

CHAPTER 6

Introduction

State natural resource management agencies are now using institutional structures that employ positive incentives and the collaborative decision-making model to manage natural resources (EPA, 1996; Yaffee et al., 1996; Kenney et al., 1996; EPA, 1997; Koontz, 1997; Cortner and Moote, 1999; Kenney and Lord, 1999). These institutional structures are designed to improve upon environmental quality rather than to focus on achieving procedural objectives (Yaffee et al., 1996; Rosenbaum, 1998; Kenney and Lord, 1999). Collaborative management programs are now the most widely used alternative to the existing deterrence-based systems (Kenney, 1998). Yet, the ability of collaborative management to improve environmental quality is ultimately dependent upon the political and institutional factors that determine how “the needs of society and the environment are balanced” (Harwell, 1999, p. 584). This dissertation examined the political and institutional factors that influence: 1) Why states adopt collaborative management programs, and 2) How the actors evaluate the performance of their collaborative institution.

Existing research is limited in its ability to answer the questions guiding this dissertation because of design limitations and the reliance on single theoretical explanations. The existing studies either employ large descriptive samples of many collaborative institutions, or concentrate on sampling all of the participants within one collaborative group (Yaffee et al., 1996; Kenney, 1998, 2000; Wondolleck and Yaffee, 2000). These analyses help identify the management projects in most states, and are useful for understanding the common characteristics of collaborative institutions (Leach et al., n.d; Lubell, 2001). Because conclusions are based on surveys of primary contacts only, variation among different collaborative institutions is not captured, and the inferences are not reflective of all collaborative institutions (Hartig and Zarull, 1982; Cortner and Moote, 1999). Another design limitation of the existing studies is the limited variation in programs being studied. Many researchers argue that the analysis of collaborative groups in different collaborative programs is required to understand the management philosophy (Kenney, 2000; Wondolleck and Yaffee, 2000). This dissertation has addressed each of these limitations by: 1) selecting collaborative institutions that represent different types of collaborative programs, 2) randomly sampling collaborative institutions selected to control for the factors affecting the development of collaborative groups, and 3) surveying actors other than just the groups’ primary contacts. In addition to the design concerns, there were theoretical problems with much of the existing studies’ over-reliance on the *Institutional Analyses and Design* framework. This limits the generalizations of the

inferences made from existing research about collaborative management programs. As a result, the theories of transaction costs economics and subsystem politics were examined jointly in this dissertation.

Adoption of Collaborative Management Programs

Transaction costs do influence if states adopt collaborative management programs. In states where lower chamber turnover is greater, the legislature is less likely to adopt collaborative management programs. This suggests that commitment costs influence the ability of legislators to reach compromise. As a result, institutional turnover increases the chance that enacted policy preferences will be amended by future legislative coalitions (Horn, 1995). Additionally, the more control lower chamber presiding officers have, the more likely states are to adopt a collaborative management program. This implies that legislators are more likely to support presiding officers if gaining their favor is beneficial; it is also the reason why concentrating political power in the hands of presiding officers increases the chance of reaching compromise (Fiorina, 1989; Parker, 1996). As the number of local governments increases, the chance of adoption decreases because of the moral hazard problem (Moe, 1984). Finally, the more legislative rules there are limiting debate, the more likely a state will adopt a collaborative management program. This occurs because rational actors attempt to manipulate institutional rules for their own advantage (Riker, 1980, 1982). In terms of this dissertation, presiding officers are argued to use legislative rules to influence the decision-making costs associated with the legislative process – i.e., they use legislative rules to control the decision-making agenda (Kingdon, 1995).

The theory of transaction costs economics does not appear to be as useful for understanding state adoptions of collaborative management programs. To begin with, there is no empirical support that legislative uncertainty costs matter, but this may be caused by the lack of variation in the variable used to measure legislative uncertainty. Also, as the number of lower chamber seats in a state increases, so does the chance of adoption. This suggests that states with the largest legislative bodies are more likely to adopt collaborative management programs. This is opposite of what one would expect. Further, term limits appear to increase the chance of adoption, which is counterintuitive because term limits increase uncertainty costs. Yet, to measure the true influence of term limits, more time needs to pass because most of the states have only recently enacted the provisions. Finally, as the number of natural resource management employees increases, so does the chance of adoption. This is not what the theory of transaction costs predicts; however, this finding makes sense because many natural resource management employees now promote collaborative management as a means of decreasing stakeholder conflict, and increasing environmental quality (Cornett, 1995; Smyth, 1995; Cortner and Moote, 1999).

States are unlikely to adopt any new resource management program without the support of existing subsystem actors. This conclusion is based on the following results: First, the higher a state's civic environmental score, the less likely the state will adopt a collaborative management program. The measure of civic environmentalism applies better to mainstream groups, but they are the least likely to benefit from collaborative management programs (Lester, 1995; Boss, 1997). Second, the higher the level of educational attainment, the more likely a state is to adopt a collaborative management program.

Better-educated people are more supportive of environmental policy in general (Lester, 1980; Ingram et al., 1993), and are more likely to participate in resource management subsystems (Bosso, 1991, 1993). Thus, educated people are more likely to pressure legislators to adopt pro-environmental policies such as collaborative management. Finally, as per capita income increases, so does a state's chance of adoption [of what?]. This supports the argument that states better able to handle greater environmental responsibilities are more likely to adopt collaborative management programs (Ringquist, 1993).

The resource management subsystems in certain states are more likely to change than the subsystems in other states. This is important because the greater the propensity for subsystem change, the more likely a state is to adopt a collaborative management program. The larger a state's urban population, the more likely it is to adopt a collaborative management programs. People living in urban communities are more supportive of pro-environmental policies, which is why this finding is expected (Vig and Kraft, 2000; Kenney, 2000). Additionally, the greater the number of legislative chambers controlled by Democrats, the more likely a state is to adopt a collaborative management program. This is predicted because Democratic politicians are more supportive of environmental goals than Republican politicians (Dunlap and Gale, 1974; Lester, 1980; Kamieniecki, 1995; Rabe and Zimmerman, 1997). The opposite result is observed when controlling for state executive offices. Yet, one reason for this may be that executive turnover occurs much more often than change in the party control of state legislatures.

Evaluation of Performance of Collaborative Institutions

The theories of transaction costs economics and subsystem politics are also useful for examining the stakeholders' evaluation of the performance of their collaborative institutions. This is operationalized as the key actors' evaluation of the decision-making process used by their collaborative groups. The effects of the two theories are best understood in terms of how institutional rules, individual traits, and institutional characteristics impact the actors' evaluation. The rules governing collaborative arrangements influence their outputs because collaborative institutions affect the balance of power in resource management subsystems (Riker, 1981; Ostrom, 1990; Baumgartner and Jones, 1993). One way to think about this is that the rules governing collaborative groups influence the transaction costs of reaching agreements (North, 1990; Horn, 1995; Epstein and O'Halloran, 1999). Rules that determine the ability of collaborative groups to attract potential stakeholders reduce the transaction costs of reaching agreement because they decrease the uncertainty that excluded actors will appeal agreements they oppose to alternative policy venues (Baumgartner and Jones, 1993). Another way this happens is by rules that limit discussion among the stakeholders. This lowers the transaction costs of negotiating decisions by reducing the number of policy alternatives (North, 1990; Horn, 1995). Finally, institutional rules impact the ability to amend the decision-making process to achieve desired outputs. This reinforces the social choice notion that rational actors exploit the policymaking processes to achieve outputs they favor (Lowi, 1979; Riker, 1980).

Individual traits such as an actor's prior experience in the natural resource management decision-making process influence the actors' evaluation. Experienced stakeholders rate the decision-making

process more unfavorably because they have greater costs associated with their participation. These costs include reducing the influence they have in existing natural resource management subsystems and interacting with actors new to the resource management process. Additionally, actors that support compliance-based solutions are more supportive of the decision-making process. This is predicted because collaborative management is a compliance-based program (Lubell et al., 1998, 2002; Yaffee et al., 1996; Wondolleck and Yaffee, 2000). Unfortunately, the opposite expectation is not observed for the support of deterrence-based solutions. Finally, stakeholders willing to risk short-term increases in their costs of consuming natural resources are more supportive of the decision-making process than actors unwilling to risk a short-term increase. This supports the belief that short-term costs become less important to actors that believe their participation will lead to long-term benefits (Boyd et al., 1998). Unfortunately, better-educated people evaluate the process more unfavorably, which is opposite of the argument that educational attainment decreases the difficulty of negotiating complex management problems (North, 1990). This may occur because collaborative management makes natural resource management decision-making more available to people who are unable to participate in deterrence-based institutions (Kerwin, 1994). Another reason may be that collaborative management converts the technical jargon used by deterrence-based programs to a level of understanding more conducive to less educated people.

The analysis of institutional characteristics provides no evidence that the theory of subsystem politics is useful for understanding the stakeholders' evaluation. However, there is support that the theory of transaction costs economics is helpful because stakeholders that believe there are more government actors evaluate the process more favorably. This supports the argument that the presence of lower-level officials benefits the decision-making process by decreasing the transaction costs of making agreements. Thus, lower-level officials act as liaisons between competing stakeholders (Taylor and Singleton, 1993), and provide the technical knowledge needed to make scientifically sound management decisions (Lewis et al., 1998). Unfortunately, as stakeholders believe the number of actors in their collaborative arrangement increase, their evaluation of the decision-making process becomes more favorable.

Policymakers

There are two types of policymakers involved in the adoption and implementation of collaborative management programs: high-level officials and lower-level agency personnel. Existing research suggests that high-level policymakers will support collaborative management efforts if they increase administrative efficiency and reduce the cost of environmental regulation (Rabe, 1986). The costs of environmental regulation are expected to be most important because of their impact on the private sector. Yet, evidence from my interviews with high-ranking officials seems to suggest that they are most concerned about the effect of the management strategy on reducing the costs of environmental regulation being borne by localities. The state collaborative management programs/efforts in Minnesota, New Hampshire, Oregon and Ohio require that local-level officials participate in the collaborative institutions within their local area. In New Hampshire and Oregon, certain collaborative institutions actually require the approval of county

and municipal officials. This may occur because high-level officials see localities as an extension of the state government and its desire to expand economic development (Patterson, 1992).

Other evidence suggests that state policymakers are also concerned about the effect of unfunded environmental rules on localities. One reason this matters is because many collaborative management efforts are initiated by federal resource management agencies (Yaffee et al., 1996; Kenney et al., 1996; Lubell et al., 1998; Cortner and Moote, 1999; Wondolleck and Yaffee, 2000; Kenney, 2000). Since the 1960's, these agencies have actively encouraged the enforcement of national statutes via partial preemption, which has meant the enforcement of these laws is passed on from states to local governments (Lester, 1993; Ringquist, 1993; Vig and Kraft, 1997). Additionally, survey evidence suggests that local-level officials are concerned about the use of collaborative management because they believe recommendations from the actors involved in collaborative institutions are viewed more favorably by federal officials than their own resource management agencies (Chamberlein, 1998). Finally, the concerns of local governments are written into the bylaws of watershed councils in Oregon, New Hampshire and Vermont, which suggests that the concerns of local officials are paramount.

State governments have not ignored the concerns of the private sector, particularly the commodity interests that have traditionally received a better audience from state officials than federal resource management personnel (Bosso, 1991; Klyza, 1994). One real advantage of collaborative management is that it changes the locus of decision-making in natural resource management subsystems. Collaborative institutions change the level of decision-making by increasing the role of local-level actors, which actually benefits commodity producers because they generally have greater influence at the local level than environmentalists (McCloskey, 1996; Kenney, 2000). There is some evidence that this is occurring in watershed groups in the Pacific Northwest. In these groups, economic needs dominate their management recommendations, and the resource preservation goals advocated by environmentalists are ignored (Benson, 1998). Based on my conversations with the primary contacts, this does not appear to be occurring in my sample. However, in West Virginia the primary contacts often expressed the belief that state resource management officials supported their cause to deflect criticism for the lack of regulation on open pit coalmines.

The support of lower-level policymakers is essential for the success of collaborative management efforts because they are the officials that actually implement collaborative management programs. Lower-level policymakers participate in collaborative institutions, which is important because their informal policy networks lower the costs of participation on other actors (Helco, 1978; Sabatier, 1994; Lubell et al., 1998). Many of the primary contacts are lower-level officials who work for U.S.D.A. Conservation Districts. These officials and the private citizens serving as primary contacts reported that they regularly contacted state and local resource management officials. This is important because lower-level officials are expected to provide the technical support and management expertise needed to make agreements that balance anthropocentric and ethnocentric needs (Hartig and Zarull, 1992; Cantrill, 1998; Cortner and Moote, 1999).

The primary contacts repeatedly commented on how the lower-level officials involved in their group did so at their own expenses. This occurred even though the officials were representing their agency, and were often required to participate by their supervisors. As a result, the lower-level officials who participate in collaborative arrangements do so at personal cost, which is an observation ignored by the existing research that stresses the importance of their participation. These costs are particularly high on officials required to be involved in more than one collaborative group. Finally, several of the U.S.D.A. personnel mentioned that the watershed approach being pursued by their agency has actually increased their workload because it brings them into contact with more government officials. This may mean that the theory of transaction costs is correct; that the greater the number of stakeholders, the greater the number of competing policy preferences and the more difficult it is to reach consensus (North, 1990; Horn, 1995).

Decision-Making Rules

In terms of collaborative management, decision-making rules are important because they govern the process used to express policy preferences. Decision-making rules lay out the process of reaching an agreement and they allow individual actors to use the rules to advance their agenda (Riker, 1980). For example, individual actors can veto a management proposal by voting against it in institutions using a consensus rule, or by building a coalition to oppose the recommendations in a group employing a super/majority voting rule (Falk, 1982). Research suggests that minority actors (environmental and citizen-based groups) actually benefit the most from majority voting rules because they allow them to bargain with majority interests (commodity groups and natural resource management officials), and to build coalitions with other minority actors (Riker, 1980; Falk, 1982). This is exactly what national environmental interest groups have done in the existing environmental management subsystems (Bosso, 1991), and may be another reason why environmentalists question the movement towards collaborative management (McClosky, 1998; Kenney, 2000). Minority interests that veto proposals in an arrangement governed by a consensus rule run the risk of creating gridlock in the decision-making process. This in turn can force more powerful actors to seek new policy venues (Baumgartner and Jones, 1993; Kingdon, 1995) where their political influence leads to their desired outputs (Falk, 1982).

Collaborative institutions use the decision-making process to balance the demands of stakeholders who support anthropocentric and ethnocentric goals. This is done by voting rules that give the stakeholders a voice in the decision-making process. All of the collaborative groups used some sort of voting rule that gave equal weight to those with the right to vote. The groups sampled used either a consensus rule (two-thirds of the groups) or a super/majority vote rule (one-third of the groups). Yet, all of the primary contacts explained that their group strives for consensus even if it is not feasible. This is also the reason why the groups often require significant support for a proposal before it is actually voted on. Many of the groups even refuse to bring highly charged issues to the decision-making agenda because they have no chance of passage. Interestingly, regardless of the decision-making rule, most of the actors rated the decision-making process favorably. This suggests that collaborative groups: 1) successfully

balance anthropocentric and ethnocentric needs; 2) are dominated by actors that support the management philosophy; or 3) avoid highly controversial issues. Based on my conversations with the primary contacts, it appears as if the last conclusion is the reason why, which means highly charged management issues are not addressed by collaborative groups.

Financial Resources

Collaborative and deterrence-based strategies compete for federal and state grant funds, which often means funds allocated to one program are not available for the other. The salience of this issue increased with Section 319 of the 1987 amendments to the Clean Water Act. This allocated grant money for watershed restoration projects that concentrate on nonpoint sources of pollution (E.P.A. 2003). My conversations with the primary contacts suggest that this federal support is very important, and it influences the ability of collaborative groups to function. The vast majority of the sampled groups explained that they had acquired 319 funds, most of which were obtained directly from the Natural Resource Conservation Service (N.R.C.S). The agency also encourages its personnel to work with local collaborative groups, which is why many of the interviewed primary contacts are N.R.C.S. personnel. Existing research suggests that N.R.C.S. staff are important players in the collaborative movement. However, this research seems to understate the importance of the agency as a source for obtaining federal grant funds, and stresses that state sources are better funding avenues for collaborative arrangements (Rabe and Zimmerman, 1997; Cortner and Moote, 1999; Keeney, 2000.)

The existing research understates the importance of federal funding because most collaborative groups use state funds to offset administrative and program costs. The administrative funds pay for professional staff, office space, office supplies, and communication efforts. The 319 funds are limited to program activities only, which is important because administrative funding is essential for new groups that often lack the financial support from stakeholders to manage their organization. Program funds pay for conservation projects, and the projects' supply and professional service needs (e.g., water quality analysis or engineering surveys). These types of expenditures are covered by 319 funds, but restoration projects are unlikely to occur if the collaborative group cannot cover its administrative costs. The best way to understand the importance of state funds is to briefly review the comments made by the primary contacts in several of the states.

Oregon has been addressing environmental quality issues at the watershed level since 1987, which is when the Oregon legislature created the Governor's Watershed Enhancement Board (GWEB)¹. The GWEB provides funds to individuals and groups that are working to improve watershed functions or watershed education. The GWEB began by offering five hundred thousand dollars of direct grant support in 1987. The state then allocated \$2.6 million in grant funds for 1995-1997 fiscal years. The Oregon legislature increased funding for collaborative institutions by developing the Watershed Health Program (WHP) in 1993. The WHP was given \$10.3 million to encourage the development of watershed councils in the Grande Ronde and Rouge Basin watersheds. The WHP intended the watershed councils to be

¹ 1997 Oregon Session Laws, Chapter 636, and Oregon Revised Statue 541.360 (1995).

voluntary citizen forums that would work in partnership with state and federal agencies to address environmental concerns (NRLC, 1998). The WHP provided ample money for collaborative groups in the two areas but forced collaborative arrangements in the rest of the state to compete for the funding available from the GWEB (Soscia, 1995).

The legislature created the Oregon Plan because they feared coho salmon would be listed as an endangered species. The Oregon Plan included the Coastal Salmon Restoration Initiative (CSRI), and the Healthy Streams Partnership (Partnership) program (NRLC, 1998). This legislation allowed the GWEB to designate high-priority watersheds, and provided grant funding for collaborative efforts working to improve water quality². In 1997, the legislature provided funding to hire more officials to monitor water quality, by taxing timber harvests. This resulted in roughly \$15 million of grant funding for collaborative groups interested in watershed improvement projects. However, these funds are indirectly governed by the state because statute requires the groups receiving funding to be voluntary organizations that are designated by local governments to achieve sustainable use and to improve water quality (Or. Rev. Stat. 5541.388[1]).

The primary contacts believe the funding provided by the Partnership program is essential for their success because it can be used to pay for watershed improvement projects and administrative costs. As a result, many of the Oregon groups are able to hire full-time professional staff to manage their daily activities, which has helped the groups maintain stakeholders and address long-term environmental concerns. Oregon has decided to reduce the timber tax, which is why many of the collaborative groups are in the process of becoming 501c 3 organizations to raise outside private funds.

The Stream Partners program in West Virginia is a cooperative effort involving the West Virginia Soil Conservation Agency, West Virginia Department of Environmental Protection, West Virginia Department of Forestry, and the West Virginia Department of Natural Resources³. The Stream Partners Office is located in the West Virginia Department of Environmental Quality's Office of Abandoned Mine Lands and Reclamation. The goal of the Stream Partners program is to aid community-based collaborative groups interested in improving the quality of life in their watershed. The program assists collaborative groups by providing staff support, funding and office space (i.e., administrative support). The Stream Partners program assists new groups by sending agency officials to help local actors create watershed councils. Some of the primary contacts that requested staff support pointed out that officials showed up for their first two meetings and suggested how the group should be organized. The officials then left and provided no further support.

The primary contacts said that the staff support was useless, but the funding provided by the Partnership program was very helpful to their group. This is not to say that officials from the agencies participating in the Stream Partners program did not assist the collaborative groups. Officials from the state agencies other than the Office of Abandoned Mines and Reclamation actively helped the groups

² 1995 Oregon Session Laws, Chapter 197; Oregon Revised Statute 541.350C (1995).

³ <http://www.dep.state.wv.us/streampartners>

learn how to monitor surface water, assisted in the design of stream erosion projects, and participated in watershed education programs. However, it was the \$5,000 in seed money that the groups could use to pay for up to twenty percent of the costs associated with their program activities that was most useful. The grant money is essential for paying for the groups' water quality monitoring and stream restoration projects. The primary contacts also stressed that the grant money was very helpful for covering the costs associated with environmental education efforts.

The Ohio Environmental Protection Agency (OEPA) has limited regulatory control over the land use practices that cause most of the state's non-point water pollution. Consequently agency personnel, private citizens and elected officials have been moving slowly towards the use of a community-based watershed management approach (Bonnell and Baird, 2001)⁴. One result of this management strategy is that the OEPA is bringing stakeholders together to develop *Local Watershed Action Plans*. These plans are designed to improve water quality by creating community-based collaborative groups that develop and implement the action plan (Ohio E.P.A., 1997). Two of the Ohio groups surveyed are byproducts of the OEPA effort to use a community-based approach. One of the groups is a 501 c 3 organization based out of a regional sewer district office designed to raise federal and state funds to address storm water runoff problems. The other arrangement is a watershed council based out of an N.R.C.S. conservation district office, which is concerned about non-point sources of agriculture runoff. Another group was created in response to the state's commitment to form a comprehensive remedial action plan (RAPs) to address the most polluted cities around the Great Lakes⁵.

Neither the federal government nor Ohio has the financial resources or regulatory authority needed to repair all of the problems identified in RAP. As a result, the OEPA uses a collaborative approach to address the areas of concern (AOC) identified by the RAP's⁶. The state of Ohio has chosen to use an ecosystem management approach that stresses the involvement of local communities in the decision-making and implementation of the restoration efforts outlined by the RAP's. The OEPA provides funding for the RAP coordinator who is charged with making sure that federal officials, state agencies, local governments, industry representatives, and concerned citizens are working towards the shared goal of improving the ecosystem. The OEPA pays the salary of the RAP coordinator, but the RAP coordinator actually works for the coordinating committee of the RAP. The coordinating committee is the collaborative arrangement that makes the management recommendations to government officials about how they should address environmental problems within the AOC's. This means that even though the coordinating committee is administratively tied to the OEPA (via the RAP coordinator), it can only make management recommendations and not actual management decisions. However, the relationship allows the group to use state officials and resources to implement restoration projects. Thus, Ohio directly funds the administrative function of some collaborative groups, and provides direct program assistance.

⁴ <http://ohioline.osu.edu/ws-fact/0001.html>

⁵ <http://www.epa.state.oh.us/dsw/rap/rap.html>

⁶ <http://www.epa.state.oh.us/dsw/rap/rap.html>

The state of New Hampshire does not have a statewide agency or program that uses a collaborative approach to natural resource management. But, the New Hampshire Rivers Management and Protection Program (RMPP) established in 1988 (R.S.A. 483)⁷ allows local riverfront communities and citizens to request added protection for their riparian area by the New Hampshire Department of Environmental Services (DES). The added protection occurs if the river qualifies to be listed on the RMPP, which is a very cumbersome process. The process begins by the requesting group showing the DES that their river has some unique value or characteristic to the local community⁸. The DES must then find that the river's application for the RMPP is widely supported by the local communities living along the river; if this happens the DES then forwards the river's nomination to the New Hampshire Legislature. Once again the legislature must find that the river's designation is widely popular in the local riverfront communities⁹. The legislature approves the nomination by passing it into law, which requires the governor's signature. At this point the river is listed on the RMPP, and DES can then begin to give the river added protection.

After the river's designation, a management plan is developed to protect the outstanding qualities of the river for future generations. The management plan must be developed and implemented by a volunteer local river advisory committee that coordinates activities affecting the river on a regional basis¹⁰. At the state level the DES helps in developing and implementing the plan, and is charged with enforcing regulations concerning quality and quantity of flow in the river's protected areas. This means New Hampshire does not provide state funds for program or administrative activities. Nonetheless, the RMPP designation allows collaborative groups to become 501 c3 organizations and seek private funding.

The Vermont Agency of Natural Resources (VANR) uses an ecosystem approach to natural resource management that relies on collaborative planning. The Vermont Forest Resource Plan (VFRP) is a fifty-year tradition that involves developing action plans which identify opportunities for forest landowners and the VANR to work in partnership. Periodically the plan is revised by a collaborative group of local landowners, concerned citizens and the VANR. Despite the Forest Management plan and VANR's effort to use a collaborative management strategy, the primary contacts mention that the state did not assist their groups. Instead, most of their support came from the Lake Champlain Basin program (LCBP) that began when the area was designated a resource of national significance by the *Lake Champlain Special Designation Act* of November 5, 1990 (Public Law 101-596)¹¹. The Act's goal was to bring people with diverse interests from around the lake together, and create a comprehensive pollution prevention, control, and restoration plan. This became known as the *Opportunities for Action* plan that was endorsed by the governors of New York, New Hampshire, and regional administrators of the U.S. EPA in October of 1996. The stakeholders then formed the Lake Champlain Basin Program (LCBP) that

⁷ <http://www.des.state.nh.us/rivers/>

⁸ <http://www.des.state.nh.us/rivers/rsa483.htm>

⁹ This is Chapter 483 of the New Hampshire Constitution.

¹⁰ <http://www.des.state.nh.us/rivers/>

¹¹ <http://www.lcbp.org/lcbpsumr.htm>

is a regional forum created to address watershed issues. The LCBP provides administrative assistance, technical assistance, volunteer training, and access to grant funding. The grant funds are in the form of 319 funds given directly to the LCBP. Thus, the VANR does not provide funds, but it assists the groups via the agency roles in the LCBP.

Conclusion

Not all of the theoretically interesting questions about collaborative management programs can be empirically examined. The main reason for this is that collaborative arrangements are really nothing more than groups of stakeholders that make recommendations to the existing deterrence-based institution. This is an exaggeration, but it is an important point because stakeholders can simply ignore the recommendations of a collaborative group, and express their concerns to the agency officials in the existing resource management subsystems. There are two reasons why it is important to recognize that collaborative arrangements make recommendations rather than decisions. First, from a substantive point of view, rational actors can seek out the political venue that is most beneficial to their policy goals (Baumgartner and Jones, 1993), and venue shop (Riker, 1980). This means stakeholders participate in collaborative arrangements as long as they benefit from doing so. Second, collaborative arrangements are different institutional structures than the institutions described by Ostrom (1990) that provide real incentives for active participants. In other words, researchers using the Institutional Analysis and Design framework need to realize that there are no rules sanctioning or rewarding participants in most collaborative institutions. Participants can choose to follow or ignore the recommendations made by a collaborative group, even if the resource agency is a stakeholder in their arrangement.

Determining how well collaborative institutions are performing is difficult because most of the institutions are less than ten years old. This is no surprise to scholars in the area of policy evaluation who convincingly argue that policy evaluation studies should occur only after a program has been in the field for ten years (Mazmanian and Sabatier, 1997). There are two reasons why this is important to people examining collaborative institutions: First, collaborative institutions address problems that may take generations to resolve. Second, the institutions themselves can do very little to affect the actors' perception of their decision-making process. Thus, actors are likely to leave the groups over time if they become frustrated with the collaborative arrangement's progress or the other stakeholders in their group. Based on my discussions with the primary contacts, the groups seem to learn that achieving consensus is difficult and can lead to gridlock, which forces some actors to leave. As a result, the collaborative arrangements end up adopting a majority voting rule process, and plan cool-down periods after debate on contentious issues. A typical cool-down period means that the actors who bring a divisive issue to the table meet privately with the stakeholders most opposed to their idea. After a certain amount of time they either reach compromise or the issue is dropped. Unfortunately, this also means that the least contentious management issues are the ones that collaborative institutions are most capable of addressing, even if these issues have the smallest impact on environmental quality.