

**Developing Guidelines for the  
Community Land Conservation Planning Process:  
With an Analysis of the West Virginia  
New River Parkway Project**

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Guiding the Community Land Conservation Planning Process:  
An Analysis of the West Virginia New River Parkway Project

**Jonathan A. Childers**

(ABSTRACT)

Efforts to establish land conservation, or the prudent use of land and its protection from indiscriminate use and development, have recently been on an upswing in the United States. Effective conservation initiatives accurately address appropriate land use issues, adequately protect resources, and provide for sustainable use and return of benefits to citizens affected by the conservation. Efficient conservation programs consider multiple perspectives on conservation issues and respond to pertinent public interests, thereby securing public support for conservation efforts and facilitating implementation of conservation plans. Conventional agency-driven and citizen-driven approaches to conservation do not adequately exhibit these desired characteristics. The development of a set of professional and community involvement standards as guidelines for land conservation planning processes may help address conservation needs. A derivation of planning guidelines for community land conservation, and a subsequent evaluation of conservation planning processes associated with the New River Parkway project in West Virginia are presented in this paper. The positive and negative aspects of the New River Parkway conservation planning process, in relation to the derived planning guidelines for community land conservation, are discussed and proposals are forwarded for improvements. The discussion demonstrates substantive results of the evaluation of a community land conservation planning processes in comparison to professional and community involvement planning guidelines. The research and evaluation methods proposed in this paper appear to produce useful results. If evaluation and revision of community land conservation efforts is pursued, as in the Parkway case study, toward meeting ideal planning guidelines, undesirable conservation planning processes may be replaced by processes leading to appropriate plans for effective and efficient community land conservation.

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## **Chapter 1-**

### **Introduction: Conservation and Communities**

In September 1999, the population of the world is growing at an alarming rate, having recently exceeded six billion individuals. In the United States, while population is not growing as fast as in other countries, the strain on resources from the immense number of residents is increasingly noticed and addressed. In a 1996 American Forester article Gerald Rose indicates that the importance of biological diversity on, and the general condition of, undeveloped land has become a major influence in resource management. As we near the millennium, healthy, natural lands are now desperately sought for solitude, recreation, and community quality, while resources from the land are in ever-growing demand to meet material needs (Rose, 1996).

Finding acceptable means to provide for all of these requirements is challenging. Appropriate use of land resources must be balanced to yield a “healthy environment, vibrant communities and a viable economy” (Rose, 1996, p. 23). To be considered successful, land management must now strategically address human needs and protect the integrity of lands in an ecologically, socially and economically sound manner (Rose, 1996). Such strategic land management has been popularly termed land conservation. There is no one unanimous definition for conservation, but rather a continuum of notions ranging from total preservation to sensitive development. In this paper, land conservation will be broadly defined as the prudent use of land protecting it from indiscriminate use and development.

Efforts to establish land conservation have recently been on an upswing in the United States. In fall of 1996, “voters throughout the nation approved \$4 billion in state and local bonds for (such) land conservation projects, approving more than 150 ballot measures for habitat protection, conservation easements, farmland preservation, park expansions and greenways” (Gordon, 1997). The quality of land conservation efforts matters, however, at least as much as the number of initiatives pursued.

Achieving conservation is often very difficult. Property and property owners are impacted, and a broad array of stakeholders must accept the goals of conservation programs and the means and mechanisms for achieving the goals. Optimal national progress in conservation will only come about through initiatives implemented effectively and efficiently. To be effective, conservation efforts should address pertinent land use issues, protect valuable resources, and return benefits of sustainable use to affected citizens. Toward optimizing efficiency, initiatives should respond to multiple perspectives on conservation issues, securing support for the conservation efforts and allowing more affordable and timely implementation of conservation plans and ideas (Gordon, 1997).

Upon review of conservation practices in the United States, it is found that conventional agency-driven initiatives on one hand, and citizen-driven initiatives on the other, each may not be optimally effective and efficient in execution. This paper suggests that shortcomings in these two approaches may potentially be remedied by reforming the basic nature of planning processes followed in approaching all land conservation. Development of guidelines for legally viable planning processes focused on community issues and interests in conservation may help in attaining effective and efficient conservation efforts. If better processes are followed in developing conservation plans, more appropriate land use might be more readily established.

### **1.1 Conventional Agency-driven Conservation**

A visible increase in agency-driven land conservation initiatives has come about in synchrony with the rising environmental movement. This progress has occurred largely through political pressure and litigation brought by environmental groups. Great “economic, social, political and ecological costs” accompany this cumbersome approach and some say “conservation through confrontation has reached a point of diminishing returns” (Weyerhauser, 1996, p. 24). Basic American goals for the environment are no longer a major question, as presumably no one prefers to promote erosion or extinction. Conflicts that now arise concern not the basic merits of conservation, but the “methodologies” and processes of management (Weyerhauser, 1996, p. 24).

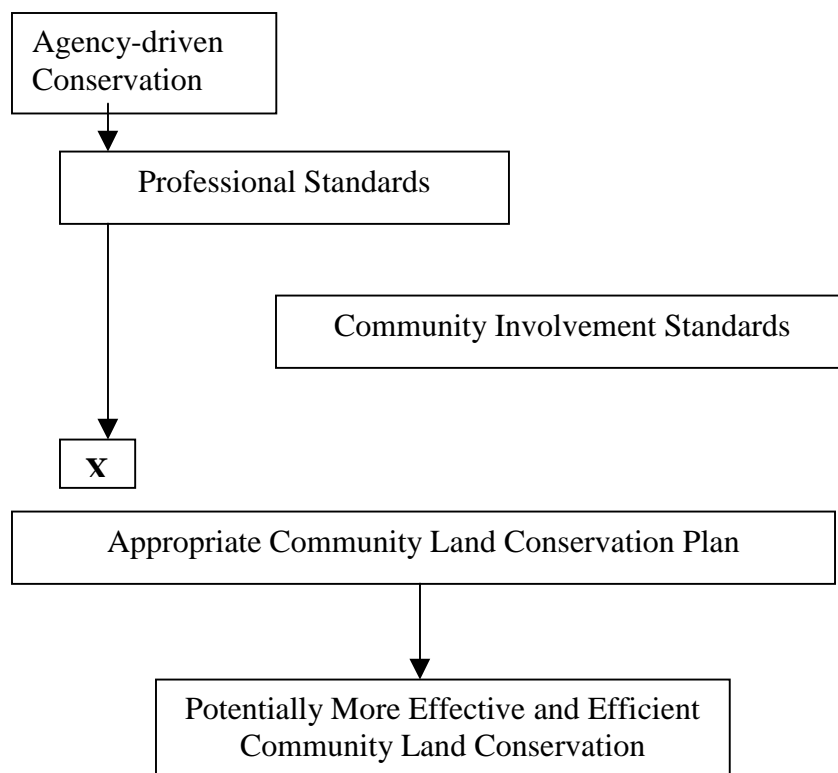
In the past decade, concerns about conservation needs have been increasingly manifested in federal environmental actions as the environmental movement swayed bureaucrats to attract votes by passing wide spread legislation and carrying out programs related to very visible environmental issues. An example of such conventional tactics can be seen in recent actions of the National Republican Party, traditionally considered to be unconcerned about environmental issues. The GOP has responded to lobbyists and begun to adopt, at least on the surface, a much more supportive approach to conservation, producing videos about the environment and making appearances at special events such as Earth Day to unveil broad environmental policies that sound ideal in purpose but have little chance of being implemented without local action.

Conventional government driven conservation efforts may ostensibly address important resource issues. Further, planning processes involved in agency-driven efforts will likely meet professional practice standards and be legally viable. However, purely political movements cannot adequately provide for appropriate conservation where it needs to be carried out, at the local level. It seems unwise to expect any strictly top-down implementation of conservation efforts to be truly effective in communities. Issues associated with resources and citizen needs in any particular area simply cannot be effectively addressed by sweeping public policy. As described by an environmental writer in 1996, “Environmental decision-making is still overly centralized in Washington, D.C. There is no reason for beltway bureaucrats to direct air-quality controls in Texas... nor should they be allowed to try” (Adler, 1996, p. 45). This sentiment can be extended to conservation approaches at other governmental levels as well. In general, it seems that federal, state or local government conservation policies, formed without consideration for community scale issues and needs, may be legally viable and yet ineffective in execution.

Still, many government land managers and independent environmental groups bicker in Washington about appropriate conservation efforts without considering community involvement as a key factor in the feasibility of plans (Rose, 1996). Even the most dedicated environmental stewards may consider a community focus in land conservation

plans unacceptable due to fear of “relinquishing some control” (Rose, 1996, p. 23). These aristocratic attitudes have resulted in inefficient conservation efforts centered on special interest and bureaucratic agendas. Again, a conclusion can be made applicable to all levels of government. Citizens do not support policies that do not address their needs, and litigation or lack of involvement may hinder the efficient implementation of any conservation program that affects individuals never considered during its formation.

In review, conventional American agency-driven conservation planning processes often meet standard professional and legal requirements, and yet bypass attempts to meet reasonable standards for community involvement. Accordingly, appropriate plans are never developed that might ultimately lead to more effective and efficient land conservation. In Figure 1.1, a failed agency-driven land conservation planning process is represented. The “X” indicates that agency-driven planning processes reliant only on professional standards fall short of producing an appropriate plan for effective and efficient conservation, due to general failure to incorporate community involvement.



**Figure 1.1. Failed Agency-driven Land Conservation Planning Process**

## **1.2 Considering Communities in Conservation**

In practical terms, conservation efforts may only be effective and efficient if community stakeholders are involved in developing and implementing policy, and if that policy addresses undeveloped land “in a manner that respects our tradition of private property rights” (Weyerhaeuser, 1996, p. 24). Coherent conservation programs are needed that meet goals of national consensus, while also addressing local community interests. Based on years of field experience developing and implementing forest conservation projects for World Wildlife Fund, Rick Weyerhaeuser explains that, “Long term success (in conservation) is possible only if local people embrace the conservation process” (Weyerhaeuser, 1996, p. 24).

Finding ways for conserved resources to return benefits to local citizens develops their interest in seeing the resources cared for properly (Rose, 1996). Community support and consequent efficiency in implementation of conservation can be raised in this manner, as seen in Hayfork, California. There, citizens are ecstatic about predictions that local jobs are to increase exponentially in the near future. This is due to a community effort, coordinated by the USDA Forest Service (USFS), in which citizens take jobs to harvest and process remnant trees left in a local USFS logging area (Little, 1998), maintaining the land in ecologically valuable low brush condition. Even a few environmental groups are now championing community interests by showing citizens potential tangible benefits from conservation. American Forests, formed to plant trees throughout the United States, is currently designing and providing GIS software to American cities to help planners and citizens “understand the full value of (their) urban natural resources” (Robbins, p. 6, 1996) and support the conservation of those resources.

In addition to increasing efficiency in conservation programs by providing tangible benefits to citizens, community involvement in land conservation also effectively meets global and American environmental goals. “Sustainable development” has played a strong part in recent international efforts toward attaining conservation. The term was coined in 1987 by the United Nations (UN) World Commission on Environment and Development, asserting that the needs of this generation must be met without

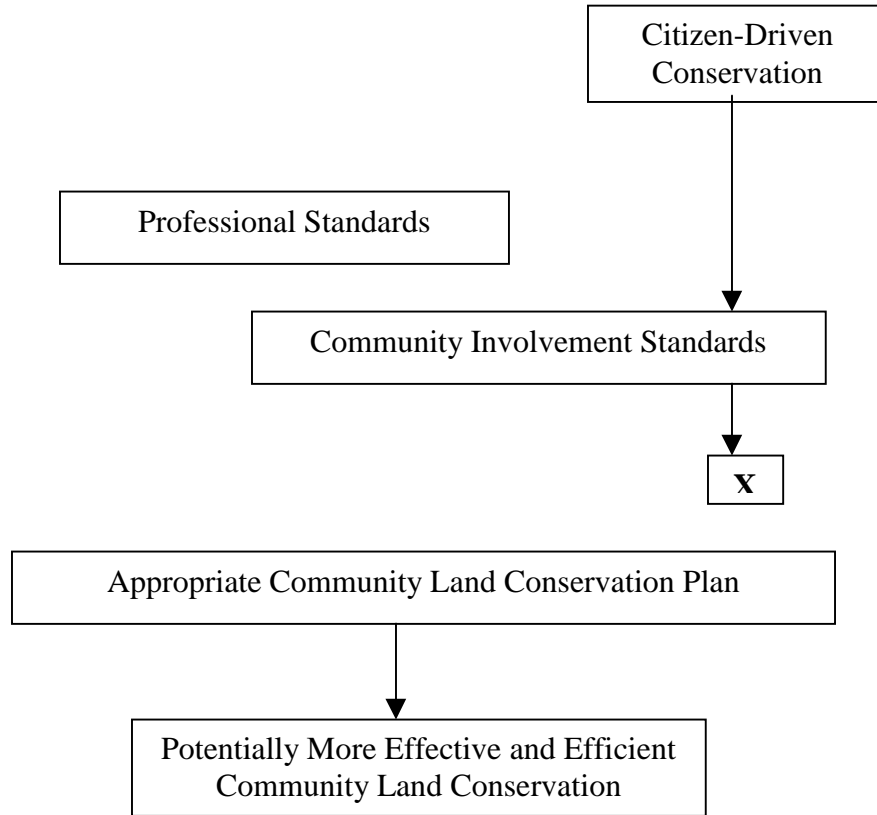
jeopardizing the ability of the next generation to provide for their needs (UN, 1987). Over time, aspirations of implementing actions based on sustainable development concepts have filtered down from the international realm to the local level. It is now generally granted that in order to attain successful conservation efforts, communities must play a vital role in acting out national sustainable development agendas (Haeuber, 1995).

Conditions and desires in the United States also further support focusing on community issues and interests in land conservation efforts. The modern American public generally values environmental safeguards and the concept of local conservation solutions appropriately meshes with current national goals of decentralization in environmental management. Today in the US, less government is considered good government. Information sharing between agencies and citizens, followed by subsequent management initiatives involving individuals intimate with their localities, rather than top-down enforcement of broad policy, represents an ideal decentralized schema. Further, citizen and resource protection needs may be more accurately identified and addressed when planning for conservation is focused on community scale issues and citizen involvement. Indeed, community involvement in American conservation processes is both environmentally savvy and in line with current political values (Rose, 1996).

There are, then, apparent forces compelling community focused, rather than traditional top-down, American conservation efforts. Pressures on land resources in the nation are continually growing and the execution of optimally effective and efficient conservation efforts has become crucial. Community focused conservation efforts may be more effective in meeting new global goals for sustainability, in propelling decentralization of environmental regulation in America, and in accurately and appropriately addressing resource protection and citizen needs. Further, consideration of community interests and issues in the process of planning for conservation may increase returned local benefits from conservation and subsequently increase political support and the efficiency of project implementation.

Granting the need for community involvement in land conservation, it is also important to acknowledge the general lack of American experience in dealing with this concept. As previously explained, conventional agency-driven approaches to land conservation may produce ineffective and inefficient results due to an inappropriate disregard for communities in conservation planning processes. If conservation planning is to increasingly regard community scale issues and interests, the form of agency-driven projects in America could significantly change. Further, recognizing the value of community involvement in conservation efforts, citizen initiatives could become more common in the nation.

Unfortunately, without a historically established national knowledge base of methodologies for involving communities in conservation planning, many unguided agency and citizen attempts to integrate community issues in conservation projects could still result in ineffective and inefficient conservation. Agency-driven conservation planning processes, reformed to include community involvement, could, as before, yield ineffective and inefficient conservation if completed without knowledge of appropriate means for considering community interests (see Figure 1.1.1). Citizen-driven conservation planning processes might inherently provide appropriately for community involvement, only to be rendered unviable by failures to meet important professional standards. Without meeting professional procedural requirements, a citizen-driven planning process will never produce an appropriate plan for optimally effective and efficient conservation. In Figure 1.2, a failed citizen-driven land conservation planning process is represented. The “X” indicates that citizen driven planning process reliant only on community involvement falls short of producing an appropriate plan for effective and efficient conservation, due to general failure to meet professional standards.

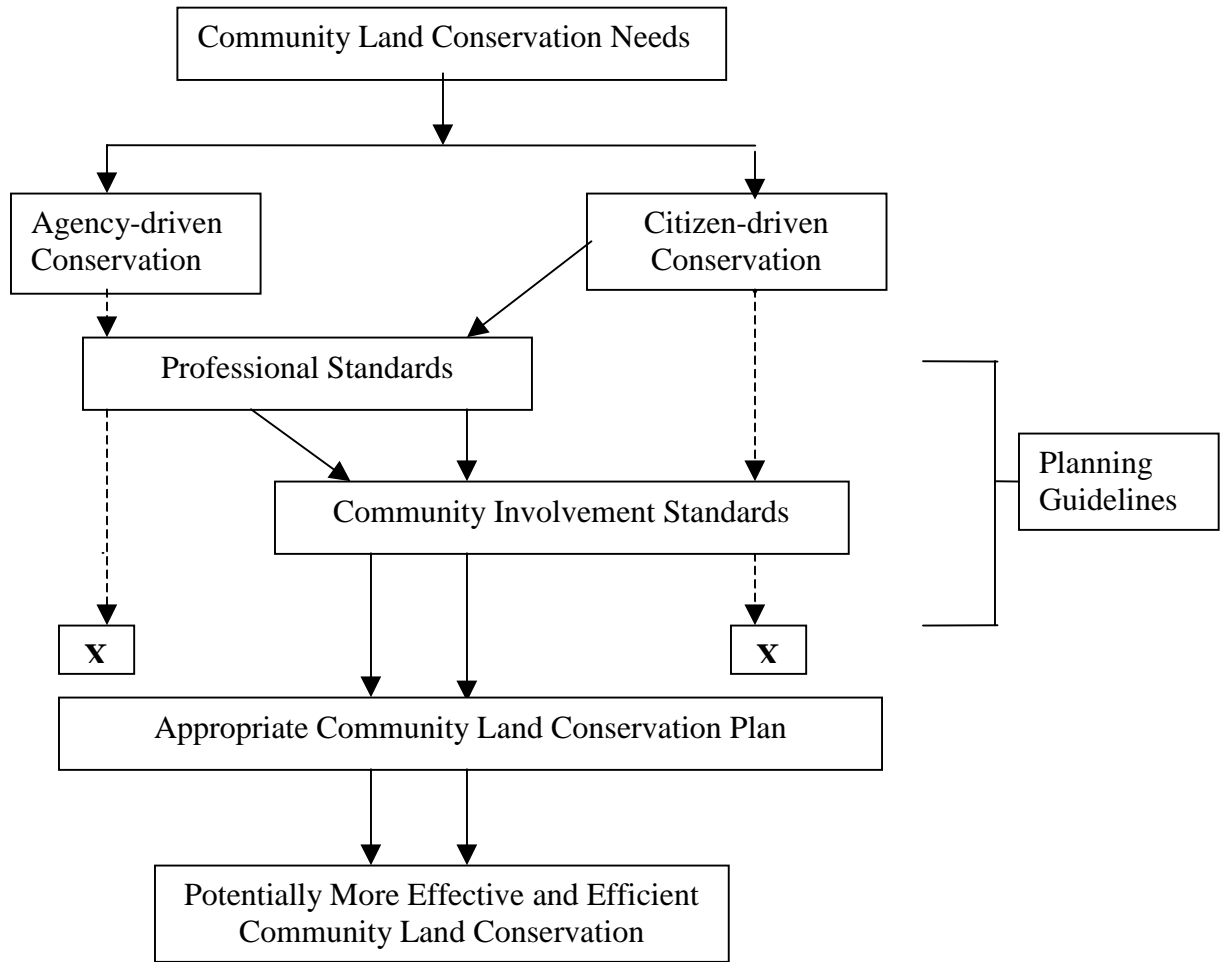


**Figure 1.2. Failed Citizen-driven Land Conservation Planning Process**

### **1.3 Research Rationale**

Integration is thus needed between reliance on conventional top-down conservation initiatives and expecting miracles from unguided and unprecedented efforts to involve communities in conservation. Without impinging on the beneficial custom tailored aspects of community-focused conservation initiatives, identification and framing of some common planning guidelines for such efforts could facilitate their successful implementation. Indeed, standardization of some general ideal procedural guidelines for progressing toward “community land conservation” may ultimately help yield more efficient and effective conservation from agency-driven and citizen-driven initiatives. Any effort to establish conservation that would ultimately manifest effects at the community scale would be eligible for review in relation to these “community land conservation” planning guidelines, regardless of the level of community involvement intended in the effort.

By assessing approaches to conservation planning that are currently considered appropriate, desirable procedural characteristics may be identified and compiled into a cumulative set of ideal planning guidelines for community land conservation efforts. More specifically, agency-driven and citizen-driven conservation planning processes may be expected to meet both professional standards and community involvement standards derived from review of currently pertinent information on conservation planning. As previously discussed, agency-driven conservation planning processes that meet only professional standards, or citizen-driven processes that meet only community involvement standards are inappropriate. In contrast, agency-driven and citizen-driven community land conservation efforts, following planning processes that fully meet a set of professional and community involvement planning guidelines, could successfully yield appropriate plans for potentially more effective and efficient community land conservation. In Figure 1.3, successful agency and citizen-driven land conservation planning processes are represented alongside representations of failed processes. The two middle flowchart tracks indicate that agency and citizen-driven planning processes, meeting professional and community involvement standards, may successfully produce appropriate plans for effective and efficient community land conservation.



**Figure 1.3. Successful Community Land Conservation Planning Processes**

The set of ideal professional and community involvement guidelines derived for the community land conservation planning process might be used for critical evaluation of the planning process in any particular community land conservation effort. Various aspects of a planning process could be ascribed as desirable or non-desirable in comparison to the planning guidelines. Conclusions may be made about the positive aspects of the process that might be wisely sought in other projects. Moreover, suggestions may be proposed for improvement of inadequate aspects of the process.

Toward assessing the merits of this proposed procedure for guiding conservation efforts, a sample derivation of procedural guidelines for community land conservation, and an evaluation of a pertinent conservation project in relation to these guidelines, is in order. An opportunity and need has recently developed to review and evaluate the community land conservation planning process associated with the New River Parkway project in West Virginia. This major scenic highway project is proposed to include conservation on extensive amounts of land. Impacts on landowners are to be determined on an individual parcel-by-parcel basis within communities. Thus, this large-scale agency-driven project will render dramatic effects at a community land conservation scale regardless of whether or not community scale issues and interests have been considered in the planning process. The characteristics of this project, and the fact that similar conditions are not uncommon in other large-scale agency projects, makes the Parkway an ideal candidate for procedural evaluation in accordance with the previous discussion.

Accordingly, drawing from an extensive literature review and many months of consultant work on the New River Parkway project, the remainder of this research paper is presented. Following sections of the document include; a literature review of information pertinent to community land conservation and derivation of guidelines for evaluating planning processes in community land conservation projects (Chapter 2), a case study of the New River Parkway project including a history of the Parkway and an evaluative discussion of the project based on the derived guidelines (Chapter 3), and concluding comments, including summary proposals for the Parkway and related projects and a critique of the research procedures utilized in this paper (Chapter 4).

## **Chapter 2 –**

### **Development of Community Land Conservation**

#### **Planning Guidelines**

Given the information in Chapter 1, derivation of general procedural standards to be sought in community land conservation planning processes is desired. Further, critical and discerning analysis of planning processes in community land conservation initiatives, with respect to these derive guidelines, is sought. Such investigation may prove helpful in the revision of evaluated planning processes to include more desirable characteristics, and in the provision of procedural guidance for other similar conservation situations.

The remaining research in this document is specifically occasioned by an opportunity to devise general standards for planning processes in community land conservation efforts, and then to analyze conservation aspects of the New River Parkway project in light of the devised standards. Toward such analysis, meaningful guidelines for planning processes in community land conservation efforts must be composed, as compiled from literature on pertinent conservation efforts and issues.

The set of guidelines derived for evaluating planning processes in community land conservation efforts integrate professional standards and community involvement standards. These standards are themselves comprised of legislative requirements, precedent and practice-based requirements, and prospective requirements. Legislative requirements are mandatory according to law. Precedent and practice-based requirements are obligatory as determined by precedent and emerging practices in pertinent conservation efforts. Prospective requirements are suggested from innovative ideas that are theoretically valid and desirable, but that have not yet established in practice.

In the remainder of this chapter, pertinent information is reviewed and professional and community involvement standards are derived for community land conservation planning

processes. In organization, the discussion covers legislative, then precedent and practice-based, and finally prospective planning process requirements. At the conclusion of the chapter, all of the standards that have been derived are cumulatively compiled into an evaluative matrix for utility in the subsequent review of community land conservation planning processes.

## **2.1 Legislative Requirements**

In constructing standards for community land conservation planning processes, legislative requirements are those that are mandatory in order for conservation initiatives to be valid and legally viable. In general, many germane regulations addressing basic standards of conduct, and some procedural regulations pertaining to environmental issues specifically, commonly apply to conservation planning processes.

### ***Generally Germane Regulations***

Many general legislative requirements typically apply to conservation planning processes. All germane legal rules for conduct must be followed, as determined specifically by the characteristics of particular conservation initiatives. The planning process in any prospective conservation project must meet all relevant local, county, state, and Federal regulations for the effort to be optimally efficient and successful. Some examples of pertinent procedural requirements include consideration of local zoning ordinances and provision for state health department requirements. Any procedural legal failing may yield unhappy citizens and litigation. Toward avoiding this outcome, a broad legislative professional standard can be derived for evaluating planning processes in community land conservation efforts.

*A community land conservation planning process must meet all applicable local, county, state, and Federal legal requirements.*

### ***Environmental Regulations***

Particularly pertinent to conservation efforts is the National Environmental Policy Act. The federal Act, passed into law in 1970, requires that an Environmental Impact

Assessment be conducted by any agency initiating a project utilizing significant federal funding or permits. If, in completing this assessment, it is determined that a project will have no major impacts on resources, a Finding of No Significant Impact (FONSI) is granted and the project continues toward implementation with no further immediate federal environmental requirements. If, however, it is determined that a project may likely cause significant impacts, the Environmental Impact Statement (EIS) process must be completed in order for the project to be approved by appropriate federal agencies before it may be implemented (Clark, 1997).

In completing an EIS under NEPA, extensive rules and regulations must be followed. In any specific conservation situation, a multitude of various environmental requirements may apply, as determined by the details of a planned project. Unfortunately, because of the amount of time and funds consumed in meeting EIS requirements, it has been reported that agencies such as the NPS have illegally short-cut NEPA by substituting FONSI in conditions where an EIS process should be completed (Cahn, 1995). Indeed, the temptation for any agency to subvert environmental precautions may be intense. However, such subversion may have serious consequences in diminishing the effectiveness and efficiency of conservation projects. The rigorous demands of NEPA generally lead to more accurate assessment and protection of resources and citizen interests. Further, any failure to comply with NEPA can result in long and costly litigation.

An exhaustive description of all NEPA regulations potentially applicable to any conservation project is beyond the scope of this paper (the full text of NEPA regulations may be found on the internet at <http://es.epa.gov/oeca/ofa/nepa.html>). For evaluative purposes, though, one generally applicable professional standard may be synthesized regarding legislative planning process requirements specifically associated with NEPA.

*A community land conservation planning process, meeting qualifications for regulation through NEPA, must meet all applicable NEPA requirements.*

## **2.2 Precedent and Practice-Based Requirements**

Precedent and practice-based requirements, as framed in existing conservation cases, offer a wealth of demonstrated guidance in establishing effective conservation.

Unfortunately, precedents are not always considered in developing conservation planning processes. In cases involving potentially significant effects on communities, such shortsightedness is unacceptable. Therefore, in evaluating a community land conservation planning process, consideration and fulfillment of precedent and practice-based standards is not mandatory, but it is considered an obligatory project requirement.

### ***Emerging Practices: Blending Science and Stakeholder Involvement***

Toward compiling ideal precedent and practice-based standards, to be used in evaluating conservation planning processes, applicable precedents must be assessed from a review of current and past effective approaches to community land conservation. Based on frequency of presence and critique in pertinent literature, conservation approaches crucial for review include ecosystem and watershed management, farmland preservation, and scenic resource protection efforts. Identification of the major tenets of each of these respective conservation approaches educates the composition of corresponding planning guidelines to be sought in all community land conservation efforts.

### ***Ecosystem and Watershed Management***

Ecosystem and watershed management are innovative approaches to conservation that were born early in the 1990s. As global awareness grew of critical conditions in the environment, promulgation of the idea of “sustainability” (previously mentioned in Chapter 1) took root worldwide. Growing global support for the concept, as well as special interest group and congressional support, soon applied increasing pressure on United States resource managers to incorporate “sustainability” issues into their practices. Federal resource managers at all levels were challenged to think about new approaches to management.

In practical terms, the application of sustainability meant reconsideration of many traditional US resource management practices. Following principles of sustainability, the scope of issues to be considered in management significantly increased. All potential ecological, economic and social aspects of resource management plans were now to be considered simultaneously and coequally. Moreover, even the geographic scope of management concerns broadened. In sustainability theory, the full character and roles of managed resources had to be understood. An adequate resource management plan could not, for example, simply address a small area of land to be managed, in isolation from other systems in the landscape. A truly appropriate plan would address a managed system, its component systems, and landscape systems of which it is a component. In attempting to implement these ideas for the benefit of the environment and society, federal agencies developed two new strategies, ecosystem and watershed approaches, for resource management.

### *Ecosystem Management*

In 1992, Dale Robertson, as head of the Forest Service officially committed the agency to "an ecological approach in the future management of the national forests" (Hauber, 1995). This new management approach became known as ecosystem management.

Four major principles frame ecosystem management as it has come to be implemented by the Forest Service (USFS), the National Park Service (NPS), and the Bureau of Land Management (BLM), among others. First, ecosystem management requires consideration of social, economic and ecological factors in all decisions. Second, uncertainty must be recognized in planning because ecosystems continually change and future conditions cannot be reliably predicted. Third, management should be used as a vehicle for achieving system diversity and sustainability by promoting variety in systems over time and space. Fourth, management decisions require strong awareness of links between desired human uses and ecological conditions. These basic precepts firmly uphold the goals of sustainability and, further, the very comprehensible notions are also very flexible. Because of this flexibility, implementation of ecosystem management has been able to evolve in changing conditions over the past decade (Hauber, 1995).

The forest plan for the Olympic National Forest provides an example of the early and formative principles of ecosystem management in action. The plan was originally instituted in 1990, even before implementation of ecosystem management was mandatory in the USFS. The written Olympic Forest Plan does follow a classic USFS arrangement. However, the content of the plan, investigating complex interactions between different forces at work in the landscape, and integrating public desires, approaches the new USFS ideals of sustainability through ecosystem management.

The Olympic Forest Plan meets its stated goals by explicitly outlining proposed changes in the management of the forest. Surpassing this achievement, the Forest Plan also advances ideas representing all of those with vested interests in forest. Production from natural resources in the forest is not weighed nor given consideration in the document more than is local community opinion about recreation, habitat, and retention of wilderness. Beyond focus on forest productivity, the USFS management strategy emphasizes sustainability concepts such as understanding and promotion of the complex characteristics and desired uses of a forest ecosystem, as understood by agency specialists and by local community members (USFS, 1990, Management Plan).

### *Watershed Management*

As ecosystem management was being implemented in the early 1990s, another conceptual approach called watershed management was also being developed by federal agencies to help meet sustainability considerations. In fact, the two management strategies are nearly inseparable in execution. Watershed management utilizes ecosystem approaches in managing resources within the geographic borders of particular watersheds. Generally, watershed management is implemented for purposes of protecting waters within a watershed, and is initiated by driving forces such as legislation, or by local or regional concerns about water issues.

The major principles of watershed approaches are similar to those described for ecosystem approaches. As expressed by the Environmental Protection Agency (EPA),

these principles focus on partnerships, an inclusive geographic focus, and sound management techniques based on strong science and data. All stakeholders in the management area are expected to share applicable information and make wise decisions for watershed management based on the priorities and interests of all involved parties. Such decisions will be reached utilizing information pertaining to the entire watershed in question. Such watershed approaches have been shown to make good sense for environmental, financial, social, and administrative reasons. More effective and economical management strategies may be developed toward attaining desired goals for water resources when all stakeholders within a watershed make decisions together based on shared information (EPA, 1999).

A good example of watershed management is seen in the highly acclaimed New York City Watershed Agreement. The nine million residents of the city get their drinking water from a watershed that covers nearly 1900 square miles. The city owns only about one tenth of the land within this area. Historically, the water supply to the city has been of high quality but in the past decade several alarming boil notices have been implemented in the city due to contamination. To best protect the interests of the city, EPA opted to forego some remedial filtration requirements for New York if the city would take significant steps to preserving the high quality environmental character of the resources within the watershed. Negotiations produced an agreement whereby New York City would take great steps to augment water quality control in the watershed, including developing sound land use controls for watershed lands, conducting extensive water quality tests on the watershed, and acquiring key lands to protect reservoirs in the watershed. Further, the state of New York would adopt any measures passed by the city and establish a state inspection office to insure the implementation of the city regulations. Finally, all watershed communities could select representatives to participate in a regional watershed partnership council where decisions would be collectively made in the interests of all stakeholders (EPA, 1999).

In review of ecosystem and watershed management approaches to establishing land conservation, valuable lessons may be learned. In both means of management,

conservation objectives and decisions are derived utilizing a broad scope of information and input. Scientific and technical efforts consider far more than an isolated management area. The systemic nature of resources to be managed is investigated, and information from inter-related geographic scales is used in assessing management needs and constraints. Further, community involvement is extensive, and information from all possible stakeholders is solicited and used in decision-making. In describing watershed management, Mike Dombeck, chief of the Forest Service, praises the collaborative nature of the approach, adding “collaborative efforts actually amplify the effectiveness of the law by vesting communities with an interest in conservation” (Dombeck, 1998, p. 26).

In summary, ecosystem and watershed management approaches appear to be desirable and effective means of establishing conservation. A precedent and practice-based community involvement standard for community land conservation planning processes can be derived from the basic principles of these conservation approaches.

*A community land conservation planning process should include the consideration of an extensive scope of information, including consideration of many systemic perspectives and diverse stakeholder views.*

### ***Farmland Preservation***

Another major approach to land conservation within American communities is farmland preservation. Residential development is consistently spreading and impinging on prime farming areas in modern suburban America. As described in the Journal of the American Planning Association, “...residential development and farming are incompatible land uses. As development encroaches upon agricultural areas, it becomes difficult for farmers to continue their traditional farming techniques” (Bowler, 1997). Pressures of residential growth can ultimately force the resignation of agricultural practices on prime farmland. Land thus rendered unproductive may often be surrendered to subdivision and development to meet financial needs and desires of farm owners. The loss of prime agricultural lands results in reliance on marginal lands for production of needed resources. Further benefits such as air and water filtration, flood control, and valuable

open spaces, are also sacrificed with farmland. Thus, preservation efforts are now widely instituted in the United States to minimize the loss of farmland (Bowler, 1997, p. 127).

Various methods are used in implementing farmland preservation. Several key types of publicly implemented programs include exclusive agricultural zoning, large lot zoning, sliding scale zoning, cluster zoning, urban growth boundaries, purchase of development rights, transfer of development rights, and property tax policies. The best methods and goals for instituting farmland preservation has been the topic of much debate in recent literature.

Jefferey Kline (1996) addresses the topic of public preferences regarding farmland preservation techniques. The article assesses, through statistical interpretation of a research survey, the desires of citizens regarding the goals of preservation programs. In summary, the article suggests that citizens cared more about environmental and aesthetic benefits associated with preservation than they did about agrarian issues. It is further suggested that broadening the focus of preservation efforts could increase effectiveness in conservation. Kline argues that tuning preservation efforts to popular environmental and aesthetic goals could lead to more efficient and desirable results than maintaining focus on farming issues.

Randall Rosenberger (1998) responded to Kline. The Rosenberger article assessed public views through survey research in Colorado. Rosenberger found that citizens did seek environmental and aesthetic benefits more than agrarian benefits from preservation. It was stated that adapting preservation efforts to meet citizen goals could add efficiency to public programs. However, it was further argued that agrarian goals are still important, and that dismissing preservation of lands highly valuable in agrarian terms would be unwise. Public education on agrarian conservation values and forming partnerships with private parties interested in agricultural issues were suggested as an efficient means of wisely preserving such lands (Rosenberger, 1998).

Greg Halich (1999) conducted a further review and evaluation of farmland preservation methods. The paper describes a host of approaches to farmland preservation and a general potential effectiveness rating is compiled for each. Then ratings addressing the legal, political, and equity issues related to each various technique are compiled. In summary, each method of preservation is evaluated through cumulative review of its ratings.

Unfortunately, some preservation approaches, found to have very high potential effectiveness ratings, were found to have only moderate cumulative ratings because of low equity or political efficacy ratings (Halich, 1999). Preservation programs may unfairly burden some farmland owners, and pursuit of unpopular conservation goals may hurt a government politically. Halich explained, in a follow-up interview (Halich, p.c., 1999) that the largest challenge facing farmland preservation is the reactionary nature of the conservation approach. Governments may sometimes attempt to address farmland preservation needs quickly, when neglected conservation needs are suddenly noticed. Without careful consideration of citizen desires and well-being, a preservation plan can be implemented that is not optimally fair or politically viable.

Given the current state of affairs in land development, farmland preservation programs appear to be worthy and needed efforts in conservation. From review of literature it appears that the ultimate factor determining the success of such efforts may be public support. Programs that are implemented without due consideration of public interest may cause political upheaval. A program that supports publicly unpopular conservation desires may be inefficient in implementation. Moreover, an insensitive preservation plan may create inequality in burdens and hardships faced by farmland owners.

It seems that farmland preservation should indeed be implemented in the United States, but careful consideration should be given to educating the public about the preservation process. General citizens and farmland owners who are made aware of the benefits of preservation goals will more likely to support and participate in framing preservation efforts. Citizen involvement may then lead to more effective programs, and early

representation and participation of farmers in processes may lead to higher levels of social equality. A second precedent and practice-based community involvement standard for planning processes in community land conservation efforts is therefore derived from the venue of farmland preservation.

*A community land conservation planning process should include cooperative education among stakeholders about conservation needs and program goals.*

### ***Scenic Protection***

One other important approach to conservation in America is scenic protection. Several well-known federal conservation projects have been implemented in efforts to protect important scenic areas. Not all of these projects have followed the same strategy in conservation. Review of two key scenic protection efforts, the Columbia River Gorge National Scenic Area and the Blue Ridge Parkway, shows similarities and differences in the projects. Analysis of this information yields another ideal standard for community land conservation planning processes.

#### ***The Columbia River Gorge National Scenic River***

Historically, the Columbia River Gorge has been the object of much interest in both private and public realms. As the only navigable passage through the Sierra Nevada and Cascade ranges of the western United States, the Columbia River has been important for generations to Native and English-speaking Americans. Today, the passage created by the Gorge continues to serve river traffic, but also holds an interstate highway and an international railway. As the lands of the Gorge were explored and developed late in the nineteenth century by settlers wishing to expand into new territories, the rich resources along this scenic stretch of the Columbia became an important element in the Pacific Northwest economy. Industries and subsequent services began to fill and change the face of the valley. By the beginning of the twentieth century, salmon fisheries and canneries, prosperous orchards, and Douglas-fir railroad-logging operations expanded through the Gorge, building on a national and regional faith in the continued harvest of bountiful resources (Abbott, 1997).

As the twentieth century progressed, the tide turned in the economy of the Pacific Northwest. Starting as early as the 1880s, Portland-based tourism entrepreneurs had been capitalizing on the scenic beauty available on boat or rail trips through the Columbia River Gorge. As proclaimed by one rail passenger, the Gorge experience was an “uninterrupted magnificent display” (Abbott, 1997). The completion of the Columbia River highway through the Gorge opened the area to further recreational use by 1920. Parks, hotels, and camps began to spring up in the valley, and trails were cut to bluffs and waterfalls along the river in the 1930s. By the early 1980s, the Gorge was identified as a prime spot for the new booming industry of windsurfing, and further economic change in the region raised conflicts between the surfers and the local citizens (Abbott, 1997). Recreation was overtaking resource harvest in local economies. A new era of development had reached the Columbia River Gorge.

Today local officials in the region continue to try to balance the desires of long-term residents and newcomers. The differences in the old and new societies in the Gorge, which reflect similar differences occurring at national levels, are vast and focus on attitudes toward natural resource uses and community and economic structure (Abbott, 1997). In general, the citizens of the new society value aesthetics and recreation as the primary use for natural resources in their networked lifestyle. While in contrast, the citizens of older society may still view resource use and deep connection to one place as ideal.

The genesis of the Columbia River Gorge National Scenic Area emerged out of these conflicting views. In watching turmoil grow in the Gorge area, and responding to concerns of a special interest group named the Friends of the Columbia River Gorge, the United States Congress decided that the nation had stakes in the future of the Gorge. In the opinion of Congress, the sustained multiple use of the Gorge in urban, recreational and traditional roles would best serve the nation. Thus, in 1986, after a series of meetings with Oregon and Washington officials, Congress declared a national interest in the “scenic corridor along the Columbia River from the confluence of the Deschutes River westward to the mouth of the Sandy River just outside of Portland” (Abbott, 1997).

The legislation provided Congressional consent for an interstate compact to be implemented by Washington and Oregon establishing a Columbia River Gorge Commission with the authority to head Gorge planning efforts. In order to avoid time-consuming complications that had plagued other past interstate planning efforts, congress outlined specific goals for the Scenic Area in the Scenic Area Act. These goals were:

- “1. To establish a national scenic area to protect and provide for the enhancement of the scenic, cultural, recreational, and natural resources of the Columbia River Gorge; and
2. To protect and support the economy of the Columbia River Gorge area by encouraging growth to occur in existing urban areas and by allowing future economic development in a manner that is consistent with paragraph 1.”

(USFS, 1990)

The Columbia River Gorge Commission was thus established and directed to prepare a plan for the Columbia River Gorge National Scenic Area, in conjunction with the Forest Service, toward meeting the goals of Congress. Six affected local Gorge counties would then be asked to implement the plan through their own land use regulation and ordinances, under the oversight of the Commission (USFS, 1990).

To initiate planning, Congress first moved to simplify and facilitate the preparation of a plan by dividing the Scenic Area into three categories of land. These included:

- (1) “Urban areas”, exempt from the management plan but eligible for funding to encourage future growth and develop in their communities;
  - (2) “Special management areas” (SMAs), comprised of the region’s most sensitive resources, to be managed more strictly than the GMAs and regulated for scenic, cultural, natural and recreational concerns; and,
  - (3) “General management areas” (GMAs), to be devoted mainly to traditional land uses
- (USFS, 1990).

Following these specifications, the Forest Service began framing interim guidelines for the entire Scenic Area and proposing strong preservation management plans for the SMAs, while the Gorge Commission was being organized. The commission was soon functional and working alongside the Forest Service, focusing on complimentary issues such as the GMAs, attempting to ready a plan for the Scenic Area within two years that had been allotted by Congress. In October 1990, the Forest Service released the first draft plan for the SMAs, and in December the commission followed with its plans for the GMAs (USFS, 1991).

Citizen responses to the draft plans were not supportive. A common concern among citizens was that the resource inventory and analysis for the plans was derived solely from technical consultant input. It was claimed that, based exclusively on views of consultants, the USFS and the commission had laid out plans for land use and recreational regulations in the Gorge. Citizens further complained that while the commission and USFS had opened an extensive public involvement program the federal planners were not listening to their input (Abbott, 1997).

Many changes were made to the draft plans in the year following their release. In addition to general public discord, officials from five out of six Gorge counties had been critical of the drafts, and suggested that the proposed guidelines for land use were inattentive to local policies and that they lacked flexibility. Then, in 1991, shortly before the scheduled release of a final draft of the Scenic Area Plan, a local county, along with several other concerned groups, jointly sued the Commission and the Forest Service. The plaintiffs claimed that the two planning groups were legally required to produce impact assessments for the proposed plans' consequences and asked for an injunction stopping all further work on the plans until such assessments were released. The commission argued that the Congressional Scenic Area Act had precluded the requirement to perform such assessments. A temporary injunction on the planning work was granted, during deliberations on the issue (Abbott, 1997).

In June 1991 the injunction was lifted. It was ruled that the Scenic Area Plan indeed did not require an impact assessment and the lawsuit was thrown out of court. Despite public protests, a final draft plan for the Scenic Area was compiled and released in July 1991. The response to this plan was again critical, and again changes were made to the draft. Some open space requirements were removed for the GMAs, more flexibility was granted to counties on the issue of recreational development in SMAs, and the commission added a pledge to Gorge counties to assist in any takings claims (USFS, 1992). Then, on October 15, 1991, in an intense meeting, the commission rejected a proposal to revise the plan to permit counties to adopt their own ordinances that meet the protection provisions of the plan, and adopted the a final version of the Management Plan (Abbott, 1997).

The Columbia River Gorge Scenic Area Plan was never focused on citizen involvement. Rather, the planning process actually emphasized top-down control. Federalism played a key role in the process, as national lawmakers drove the very details of the planning process in order to avoid possible changes in the direction of the plan due to local influence or legislation. Unfortunately, in a conservation situation involving diverse public and private interests, any benefits that may have been gained from local involvement in assessment and implementation local were probably lost through the dominant federal process.

Not surprisingly, the resulting management system has been one of exceeding tension. The implementation of the Plan in the six separate Gorge counties has required immense effort. Under advisory of the Commission, each county has had to implement the one overarching Scenic Area Plan with adaptations to fit their circumstances and policies. The commission has held the arduous task of reviewing, approving and coordinating adaptation and implementation proposals (Abbott, 1997).

### *The Blue Ridge Parkway*

The Blue Ridge Parkway provides a much more positive view of possibilities in federal scenic protection than does the Columbia River Gorge project. The idea for the Parkway

was developed as needed work for technical professionals that had been left unemployed by the Great Depression. Many families in the southern Appalachian region were already on the brink of poverty and any development in the area was viewed as needed improvement. Further, tourists were already visiting the beautiful but poor southeast to see the recently opened Shenandoah and Great Smokey Mountain National Parks, and the increasing popularity of the automobile was expected to continue to bring growing numbers of visitors (NPS, 1999).

Planning for the Parkway began in 1933. It was decided, with the support of President Franklin D. Roosevelt, that the roadway should join the Shenandoah National Park in Virginia to the Great Smokey Mountains Park in North Carolina. For two years, Congress debated fervently over the location, acquisition, and funding for the roadway. Finally, it was decided that the road would follow the ridges of the Appalachian Mountains from Virginia to North Carolina. The land for the road right-of-way would be purchased by respective states and then turned over to the federal Park Service for administration. Unlike other vast lands held by the NPS, the corridor for the Parkway would be thin and linear, at times reaching a width of only 200 feet, however it would be managed as any other park (NPS, 1999).

After the plans for the Parkway were laid out, construction finally began in 1935. Progress on the road was slow, as workers dealt with weather, terrain, reluctant landowners, and inadequate equipment. Still, despite trying conditions, crews were focused on designing and building the roadway so that it blended as much as possible into the beautiful surroundings. The Parkway was built one section at a time, as land was acquired, and designs were continually refined to allow more sensitive construction. Finally, in 1987, over 52 years after the initial ground breaking, and after parts of the roadway had been in use for decades, the Parkway was officially dedicated (NPS, 1999).

Despite this completion of the Parkway construction, the process of establishing an effective scenic Parkway continues to this day, and will continue in the future. Efforts are continuously ongoing to protect the viewsheds of the parkway in the interests of

Parkway visitors and the nation (NPS, 1999). About 4000 private property owners now have lands along the 470 miles of Parkway, which currently serves 20 million visitors annually. The futures of these properties adjacent to the Parkway hold the interests of not only the landowners but also the NPS and every future Parkway visitor.

Historically, “conflict has erupted” between those interested in ensuring the continued undeveloped character and pristine views of the Parkway and those with development interests in lands adjacent to the Parkway (Coalition Works, 1995, p. 22). In 1993, The Coalition for the Blue Ridge Parkway was formed to initiate dialogue between these groups.

The Coalition is a multi-state group of public and locally-based private organizations with interests in the Parkway, including the National Parks and Conservation Association (NPCA). The coalition coordinates many events in the interest of aiding communication and understanding regarding the Parkway. Recent Coalition activities have included efforts to raise community awareness about potential economic benefits of designing development with Parkway viewsheds in mind (Publisher, 1995). The group also frequently facilitates confrontational situations between the NPS, special interest groups, and development interests. In a recent example of such facilitation, the Coalition hosted a three-day workshop with developers and regional and park planners to craft a design for a new development that would be minimally disturbing to Parkway views.

The NPS management approach regarding the protection of the Blue Ridge Parkway is to be applauded over efforts at the Columbia River. Conservation interests are continuously pursued regarding the Parkway but strong-arm approaches are not used in dealing with landowners. By encouraging the Coalition facilitation in planning for the Parkway, the NPS is fostering public participation in a bottom-up decision making process. This inclusive rather than exclusive approach to management protects citizen interests and stimulates participation in environmental stewardship. Further, the approach protects NPS interests by building community support and vested interests in the Parkway through citizen inclusion in management. Thus, the public inclusion inherent in Parkway scenic

protection plans makes for desirable and effective results while the top-down approach instituted in the Columbia River Gorge, is undesirable, contentious, and has been less effective than desired due to difficulties in one-sided management. The lesson learned in comparing the approaches yields a last precedent and practice-based community involvement standard for community land conservation planning processes.

*A community land conservation process should include provision for public involvement in planning and implementation of conservation measures.*

### **2.3 Prospective Requirements**

Prospective community involvement standards are the final components to be integrated into the procedural guidelines for community land conservation planning processes. Conceptually, these are standards based on innovative ideas currently considered valid and desirable, but not yet sufficiently tested to provide precedents. In evaluating planning processes in conservation efforts, fulfillment of these prospective standards is suggested.

#### ***Emerging New Developments in Collaboration and Communication***

All of the prospective standards to be derived in this section originate in one realm of innovative thought related to community land conservation. Issues of collaboration and communication are in the fore in modern planning research. In particular, much has been written of late pertaining to the appropriate role of communication in efforts to attain sustainable development. As discussed earlier, the idea of sustainability has been receiving increasing amounts of attention in the academic, professional and public realms. In recent years, meaningful dialogue has been officially recognized as invaluable in assuring appropriate and maximally beneficial development management. In a 1998 writing, Van Rooy argues that the quality of a planning process for attaining sustainable development is as important as the outcome of that process, and that there needs to be more room for participation and communication in most planning efforts. He further states that the basic structure of communication in a sustainable development planning effort can greatly control the effectiveness of the plan (Van Rooy, 1998). As

communication issues are important in sustainable development, so they are in community land conservation.

The topic of communication in sustainable development has been addressed repeatedly in recent technical literature. Several articles have been published in the past five years that address appropriate roles for communication between various parties in assuring beneficial progression toward sustainable development. In general, the relevant pieces of literature have addressed a broad scope of communication issues in sustainability, including international, national and regional scale communication between a spectrum of involved public and private agencies, institutions, corporations, organizations and individuals. While community land conservation projects may be small in geographic scale and limited in involved parties, very valuable ideas applicable to local conservation processes can be gleaned from literature pertaining to various venues of communication in sustainable development.

International communication about sustainable development concepts and policies sets the context in which planning for development occurs in individual countries. Broad and accurate dissemination of information and ideas between national governments and citizens is vitally important in attaining a common and effective global stance toward environmental challenges. The application of this concept to community conservation efforts is elementary. As worldwide sharing may lead to consistently acceptable national actions, broad dialogue on problem-specific local management situations may allow learning from others' mistakes and increasingly consistent imitation of others' triumphs at local levels. In carrying out planning processes for community land conservation, information and suggestions should be solicited from many individuals and groups who are facing or who have faced conservation management situations.

For example, in Mexico, communal groups called Ejidos live on rural lands that are partially held in government control. Over 55% of the forested land in Mexico is held in such systems. These forests have enormous diversity in living ecological communities. Still most of the ejido lands are managed strictly for timber. The Mexican government is

aware that these practices are not conducive to sustainability, and is beginning to try to implement new policies to bring about more sensitive development. A key part in bringing about management changes on the ejidos is communication. The goal of the federal government is to encourage ecosystem management on the lands. This will require consideration of issues beyond the scope of individual ejido cooperatives. The preliminary federal role will thus be one of collaboration, facilitation and education, disseminating information about better management practices to ejido residents, coordinating cooperation between ejidos, and listening to and understanding the views of the citizens. As local situations and needs are collaboratively assessed and understood, and the ejido cooperatives are aided in assimilating to coming changes, the federal government will hopefully be able to pass national legislation to bring about ecosystem management in the country (Thoms, 1997).

“Effective communication is vital to the success of a project which may well require a change in habits and behavior in the communities served” (Tyson, 1995). There is straightforward application of these communication concepts to community land conservation situations. Collaboration with the landowners about needed policies will facilitate the efficient transition to the new land management system and increase the likelihood of effective results from the system. Authorities implementing conservation planning processes need to talk with all stakeholders, understand their situations and desires for management, and foster optimally effective change by adaptively approaching new management regulations, facilitating changes in practices, and coordinating cooperative learning efforts among citizens.

An example of such communication and management can be seen in recent articles published about water quality control. One 1995 article by Vicory describes efforts for sustainable management of the Ohio River by an inter-jurisdictional commission. The commission, with representatives from eight states, was formed nearly forty-five years ago to deal with terrible water quality and disease problems in the Ohio River through conservation and sanitation measures. It was realized, even that far in the past, that efforts to ensure water quality in a specific location were useless if efforts were not made

above and below that point on the river. The commission was formed in recognition that communication of concerns and desires, and coordination between all stakeholder groups involved in river management, was the only way to bring about effective management results (Vicory, 1995).

Effective communication is also occurring between technical professions historically separated from each other. For example, the fields of ecology and economics have often been opposed during the past century in their views on environmental issues. Recently, communication of principles has occurred openly between the two fields. In 1995 an article in *Environment* addressed the topic of “green” accounting. The paper describes how, through communication of concepts between ecology and economics, ecological economics had emerged as a way to account for ecological services in economic terms (De Azua, 1995).

The benefits of interdisciplinary communication processes, as carried out with respect to sustainability, could also increase the effectiveness of conservation planning processes in communities. Gaining sound understanding of the scientific and technical situations associated with land management issues in a community would be of benefit to agencies and citizens concerned with conservation. Community or agency leaders might coordinate the scheduling of comprehensive, and yet clear, open information sessions with ecologists and engineers that could greatly improve the public and government understanding of pertinent issues related to land management and conservation. Such knowledge would hopefully lead to more appropriate and adequate land regulation and management, and to citizen support for policies protecting their personal and environmental well-being.

Finally, it has also recently become important for communication to address sustainable development issues related to economics and equity issues. For example, a recent article in *Agricultural Marketing* outlines to its readers how sustainability can play a role in the daily business of modern farmers. In this information age, where growing numbers of people are aware of the ideas of sustainable development, the agricultural community can

help educate the public and bring about reform toward stewardship by incorporating sustainability into their practices and marketing. Marketing products grown in a sustainable manner raises citizen awareness of the need for sustainable practices while putting a premium on stewardship. In short, farmers' production will benefit from dissemination of better practices, while their sales will benefit from a good environmental reputation (Anderson, 1999).

## **2.4 Summary of Conservation Planning Guidelines**

From the foregoing discussions of legislative and precedent and practice-based guidelines for agency and citizen-driven conservation planning processes, several professional and community involvement standards have been derived applicable to community land conservation planning processes:

*A community land conservation planning process must meet all applicable local, county state, and federal legal requirements.*

*A community land conservation planning process, meeting qualifications for regulation through NEPA, must meet all applicable NEPA requirements.*

*A community land conservation planning process should include the consideration of an extensive scope of information, including consideration of many systemic perspectives and diverse stakeholder views.*

*A community land conservation planning process should include cooperative education among stakeholders about conservation needs and program goals.*

*A community land conservation process should include provision for public involvement in planning and implementation of conservation measures.*

From the immediately preceding discussion regarding emerging developments in communication and collaboration, several prospective guidelines may now be added as standards for agency and citizen-driven conservation planning processes:

*A community land conservation planning process should include inventory of best conservation practices pursued by others in similar situations.*

*A community land conservation planning process should include collaboration about citizen desires and about needs for adaptive conservation management.*

*A community land conservation planning process should include coordination between all involved management parties to ensure compatible practices.*

*A community land conservation planning process should include consideration and distribution of all possible related supplementary information.*

*A community land conservation planning process should include dissemination of information about conservation practices that may benefit workers on the job.*

In reviewing the above standards, derived as guidelines for land conservation planning processes, some of the guidelines are noticeably related in concept and intent. Further, several of the more specific standards may be nested within more general standards in the list. Considering these organizational issues, the list of planning guidelines may now be effectively condensed into a more concise and well-organized format.

Standards addressing legislative professional requirements may be summarized into one guideline.

*A community land conservation planning process must meet all applicable local, county, state, and federal legal requirements, in particular, all applicable NEPA requirements.*

Another guideline is constructed regarding professional standards for pursuit of best conservation practices.

*A community land conservation planning process should include inventory of best conservation practices in similar situations.*

Community involvement standards related to the extent of consideration pursued in a planning process are nested in the following guidelines.

A community land conservation planning process should consider diverse systemic perspectives and stakeholder views:

- *it should provide opportunities for citizen involvement and input regarding desires and adaptive management needs.*

Another set of guidelines addresses community involvement standards for open sharing and learning between all stakeholders.

*A community land conservation planning process should facilitate cooperative learning between stakeholders about conservation needs and program goals:*

- *it should disseminate pertinent supplemental information*
- *in particular, it should provide information promoting citizen economic and equity benefits*

Finally, a set of planning guidelines is compiled regarding community involvement standards for stakeholder participation specifically related to conservation measures.

*A community land conservation planning process should include public involvement in planning and implementation of conservation measures:*

- *it should include coordination among stakeholders to ensure compatible practices.*

### ***Evaluative Matrix***

Given the above condensed community land conservation planning guidelines, a cumulative matrix of these guidelines may now be compiled for utility in evaluative purposes. The evaluative matrix in Table 1.2.1 shows the planning guidelines condensed from the conservation planning standards derived in this chapter. The table further indicates the sphere of planning standards associated with the respective guidelines. The planning processes involved in any particular effort to establish land conservation within communities may be reviewed in relation to the standards in this evaluative matrix. In Chapter 3, the evaluative matrix will be applied in analysis of the community land conservation planning process associated with the New River Parkway project.

<u>Sphere</u>	<u>Planning Guidelines</u>
Professional Standards	<p>A community land conservation planning process must meet all applicable local, county, state, and federal legal requirements, in particular, all applicable NEPA requirements.</p> <p>A community land conservation planning process should include inventory of best conservation practices in similar situations.</p>
Community Involvement Standards	<p>A community land conservation planning process should consider diverse systemic perspectives and stakeholder views:</p> <ul style="list-style-type: none"> <li>▪ it should provide opportunities for citizen involvement and input regarding desires and adaptive management needs.</li> </ul> <p>A community land conservation planning process should facilitate cooperative learning between stakeholders about conservation needs and program goals:</p> <ul style="list-style-type: none"> <li>▪ it should disseminate pertinent supplemental information</li> <li>▪ in particular, it should provide information promoting citizen economic and equity benefits</li> </ul> <p>A community land conservation planning process should include public involvement in planning and implementation of conservation measures:</p> <ul style="list-style-type: none"> <li>▪ it should include coordination among stakeholders to ensure compatible practices.</li> </ul>

**Table 2.1. Guidelines for Community Land Conservation Planning Processes**

## **Chapter 3 - Case Study**

In attempting to successfully establish community land conservation within America, it is useful to critically evaluate the processes utilized in any particular effort undertaken to achieve conservation in communities. If current community land conservation cases are examined, and the character and effectiveness of the programs are evaluated with respect to meaningful procedural guidelines, insight can be gained to increase the effectiveness of conservation projects. An evaluation of the conservation efforts related to the New River Parkway Project, currently being planned in West Virginia, is undertaken to demonstrate this approach and apply the guidelines developed in Chapter 2.

### **3.1 History - The West Virginia New River Parkway Project**

The evolution of the objectives and planning processes associated with the New River Parkway project are described below. The guiding priorities associated with the project are then explored, as revealed in particular procedural actions. In the course of reviewing these facets of the project, and in accordance with previous discussion, the Parkway case is shown to provide a good setting for a sample evaluation of conservation planning processes in relation to the preceding matrix of planning guidelines (Table 2.1). Moreover, an immediate need is revealed for critical analysis of the community land conservation planning processes in the project.

#### ***New River Parkway Evolution***

The New River, arguably the oldest river in North America, runs north through North Carolina and Virginia, into West Virginia. In 1978, Congress passed legislation creating the New River Gorge National River along 50 miles of the New in the Appalachian Mountains of southeastern West Virginia. The demarcation of this National River, which is managed by the National Park Service (NPS), has led to consistently increasing numbers of yearly recreational tourists visiting the area and its featured sites. In response to increased visitation and to perceived needs for more public river access, increased protection of natural resources along the river, and economic development in surrounding

localities, the proposal for a scenic Parkway along the New River emerged. In 1985, the West Virginia State Legislature established the New River Parkway Authority (NRPA). The NRPA was authorized to work with local, state, and federal agencies, as well as other public and private entities, for the purpose of planning and coordinating development of the proposed New River Parkway (NRPA, 1991).

Conceptual plans for the Parkway included management of public and private lands by the New River Parkway Authority, within a “Parkway Corridor” along the road, for conservation and scenic purposes. Toward achieving such conservation management, the NRPA contracted with Virginia Tech to prepare a comprehensive Master Plan and a Land Management System for the Parkway. In preparing the Master Plan and the Land Management System (LMS), some community participation in public meetings and cooperative efforts were utilized in formalizing goals and objectives for the location and construction of the proposed roadway and for the appropriate management of lands along the Parkway. The early responses and support solicited from the public were based, in good faith, on initial descriptions of the Parkway project character and constraints. Public input was incorporated into a Master Plan, outlining preliminary visions for Parkway. Policies were also derived from expressed goals and objectives related to land management and were drafted for implementation in the LMS (NRPA, 1992).

Today, more than a decade after the conception of the Parkway project, construction of the roadway could finally begin within a year. Federal funds have been acquired for the development of the road, and an environmental impact assessment process undertaken. West Virginia Department of Highways (WVDOT) has contracted to build the road and hired consultants from Virginia Tech to produce the Environmental Impact Statements and other documents associated with the project. Multiple Draft Environment Impact Statements for the Parkway have been filed, revised, and filed again. In the fall of 1999, the Final Environmental Impact Statement (FEIS) for the Parkway may be filed. If pertinent agency reviews of this document are complimentary, including reviews by the Environmental Protection Agency (EPA) and the United States Department of Transportation (USDOT), a final Record of Decision could finally be signed for the

Parkway project possibly leading to initiation of construction as soon as the year 2000 (USDOT, 98).

The character of the Parkway project has changed, however, over the long course of years from its conception to implementation. In fact, on its face, the current project might not be recognizable to those who framed initial goals and objectives for the Parkway years ago.

For example, the LMS has evolved significantly in agency hands since its origin in early public thoughts on conservation. The LMS, which is currently in Draft form, holds that the NRPA will guide land development, on the public and private lands in a 1000-foot corridor along the new roadway, through the use of development permits conditional on performance standards and design guidelines (NRPA, 1999). As recently amended, state legislation expressly grants the NRPA authority to oversee implementation of this system. For years the NRPA and DOH have indicated to area residents that by so controlling land development in the Parkway corridor, the agency could adequately protect environmental, social, and visual resources along the Parkway area in perpetuity. This has now changed.

Significantly, officials associated with the Parkway have stated, until recently, that no land would be acquired in connection with the proposed road (right-of-way acquisition notwithstanding), except from willing sellers. Initially it was thought that the LMS would provide adequate land conservation. Despite more than ten years of such direct communication from NRPA representatives to Parkway vicinity residents, a proposal for mandatory land acquisition and forcing of easements on private property in association with the roadway has emerged this year, only months before the anticipated release of the Final Environmental Impact Statement for the Parkway.

In a Preferred Alternative Report (PAR) produced and released in August 1999, the WVDOH formally described the selection process for the “preferred parkway alternative”. In the PAR it was also announced that a land acquisition program would be

implemented, whereby private land along the Parkway was to be acquired (outright or through easements) for conservation and scenic purposes. WVDOH and NRPA explanations for the new land acquisition policy hinged on the idea that federal resource agencies recently stated that the only way the project could meet its conservation goals was through acquisition of land between the parkway and the New River (WVDOH, 1999).

To incorporate mandated public involvement into the environmental impact assessment process for the newly revised Parkway, a public meeting was scheduled by WVDOH. The meeting, which was officially announced to unveil the Preferred Alternative Routing for the Parkway, was held on Thursday, September 9, 1999, from 4 to 7 PM. There were no formal presentations of information given to the public, and no microphones or other communication devices were provided to facilitate open communication with the assembled group of area residents. Hundreds of citizens came to the meeting, and went from table to table without formal agency guidance. A large amount of technical information was available at booths and tables. Based on personal conversations with these citizens, many felt they were leaving the meeting without solid information about the project proposals or progress. Further, residents (who had asked WVDOH officials about the ultimate fate of their homes and land) expressed that they had been informed that plans for the roadway were not finalized and effects of the project implementation could not be predicted with accuracy.

This 'public information' session was the last specifically scheduled public interaction that was to be involved in the process of implementing plans for the New River Parkway. Personal written citizen responses were solicited at the meeting and collected by WVDOH officials and citizens were given one month to send in additional written comments. The agency now has the power to summarize and report these comments as they deem appropriate. They may use selected written comments, or summaries of the comments, in the FEIS.

### *Questionable Priorities*

The notion of New River Parkway was sparked over a decade ago in an effort to respond to needs in the New River Gorge area. It was believed that conservation and managed development were needed in the communities where the Parkway was proposed. When citizens in the project area were asked to share their views on the project, they showed support for a roadway that could bring economic growth to their area while protecting the river and land resources that made their homes so special to them. Truly, the situation seems to be an ideal setting for the establishment of community-focused land conservation efforts. Yet, as the Parkway project has developed through the years, the importance of communities in the conservation processes associated with the Parkway seems to have been overshadowed by WVDOH and NRPA desires for efficiency. Evidence of this can be seen in a situation that occurred in early summer of 1999.

It was explained previously that, by regulations in the current LMS, the NRPA will guide land development in 1000-foot along the Parkway corridor through the use of performance standards and design guidelines. The NRPA does not have the authority to regulate many of the mountainous slopes beyond the Parkway Corridor (where there are currently neither zoning nor land use controls). These slopes, on either side of the river, are both ecologically and visually important to the Parkway Corridor. Largely covered by second growth forest (after re-growth from clear cutting at the beginning of the 1900s) these hillsides and their management hold the interests of the NPS, the NRPA, and private landowners.

In 1998, NPS officials in the New River Gorge obtained information that timber companies had approached private citizens in the Parkway area with offers for clear-cutting on their hillside properties (NPS, 1998). Management of the sensitive mountainsides of the Gorge is complicated in the fact that the National Park Service owns about one third of the land along the proposed Parkway between I-64 and the city of Hinton, while the other two-thirds is privately held land that cannot be simply acquired by the NPS except on a willing-seller basis. Landowners in the area own valuable development rights on their land, including the right to clear-cut (for timber or land

development). The NPS and NRPA would like to see the land remain in its current undeveloped and forested state so as to ensure the continued integrity and attractiveness of these forested lands.

The challenge thus presented, considering the potential threat of clear-cutting, is to develop a consistent conservation plan for the entire set of undeveloped hillside lands along the preferred road alignment. To be effective, this plan needs to meet the conservation and use desires of both public and private entities, while functioning in an environment where there is no absolute authority to enforce implementation of this plan on private lands. Given the situation, a collaborative planning approach offers a hopeful approach.

From a review of past initiatives in similar situations, it appears that strong, top-down administrative approaches to conservation in areas of diverse and/or rural land use interests are generally not welcomed. This concern has also arisen in the New River Parkway study area. In the New River Gorge a more public-centered approach seems desirable, and in fact this type of approach is virtually mandated by the presence of private landowners with significant economic and other interests in the land. Optimally successful conservation of the private hillside lands in the area could likely be developed collaboratively, with solicitation of stakeholder participation and meaningful local input as an essential component. Private landowners would stand to benefit from participation in such a collaborative process, as they could learn about and implement conservation methods that would likely be more beneficial (ecologically and economically) than clear-cutting their forested slopes. The NPS and NRPA could benefit from participation, as more private lands could be put into “conservation and sustainable uses”, protecting the New River Parkway viewshed.

In light of these conditions a proposal for research was submitted to the NRPA, early in 1999, toward developing a collaborative process to address conservation of the undeveloped hillsides along the Parkway. Minimal funding and agency involvement were requested for the project. In brief, it was proposed that a researcher would visit

landowners at their convenience, converse with the residents about their desires for their land, and offer an invitation to discuss potentially beneficial conservation management options with the NRPA. If residents were interested in such collaborative consultation with the NRPA then a meeting would be scheduled, and a discussion list prepared of potential conservation options that best met the previously expressed land use desires of the resident for discussion with an NRPA representative (Childers, 1999).

Upon review of this research proposal, the NRPA declined to fund the proposed research project. At a monthly meeting of the NRPA, it was explained that the proposal came at a bad time, as the process toward implementing plans for the Parkway was about to be finalized. It was expressed that members of the NRPA were concerned that approaching citizens about potential collaborative land conservation issues might raise the likelihood of organized citizen objection to the newly revised Parkway plans for land acquisition.

Such rejection of a potentially beneficial, simple, and low-cost collaborative conservation effort with citizens, implies that the finalization of the Parkway project, as envisioned by agency officials, had become more important than the interests of communities along the Parkway. This situation may ultimately result in less effective and efficient conservation as residents react angrily to a perceived land-grab by WVDOH and the NPS. In fact, some citizens are now indicating that they will fight all land acquisition proposals and do not favor parkway construction.

As previously described, the conditions leading to the development of the New River Parkway project suggest a need for land conservation in communities along the roadway. Further, the early attitudes and objectives of citizens from these communities seemed to beckon the pursuit of community-focused land conservation. If the Parkway is completed as currently proposed, land conservation will indeed be established in communities along the roadway within the next few years. Yet, this conservation effort may be established through a land acquisition program that disregards community issues and interests.

### ***Necessity for Investigation***

As expressed in Chapter 1, there is evidence that community focused planning processes are the best means toward approaching effective and efficient community land conservation. An opportunity and need is here presented to critically evaluate the New River Parkway approach to community land conservation in relation to ideal planning process guidelines. Indeed, given the current characteristics of the project, immediate evaluation toward improvement of the ongoing Parkway conservation planning process is beckoned. In Section 3.2, the community land conservation processes associated with the New River Parkway are critically evaluated against the guidelines for community land conservation efforts derived in Section 2.4.

### **3.2 Evaluation of Parkway Land Conservation Planning Processes**

In accordance with previous discussion, a review of the New River Parkway community land conservation planning processes is desired, in relation to the evaluative matrix of ideal planning process standards for community land conservation efforts derived in Table 2.1.

In this section (3.2), the Parkway planning process for community land conservation, as described in the previous section, is reviewed. The performance of this planning process, as of September 1999, in meeting the ideal planning guidelines from the evaluative matrix is briefly examined. Subheadings through this section indicate the standards being addressed. At the conclusion of the chapter, a comprehensive critique of the Parkway community land conservation process is presented in a matrix (Table 3.1).

*A community land conservation planning process must meet all applicable local, county, state, and federal legal requirements, in particular, all applicable NEPA requirements.*

The above is a mandatory professional standard that must be met in community land conservation planning processes. The planning processes toward conservation in the Parkway project must fulfill all germane legal requirements. Currently the process that

has been followed appears to meet general common and civil legal requirements. However, the New River Parkway project will utilize significant federal funds and also has been determined to qualify for regulation under NEPA. The project is planned to include the construction of a roadway and will evidently have dramatic impacts on the environment, so a FONSI was nonviable option for the Parkway project. Accordingly, the submittal of a Draft Environmental Impact Statement has been required for the Parkway project.

Various regulations govern the federal environmental impact statement process. Many of these regulations have been followed by WVDOH in pursuing environmental impact assessment for the planned Parkway project. Until recently, Virginia Tech consultants have done an adequate job of guiding WVDOH through the environmental impact assessment process toward fulfilling all federal requirements. But the recent and abrupt addition, by WVDOH, of land acquisition plans into the Parkway project has potentially shortcut due process and regulations. Certainly, the spirit of NEPA has not been followed as it might have.

Following NEPA, any significant change in a proposed project, during the course of environmental impact assessment, may duly require the completion of a Supplemental Draft Environmental Impact Statement (SDEIS). In light of the characteristics of the land acquisition plan proposed by WVDOH, additional consideration of public views and opinions, exploration of alternatives for land conservation, and identification of impacts of proposed actions would be very valuable. Engagement in an SDEIS could very well help to address these needs. Under these circumstances, NEPA regulations appear to dictate that an SDEIS should be completed for the Parkway Project, however this has not been pursued by WVDOH. Accordingly, it is concluded that the Parkway planning process meets the above professional standard only in part.

*A community land conservation planning process should include inventory of best conservation practices in similar situations.*

The above is a suggested professional standard that would be wisely met in community land conservation processes. Communication in the Parkway process toward community land conservation has included some efforts to inventory currently acceptable practices in land conservation. However, as described in Chapter 1, currently accepted conventional American practices in land conservation are not optimally effective and efficient, as they do not adequately address community issues and interests.

An ideal inventory of best conservation methods would actually include solicitation of ideas and practices from groups pursuing non-conventional community-focused land conservation. Communication in the Parkway process has not included such an inventory of best practices. Thus, while some inventory efforts have been pursued in the planning process, the above standard has been met only in part.

*A community land conservation planning process should consider diverse systemic perspectives and stakeholder views:*

- *it should provide opportunities for citizen involvement and input regarding desires and adaptive management needs.*

The main standard above is an obligatory community involvement standard that should be met in community land conservation planning processes. The process of approaching conservation in the Parkway project has included some rigorous analysis of resource and stakeholder issues. Diverse viewpoints and perspectives have been considered in association with the project up until the development of new land conservation plans.

In framing recent approaches to land conservation, there has not been very extensive exploration of stakeholder views on conservation issues. Put in practical terms, the effects of proposed conservation measures have not been evaluated from many diverse

perspectives. More specifically, during the past year, as new land management concerns have arisen, opinions on appropriate land conservation strategies have not been adequately solicited from the wide variety of individuals and groups who have a stake in the management of lands in the Parkway area.

The bulleted standard above is a suggested community involvement standard that would be wisely met in community land conservation processes. Regrettably, very minimal recent collaboration has occurred with stakeholders regarding the conservation issues in the Parkway project. During the past few years, basic citizen desires regarding land conservation issues have not been sought by Parkway officials, much less any perceived needs for adaptive implementation of policies toward facilitating public understanding and compliance.

During the genesis of plans to require land acquisition, interactive dialogue with citizens from communities along the Parkway has been minimized. Any attempts, by Parkway officials, to collaboratively assess citizen desires and needs related to planned conservation measures would have resulted in clearly perceived obligations to the public. Such obligations have been evaded through the avoidance of collaboration with citizens. This process clearly does not meet the suggested procedural standard stated above.

*A community land conservation planning process should facilitate cooperative learning between stakeholders about conservation needs and program goals:*

- *it should disseminate pertinent supplemental information, in particular, information promoting citizen economic and equity benefits*
- *in particular, it should provide information promoting citizen economic and equity benefits*

The main standard above is another obligatory community involvement planning standard that should be met in community land conservation planning processes. In the

early years of planning for the Parkway, cooperative interaction between stakeholders was common. Over the years since then, such interaction has diminished. The current state of affairs surrounding community land conservation efforts associated with the project is marked by infrequent and informal interaction such as took place at the recent public meeting regarding the Preferred Alternative for the New River Parkway.

At this public meeting, plans to require acquisition of all private lands between the Parkway and the New River, for conservation purposes, were unveiled to the public. Evidently no cooperative education through the meeting was intended. There was no organized presentation of information by WVDOH and no opportunity was presented for citizens to voice concerns or interact with agency representatives as a group. In fact, citizens were not addressed in any way beyond literature and maps, available at the meeting, about the need for conservation along the Parkway or the reasoning behind the proposed conservation actions. Thus, the stakeholders could certainly not be expected to provide valuable input about their views on the conservation situation. Considering these facts, it seems that cooperative development of shared ideas and a common sense of purpose has minimal place in the current Parkway community land conservation process, and the obligatory standard has not been met.

The first bulleted standard above is another suggested community involvement standard that would be wisely met in community land conservation processes. In approaching the conservation of lands along the Parkway, a full understanding of the ecological and cultural dynamics in the area would be beneficial to project officials and to citizens.

Officials involved in the Parkway land conservation planning process have failed to pursue, consider or distribute much supplementary information relevant to the project. Engineers and scientists from various fields of expertise could be called upon to publicly address many pertinent issues and increase the general understanding of officials and citizens concerned about conservation along the Parkway. Such provision of additional understanding has not been pursued to the degree warranted for developing effective and efficient land conservation strategies. The suggested standard has not been met.

The second bulleted standard above is another suggested community involvement standard that would be wisely met in community land conservation processes. In the Parkway study area, there are some people who might stand to benefit from the dissemination of information about potentially economically profitable conservation practices.

In particular, citizens who own lands that include forested hillsides may pursue forestry or clear cutting on their land as a business venture. These landowners could benefit greatly by learning about conservation practices such as granting easements to groups that practice sustainable forestry. Such citizens could receive profitable yearly stipends from the sustained use of their land, without ever having to clear-cut or sell their land, if they only knew about their conservation options. To date, there has been no organized effort by Parkway officials to disseminate such information to landowners in Parkway communities. Further, the NRPA has declined to support proposed efforts to engage citizens in meaningful dialogue about conservation options for forested lands. Noting these facts, it is concluded that the Parkway community land conservation process has not met the suggested standard above.

*A community land conservation planning process should include public involvement regarding planning and implementation of conservation measures:*

- *it should include coordination among stakeholders to ensure compatible practices.*

The main standard above is another obligatory community involvement standard that should be met in community land conservation processes. The community land conservation processes associated with the New River Parkway project have not very well met this standard. Little provision for active and continual public involvement in planning or implementation of conservation measures has been a part of recent Parkway processes.

The plans for conservation of lands through land acquisition, recently proposed in association with the Parkway project, were derived entirely by officials associated with the project. Public input was not sought in the planning the scope or details of these proposed measures. Though earlier public comments were considered, they were not given much weight in the decision to propose outright acquisition of lands between the Parkway and the New River. Furthermore, Parkway officials will be solely responsible for implementing these planned conservation measures. The above obligatory community involvement standard has obviously not been met in this planning process.

Finally, the bulleted statement above is one last suggested community involvement standard that would be wisely met in community land conservation processes. The Parkway process has fairly adequately met this standard. In approaching community land conservation, Parkway officials have coordinated with pertinent agencies and groups holding interests in the management of the lands in question. Various management objectives for the lands have been examined to ensure the compatibility of planned conservation measures associated with the Parkway.

### ***Critique of Parkway Community Land Conservation Planning***

The preceding evaluation of the Parkway community land conservation planning process yields effectively discriminating results. The planning process is seen to fully meet one of the planning guidelines for community land conservation planning, partially meet two others, and fail to meet the remainder. The comprehensive performance of the Parkway process, with regard to the ideal procedural standards, is presented in Table 3.1.

<b>Planning Guidelines</b>	<b>Performance of Parkway Planning Process</b>
A community land conservation planning process must meet all applicable local, county, state, and federal legal requirements, in particular, all applicable NEPA requirements.	Meets in part
A community land conservation planning process should include inventory of best conservation practices in similar situations.	Meets in part
A community land conservation planning process should consider diverse systemic perspectives and stakeholder views:	Fails to meet standard
<ul style="list-style-type: none"> <li>▪ it should provide opportunities for citizen involvement and input regarding desires and adaptive management needs.</li> </ul>	Fails to meet standard
A community land conservation planning process should facilitate cooperative learning between stakeholders about conservation needs and program goals:	Fails to meet standard
<ul style="list-style-type: none"> <li>▪ it should disseminate pertinent supplemental information</li> </ul>	Fails to meet standard
<ul style="list-style-type: none"> <li>▪ in particular, it should provide information promoting citizen economic and equity benefits</li> </ul>	Fails to meet standard
A community land conservation planning process should include public involvement in planning and implementation of conservation measures:	Fails to meet standard
it should include coordination among stakeholders to ensure compatible practices.	Meets standard

**Table 3.1. Evaluation of NRP Conservation Planning Process as of September 1999**

## **Chapter 4 - Conclusions**

In the beginning of this paper, it was argued that recent pressures on resources have led to a critical national need for effective and efficient conservation efforts. Legally viable, community focused land conservation efforts were shown to be desirable, as they could potentially result in optimally effective and efficient conservation. Further, it was proposed that the derivation and pursuit of some ideal professional and community involvement standards for community land conservation planning processes might help yield optimally effective and efficient results from both agency and citizen-driven conservation initiatives.

To operationalize the concepts of this proposal, a set of ideal standards for community land conservation processes were compiled from an extensive review of pertinent information regarding conservation efforts. The application of these devised standards was then demonstrated in the critical evaluation of processes toward community land conservation in the West Virginia New River Parkway project. The performance of the Parkway process, as of September 1999, in meeting ideal procedural standards for community land conservation efforts was critiqued. As previously mentioned, the Parkway project is at a critical juncture, where important decisions will soon be made regarding the final implementation of the project as currently planned. The results of the preceding critical evaluation of the Parkway planning process could be useful in making more informed decisions toward the ultimate goal of approaching optimally effective and efficient conservation in the Parkway project.

In Section 4.1, the findings concerning the performance of the Parkway process, in relation to the planning guidelines, are discussed in practical terms. Finally, in Section 4.2, the research and evaluative methods proposed in this paper are critiqued.

## **4.1 Conclusions Regarding Parkway Land Conservation Planning**

In this section, the positive and negative aspects of the New River Parkway conservation planning process, in relation to derived guidelines for community land conservation planning processes, are discussed in practical terms. The benefits of positive aspects of the planning process, that meet ideal standards, are first explained and promoted. Then the negative procedural characteristics of the planning process are addressed and proposals are forwarded for practical improvements in future Parkway conservation efforts.

### ***Positive Aspects of the Parkway Conservation Planning Process***

In reviewing the New River Parkway community land conservation planning process, it is observed that the process partially meets two of the previously derived ideal planning guidelines for community land conservation efforts, and fully meets one more of the guidelines.

Of first note, the Parkway conservation planning process does appear to successfully meet many generally germane legal requirements. This characteristic should be sought in all community land conservation projects. Efficient implementation of conservation measures may be greatly increased through legally viable projects. Thus, the methodology employed by Parkway officials in identifying, considering and meeting general legal requirements might be of great utility to others pursuing conservation efforts.

Secondly, the planning process partially meets the professional standard concerning inventory of best practices. Officials associated with the Parkway have tried to ensure strong resource protection by pursuing conservation practices currently deemed appropriate by such resource management agencies as the NPS. At least there has been some attempt made to stay abreast of current practices, even though the methodologies of groups like the NPS may be far from those considered appropriate in modern idealist conservation planning theory.

Finally, the Parkway conservation planning process fully meets the suggested requirement to effectively include communication between pertinent parties in coordinating compatible land management strategies. The conservation measures proposed for the Parkway area may not be ideal in nature, but they also do not blatantly conflict with other official management interests in the land. Consider the acquisition of land between the Parkway and the New River, recently proposed for conservation purposes. The West Virginia Department of Natural Resources may very well have objected to losing potential river access on these lands. However, in the process of approaching conservation, care was taken by Parkway officials to coordinate with these interests. Specific points of recreational river access were officially proposed to be included in conservation plans. Such coordination of conservation efforts, toward meeting official management interests on lands in question, provides for optimally effective conservation of lands. If all parties with interests in particular lands can coordinate conservation strategies and practices, they may pursue additive results in conservation rather than following conflicting agendas.

Unfortunately, beyond the three positive procedural aspects described above, the Parkway conservation planning process leaves much to be desired. The following discussion addresses the procedural failings of the conservation effort and includes suggestions for practical procedural improvements.

### ***Negative Aspects of the Parkway Conservation Planning Process***

Evaluation of the Parkway conservation planning process revealed its failure to fully meet eight of nine ideal planning guidelines for community land conservation efforts. Below, the flawed characteristics of the planning process are addressed in relation to each respective unmet standard. Proposals are made, in regard to each procedural flaw, for actions that might remedy the shortcomings of the Parkway planning process. These suggestions may also be applicable to other conservation projects.

It is first noted that, despite the fact that the Parkway planning process ostensibly meets all generally germane legal obligations, the process does not meet specific NEPA

requirements. Such failure may actually detract from the effectiveness of the conservation effort, as the procedural requirements of NEPA are designed to produce optimally appropriate environmental actions. Furthermore, the efficiency of the conservation effort may also eventually suffer due to litigation regarding the NEPA requirements. Fortunately, the NEPA related procedural failure in New River Parkway conservation effort could be corrected by a conceptually simple solution. A Supplemental Draft Environmental Impact Statement could be completed for the Parkway project as modified by new land acquisition plans.

A second shortcoming in the Parkway conservation process is a lack of attempted communication toward inventorying modern best conservation practices. If Parkway officials ultimately pursue conventional conservation practices, the results of such non-community focused conservation efforts may be ineffective and inefficient. To truly meet the need for an inventory of optimally successful conservation practices, parkway officials could speak directly to other groups who are currently pursuing innovative, community-focused conservation initiatives.

The third problem in the Parkway conservation planning process is its failure to adequately include consideration of diverse perspectives and views related to the proposed conservation. Under these circumstances, ineffective conservation measures could easily be implemented, since not all of the pertinent information regarding existing conditions and potential impacts has been considered. This need could be effectively addressed during the completion of an SDEIS for the Parkway project. Scoping, identification, and consideration of an extensive range of issues related to conservation alternatives should be performed to bring diverse perspectives into project documents.

A fourth drawback failing in the Parkway conservation planning process is the lack of collaborative communication with citizens about their needs for adaptive implementation of conservation measures. If the Parkway conservation policies were executed as they are currently proposed, many dramatic changes in land use regulations would be immediately experienced in the Parkway area. Citizens have not been adequately

prepared for such drastic changes in land use policies, and implementation of policy might be very inefficient. The current procedural problem that could well lead to this scenario might be remedied through some collaborative meetings between Parkway officials and citizens. Communication about citizen perceptions and expectations for conservation efforts could be pursued at these meetings. Then, in light of these citizen perceptions, Parkway officials could eventually facilitate change to new land use regulations by adaptively implementing conservation measures.

The fifth failing in the Parkway conservation planning process is the minimal cooperative education that has occurred between stakeholders about conservation needs and program goals. This characteristic could result in ineffective conservation that does not address all perceived stakeholder needs or in inefficient conservation implementation that is slowed by a lack of public support. To address this problem, meetings could be scheduled wherein stakeholders from all sides of the conservation issue would be expected to openly converse about their knowledge and views. Sharing information about perceived needs and desires could help all stakeholders attain an understanding of the views of others. Consensus, or at least a willingness to compromise, might thus be reached regarding common goals for conservation in the Parkway area.

The sixth downfall in the Parkway conservation planning process is the failure of Parkway officials to consider and distribute pertinent supplemental technical information related to the conservation effort. Many technical and scientific details surround the needs, objectives, and methods related to conservation efforts. Clear communication on these facets of a conservation situation may increase the general understanding of both officials and citizens. Raised understanding of technical issues may yield better planning of and results from conservation efforts. In the case of the Parkway, the want for technical information might be addressed if Parkway officials would coordinate and schedule open information sessions where scientists and engineers could explain technical issues to both the officials and to citizens.

The seventh drawback in the Parkway conservation planning process is the lack of provision for public involvement in planning and implementation of conservation measures. Citizens have not been consulted about their preferences regarding the recently proposed conservation methods. Further, they have not been perceived as viable partners in the implementation of conservation efforts. Given these current conditions, the results of planned conservation efforts would likely be very inefficient. Citizens may object to proposed conservation measures, and they will not be involved in actively implementing any measures. This problem might be tackled through a public meeting wherein information on an exhaustive list of conservation measures could be disseminated to citizens. Any citizen preferences for specific options could then be identified, and citizens could be recruited to help execute the implementation of the publicly preferred conservation methods.

Finally, the eighth failure in the Parkway conservation process is the absence of dissemination of economically profitable conservation practice information to community citizens. Both the effectiveness of conservation efforts and the efficiency in implementation of practices could be raised if citizens benefited economically from practicing conservation, and then told their friends about it. Considering the Parkway conservation effort specifically, landowners with forested lots provide an ideal outlet for dissemination of information about potentially profitable conservation practices. A few landowners might benefit monetarily from deciding to try conservation practices, such as granting easements to sustainable forestry groups, and then spread the word about their good fortune to other citizens.

#### **4.2 Critique of Proposed Research and Evaluative Methods**

The discussion in the preceding section demonstrates the substantive results of pursuing the evaluation of community land conservation planning processes against ideal planning guidelines derived from literature review. Such pursuit appears to provide valuable means of framing optimally effective and efficient community land conservation efforts.

More specifically, the execution of literature review and derivation of standards for community land conservation planning processes appears to be a productive venture. Ideal planning guidelines may be successfully compiled that characterize the processes of optimally effective and efficient community land conservation efforts. Furthermore, the identification and designation of these ideal standards allows the subsequent discriminating evaluation of community land conservation processes, such as those associated with West Virginia New River Parkway project.

This evaluation of conservation planning processes yields valuable results. It seems that such evaluation might be executed anytime during a planning process, facilitating the establishment of truly adaptive planning. In light of the derived ideal planning guidelines for community land conservation efforts, constructive criticism of conservation planning processes is possible. The insight gained from both prospective criticism of intended processes and retrospective criticism of past processes, may be effectively used in adapting an ongoing project toward more fully meeting ideal professional and community involvement planning guidelines.

This is seen in the results from the evaluation of the Parkway conservation planning process. Three positive aspects of this planning process are effectively identified and suggested for continued application in the Parkway project and future replication in similar conservation situations. Many negative aspects of the planning process are also clearly defined and practical proposals are forwarded for improvement of these failings in the ongoing Parkway project. Furthermore, the suggested methods for improving the current Parkway conservation planning process may also be germane to other conservation projects with similar characteristics.

In summary, the research and evaluation methods proposed in this paper appear to produce favorable results. It seems that, through literature review, ideal planning process guidelines may effectively be developed for community land conservation efforts toward ensuring that planning processes include adequate consideration of professional and community involvement requirements. If it is reasonable to believe that procedural

performance in relation to these standards may be objectively evaluated, then identification and improvement of inappropriate conservation planning processes may be possible.

In accordance with discussions in Chapter 1, community focused conservation planning processes seem to be more favorable than conventional top down conservation processes, as they may ostensibly yield more effective and efficient results in land conservation. Evaluation of community land conservation planning processes, toward meeting ideal planning guidelines of both professional and community involvement standards, appears to be an effective means of constructive project revision. Following the New River Parkway example, conventional conservation planning processes might be successfully replaced by legally viable community focused agency or citizen-driven conservation initiatives.

### **4.3 Corroborating Evidence**

Even as final editing of this paper was being completed, noteworthy evidence developed that evaluation of planning processes in light of professional and community involvement guidelines, toward pursuing adaptive planning, is a worthwhile venture. In the case of the New River Parkway, the solicitation of citizen and resource agency comments on the Preferred Alternative Report, in late fall of 1999, revealed immense dissatisfaction with the process. Upon review of the comments, and upon further investigation into the nature of the planning process followed in the Parkway project to date, the Federal Highways Department withdrew its support for the project as currently proposed by West Virginia DOH. It has been decided that more significant citizen involvement in the Parkway planning process should be sought and that further NEPA regulations need to be fulfilled before the highway and conservation project may be viable for implementation. Now, as Parkway officials take this giant step backwards in their project, support for this research paper is sadly evident. If critical review of conservation planning processes had been carried out earlier in the Parkway project history, toward adaptively reforming the processes to meet professional and community involvement planning guidelines, appropriate conservation of resources along the New River could be much closer at hand.

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## **EMPLOYMENT**

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1999-Present NVHomes, Fairfax, VA

*Assistant Production Supervisor*

- Manage development and construction of residential communities

1998-1999 VT Community Design Assistance Center, Blacksburg, Virginia

*Graduate Research Assistant/Consultant*

- Member of planning and landscape architecture team, consultant to West Virginia Department of Highways and New River Parkway Authority of West Virginia
- Contracted to perform environmental planning, site design, and to produce Final Environmental Impact Statement for construction of New River Parkway from Hinton, WV to Sandstone, WV
- Performed tasks including environmental impact assessment, design of roadway features, design of land acquisition and management plan for roadway corridor, hand drawing of maps and site plans, and writing and editing federal environmental documents
- Honed communication skills in preparing and presenting oral, graphic and written information in meetings with public citizens, state agencies, and federal agencies

Summer 1998 Salmon Brothers Construction, Ledgewood, New Jersey

*Construction Crew*

- Gained on-site experience to supplement graduate work in planning and site design, assisted in design and labor in a variety a construction projects:
- Operated heavy machinery to clear lots for development and grade slopes to desired specifications; Exposed and repaired home septic pipe systems; Designed, excavated, and installed landscape drainage systems; Excavated, graded, and poured new asphalt road sections and parking areas, and repaired existing roads; Formed, poured and finished concrete walk and stair structures; Designed and installed brick and stone paver walkways and stairs; Designed and built large railroad tie retention walls and stair structures; Constructed wooden deck, stair, and gate structures with lighting

July 1997&1998 A&P Tennis Classic, Mahwah, New Jersey

*Operations Crew*

- Participated in all operations at professional tennis tournament
- Assisted in building and maintenance of structures
- Aided in receiving, inventory, warehousing and distribution of thousands of dollars of sponsor products

1997-1998 VT Landscape Architecture Department, Blacksburg, Virginia

*Graduate Research Assistant/Consultant*

- Member of University Study Team, consultant to American Electric Power
- Contracted to perform environmental assessment and design, and to produce FEIS for construction of a Super High Voltage 765 kV power line from Wyoming, WV to Cloverdale, VA
- Participated with Dr. Arthur Buikema (distinguished ecologist, Virginia Tech) in field and lab ecological research, environmental planning, impact assessment and mitigation, and land use design for power line
- Utilized G.I.S., MicroStation, and ArcView in data analysis
- Produced and edited text and maps for federal environmental documents

Summer 1996-1999 Tangent Outfitters, Radford, Virginia

*River Guide*

- Planned, outfitted, ported, and guided short and long-term river trips
- Performed company representation, marketing and sales

1995-1997 Virginia Tech Residential Programs, Blacksburg, Virginia

*Resident Advisor/Staff Coordinator*

- Assisted in training Resident Advisor staff
- Managed Resident Advisor staff activities and team building
- Supervised and counseled residents, developing strong community in building of over 1000 occupants
- Planned and implemented residential activities and educational programs

1994-1995 Frederick County Public Works Winchester, Virginia

*Environmental Technician*

- Designed and drew site plans for creation of wetland to be used in biological cleaning of landfill leachate
- Monitored construction on-site of large leachate treatment facility
- Recorded and assessed daily activities and progress in excavation, grading, compaction, and pipe installations
- Conducted environmental monitoring of leachate, gases, and solid waste composition
- Performed site scale ecological inventories

Summer 1994 Camp Peaks of Otter, Peaks of Otter National Park, Virginia

*Head Counselor/Expedition Guide*

- Planned, outfitted, and guided short and long-term environmental and personal growth educational trips in wilderness canoeing, backpacking, and rock climbing

## **RELATED EXPERIENCE**

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- Computer experience in Windows (3.1, 95, 98, NT), Mac OS, DOS, MS Office components, Corel Office components, Adobe Photoshop and PageMaker, GIS analysis with ArcView and other software, Statistical analysis with SPSS and other software, programming in BASIC and FORTRAN, and Internet research
- Technical and scientific experience and achievements at 1990&1991 International Science and Engineering Fairs, 1992 Virginia Governor's School for the Sciences, multiple short and long term scientific research projects at Virginia Tech (1993-1997), and as undergrad ecology research assistant at Virginia Tech (1996)
- Graduate site plan design and drafting experience at Virginia Tech (1997-1999)
- Health care experience as volunteer in ER at Montgomery Regional Hospital, Christiansburg, Virginia
- Environmental experience in research, conservation, photography, education, and low impact technique in backpacking, mountain biking, backcountry skiing, wilderness paddling, rock climbing, and spelunking

## **ACTIVITIES/INTERESTS**

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- Church and community involvement
- Intramural, league, and wilderness sports
- Instrumental and vocal performance in bands and choral groups