ACCESS VS. IMPACTS

A COLLABORATIVE ASSESSMENT OF OHV USE IN YOLO COUNTY

A Thesis

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by

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by

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Abstract

of

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Off Highway Vehicle use is an increasingly popular recreational activity in the United States. Off Highway Vehicles, or OHV's, are a class of vehicles that are not legally registered to drive on a public road. People enjoy riding OHV's on both public and private land for a variety of reasons including hunting, farming, competition or recreation. Yet OHV's also tend to create public controversy from the impacts of their use. In Yolo County, OHV use is a policy concern because the activity is popular with residents but often conflicts with private property rights and can adversely impact natural resources. This thesis will offer a conflict assessment of the current situation regarding OHV use in Yolo County. The purpose of this assessment is to determine the ability of Yolo County to conduct a collaborative effort to address this policy issue. I drew upon background research, review of public documents, as well as interviews with individuals involved with or affected by OHV use as the main sources of data for this investigation. The results of this assessment show that a public collaboration to address OHV related issues in Yolo County is not advisable at this time. However, there are aspects of collaboration that may be used by Yolo County to help move OHV policy forward. Additionally, the thesis suggests strategies that may be more generally helpful in disputes involving environmental concerns and access to public lands.

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TABLE OF CONTENTS

	Page
Ac	knowledgmentsvi
Lis	st of Figuresix
Ch	apter
1.	INTRODUCTION AND BACKGROUND1
	Off – Highway Vehicles: Popularity and Problems4
	Natural Resource Concerns8
	OHV Use in Yolo County10
2.	LITERATURE REVIEW
	Collaborative Policymaking14
	Barriers to Collaboration
3.	THE ASSESSMENT PROCESS - METHODS
	The Process
	Interviews
	Professional Standards
4.	RESULTS
	Stakeholders36
	Key Factors
	Cultural Significance40
	Impacts
	Resources
	Access
5.	CONCLUSION48
	Recommendations
Re	ferences 58

LIST OF FIGURES

Figu	res	Page	
1.	Interview Questions	29	

INTRODUCTION AND BACKGROUND

Off Highway Vehicle use is an increasingly popular recreational activity in the United States. (CA State Parks, 2009) Off Highway Vehicles, or OHV's, are a class of vehicles that are specifically designed to drive off paved roads. These vehicles include motorcycles, all terrain vehicles and other types up to full size trucks. People enjoy riding OHV's on both public and private land for a variety of reasons including hunting, farming or ranching, competition or just for the fun of it. The increase in OHV popularity, particularly OHV use on public land, has both its supporters and detractors. Land managers in Federal, State and Local agencies must balance the popularity of the activity and the revenue it brings with the environmental impacts and infringements on other land uses. These considerations make for important land use decisions and can involve or affect a variety of stakeholders.

OHV use in Yolo County, California is a complex issue, full of cultural aspects that are distinct to the community involved. Yolo County is a mostly rural county that is comprised of many individual landowners, including the local, State and Federal governments. Many residents ride OHV's on their own property for work and play, while many more are invited to do so by landowners. Most, however, ride on public land.

In Yolo County, OHV use in Putah and Cache Creeks generates the most impact to private property and natural resources but represents a cultural norm in the community. Riding OHV's, or participating in any number of other recreational activities in the

creeks is legal, but the private properties that lines them restrict access. Many people have grown up riding in the creeks and do so in a respectful manner. Other riders leave environmental and property damage at every opportunity. A complicated set of laws allows for public access to the waterways of the U.S. and prevents the County from placing restrictions on the type vehicle allowed in some creeks. (Weiser, 2012) Based on my observations as a land manager in Yolo County, I believe OHV use is an important public policy issue that deserves serious consideration from all concerned parties.

Thesis Question

Collaborative policy making is a growing style of governance that seeks to address public problems by building diverse groups of interested parties and encouraging them to work together towards actionable solutions. Many see collaboration as an essential tool to helping solve society's most complicated challenges because it seeks to include the input of all groups or individuals affected by a policy before it is written. Formal collaboration has been used successfully in the past to help governmental agencies resolve disputes about land use and natural resources management. Off – Highway Vehicle use on public land is one policy issue that collaboration has helped resolve successfully, but many questions still exist about the popularity of collaboration within governmental agencies and the likelihood of participation from various groups.

For my thesis project I conducted research about what brings people or groups into a collaboration. More specifically, I conducted a preliminary assessment for a collaborative process, similar to an assessment conducted by an organization like the Center for Collaborative Policy before engaging in a full collaboration. The assessment

was for Yolo County and the purpose was to assess the ability of the County to sponsor a collaborative process with a group of stakeholders to address the public policy issues surrounding OHV use.

While the overall goal of my project was to produce a final product that resembles a professional assessment for a formal collaborative process, it is important to realize that this thesis is also an academic paper. The central question I explored was how initial stakeholder engagement might influence the outcome of a collaborative effort. I used interviews with stakeholders, as well as collaborative professionals to answer this question.

The information gained from the completion of this project is valuable because it applies to any agency or organization trying to address OHV use through public policy. The rural setting and culture of Yolo County is similar to many parts of this country and OHV use is a common public policy issue. As is highlighted in the assessment, examples of successful collaborations on the issue of OHV use exist. It is likely that organizations will use collaboration again in the future to help resolve OHV related issues. The information I found regarding stakeholder engagement is applicable to any such collaboration.

Moreover, the findings of this assessment are important because they reveal the need for an even larger public discussion about access, and the impacts of access.

Stakeholder interviews showed that the issues with public access and property rights are central to local debates involving multiple forms of outdoor recreation. Collaboration as a policymaking tool should be an option for any such discussion. This assessment

includes recommendations to Yolo County on how it might best position the Parks Division to engage in a public collaboration on these issues.

Methodology

Using the framework of a professional assessment, I conducted interviews and background research in order to gauge the likelihood of success for a possible collaborative effort. Overall, I completed eight stakeholder interviews, one interview with a collaborative professional and two interviews with Yolo County staff. I used participant responses to assess the general mood regarding OHV use in the County the idea of collaboration. This paper also used historical data including meeting agendas, minutes and past public comments to assess the ability of stakeholders to work together. I aimed to use this combined data to make a judgment regarding OHV policy in Yolo County, as well as draw inferences about how to carry out stakeholder engagement.

Off-Highway Vehicles: Popularity and Problems

Off-Highway Vehicles represent an increasingly popular form of outdoor recreation in the U.S.. Motorcycles, small four or six wheel vehicles, jeeps and full size trucks are all examples of popular OHV's. These vehicles collectively make up an outdoor activity that is growing at a rapid rate. Between 1998 and 2008 OHV use in California grew by 150%. The California Department of Parks and Recreation manages an OHV Division that operates several large riding facilities on public land. In 1998 the total attendance at these parks was approximately 1.5 million riders for the year. By 2008 that number increased to 4.5 million riders, representing a significant increase in

ridership at the eight State Parks OHV facilities. (CA State Parks, 2011) These numbers represent a cultural shift in the way millions of American enjoy the outdoors.

Many different kinds of Americans enjoy riding OHV's. This broad based popularity accounts for the rapid increase in OHV use over recent years. According to CA State Parks (2011), families with young children are a growing segment of OHV users at their parks. This finding underscores why OHV use is so popular in California: it is an activity the whole family can do together, and the enjoyment of OHV use is passed from generation to generation. OHV registration in California first became significant in the early 1980's. (CA State Parks, 2011) In the thirty years since then, two new generations grew up and they now share the trails with those early pioneers. These riders find genuine enjoyment from their activity and find it as a way to connect with nature and each other.

The numbers of OHV riders in the U.S. make the activity a reasonable subject of study by sociologists. Such research shows that OHV riders report that developing a connection with nature is by far the most important benefit they receive from riding. (Mann & Leahy, 2009) OHV use takes place, generally, in rural or wild settings due to the nature of the activity. Off-Highway Vehicles are just that, vehicles designed specifically to run off road on trails and through backcountry. This type of activity inherently places participants in natural settings. Many people who enjoy being outside ride OHV's as a way to access nature and gain experiences not available in the more urban areas where most people live. (Mann & Leahy, 2009)

While people cite a connection with nature as the primary benefit they receive from OHV use, a connection to one's self is also identified. Riders feel a sense of accomplishment and enjoyment form the activity and see it as a very personal experience. Riding can be very physically demanding, depending on the vehicle and the setting. Riders enjoy the physical workout that riding gives them and connect that experience to feelings of feeling refreshed and having a sense of accomplishment. (Mann & Leahy, 2009). Riders also enjoy the sense of community that comes from riding OHVs. (Mann & Leahy, 2010) Groups of OHV riders have formed locally and nationally as a way to share their experiences and work together to promote the activity. OHV riders report feeling like part of a community and enjoy making connections with other riders.

As a result of the popularity of OHV use, riders spend a significant amount of money on a number of items related to the sport. The most obvious examples of the consumer costs of participating in OHV use is the purchase of a vehicle and personal safety equipment. These costs can range from a free hand me down to many thousands of dollars. A new off road motorcycle from Yamaha, a popular manufacturer, can range from \$1500 to \$8500 depending on the size and features. (Yamaha web site, 2012) The personal safety equipment required by many states also represents a considerable expense for riders. Helmets, glove and goggles are often required equipment for riders at OHV parks and on public trails. (CA State Parks OHMVR web site 2012) A helmet can cost between \$100 and \$600 alone. (rockymountainatvmc.com 2012)

A study by Mann and Leahy (2009), reported that in the State of Maine, OHV related retail sales rose by 574% between the years of 1992 and 2002. They quoted a

source that estimated direct and indirect economic activity generated by OHV us in Maine in 2007 was \$230 million. The Arizona State Parks Department, in a 2003 report, estimated the total economic benefit to the state from OHV use to be \$4 billion dollars a year. (AZ State Parks, 2003) The current economic recession has put a stop to this kind of astronomical growth in spending, but significant resources are still being spent on OHV's. CA State parks notes that OHV registration has leveled off from its previous pattern of growth, but has not declined. This is important for the agency to understand because the revenue to support the OHV division comes largely from their registration fees. While OHV registration numbers may not be climbing anymore, the number of vehicles registered each year is still quote high, with well over a million such vehicles on the books in California. (CA State Parks, 2011)

The numbers involved with OHV use are important because they help us understand the high value OHV users place on their activity. Not all OHV users spend high sums of money, but many do, and it represents a commitment to OHV use that is easy for most people to understand. The large number of dedicated OHV riders means that a high demand exists for places to ride. The CA State Parks OHV Division manages eight parks located throughout the State. These parks cover several thousands of acres of public land that is managed in a variety of ways. The parks provide natural settings, as well as highly manicured tracks and obstacle courses. (CA State Parks, 2011) All of these attractions make a great riding experience for the visitor, but they also represent the varying intensity of land use demanded by OHV's.

Natural Resource Concerns

By its very nature, OHV use places serious impacts on the environment where it occurs. Off Highway Vehicles are often loud, powerful, gasoline burning machines that were specifically built to take the rider over rough terrain. In doing so, these machines can impact wildlife, water and air quality and move significant amounts of soil through erosion. (US Forest Service 2005) In 2006, the U.S. Forest Service identified OHV use and other forms of "unmanaged recreation" collectively as one of the four major threats to the lands they manage. The impacts of OHV use are measurable, and they are often the source of conflict between riders and groups who work to protect natural resources. (U.S Forest Service, 2005)

Several academic studies exist on the impacts of OHV use on the natural environment. The effects of OHV use on the health and well being of wildlife is one area of concern. The effect of OHV use on songbird nesting success is one example of this kind of study. In a study conducted at an OHV park in Northeastern California, researchers found that bird nesting success and species abundance were lower near OHV trails that those at a distance of at least 100m. (Barton & Holmes, 2007) On the other hand, a similar study also conducted in California found that the abundance and success of American Marten birds were the same in OHV areas and areas where their use is prohibited. (Zelinski, Slauson & Bowles, 2008) Yet another study conducted in California and Nevada found that OHV use stressed the development of the Western Fence Lizard. This study was highly technical and measured the fluctuating asymmetry of the head scale patterns of lizards to determine developmental stress. Higher

asymmetry was determined to be an indicator of stress in lizards found close to OHV trails. (Tull & Brussard 2007)

This back and forth seems typical of the literature on wildlife impacts as scientists attempt to measure the impacts of OHV use in established areas as well as ones newly opened to riding. An impact of OHV use that is less in dispute is that of increased erosion in riding areas. Erosion is the movement of topsoil away from its natural setting, often into waterways. Erosion presents a significant environmental problem because it reduces the amount of soil available for plants and decreases water quality by producing sediment in streams and rivers. (USDA, 1996) OHV's cause erosion when their tires contact the ground and displace the dirt underneath them. If the soil is moist, the erosion may be limited to the ground. On dry trails, however, soil moves on the ground and through the air in significant amounts. (Padgett, Meadows, Eubanks & Ryan, 2008) Soil particles in the air present respiratory health problems to humans and can reduce a plant's ability to photosynthesize when built up on the leaves.

Considering the immense popularity of OHV's and the impact those users put on natural systems, the land management decisions regarding OHV use are important.

Multiple agencies and groups are involved in land management of OHV areas. These organizations are important to identify because they have the land use experience that Yolo County does not. Aside from CA State Parks, several other states, the U.S. Forest Service and Bureau of Land Management all operate OHV parks. In addition to governmental agencies, citizen groups maintain many trail systems on public and private land. These groups use their websites to highlight the responsible enjoyment of OHV's.

Relating back to the reasons why people ride OHV's, groups portray an attitude of stewardship for their riding areas. (Iowa OHV Association, 2011)

OHV Use in Yolo County

Yolo County is located in Northern California, along the western edge of the Sacramento Valley. The County is characterized by highly productive agricultural land from which comes a number of important food and seed crops. Four cities hold the majority of the County's over 200,000 citizens: Davis, Woodland, Winters and West Sacramento. The vast majority of the over 1000 square miles of land on Yolo County is unincorporated and rural. The County is bordered by the Sacramento River in the East and Interstate 80 to the South. The River is an historic transit route that was the location of the first settlements in what is now the County. (Yolo County Website, 2012)

Interstate 80 is a contemporary transit corridor that links Yolo County to the San Francisco Bay Area, Lake Tahoe and all points east. This location, combined with the presence of a word class university (the University of California at Davis), multiple home grown corporations, and extremely productive natural resources makes Yolo County an important contributor to the cultural and economic health of California.

Like every local government in the country, however, Yolo County has been racked by budget cuts and staff reductions because of the current recession. Between 2007 and 2011, the number of full time positions in Yolo County government fell by 24% (408). (Yolo County Budget 2011) Over that same time total budget expenditures fell from a high of over \$350 million to just over \$300 million. Unemployment in both the private and public sectors sits at over 14%, much higher than the State and Federal

averages. (Yolo County Budget 2011) These numbers give a stark indication of the fiscal health of Yolo County and its ability to provide services to county residents.

The County experienced a leadership change in the administrator position in 2010. Subsequent changes at the department level have been made throughout the county in order to best deal with the massive revenue and staff reductions. Despite this new leadership, department budgets are lean and staff stretched to cover the workload once shared by many. A review of the most recent available County budget shows serious declines in appropriations for each department. The operating status of the Parks Maintenance and Planning Department is important to understand because they are the lead group dealing with OHV's in Yolo County.

Interestingly enough, the department's appropriations rose between 2008 and 2011, but the spending on salaries and supplies dropped dramatically. This oddity is due to an as yet unexplained large gain in fixed assets in 2010. The unit was reorganized from a true Parks Department in 2009 to a unit under the umbrella of General Services. The budget notes a general fund savings of over \$500,000 for the 2010 – 2011 budgets due to the elimination of four positions as a result of reorganization. The director of the former parks department and the senior parks planner were both lost in this downsize. The loss of a senior administrator and planner could be a problem for the County as it moves forward with OHV issues because current staff are obviously overworked and could lack the expertise needed to make certain decisions.

The County Parks Unit is responsible for maintaining 17 parks that cover almost 3,000 acres of diverse terrain throughout the county. In addition to these lands, the

Natural Resources unit is also responsible for several thousand acres of relatively unmaintained land. All this vacant land presents great opportunity for local riders to enjoy their sport. OHV use is a cultural norm in Yolo County and the use of these vehicles to cross public and even private land is common. Trails carved out by repeated OHV use criss cross various properties and can be seen running along both Putah and Cache Creek. In addition to recreational uses, OHV's are used extensively for farming and ranching throughout the county. These vehicles are an indispensible tool for operations of all sizes and can be used for used for everything from herding cattle to spraying herbicides.

Considering the popularity of OHV's in Yolo County society, it is not surprising that their use has been a topic of public debate for years. Some have even proposed the creation of an OHV park in the County. (J. Santos, personal communication February, 16, 2012) Members of an advisory panel to the Parks Department identified OHV issues as they drafted a strategic Parks plan in 2004. Comments from landowners identified unauthorized OHV use on their land as a concern and County staff identified OHV use as a source of impact on public land. The final draft of the Parks strategic plan did not set any specific goals for action on OHV issues, but it did identify the possibility of an OHV park sometime in the future. This document shows that the County is at least aware of OHV issues and that local citizens are concerned enough to voice their opinions about the topic in a public forum. The combination of the popularity of OHV use and the rural setting of Yolo County has produced a public policy issue that needs to be addressed. OHV use on private and public land is a cultural norm in rural Yolo County and the

individuals that rides OHV's feel a strong attachment to the activity. OHV use, however, produces impacts on the land, and on the property of public and private entities. Yolo County, through the Parks Division, is the primary entity responsible for dealing with OHV use issues within their borders. The county, however, is ill equipped at this time to undertake any major new policy agenda. This finding is an important part of my ultimate recommendation regarding the potential for collaboration, and I will return to it later in this thesis.

LITERATURE REVIEW

There already exists a significant amount of academic literature about collaborative policy making. The general topic is broad and the literature encompasses public governance, corporate governance, scientific and educational collaborations. We can use this literature to better understand the concept of collaboration and apply that concept to the policy issue at hand. In addition, several examples exist of agencies and the OHV community working collaboratively in order to develop policy. These case studies will provide a background on stakeholder interactions and outcomes regarding OHV policy and could provide a template for a collaborative effort by Yolo County.

A discussion of the barriers to collaboration is also important to this assessment. Collaborative alternatives seek to address problems with public discourse by improving interaction between citizens and government. (Leach, Pelkey & Sabatier, 2002) Despite the prospects, participatory systems have not generally evolved into real public policy measures for many reasons. Government and citizens are both to blame for this. Collaborative policy making efforts can be stalled or fail for a number of reasons and it is important for Yolo County to understand the barriers to true collaboration in order to avoid wasting resources on an unsuccessful process.

Collaborative Policymaking

Collaborative policymaking is an increasingly popular form of public participation in the United States. (Hardy, Lawrence & Grant, 2005) Collaboration differs from traditional forms of public participation because it seeks to involve all

relevant stakeholders in a process that fosters trust and dialogue. Collaborative policy making has been heralded as a dynamic new way to bring parties together in order to solve large public policy problems. (Hardy & Phillips, 1998) Public collaborative processes similar to the one that is the focus of this assessment are not new, however. Several examples of these collaborations exist as case studies, including collaborations regarding OHV use. (U.S. Forrest Service, 2005) These cases studies, as well as academic literature, show us that collaboration has certain distinct characteristics. We must identify and understand these characteristics before we can make any decision in Yolo County regarding collaboration.

Diversity of stakeholders is a basic and critical element to all public collaborations. (Innes & Booher, 2004; Faerman, McCaffery & Slykes, 2001) The foundation of a collaborative effort is the assumption that every important stakeholder is at the table. Without key players involved, a collaboration may yield unsuccessful or unwanted public policy outcomes. (E. Lascher, personal communication, August – December, 2011) In addition to having a diverse set of stakeholders, it is important that individual participants represent actual groups and organizations. Without the accountability that comes from being involved in a larger and clearly identifiable cause, there is little incentive for stakeholders to follow through on commitments made during collaboration. (Center for Collaborative Policy, 2011)

Stakeholders must be accountable for their actions within a collaborative effort, but the entire collaborative process is eventually accountable to the public. All public collaborations must have a clear set of goals, as well as a transparent process for

participants and any policy actions. (Buetler, 2005) Transparency with the process is important so that participants understand what, exactly, they are agreeing to when they join a collaboration. (Center for Collaborative Policy 2011) In addition, it is important that any material produced by the collaboration is transparent in its accounting of each participant's support for the final product. (D. Booher, personal communication, September 13, 2011) A clear justification of all policy recommendations should also be included in the final product, as well as a description of all stakeholders who do not agree with the outcome and why. (Center for Collaborative Policy 2011)

The goal of public collaboration is to develop broad based consensus, through a diverse group of stakeholders, on issues that affect a large number of groups and individuals. Collaboration is different from other forms of public participation because it identifies the diverse interests at play and attempts to reconcile any differences between those interests before a policy is set forth. (Leach et al. 2002) Participants must reconcile their differences in order to reach consensus on each decision the collaboration makes and keep moving the process forward. Case studies from the U.S. Forrest Service show that collaborative solutions to OHV issues have been more successful than traditionally developed policies. Policies built using broad based consensus were more effective and lasted longer than policies handed down from agency staff. (Forrest Service, 2005)

OHV case studies show us that consensus regarding certain factors is necessary before moving forward with policymaking. The precise definition of the problem being addressed should be agreed on by the group before engaging in an OHV collaboration.

(Chavez and Fitzhenry 2005) It is important to realize that consensus is not limited to

only the final recommendations. Participants must reach consensus on each decision the group makes, including decisions regarding meeting process and logistics, in order to ensure buy in at all levels of the collaboration. (L. Buetler, personal communication, November 8, 2011)

In order to reach consensus, open and honest dialogue must be the norm for all interactions between participants. Agencies often form collaborations when previous, traditional, forms of public discourse have failed. (Center for Collaborative Policy, 2011) The public policy issues addressed by collaborations are often contentious and complicated with well-established interests on all sides of the issue. The State of Arizona cited just these reasons for establishing an OHV Inventory Partnership in 2000. Arizona designed the program to inventory all OHV trails in the state and help ensure coordinated OHV policy over land managed by several different agencies. (Fisher & Bond, 2005) While the sponsors of this collaboration felt it generated positive results, the authors noted that a major obstacle to success was to find consensus on several technical issues.

As stated before, it is the goal of a public collaboration to gather these different groups together and have them reach a consensus on a particular issue. Moving the dialogue of a collaboration from positions to interests is an important step towards reaching consensus. (Booher, 2011; Buetler, 2011) In order to reach consensus, however, ground rules for open, honest and respectful dialogue are set and followed throughout a collaboration. (Center for Collaborative Policy, 2011) Open and honest dialogue is not a natural occurrence for many participants in a public collaboration because the issues

being discussed often have a long and divisive history behind them. (Forest Service, 2005) Professional mediators use a number of tactics like concept mapping and breakout sessions to help initiate productive dialogue between suspicious groups.

In a show of commitment to collaborative policy making on OHV issues, land managers and OHV users came together in 2005 for a National OHV Collaboration Summit. (Forest Service, 2005) In a talk to that group, CCP mediator Lisa Buetler outlined the standard ground rules used to help establish honest dialogue among stakeholders. Common courtesy, commitment to the process and humor are essential to developing a comfortable environment where all participants feel safe and respected. The rules encourage participants to honor each other's time and points of view by being attentive and not judging each other's motives. These rules are the same for any collaboration, regardless of the size and scope. (Buetler 2011, Booher 2011, Lascher 2011)

The literature suggests that consensus is most often reached by promoting interest-based conversation within a collaboration and taking the time to explore the interests of all participants. (Innes & Booher, 2004) In collaboration, we draw a distinct difference between the positions a stakeholder has on an issue, and the interests served by holding that position. Most participants will enter a collaboration by stating a particular position they hold on the issue at hand. (Booher, 2011) Stakeholders may say, for example, that they are against any new housing development in a certain area. This is their position on the issue of housing development. What this statement does not tell us, however, is why these individuals feel that way and what they are trying to protect by

halting development. We want to know what interest they serve with a position against development. (Booher, 2011)

Barriers to Collaboration

Collaborative policymaking seeks to build policy from the ground up with deliberative participation by multiple stakeholders of an issue. As discussed before, diversity of stakeholders, authentic dialogue and actionable results are all characteristics of a collaborative process. Despite the benefits to this type of public discourse, the use of collaboration by government to set policy is not yet widely adopted. Social, economic and political factors all play a role in how collaboration is used and when. (McCafferty, Faerman & Hart, 1995) The values and norms by which individuals and organizations operate are also factors in how collaboration is used. The literature identifies barriers to collaboration that arise through multiple aspects of policy and participation.

The traditional nature of public participation constitutes a major barrier to collaboration. According to Innes and Booher, the process of most public meetings is problematic and leads to a "perverse" form of public discourse. The time limit placed on speakers at a public meeting is usually limited to 2 – 3 minutes. This limit applies to all speakers, regardless of knowledge on a topic or the degree to which they might be affected. (Innes & Booher 2004) Not only time, but scope of comments is limited as well. Research conducted on the public meeting process shows a tendency of officials to disregard the non-technical aspects of a policy issue. (Chess & Purcell, 1999)

important consideration. Many public policies are highly complex and technical. The amount of expertise required to truly understand an issue and participate is limited to professionals and the impact of public comment is often minimal. (King, Feltey & Susel, 1998)

Policy knowledge, as well as time, organization and familiarity with public participation are all factors that affect an individual's impact on a collaboration.

Evidence shows that public meetings of all kinds favor certain participants over others.

Opponents of a policy are more likely to attend a meeting than proponents and there are distinct demographic differences between participants and the general public. (Chess & Purcell 1999) Money and social standing also come into play as well when considering participation. Homeownership, for example, is connected to increased participation. (Campbell & Marshall, 2000)

Strict ideology is another barrier to collaboration. Extreme policy views are the norm for traditional public debate, but are counterproductive to true collaboration.

Collaborations seek honest dialogue and an acknowledgement of interconnectedness between participants. (Hardy, Lawrence & Grant, 2005) Ideological arguments avoid both aspects and instead rely on "shock value." The other threat to collaboration posed by ideological arguments is a threat to "real" collaboration. Diversity of participants is a key to real collaboration. The Advocacy Coalition Framework states, however, that collaborative efforts are more likely to be entered into by participants who share policy views and ideologies. (Henry, 2011) This phenomenon is followed by another one called the Resource Dependency Theory. The Theory states that participants enter into a

collaborative effort based on their perceived influence or power over other participants, not the ability to create sound policy. (Henry, 2011) Both ideas represent barriers to collaboration because they are examples of false or un-authentic dialogue.

Another barrier to collaboration is the scarce availability of resources. Most public organizations operate today under very austere budget conditions. Agencies and other organizations must often decide whether to devote resources to a collaboration or keep them in house. (Tschirhardt, Christensen & Perry, 2005) Organizations that enter into collaboration may consider their influence when they do, but they will almost always consider the impacts a collaboration may have on their identity. Branding is the concept of presenting a distinct and uniform appearance as an organization. This concept is very important to all organizations because it effects how the organization is perceived by the public, employees and politicians. Tschirhardt et al. (2005), identify branding as a barrier to collaboration because the two concepts have divergent goals. A brand is meant to single out an organization and make it distinguishable amongst the rest. Important to any brand is the service provided by the organization and that of its affiliates.

Public organizations work hard to build an identifiable brand and few are willing to give up control the brand image. Collaborative policy making requires an agency or organization to give up that control and be willing to sign its name on the results of a process, whatever the outcome may be. (Tschirhardt et al., 2005) Policy or agency effectiveness is an important consideration for most public administrators. If an organization is connected to an ineffective policy or project the brand may suffer. Lubell (2003), finds, however, that perceived policy effectiveness is closely related the belief

systems of those passing judgment. This is a barrier to collaboration because the effectiveness of collaborative policy may be negatively perceived simply due to the topic and some brands (organizations) will want to avoid that scenario.

Perhaps the most significant barrier to collaboration, however, is a lack of desire to participate by the public. In their book, *Stealth Democracy*, Hibbing and Theiss-Moore (2002), argue that most Americans do not want to participate in the Democratic process. The public is alienated, they argue, because they are so often left out of the final decision. Most forms of public participation are patronizing to the citizens because their concerns are not adequately considered. The authors contend that most people do not care to participate and most who do end up generally offended by the process. They conclude by proposing less public participation and not more.

Collaboration as a policymaking tool presents many opportunities for agencies and organizations of all kinds. Regarding OHV use, collaboration is a well-established form of policy making that is embraced by several State and Federal agencies. The benefit of finding a consensus based solution is that the resulting policy tends to last longer and be more effective. Collaboration, however, is a delicate balance of interests and individuals. A number of barriers to meaningful collaboration exist due to the high stakes nature of some public policies. One goal of this assessment is to identify any barriers to collaboration on OHV issues in Yolo County.

THE ASSESSMENT PROCESS – METHODS

A preliminary assessment constitutes an essential component of any collaboration. In a formal collaboration, participants, politics, time and resources are all assessed for their ability to meet the previously identified criteria for a truly collaborative effort. A designated assessor completes such work, typically a professional mediator or collaborator, I will be the assessor for purposes of this thesis. The assessment process is critical because the goal of an assessment is to determine if successful collaboration is possible. This is accomplished by conducting research and talking with potential stakeholders and analyzing the desire and ability of all sides to come together in collaboration. The assessor also rates the ability of participants to dedicate the time and resources needed to sustain a collaboration is also considered. (Center for Collaborative Policy, 2011)

The size, scope and political considerations of many public collaborations require a well thought out and vetted process before most groups will buy in. Collaborative policy making presents an intriguing alternative to traditional forms of public participation because it can lead to more successful public policy. As described earlier, though, collaborations have a number of ways in which they can fail. Failed collaboration can be worse than no collaboration at all because participants can lose trust and patience with the process. (D. Booher, personal communication, March 18, 2012)

Assessment provides us with the opportunity to prevent failed collaboration by

considering the participants, their alternatives, and the resource availability to conduct collaboration.

The idea of assessment is well established in collaborative policymaking.

Traditionally, assessment has been used in the fields of conflict or dispute resolution. The professional use of assessments can be traced back to the early 1970's. (Susskind & Thomas-Larmer, 1998) Use of assessment has continued to gather favor in professional policymaking circles since then and was officially adopted as a best practice method by the Society for Professionals in Dispute Resolution. (Best Practices, 1997) The actual process may take on a number of forms, both formal and informal.

The assessment itself is an information gathering exercise designed to provide insight on multiple important considerations. The process is meant to identify stakeholders, their positions on the issue, whether or not collaboration is possible and under what conditions. (Center for Collaborative Policy, 2012) This is a short but critical list of considerations to try and address in an assessment. Aside from helping decision makers understand the option of collaboration, assessments provide opportunities to benefit the issue generally. One benefit of conducting a full assessment is that the assessor has the ability to educate possible participants about the issue and process. (Susskind, McKearnan & Thomas-Larmer, 1999)

Interviews present a unique opportunity for the assessor to talk one on one with stakeholders and address each individual's questions and concerns. The process of assessment also has the ability to begin to build relationships between participants, if conducted correctly. (Susskind et al., 1999) The assessor is the first representative of a

possible collaboration. This individual has the opportunity to build trust with participants during the assessment that may help determine the success of collaboration.

The following are conditions identified as necessary for initiating collaboration.

These points should be addressed in an assessment. (CCP Governance Report, 2008)

- The key parties are willing to participate and have the authority to collaborate.
- There is the potential for mutual gains in the issues
- There is no other arena in which the parties are likely to obtain a better solution independently.
- There is evidence of mutual understanding regarding the issues.
- There is a reasonable balance of the power among the parties.
- The parties anticipate working with each other in the future.
- There are external pressures to address the issues.
- Time and resources are available for a collaborative process.

The Process

Collaborative assessment has a general structure that is identifiable and has been repeated in several professional settings. My assessment followed the same general structure as is used by the Center for Collaborative Policy and other professional dispute resolution organizations. This structure is widely distributed and can be found on the Center's website.

The first step in collaborative assessment is to conduct preliminary background research on the policy topic. The second step is to conduct interviews and gather

information from individuals and groups involved in the policy. That information is then combined with the background research and analyzed in order to try and answer the broad questions. The results of that analysis will yield either a proposed collaborative design or a recommendation for alternatives. The final step in the assessment process is to prepare a report for the convening organization and present the findings. (center for Collaborative Policy, 2011) Case studies show us that this information is often presented in a format that follows a traditional research structure of: introduction/background, methodology, findings and conclusion with recommendations. (CCP Governance Assessment, 2008)

Preliminary background research should cover a number of aspects of the proposed collaboration. The following section explains the general assessment process, as well as how I used such guidelines for the present study. (Susskind, McKearnan & Thomas-Larmer, 1999; CCP Governance Assessment, 2008)

1. Negotiate Contract Cost and Language

All professional assessments include contractual language between the convening agency or organization and the assessor. This contract should cover the cost of assessment services, as well as the specific scope of the assessor's role and any confidentiality agreements. I have signed no such contract for this assessment because no client exists. My role in the assessment is author and assessor. Confidentiality was addressed in a successful Human Subjects application to the CSU Sacramento PPA Department an on an individual basis with each participant. The application is available in the appendix.

2. Conduct Background Research

Background research should first be conducted in order for the assessor to familiarize himself with the policy issue. The assessor should look for information that may give insight and background on the area and the possible parties involved.

Stakeholders will also be identified during background research. For the purpose of the present assessment, I have conducted background research on OHV use nationally and locally, as well as Yolo County's current fiscal condition. Several stakeholders were identified by using local media sources and researching past public comments on OHV topics.

3. Contact Stakeholders and Conduct Interviews

The person conducting the assessment should identify the relevant stakeholders. Once stakeholders are identified during background research they must be contacted and solicited for interviews. Stakeholder interviews should be conducted immediately following the preliminary research. Generally, stakeholders are initially identified in the research, but a specific goal of the interviews can be to find more stakeholders. A detailed explanation of the interview methods I used for this assessment will be presented in the following section.

4. Analysis

The assessor should gather information from interviews and background research, combining and analyzing the data in one distinct section of the report. The author should highlight and analyze significant results for their bearing on a possible collaboration.

5. Conclusion and Recommendations

All findings from research and interviews are summarized and conclusions drawn. This final section will include the final conclusion of whether or not to conduct a collaboration, as well as significant findings relevant to the process and recommendations for further research that can be done. Recommendations will also include any actions the authors deem necessary to prepare an agency or organization for a future collaboration.

Interviews

Stakeholder interviews are a critical component of this and any assessment. For the purpose of this project, I conducted several interviews with individuals identified as relevant to the discussion. As discussed earlier, the importance of including all stakeholders in a collaboration is critical to its potential success. To be included, stakeholders must first be engaged in some way and offered a chance to participate in a policy discussion. The most likely first point of contact with these potential stakeholders is during the assessment phase of the collaboration. A goal of the assessment process is to identify and engage stakeholders in order to gauge public support for a collaborative process. The stakeholder interview is perhaps the most powerful tool we have to assess the possibility for collaboration.

An assessor must make several considerations in order to conduct a successful stakeholder interview. For this project the first step was to draft several interview questions for potential stakeholders. Interview questions should be clear, concise and limited to no more than ten total. (Lascher, personal communication, March 12, 2012) The questions, like all other aspects of the assessment, should do work for the assessor

and seek relevant information. I developed nine stakeholder interview questions for this project. Each question had multiple parts or sub-questions to elicit detail. The sequence of the questions was designed to gain background information first, then more information about the policy topic. It is important to build from one question to in order to give the participant context about the issue and the idea of public collaboration before they are asked about specifics. (Booher, 2012) The interview questions are as follows:

- 1. Please explain how you are involved with or effected by recreational off highway vehicle use in Yolo County.
- 2. If you ride an OHV recreationally, do you ride on public land, private land or both? What kinds of interactions have you had with individuals or groups you have encountered while participating in OHV use?
- 3. Do you have feelings about the recreational use of off highway vehicles (OHV's) in general and how strong are those feelings?
- 4. Regardless of your current feelings regarding OHV use in Yolo County, are you interested in engaging in a dialogue with other groups or individuals about OHV use in Yolo County? Have you ever discussed your feelings, ideas or desires regarding OHV riding in Yolo County with a group or individual who did not agree with you? Would you want to have that discussion again?
- 5. Have you ever been involved in a public discussion regarding a specific policy topic or legislative action? If so, what was your role in that discussion? Was the discussion adversarial or collaborative in nature? * Was any action taken based on the substance of the discussion? How was your experience?
- 6. Are you interested in being directly involved in a collaborative public process to designate, permit and build an OHV park located within Yolo County? Is your interest personal, professional or both? Are you willing to provide a written commitment of your willingness to participate in such a collaboration?
- 7. Can you suggest any groups, organizations or individuals that should be involved in a process like the one described above? How should they be approached about their potential involvement? How can Yolo County ensure that all relevant stakeholders are identified and approached about a collaborative process?
- 8. If you believe the county should pursue a collaborative process to designate, site and build an OHV park, would you actively lobby for such a collaboration to take place? If you disagree with the idea of such a collaboration would you actively lobby against it?

* If you have been part of a formal collaboration on public policy, who asked you to participate? Did the way in which you were approached affect your decision to join the collaboration? Did it affect your attitudes or actions regarding the collaboration?

The purpose of the stakeholder interviews conducted for this project was twofold. The first purpose was to meet the criteria for a high quality assessment identified in the literature. The second purpose of the interviews was to identify stakeholder feelings about their initial engagement with the process. It is during the initial interview solicitation that possible participants are often first made aware of the collaborative project. This point of contact is critical and falls under the responsibility of the professional conducting the assessment. The initial interaction between participants and any individual representing a collaborative process has the potential to set the tone for the rest of the project. Questions five and seven both seek to identify stakeholder engagement information.

In addition to the questions, other aspects of the stakeholder interview must be considered. The length of the assessment interview should be no longer than thirty minutes. (Booher, 2012; Lascher, 2012) Assessment interviews are designed to illicit general information about the issue and are not meant to be exhaustive discussions on the topic.

Not only is the length of the interview important, but so is the location. The stakeholder interview process has been identified as setting the tone for the following collaboration. A neutral location is important to help participants feel confident the process is not biased and in order to promote full disclosure. Collaboration professionals and scholars identify location and setting as critical to participants' perception of a

collaboration. (Susskind, McKearnan & Thomas-Larmer, 1998; Booher 2011) The location and even the physical setting of the actual interview could bias the results if the participant feels intimidated or compelled to answer a certain way.

Stakeholder interviews should not, for example, be conducted in settings that would allow other participants to see or hear individual responses. As discussed earlier, confidentiality is an important aspect of collaboration. Stakeholders must also feel confident that their responses will not have negative repercussions for them professionally or personally. This is a very important consideration with the divisive nature of many public issues. Even a very preliminary process such as this project has the potential to cause negative repercussions for participants. Great care should be taken to meet participants in a neutral location.

For this project interviews were conducted in a variety of settings. Every attempt was made to interview participants in a neutral location, but this was not always possible due to the time and resource restrictions for the project. Participants were not asked to answer questions anywhere they did not feel comfortable. Some participants were interviewed in a setting that could have affected their responses: it was necessary to interview some individuals at their place of work.

Stakeholders who are involved in the OHV industry comprise the group that posed the biggest potential for this situation. I "cold called" on these individuals at established businesses in an effort to yield personal contacts. Participants may have felt compelled to answer a certain way, even if they were comfortable giving the interview, if co-workers were aware of the process. Phone interviews also presented a significant

problem in this regard. As the interviewer, I could not be sure of the actual setting when an interview was conducted by phone. Any number of situations could affect the response an individual gives during a phone interview and the researcher most likely would not be able to document or appropriately account for the bias. This project used one phone interview in order to produce a significant number of responses.

Limited resources also present an issue when it comes to recording interviewee responses. Professional assessments will often employ at least two people to conduct even the preliminary interviews for a collaboration. One person conducts the interview while another records the process in writing. The benefit to this setup is that the interviewer is allowed to concentrate on the participant and attempt to create a dialogue. Responses are written and not tape recorded on purpose. Participants are less likely to answer with full disclosure if they feel their answers are recorded because they fear the recording may someday present a liability. (Buetler, 2011; Susskind et al., 1999; Booher, 2011)

However, I did not have the resources to have a collaborator in the interviewing process. In addition I decided not to use a recording device, but instead relied on written notes taken during each interview. This situation dictated that I needed to balance the flow of the conversation with the need to record the important information in order to conduct the most productive sessions possible. Scholars and professionals realize that all processes will not be able to follow all identified best practices. Interviewers working alone are encouraged to focus on the interactions they have with participants rather than the details of their answers. (Susskind et al., 1999) This is important because the

purpose of the interview is to elicit genuine responses that provide insight into the policy problem. The interviewer should focus on that dialogue in order to generate such responses.

Professional Standards

An important final consideration is the professionalism with which an assessment is conducted. The assessor is responsible for a great deal of important, often private and potentially harmful information. That individual must keep that information secure and appropriately protect the identities of all involved. Furthermore, the assessor has the responsibility not to distress, harm or make participants uncomfortable during the interview process. (CSU Human Subjects) The CCC developed the following list of Professional Standards for Conducting Assessments:

- Neutral professionals conducting assessments work closely with requesting parties
 to design the assessment, identify potential interviewees and produce a written
 product, but final decisions are left to the neutrals.
- 2. No interviewee will be quoted in any written or oral form by the author/s, unless explicit permission is given by interviewee. Also, the author/s will be careful in their description of trends to protect non-attribution. All notes from the interviews are kept confidential and will not be seen by anyone other than the professional neutrals conducting the assessment analysis.
- Interviewees will be given the opportunity to confidentially discuss issues and provide insights that will remain confidential and will not be discussed in the Briefing Memo or anywhere else.

4. The author/s takes full responsibility for the content of the Final Briefing Memo.

In order to ensure I met these standards, the interview questions and process I developed were vetted by the PPA Department. The following description was submitted and accepted by the PPA Human Subjects Committee on 2/10/2012.

It is not likely that a written consent will be obtained from all participants. I will ask for verbal consent from each participant. In doing so I will explain the nature of the study and assure them that no record of participants' names will be kept. Names of participants will only be kept for the possibility of follow up if a process moves forward at the request of the participant. This option will be explained at the beginning of each interview. No link will exist in the study or my records of participants to their comments. All this information will be provided up front with every opportunity for participants to not engage in the process. I will also remind participants mid-interview that they may decide to stop participating at any time. For the informal interviews with professionals, I will seek verbal consent to document their input and use in the paper as needed. These interviews are different than the stakeholder interviews because they do not use the same question list. These discussions will be free flowing in order to let the professional speak to the parts of my paper or the professional process they feel to be important. Like the stakeholder interviews, however, I will keep all comments anonymous in the thesis. I will keep a record of professionals and their comments linked in my records. This is to help me work with them individually over time on the content of the assessment. Professional mediators/facilitators are experienced in sharing information without giving up confidentiality of sources. It is my opinion these professionals understand the implications of information sharing and know where to draw boundaries.

The process of conducting an assessment for formal collaboration is a thorough and deliberate one. The assessment judges the real world situation of a particular policy issue against an identified set of characteristics for successful collaboration. Each step in the assessment process was designed by professionals and academics to provide information about the likelihood of success for a given collaborative process.

Background research and interviews are the two primary tools that an assessor has gain

the information necessary to make a determination. I conducted extensive background research and conducted several interviews as part of my assessment for Yolo County.

RESULTS

The purpose of this assessment is to determine the ability of a local government to solve a specific public policy issue through collaboration. The prospective collaboration concerns the issue of Off-Highway Vehicle use in Yolo County. There are multiple aspects of OHV use that make it a public policy consideration in many parts of the United States. In Yolo County, OHV the major aspects of OHV use deal with culture, property rights and public access. Following the methodology presented earlier, I conducted background research in order to identify these aspects, as well as the relevant stakeholders involved. Background research included interviews, questionnaires and a review of public documents.

Stakeholders

Stakeholder identification was a primary goal of both the background research and the interviews. I identified several groups of stakeholders, as well as a number of individuals. I did not interview all identified stakeholders, but efforts were made to contact as many possible stakeholders as time allowed. In all, I conducted eight stakeholder interviews and retrieved one questionnaire. Like most public policy issues, the relevant stakeholder list was long and diverse.

The eight individuals I interviewed represent a majority of the relevant stakeholder groups, but not all, and some fit more than one category. Of the eight interviewees, three are landowners, two have worked in government, two are land managers and three ride or have ridden OHV's. The stakeholder interviewees were

beneficial to the assessment because they provided excellent information about OHV use and its various impacts. The interviews themselves, however, ended up taking a variety of forms, most less formal than the process defined in the previous chapter. Only two of the eight interviews were conducted in a formal, face to face setting. The other six interviews were conducted in a less formal fashion. Interviewees, as well as myself, were busy with little time to sit and meet outside of their regular schedule. As a result, interviews were generally short and informal. In most occasions, interviewees were able to give their answers to most or all of my interview questions in a few brief sentences.

The following is a list of the relevant stakeholder groups who should be represented in a collaboration sponsored by Yolo County regarding OHV issues:

- OHV Riders
- Rural Landowners, specifically those with creek side property
- Federal, State and Local government officials
- Local Law Enforcement and First Responders
- Tribal Members
- Natural Resources Managers

Individuals who were interviewed fall into one or more of these categories.

Only one of these groups, Tribal Members, was not interviewed for this assessment.

The idea of Tribal members as stakeholders was introduced late in this study and therefore I was unable to successfully make contact with a representative of the Native American community in Yolo County. I have limited professional experience working with Native Americans and know the culture to be somewhat closed. Understanding the

cultural differences between native and modern American societies is critical to working with Tribal members and it may take collaborative practitioners extra time to bring them on board a project. Tribal members are an important stakeholder to any land use decision in Yolo County because the Yocha De He tribe holds a substantial amount of land throughout the County. The Tribe alone farms over 7,300 acres and owns multiple businesses, including the Cache Creek Casino in Brooks, CA. (Yocha De He, 2012)

It is important to point out the distinction between interests and organized groups of people in the context of collaboration. While this assessment has identified several interests concerning OHV use, it has not been able to identify any particular group or organization that could represent these interests in a collaboration. As discussed earlier, identifiable organizations that can represent various interests are an important condition for any collaboration. Considering the policy issue of OHV use, the lack of such groups, and of clearly identifiable spokes people, has negative implications for a possible collaboration.

Another important note regarding stakeholders has to do with a technique discussed in the methods section. The idea of generating more contacts through stakeholder interviews was attempted but generally unsuccessful. The "snowball method" did not produce any participants for additional stakeholder interviews. The reason for this is my own inexperience with the process. During the stakeholder interviews, I did not take the opportunity to ask specifically for the names of other possible participants. The interview questions I used asked interviewees to identify other

stakeholders, and many did so only by general group, i.e. landowner or government official.

Key Factors

In the process of conducting this assessment several key factors emerged regarding OHV issues in Yolo County and the possibility of collaboration. Regarding OHV use in Yolo County, I identified three factors as critical to understanding and resolving the issue. These factors are:

- Cultural Significance
- Access
- Impacts

Regarding a possible formal collaboration between Yolo County and stakeholders two factors emerged as being critical to the successful implementation of such a process.

These factors are:

- Resources
- Representation

In order to successfully conduct a public discussion regarding OHV use in Yolo County, each of the above factors must first be understood in the context of the debate.

Once the meaning or significance of each factor to each participant is understood, meaningful dialogue on the issue can take place. For the purpose of this assessment, each factor will be represented and analyzed for its possible impact on a collaborative process.

The first three factors will be analyzed to demonstrate their importance to the context of

the debate surrounding OHV use. The last two factors examined to determine how they might affect the process of a future collaboration. To do this we will discuss the relevant stakeholder views concerning each factor to identify areas of agreement that may be leveraged in the future. The paper will also consider each factor in relation to the previously stated characteristics of successful collaboration.

Cultural Significance

The cultural significance of OHV use to those who ride in Yolo County cannot be overstated. Interviews and background research show that people of all types engage in OHV activity because they feel it is their way to connect with and enjoy nature. Multiple types of OHV riders have been identified and multiple uses for Off Highway Vehicles have been identified. Information on the cultural significance of OHV use in Yolo County was gained from personal interviews and the review of several public documents regarding OHV or other land uses.

Three of the eight interview respondents said that they ride or have ridden OHV's in Yolo County. Of these three participants, one has grown up in Yolo County and has ridden OHV's in multiple locations, including Cache and Putah Creeks. Participants reports a strong connection with the landscape of Yolo County that was formed through years of riding OHV's, especially in and around the creeks. One individual continues to ride OHV's today and does so for professional and personal reasons. The participant was very clear in the interview that any future action taken by the county that deals with OHV use must be done with support from the riding community. OHV users feel they have a

right to participate in their chosen activity and only a massive, and unrealistic, amount of enforcement and prosecution could stop them from doing so.

The cultural significance of the issue is also apparent in public comments made in various forums. Yolo County Supervisor Duane Chamberlin, a large landowner who admits to having dealt with OHV trespass, was quoted in an article regarding OHV use as saying that it is a "good recreation for kids," and that he did not want to "ban fun." (Edwards, 2010) Supervisor Chamberlin's sentiments were echoed by County staff that deal with OHV users and impacts day to day. The Parks Department understands there is a strong desire for legal riding areas and feels they have a mandate to try and provide those opportunities to County residents. (Santos, 2012)

A respondent to Supervisor Chamberlin's article also explained that he rides OHV's with three generations of his family and is a responsible representative of the OHV community. Public comments to government actions, including grants awarded by the CA State Parks to mitigate OHV damage to public land, also give evidence of the cultural importance. Two individuals who commented on a grant awarded to mitigate OHV damage in Cache Creek presented themselves as part of the OHV community. These individuals also made strong arguments against the use of State money to mitigate for OHV use, but with somewhat adversarial tones and statements that show a definite source of contention.

Considering the cultural significance already reported, it is not hard to believe that emotions on the subject may run high and the issue could be quite contentious in a public forum. Evidence of this contention exists in the same documents that show the cultural

State Parks grant request made strong statements that drew a clear line between the requesting organization and "OHV enthusiasts." The writer claimed that the scope of the grant was inappropriate and that it was dishonest for the organization to ask for money generated from OHV users while, "discouraging Yolo County from developing legal OHV opportunities." Another respondent questioned the budget for the grant and claimed that some items, "showed no relevancy to OHV use." (CA State Parks, 2011) Regardless of the validity of these comments, they show that at least some OHV users are watching for actions that they perceive as threats to their community and responding sharply.

Impacts

Another important aspect of the OHV issue that emerged from my research is the impact of OHV use on people and places. OHV use is a popular activity, but it represents significant physical, social and economic impacts that can be felt well outside the OHV community. As discussed above, the problem of limited access causes some OHV users to inflict property damage when they ride. This damage has a direct economic impact on the landowner who must pay for the repairs. Damage can also be done to agricultural crops or livestock when OHV riders and landowners are not working together.

The County incurs an economic cost similar to private landowners when OHV users have caused property damage to gates, fences and facilities. Multiple interviewees reported feeling frustrated and even conflicted over this issue and how to react. They feel violated when damage is done to their property, regardless of the amount, but they do not

believe that the behavior represents all OHV users and do not want to overreact to the problem.

The unfortunate part is that the economic impacts and access issues of OHV use cause social impacts. Landowners do not want to punish all OHV riders, but they want to keep their fences intact. OHV riders want to ride legally, but will trespass on private property. Local government feels responsible to both parties but unable to fully satisfy either side. These scenarios have led to social impacts that are evident in the comments mentioned above. One interviewee has dealt publicly with the OHV issue in the past and feels they still carry a certain undeserved reputation of being against the activity. These social impacts are important to consider because they may affect the eventual outcome of a collaboration.

The social impacts of the OHV issue deal with access and economics, but also with the environmental damages caused by OHV use. Three interviewees expressed concern over the environmental damage that is done by OHV use, including one who is an OHV rider. One participant in particular was concerned about the environmental degradation of Cache Creek and the surrounding areas due to OHV use. The participant also identified OHV use as being a major contributor to the erosion of State controlled levees along Cache Creek. Noise pollution from the engines of OHV's was also cited as a concern by interviewees.

Resources

Yolo County, like most local governments in California, has been dealing with budget cuts of one form or another for several years. As reported earlier, the Parks

Division has had severe cuts, including the loss of senior planning and administrative staff. The current Parks Associate Planner, Jen Santos, reports that the current situation leaves no room for the additional work necessary for collaboration. Specifically, the Parks Division is extremely busy administering a series of grants awarded several years ago, when staffing levels were higher. The administration of thee grants accounts for a significant amount of the Planner's time and the County stands to lose access to those funds of funds if this work is not done. The grant program, combined with the day to day requirements of managing 3000 acres of public space has the current Parks staff completely engaged.

As explained before, true collaborative policy requires a significant commitment from all participants, and specifically the sponsoring agency. Staff time is the single largest cost to every organization and it can be hard to justify spending public money on a process that does not guarantee any particular outcome. Other costs involved with a collaborative process include travel, administrative and public relations. It can also be hard to calculate the full extent of these costs before entering into collaboration due to the open-ended nature of the process. Considering austere fiscal situation in Yolo County, it is unlikely that any money will be spent on unnecessary items like a collaboration.

Regardless of the current fiscal situation, the County is interested in pursuing a public discussion about OHV use in the near future. The associate Parks Planner says that her office deals with 2-3 calls a week regarding OHV use, mostly from riders and landowners. It is clear, according to Ms. Santos, that the citizens of Yolo County have a

desire to ride OHV's recreationally and the Parks Division feels they have a mandate to try to provide that.

Access

OHV use is culturally significant and personally important to the people who participate in the activity. That activity, however, often happens in a setting of unclear rules and regulations. The question of access, who has the right to go where and do what, is another key factor at the heart of the OHV issue. Just as riding is important to many OHV users, private property rights are equally as important to landowners and governments. A major complaint of many landowners and government officials is that OHV users do not respect private property in their quest to gain access to areas deemed legal for public use.

The critical part of the access issue has to do with the two creeks, Cache Creek and Putah Creek. According to CA State and Federal laws, the public has a right to use a "navigable waterway" of the State or Country. A navigable waterway is traditional description of a waterway that could be used for transport and trade, all or part of the year. (Santos, 2012) Both creeks carry this designation and the law does not preclude any specific forms of use. Under the law, members of the public have the right to ride OHV's in the creeks if they want to. The big question, however, is how OHV users get to the Creeks if they are bordered by land off limits to public use.

The importance of access was clear to me in all of the interviews I conducted.

Every respondent had a personal story of dealing with access issues regarding OHV's.

Respondents who ride told me that they have knowingly crossed property lines illegally

in order to access a legal riding area. These riders were not proud to have trespassed, but they explained that did not cause damage and that they would have virtually no riding opportunities otherwise. Landowners were even more eager to talk about access issues and OHV users.

Three of the four landowners I spoke with have had property damage inflicted by OHV riders. No landowner reported extensive riding on his or her property, however. They instead showed me evidence of fences being cut and tracks being made in order to cross through the property and access other areas. All of the landowners seemed to think only a small number of riders cause the damage, but they fear any increase in such activity. Another issue regarding access is that there seems to be little ability to enforce and prosecute trespass crimes against landowners.

The Yolo County Sheriff's Department requires that landowners submit a letter to the Department that clearly states all persons who are allowed to be on their property. Those individuals must also carry such a letter on them when alone on the property and display it when asked by law enforcement. This is a cumbersome and unrealistic policy that results in many landowners not filing letters with the County. According to interviewees, the Sheriff's Department cannot arrest and the DA will not prosecute trespassers on land for which the owner has not submitted a letter. The Sheriff's Department has confirmed this statement and said they have little ability to enforce trespass laws when there is no clear victim. (Sgt. K. Zeiler, personal communication, December 16, 2011)

The issue of access is not unique to OHV use in Yolo County. Fishing, boating and hunting are activities that face access issues similar to the ones described above. The importance of access and broader dialogue based on multiple activities will be discussed in the final chapter.

CONCLUSION

Off Highway Vehicle use is a popular and growing recreational activity in the United States. People who ride OHV's report many benefits to the activity, including that it brings families together, connects people to nature and even provides a good workout. Across the Country, OHV use has increased tremendously and continues to stay strong, despite the most recent economic recession. OHV riders can take their various types of vehicles to a number of Federal, State and local areas where riding is legal and encouraged. In California, the State Parks System operates a number of OHV parks throughout the State. These parks provide for a number of diverse riding conditions in areas that are managed to provide safe access while protecting wildlife and private citizens.

The popularity of OHV use spills out of these designated riding areas, however, and onto various other types of public and private land. In Yolo County California, OHV use is a popular and culturally significant activity that takes place in a variety of setting, both legal and illegal. Yolo County does not have an OHV park, like the ones described above. It does have a tremendous amount of rural landscape and two major creeks running across the width of the County. These conditions have created a situation that provides plenty of opportunity for people to enjoy riding, but very few rules or policies to keep the activity from negatively affecting others. Currently, several public policy issues are involved with OHV use in Yolo County including; land use policy, property rights and public access.

The purpose of this paper was to conduct a preliminary assessment for a collaborative process between Yolo County and relevant stakeholders to address OHV issues throughout the County. To do this, I followed a general process for conducting professional conflict assessments. The actual process followed for this project was based on a template for conflict assessment developed by the Center for Collaborative Policy. The Center has a long history of successful assessments and collaborations similar to the one proposed in this paper. CCP staff also helped form the structure and content of the assessment through interviews and lectures.

So far this assessment has provided background information on the policy issue and setting, introduced relevant literature to help define and understand collaborative policy making, explained the methods developed to conduct research and shared the results of that research. This final chapter will provide a definitive conclusion, based on the information collected, on the ability of Yolo County to enter into collaboration regarding OHV issues. The assessment will then provide recommendation for the County on how best to move forward, based on this conclusion.

It is the conclusion of this assessment that Yolo County should NOT move forward with a collaborative process to address OHV issues throughout the County.

Yolo County lacks the resources to devote to a full collaborative process

Based on the findings of this report, Yolo County does not have the staff or resources to dedicate to a full collaborative effort. There also exists no clear representation for most of the stakeholder groups identified in the research. Any

collaboration attempted now would fail based on these two factors alone. Without additional time and money, the County cannot meet both its current obligations and those required of true collaboration. Even if Yolo County had the resources to devote to a collaborative process, the fundamental aspect of clear stakeholder representation is lacking.

 No clear stakeholder representation exists for the most important group – OHV riders

Regardless of the fiscal situation at the County level, a successful collaboration cannot exist if a clearly defined representative does not exist from each relevant stakeholder group. As discussed in the methods section, several conditions must be present in order to start a collaborative process. The first condition deemed necessary to initiate a collaboration is that key parties are willing to participate and have the authority to collaborate. During the course of this assessment, I have found no evidence of an organized group of OHV riders. I have found even less evidence of OHV riders wanting to engage in a public discussion regarding their activities.

• OHV riders have a strong incentive to not participate in a collaboration.

The current situation in Yolo County favors OHV users because they are able to ride OHV's in a number of areas with little or no consequence. OHV use in the County is as popular as ever but there still exists no designated area to ride. Instead, OHV users continue to ride on public and private land, including the creeks. If a collaborative

process were to occur, there is a good chance that more restrictions would be placed on OHV use in order to address the concerns of landowners and others.

A secondary conclusion reached by this Assessment is that initial stakeholder engagement is important to a collaborative process and that not all stakeholders should be approached in the same way.

According to collaborative professional David Booher (2012), as well as several stakeholder participants, the initial engagement of stakeholders is critical to the eventual outcome of a collaboration. My research shows that stakeholders in a public collaboration who represent governmental agencies and large private companies should be engaged in a formal manner. These participants should be invited to a collaboration with a formal written invitation. It is important that the appropriate decision makers within an organization be aware of a collaboration and allowed time to consider the offer. For other stakeholder groups, a formal invitation may not be appropriate.

OHV riders, for example, may not entertain a written invitation to collaborate if they do not know the person behind the project. Without the professional experience with public policy that many government officials have, some groups may feel intimidated or skeptical of a collaborative process. In these cases, collaborators should use a third party whenever possible to provide an introduction and credibility. If someone involved in OHV use introduce the idea of collaboration to a group of riders it may be better received than a letter from the government. My results show that it is

important for collaborators to be aware of the cultural aspects of stakeholder groups in order to promote successful collaboration.

Recommendations

Despite the conclusion presented above, many opportunities exist for Yolo

County and all relevant stakeholders to move the discussion about OHV use forward.

Formal collaboration requires resources and conditions that just do not exist in Yolo

County at this time. Aspects of collaborative policymaking, however, can be
incorporated into the thoughts and actions of individuals from all relevant stakeholder
groups. All parties should make efforts to build a framework for future collaboration.

Specifically, Yolo County has to address the problem regarding representation before any
formal process is attempted.

1. The first recommendation is for Yolo County to set a loose, but formal, timeframe for a public policy discussion regarding OHV use.

The citizens of Yolo County deserve to know how their public officials are dealing with policy issues, and what limitations exist. It is reasonable for County Parks Staff to put off a major effort on OHV use until they meet prior obligations. The volume of calls to the Parks Division alone shows the importance of the issue to County citizens. Yolo County needs to be proactive about OHV issues and communicate that local officials understand the importance of the situation. The division should publish a timeline for the completion of those responsibilities, along with a general outline for the phasing in of OHV related staff work.

Such a timeline does not have to be extremely detailed, nor should it lock any Division or Unit into a deadline they cannot meet. It should, however, portray a clear message that OHV policy is important and will be a Staff priority as soon as possible. Specifically, Parks Division Staff should have a basic answer ready for callers who ask how the County pans to deal with a given problem. A well thought out and consistent message regarding OHV use will benefit the County by providing credibility with other stakeholders.

2. Yolo County needs to address OHV use with a comprehensive policy approach

It is my opinion that OHV use should be considered in a comprehensive manner, at the County level, in order to address the various issues involved. Formal collaborative policymaking is not appropriate now, and may not ever be for this issue in Yolo County. OHV use can still be handled by County Staff and officials in a way that addresses the multiple concerns raised in this assessment. The impacts of OHV use and the concerns voiced by different stakeholders are all connected in some way. Any policy action taken by Yolo County regarding OHV's should be countywide and treat access, property rights and impacts as inseparable. As much as possible, OHV issues should <u>not</u> be dealt with on a case-by-case or regional basis.

3. Yolo County should act now to build a foundation for a future OHV collaboration

This assessment has identified strong relationships, trust and authentic dialogue as the foundations of true collaboration. According to County Parks Staff, interest from the public regarding OHV riding opportunities is consistent. The County needs to take

advantage of this interest and begin to build relationships with the very citizens who will be affected by a policy action. Every contact that a Yolo County employee has with the public is an opportunity to establish a positive dialogue about OHV use. I recommend the Parks Division take a small amount of time to establish a protocol for public contacts about OHV's. Specifically, 2 – 3 questions should be developed in order to help the County begin to collect contacts and information. A combination of questions and a statement of intent regarding OHV issues could help make the most of every contact with the public and show that the County is serious about addressing the issue. This strategy will also help the County identify accountable organizations and individuals to represent stakeholder interests in a collaboration.

4. Yolo County must consider multiple forms of outdoor recreation in any policy action regarding OHV use.

Stakeholder interview responses and the contents of a well timed newspaper article made it clear to me that the public policy issues surrounding OHV use are part of a larger issue involving multiple forms of outdoor recreation. Interviewees who hunt, fish and kayak in Yolo County, as well as one natural resources manager, identified these activities as similar to OHV use in regards to impacts and access. An article in the *Sacramento Bee* from March 25 of this year highlights a situation on Cache Creek in Yolo County where kayakers were causing impacts to private property just like those caused by OHV use. (Weiser, 2012) These impacts included cut fences and impacts to

vegetation from improvised access trails. Yolo County must address all significant forms of recreation and land use, not just OHV's, in any future policy effort.

The setting of a particular policy dispute will determine the scope of the policy response. The recommendations included in this assessment are based on the situation in Yolo County surrounding OHV use. Hoowever, they may also be applicable on a more general level to collaborations and land use discussions of all kinds. The recommendation for Yolo County to include multiple forms of outdoor recreation in any future policy proposal is sound advice for any community dealing with land use issues. Rather than identify a single form of recreation and treat it as an independent policy issue, as this paper does, policy makers should address land use in a more comprehensive fashion.

A policy proposal that includes multiple land uses will be a more efficient use of government time. Communities like Yolo County do not have the resources to constantly react to land use issues by creating new policy. Comprehensive policy proposals have the potential to be successful and sustainable because they attempt to include a larger part of the community. Local efforts, however, can only go so far without help from other levels of government. Local policy regarding outdoor recreation must be coordinated with State and Federal policies about public access, specifically regarding access to waterways.

The size and scope of the policy debate surrounding land use policy coordination at all levels of government is almost overwhelming. As a policy professional and newly

minted MPPA, I find it hard to believe that such coordination is ever possible, given the constantly changing political environment in this Country. The political will and economic resources needed to sustain such a discussion do not exist. This does not mean, however, that government is completely tied up regarding these issues. The recommendation for Yolo County to take advantage of every contact and opportunity and slowly move forward with building trust and relationships applies to any agency or organization trying working in the public realm.

Whether a policy problem calls for a short or long-term solution, organizations must have clear goals and constantly work to maintain and achieve those goals.

Employees at every level should be aware of the policy goals of the organization and all forms of communication and outreach should be coordinated to ensure continuity and clarity of message. The idea is that even if no active policy work is being done by an organization, such as the case of OHV use in Yolo County, the public is clear about the timeline of when an action will be taken and the general scope.

Perhaps the most promising solution to the issue of access versus impacts can be found in the *Sacramento Bee* article about kayakers on Cache Creek cited earlier. Rather than working to solve a land use dispute over kayaker access to Cache Creek through public policy, stakeholders worked amongst themselves to identify the problem, each other, and a suitable solution for all involved. The results were positive. Kayakers now have a designated access trail to the creek, through private land. The kayakers, in turn, police and prevent other illegal access in the area. The landowner keeps the creek access

limited to a manageable area, kayakers minimize their impact to the land and new relationships were formed as a result. Regardless of the setting, similar outcomes should be the ultimate goal of any organization or community actions regarding OHV's, outdoor recreation and land use.

References

- Arizona State Parks (2003). Economic Importance of Off-Highway Vehicle Recreation to Arizona. Retrieved from:

 http://azstateparks.com/ohv/downloads/OHV Economic.pdf
- Barton, D., & Holmes, A. (2007). Off-Highway Vehicle Trail Impacts On Breeding Songbirds In Northeastern California. *Journal of Wildlife Management*, 1617-1620.
- Beutler, L. (2005, April 13). Collaboration 101. *National OHV Collaboration Summit*. Retrieved from: http://www.fs.fed.us/recreation/programs/ohv/collaboration.pdf
- California State Parks (2009). Off-Highway Motor Vehicle Recreation Division Strategic Plan. Retrieved from: http://ohv.parks.ca.gov/pages/25010/files/ohmvr%20strategic%20plan.pdf
- California State Parks (2011). Off-Highway Motor Vehicle Recreation Commission Program Report. Retrieved from:

 http://ohv.parks.ca.gov/pages/1140/files/ohmvr%202011%20report%20-%20final-web.pdf
- California State Parks (2012) Off-Highway Motor Vehicle Recreation Frequently Asked Questions. Retrieved from: http://ohv.parks.ca.gov/?page_id=26294#operate
- California State Parks (2012). Public comments web page Cache Creek Conservancy. Retrieved from: http://ohv.parks.ca.gov/?page_id=26553
- Chavez, D., Fitzhenry, R. (2005). California Off-Highway Vehicle Stakeholders Roundtable. *Off-Highway Vehicle use and Collaboration*. 29-33.
- Chess, C., Purcell, K. (1999). Public Participation and the Environment: Do We Know What Works? *The Center for Environmental Communication*
- Campbell, H., Marshall, R. (2000) *Public Involvement and Planning: Looking Beyond the Many to the One* (Sheffield, Department of Town and Regional Planning, University of Sheffield).
- Center for Collaborative Policy. (2011). Collaborative policy website. Retrieved from: http://www.csus.edu/ccp/collaborative/

- Center for Collaborative Policy, (2008). Assessment Report: Governance, Culture and Climate at California State University, Sacramento. Retrieved from: http://www.csus.edu/ccp/assessment/FINAL ASSESSMENT REPORT.pdf
- Edwards, J. (2010, January 19). Off-road vehicle ban eyed. *The Davis Enterprise*.
- Faerman, S., McCaffrey, D., & Slyke, D. (2001). Understanding interorganizational cooperation: Public-private collaboration in regulating financial market innovation. *Organization Science*, *12*(3), 372-388.
- Fisher, L., Bnd, K. (2005). The Arizona Off-Highway Vehicle Inventory Partnership. *Off-Highway Vehicle use and Collaboration*. 25-29.
- Hardy, C., Lawrence, T., & Grant, D. (2005). Discourse and collaboration: The role of conversations and collective identity. *The Academy of Management Review*, 30(1), 58-77.
- Hardy, C., & Phillips, N. (1998). Strategies of engagement: Lessons from the critical examination of collaboration and conflict in an interorganizational domain. *Organization Science*, 9(2), 217-230.
- Henry, A. (2011). Ideology, power, and the structure of policy networks. *Policy Studies Journal*, 39(3), 361-383.
- Hibbing, J., Theiss-Moore, E. (2002). *Stealth Democracy*. New York: Cambridge University Press.
- Innes, J., Booher, D. (2004). Reframing Public Participation: Strategies for the 21st Century *Planning Theory & Practice, Vol. 5, No. 4, 419–436, December 2004*
- Iowa OHV Association. (2012). Iowa OHV Association web site. Retrieved from: http://iowaohv.s702.sureserver.com/the-rules/
- King, C., Feltey, K., Susel, B. (1998). The Questin of Participation: Toward Authentic Public Participation in Public Administration. *Public Administration Review*. 58(4), 317-326
- Lauber, T., Stedman, R., Decker, D., & Knuth, B. (2011). Linking knowledge to action in collaborative conservation. *Conservation Biology*, 25(6), 1186-1194.
- Mann, M., & Leahy, J. (2010). Social capital in an outdoor recreation context. *Environmental Management*, 45(2), 363-376.

- Mann, M., & Leahy, J. (2009). Connections: Integrated meanings of atv riding among club members in maine. *Leisure Sciences*, 31(4), 384-396.
- McCaffrey, D., Faerman, S., & Hart, D. (1995). The appeal and difficulties of participative systems. *Organization Science*, *6*(6), 603-627
- Padgett, P., Meadows, D., Eubanks, E., Ryan, W. (2008). Monitoring fugitive dust emissions from off-highway vehicles traveling on unpaved roads and trails using passive samplers. *Environmental Monitoring and Assessment*. 144, 93-103
- Rocky Mountain ATV & MC (2012) Motorcycle Helmets web page. Retrieved from: http://www.rockymountainatvmc.com/d/11/Motorcycle-Helmets
- Society for Professionals in Dispute Resolution. (2012). Best Practices web page. Retrieved from: http://www.acrnet.org/Page.aspx?id=691
- Susskind, L., Thomas-Larmer, J., McKearnan, S. (1999) *The Consensus Building Handbook*. Sage Publications.
- Tschirhart, M., Christensen, R., & Perry, J. (2005). The paradox of branding and collaboration. *Public Performance & Management Review*, 29(1), 67-84.
- Tull, J., & Brussard, P. (2007). Fluctuating asymmetry as an indicator of environmental stress from off-highway vehicles. *The Journal of Wildlife Management*, 71(6), 1944-1948.
- USDA Natural Resources Conservation Service. (1996). Soil Quality Resource Concerns: Soil Erosion. Retrieved from: http://soils.usda.gov/sqi/publications/files/sq_two_1.pdf
- U. S. Forest Service. (2005). Off-Highway Vehicle Use and Collaboration: Lessons Learned from Project Implementation. Retrieved from: http://www.fs.fed.us/recreation/programs/ohv/CaseStudyReport.pdf
- U.S. Forest Service. (2005). National OHV Collaboration Summit Proceedings. Retrieved from: http://www.fs.fed.us/recreation/programs/ohv/CaseStudyReport.pdf
- U.S. Forest Service. (2006). Four Threats web page. Retrieved from: http://www.fs.fed.us/projects/four-threats/
- Vigoda, E. (2002). From responsiveness to collaboration: Governance, citizens, and the next generation of public administration. *Public Administration Review*, 62(5), 527-540.

- Weiser, M. (2012, March 25). California creeks, levees may be next battleground for public access. *The Sacramento Bee*, pp. 1A. Retrieved from:

 http://www.sacbee.com/2012/03/25/4364085/california-creeks-levees-may-be.html#storylink=misearch
- Yocha De He Wintun Nation. (2012). Land & Resources web page. Retrieved from: http://www.yochadehe.org/land-resources
- Yolo County. (2012). About Us web page. Retrieved from: http://www.yolocounty.org/Index.aspx?page=321
- Yolo County. (2011). 2010 2011 County Budget. Retrieved from: http://www.yolocounty.org/index.aspx?page=1843
- Yolo County. (2005). Yolo County Parks Master Plan: Working paper: Recommendations for Revising the Draft Plan. Retrieved from: http://www.yolocounty.org/index.aspx?page=1573
- Zeilinski, W., Slauson, k., Bowles, A. (2008). Effects of off highway vehicle use on the American Marten. *Journal of Wildlife Management*, 72(7), 1558-1571.