. I think that the secrecy and unwillingness to be more public about the group's efforts will come back to haunt the group's efforts in the future. There is already some evidence of this in the local media, where opponents of woody biomass utilization have submitted highly critical editorial pieces about the working group's efforts. Had the group been more open in the first place to involving more people, they could perhaps have avoided some of the backfire but also kick-started a more comprehensive dialogue about sustainability and sustainability in relation to woody biomass and woody biomass utilization. I think building trust between various organizations is critical if we are to be able to move forward with more sustainable solutions. I found it more helpful to use collaborative public management and democracy as a normative framework against which to evaluate the working group's efforts. I think the working group's efforts so far leave a lot of room for improvement. They could certainly be more inclusive and open to comments from a wider audience and set of stakeholders. I think that the working group also needs to be more open about what it is that it's trying to achieve. Given the way the group is moving forward with multiple projects and continuous requests for funding from grant distributing sources, I have the impression the feeling that the group is more interested in chasing grants than being interested in having a dialogue about some very serious and complex issues that cannot be addressed by piecemeal solutions, or a project here and a project there.

The models add other dimensions for analyzing the process, but I'm not sure whether they are dimensions that the working group - the parameters of the grant, the creation of this grant initiative - want to have taken into account.

At the same time, the working group's efforts shouldn't only be criticized. What they are trying to do is not easy given the environment in which they work. These are very complex issues and with limited funding and resources, it's not easy to create an environmentally responsible and just industry from scratch. In that sense, the working group should get credit for asking questions that might otherwise have been ignored if the idea of sustainability hadn't been part of the focus of their investigations.

Lessons for Practice

The working group does not operate in a vacuum. The working group has to follow certain rules to be able to attract funding from grants, as well as when proposing projects to entities that have the power to allow or deny requests. I think one of the ways that the working group could align itself more with sustainability and sustainable development practices would be to try to break out of the cycle that promotes business as usual.

This is clearly not easy, especially when you consider that doing this and being successful would mean altering people's perceptions about the proper ways of organizing and planning the way society functions. However, I do think that someone needs to break down the barriers and be willing to take on some of these complex discussions. If no one tries, then it will continue to be business as usual and we will continue to have quick fixes to complex problems that will likely not be successful in the long term.

Recommendations for Future Research

Rather than spending too much more time trying to figure out how an organization frames sustainability or sustainable development to avoid opposition while attracting support, I would recommend that more research efforts be focused on finding out how to enable people to engage in complex discussions without creating situations where people are unable to move forward in productive ways because of gridlock. How do we engage people in discussions about these issues, given the differences people have, especially ideological differences?

Personal Reflections About the Project

A research project never exists in a vacuum, nor does the researcher's rationale for doing a particular case study remain fixed. I think that I've discovered several important aspects of doing research during this project. One of the things that was difficult in terms of initially getting this project off the ground was how to develop research questions that were not too broad but at the same time allowed some room for general observations about a process. While I think that it was important for me to define my project in terms of criteria, and to narrow it down given the complexity of the topic, it also made it difficult to develop a project that could realign itself and develop in relation to a dynamic process (that I only got partial glimpses of).

I do think that the data and the types of information gathering tools that I chose to some degree reflect this difficulty of creating a research project with certain parameters when the objective is to try to understand a dynamic process. For example, in looking back at this project, I am not sure whether the "independent stakeholder" analysis ended

up contributing all that much, because the actions of the working group in a way already illustrated what I was trying to achieve through this particular part of my research, namely that the stakeholder outreach effort wasn't very important to the group and that it more or less seemed to be carried out to meet grant requirements. However, it's hard to change ones research approach given time and resource constraints.

Another element that clearly affected the outcome of this project was my relationship as an intern with the working group. While I had access to the inner workings of the working group (at least to some degree), I was always in a situation of uncertainty as to how to relate to individual working group members, my own research and the work that I did as an intern with the group. More specifically, I had a personal commitment to the process as an intern but at the same time I was an "independent" researcher trying to make sense out of a messy process. I always felt that I had to be careful about the way I framed questions to working group members, or ways that I collected information, and it became something that I spent a lot of time thinking about.

To some degree, I even think that my relationship with the working group prevented me from being as effective as I could, because I always had to consider my involvement with the group before taking any actions.

Another component that added to my somewhat strained situation as an intern and researcher was the fact that my wife and I just bought a house in the area, and I didn't want to put my future job prospects in jeopardy by doing anything that could potentially anger the working group. The fact that any one of the working group members will have easy access to this thesis once it is done, also caused some restrictions in terms of what

information and how information was presented. This is to some degree illustrated by the fact that my respondents and the working group have been kept anonymous throughout.

While the findings of a research project like this may not be specifically applicable to other situations, I do think that this project can serve a useful purpose in showing people who may already be, or are thinking about becoming involved in a collaborative process, some of the things that they may want to be aware of as their involvement increases. For example, someone who considers joining a collaborative effort may find useful information from this project about the messy nature of such an effort. Others who are potential opponents of a particular collaborative process may glean some insight in terms of how they might want to position themselves in relation to a project to achieve their goals and objectives.

APPENDIX A

STAKEHOLDER OUTREACH INTERVIEW SCRIPT

Interview name:

Date:

Contact name:

Organization:

Position:

Phone:

Email:

BIOMASS BASICS

1. What has been your prior experience, if any, with biomass utilization?

2. What is your general perspective on biomass utilization?

OPPORTUNITIES

3. Do you think that biomass utilization can provide positive benefits to our community and natural resources? If so, please describe.

ISSUES AND CONCERNS

4. Do you have any concerns or barriers about biomass utilization? Do you foresee any issues that would need to be addressed to be successful?

TECHNOLOGY

5. Are there any technologies or approaches that you think are more viable or appropriate for our region than others?

PARTICIPATION

6. Are you interested in participating in local or regional collaborative efforts around biomass utilization with local feedstocks?

7. Would you like to be kept informed of this on-going effort? If so, how?

8. We are seeking a broad base of participation. Are there others that you would suggest we talk to?

INTERESTED IN…

9. Are there particular aspects about woody biomass utilization that you would like to learn more about?

ADDITIONAL QUESTIONS

10. Is there anything else you would like to add that I have not touched on?

APPENDIX B

INDEPENDENT STAKEHOLDER INTERVIEW QUESTIONS

QUESTIONS

1, How long have you been interested in, or been working on issues related to sustainability?

2, If you are employed, how long have you been working in your current capacity?

3, What is your educational background?

4, What is your expertise in relation to issues of sustainability?

5, How did you become interested/involved with environmental issues and issues of sustainability?

6, What motivates you to continue your work in this area?

7, What do you consider to be the "pros" and "cons" of using woody biomass to produce cellulosic ethanol?

8, What obstacles/opportunities/potential conflicts do you think there are in relation to using woody biomass to produce cellulosic ethanol?

9, What, if anything, do you think is not being talked enough about in relation to woody biomass?

10, Are there any other issues related to the use of woody biomass to produce cellulosic ethanol that you would like to elaborate on here? If so, what are they?

APPENDIX C

WOODY BIOMASS DEFINITIONS

Woody biomass: The trees and woody plants, including limbs, tops, needles, leaves, and other woody parts, grown in a forest, woodland or rangeland environment, that are the by-products of forest management.

Woody biomass utilization: The harvest, sale, offer, trade or utilization of woody biomass to produce bioenergy and the full range of biobased products including lumber, composites, paper and pulp, furniture, housing components, round wood, ethanol and other liquids, chemicals and energy feedstocks.

Source: U.S. Forest Service

APPENDIX D

WORKING GROUP MEMBERS

Respondent A: Heads up a public county economic development agency and has previous experience running a commercial TV station.

Respondent B: Works for a nonprofit organization that focuses on sustainability. Respondent B's primary expertise is in developing and organizing collaborative processes, primarily with forest-related stewardship contracting initiatives.

Respondent C: Works for a nonprofit organization that focuses on small-business development and workforce training activities. Respondent C has previously worked in the timber industry.

Respondent D: Respondent D works for a nonprofit that focuses on cooperative style business development in rural communities throughout the Northwest.

Respondent E: Represents a major Northwest-based environmental organization. Respondent E also has a background in environmental policy, advocacy and education, according to that organization's website.

APPENDIX E

IN-DEPTH INTERVIEW GUIDE

1. Tell me about the evolution of the working group from when it was first initiated to now. How has it changed and why?

2. What is the current focus of the working group?

3. Do you think the working group has been successful so far? If so, why?

1. What is the working group's decision making structure?

2. What is sustainability, and what does it mean to you?

6. How would you define sustainability?

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