WHOSE VISION? THE POLITICAL ECOLOGY OF LAND-USE POLICY IN NEVADA COUNTY, CALIFORNIA

by

PATRICK T. HURLEY

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This dissertation has been approved and accepted by:

[redacted]

Dr. Peter A. Walker, Chair of the Examining Committee

[redacted]

Dr. Susan Hardwick, Co-Chair of the Examining Committee

11/10/04

Date

Committee in Charge:

Dr. Peter A. Walker, Co-Chair
Dr. Susan Hardwick, Co-Chair
Dr. Lise Nelson
David Hulse
Dr. Richard York

Accepted by:

[redacted]

Dean of the Graduate School

An Abstract of the Dissertation of

Patrick Todd Hurley for the degree of Doctor of Philosophy

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Approved: [redacted]

Dr. Peter A. Walker, Co-Chair

[redacted]

Dr. Susan Hardwick, Co-Chair

Conservation biologists, land-use planners, and some citizens are concerned about the loss of natural habitats and resources as formerly rural communities experience rapid residential growth. In these 'exurban' areas, land-use planning is increasingly seen as an important means for reducing the negative ecological impacts of this residential growth. Using a case-study approach this dissertation examines the politics of land-use planning in Nevada County, California and what these politics mean for the use of planning tools as an effective way of addressing the ecological consequences of rural residential development. The dissertation found that social and political dynamics strongly influence the success of conservation practice, as pursued through the institution of land-use planning, in surprising ways.

The data for this analysis derive from the use of mixed methods, but the analysis relies primarily on ethnographic methods. In-depth interviews were conducted with current and former elected officials in the county, county planners, citizen volunteers who had participated in county planning exercises, members of special interest groups, and with some county landowners. In addition, the author personally attended several meetings of the county's Board of Supervisors, planning commission meetings, and meetings for a county planning effort known as Natural Heritage 2020. Analysis of government documents, the local media coverage, and was also performed. Finally, data from a survey mailed to a random sample of county landowners (N=174) were compiled and analyzed.

The research describes a county in Northern California that has undergone dramatic social and political change over the past few decades. This transition has contributed to a situation where competing ideological visions of landscape dominate ideas about how best to plan for future growth. These multiple visions often exist side-by-side and, when contested through political processes, lead to unanticipated consequences. Despite what appeared to be overwhelming support in Nevada County for new 'planned growth' approaches to development, elected leaders have been unable to successfully implement alternative visions for growth based on principles of conservation science. Taken together, these results demonstrate that conservation interventions must be more attentive to the politics of particular places and what these politics mean for achieving conservation goals.

This dissertation includes work previously published in the journal *Environment and Planning A* (Chapter II). This work was the result of collaboration with Dr. Peter A. Walker, who appears as the second author on the published article.

CURRICULUM VITAE

NAME OF AUTHOR: Patrick Todd Hurley

PLACE OF BIRTH: Baltimore, Maryland

DATE OF BIRTH: 19 March 1971

GRADUATE AND UNDERGRADUATE SCHOOLS ATTENDED:

University of Oregon
University of Maryland

DEGREES AWARDED:

Doctor of Philosophy in Environmental Science, Studies and Policy, 2004, University of Oregon
Master of Science in Environmental Studies, 2001, University of Oregon
Bachelor of Arts in Government and Politics, 1994, University of Maryland
Bachelor of Arts in German Language, 1994, University of Maryland

AREAS OF SPECIAL INTEREST:

Political Ecology
Human-Environment Interactions
Biodiversity Conservation and Land-Use Planning

PROFESSIONAL EXPERIENCE:

Research Associate, Nelson A. Rockefeller Center, Dartmouth College, 2004

Instructor, Environmental Studies Program, University of Oregon, Eugene, 2000-2003

Instructor, Department of Geography, University of Oregon, Eugene, 2003.

Research Assistant, Department of Geography, University of Oregon, Eugene, 2001 and 2003.

Graduate Teaching Fellow, Department of Landscape Architecture, University of Oregon, Eugene, 2002

Graduate Teaching Fellow, Department of Geography, University of Oregon, Eugene, 2001-2002

Graduate Teaching Fellow, Department of Biology, University of Oregon, Eugene, 2000

Graduate Teaching Fellow, Environmental Studies Program, University of Oregon, Eugene, 1998-2002

Researcher and Writer, World Wildlife Fund, Washington, DC, 1998-2000

Research Assistant, World Wildlife Fund, Washington, DC, 1996-1998

GRANTS, AWARDS AND HONORS:

Environmental Public Policy and Conflict Resolution Doctoral Dissertation Fellow, Morris K. Udall Scholarship and Excellence in Environmental Policy Foundation, 2003 – 2004

Donald R. Barker Foundation Scholarship, 2003-2004

Donald R. Barker Foundation Research Award, 2000-2001

Donald R. Barker Foundation Travel Grant, 1999-2000 and 2002-2003

Maryland State Senatorial Scholarship, 1989 - 1993

Omicron Delta Kappa National Leadership Society

Phi Sigma Pi National Honor Society

Golden Key National Honor Society

Gamma Theta Upsilon National Geography Society

PUBLICATIONS:

Hurley, P. 2004. Whose vision? Conspiracy theory and land-use planning in Nevada County, CA. *Environment and Planning A* 26:1529-1547

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CHAPTER I

INTRODUCTION

Conservation scientists have described the increase of residential development in formerly rural places (so-called exurbanization) as a major threat to the loss of biological diversity (biodiversity) in parts of the United States, including much of the American West. Many of these same scientists are also calling for the development of new and innovative land-use planning approaches and policies to stem this potential loss. At the same time, social scientists recognize that land is more than a biophysical entity, one that has important cultural meanings, and that land-use governance has political and economic consequences. In the United States, the private ownership of land, and the property rights that come with this ownership, is more than a set of legal rights; it is a cultural institution. The critical challenge for conservation policy is to understand the responses to these types of alternative planning approaches and policies, the types of approaches that are politically acceptable to landowners, and the best means to implement acceptable approaches. This dissertation investigates the politics associated with efforts to develop new and innovative land-use governance using a case study from Nevada County, California.

Biodiversity Loss and Exurbanization

Natural scientists are increasingly concerned about the loss of biological diversity. Biological diversity (biodiversity) refers to the variety of life on Earth, including the diversity of genes within a species, the number of species in a given area, and diversity of communities or ecosystems. Biodiversity is a relatively new term that was coined to bring attention to the ways that humans modify the Earth's ecosystems and the resulting loss of species and ecosystems. The emergence of biodiversity as a concept has led to the application of ecological research to conservation issues often dominated by concern solely for charismatic wildlife (e.g., a shift in focus from individual species to habitats and entire ecosystems). The new and rapidly developing fields of conservation biology, landscape ecology, and restoration ecology among others comprise vibrant contributors to the evolving field of conservation science. Among the questions these conservation scientists have been trying to understand are the impacts that human land uses have on the persistence of biodiversity.

In the United States, concern over ecological change and biodiversity decline often focuses on the conversion of natural habitats for human uses—ranging from agriculture to residential development (Noss and Peters 1995, Dobson et al. 1997, Ricketts et al. 1999, Stein et al. 2000). This is particularly true in many rural parts of the United States, where people from suburban and urban areas are migrating to places that have historically been home to agriculture and other natural resource-based economies.

These new landowners often want to live on relatively large parcels, although individual landholding sizes are typically much smaller than under previous land uses. The growing literature on exurbanization and its ecological consequences indicates that this low-density residential development pattern—where a variety of habitats, forests and farmland are converted to residential and commercial uses (Knight et al. 1995, Duane 1999)—often contributes directly to habitat loss and fragmentation. In turn, these processes have led to the decline of native species and their habitats (Theobald et al. 1997, Theobald 2000, Hansen et al. 2002, Hansen and Rotella 2002, Liu et al. 2003, Maestes 2003).

Conservation Planning

As conservation science has gained a better understanding of the biophysical changes associated with the exurbanization processes, many of these same scientists have begun calling for new policies to protect, conserve, and enhance biodiversity in these places in transition (Noss and Cooperrider 1994, Theobald et al. 2002, Miller and Hobbs 2002, Maestes et al. 2003). Indeed, as an outgrowth of the general concern about a decline in biodiversity, conservation planning—the application of conservation science to problems of biodiversity loss—has taken on a prominent role in environmental policy issues. Conservation planners are actively working to develop guidelines and principles for policymakers to address a decline in biodiversity through land-use planning decision-making processes (Duerksen et al. 1997, Odell et al. 2003).

Conservation planning has mainly focused on developing a set of guidelines and principles for prioritizing particular areas for their biodiversity value. These priority-setting exercises are designed to create an efficient process through which to more effectively target conservation action. In recent years, there has been convergence by a number of Environmental Non-Governmental Organizations (ENGO) in the United States (e.g., The Nature Conservancy, World Wildlife Fund, Conservation International; see Redford et al. 2003) on the idea of ecoregion-based conservation as a guiding framework for conservation intervention. These new approaches mark an evolution in the thinking, planning, and implementation of conservation strategies away from the more opportunistic, site-based approaches pursued in the past. Similar shifts have occurred in other areas of environmental management (e.g., watershed planning, watershed management), as planning and management have been realigned along more natural boundaries (Bailey 2002) and greater emphasis has been placed on more efficient use of limited resources (see e.g., Noss and Cooperrider 1994). Within the context of biodiversity conservation, ENGOs, such as The Nature Conservancy and World Wildlife Fund, are shifting both the scale of their work and the intensity of attention to broader geographic areas and the particular sites within them deemed to have important ecological value (TNC 1997, Dinerstein et al 2000, Groves 2003). By focusing on the most critical parts of ecoregions—large areas of land and water that have similar geology, topography, climate, and vegetation—conservation action offers "a greater vision of success" (TNC 1997: 3). The result is that entire landscapes, their plant communities, and

the corridors that connect remaining areas of natural vegetation—not just isolated pockets of rare or endangered species—become the targets for conservation intervention (Figure 1).

Conservation planners employ two major strategies to select these so-called priority areas. In both cases, these strategies rely on inventorying (or mapping) the biological diversity of a given area (see e.g., Noss and Cooperrider 1994, Peck 1998, Baydack and Haufler 1999, Anderson et al. 1999, Stein et al. 2000, Groves 2003). The so-called 'coarse filter' approach focuses on delineating vegetation patterns as the major means to identify large expanses of habitat that are ecologically- speaking in good condition and that do not currently receive any form of protection (Noss and Cooperrider 1994, Anderson et al. 1999, Stein et al. 2000). By contrast, so-called 'fine filter' approaches identify biological hotspots; these are areas that have high levels of species richness or areas with concentrations of endemic species (see Figure 3) (Noss and Cooperrider 1994, Peck 1998, Stein et al. 2000, Wall 1999, Johnson and O'Neil 2001). By identifying and prioritizing among these natural areas, landscape-scale conservation is supposed to more effectively address the broader social, economic, and policy factors that are essential to the long-term success of conservation in areas where conservation priorities have been identified (Dinerstein et al. 2000).

The landscape-scale, or ecoregion-based, approach emphasizes developing a network of well-placed protected areas (Figure 1) (Noss and Cooperrider 1994, Peck

1998). Protected areas, such as many newer national parks or nature preserves, are designed and/or managed using a model initially described by Hough (1988) for biosphere reserves (Noss and Cooperrider 1994, Peck 1998). The major feature of this design is a central core area where human intrusion is kept to a minimum. To reduce potential impacts of neighboring anthropogenic activities, these core areas are surrounded by buffer areas. Ideally, core areas are to be connected functionally (including gene flows within species and the migration of species themselves; Meffe et al. 1997) through the use of habitat corridors or islands of habitat, often referred to as stepping stones (Noss

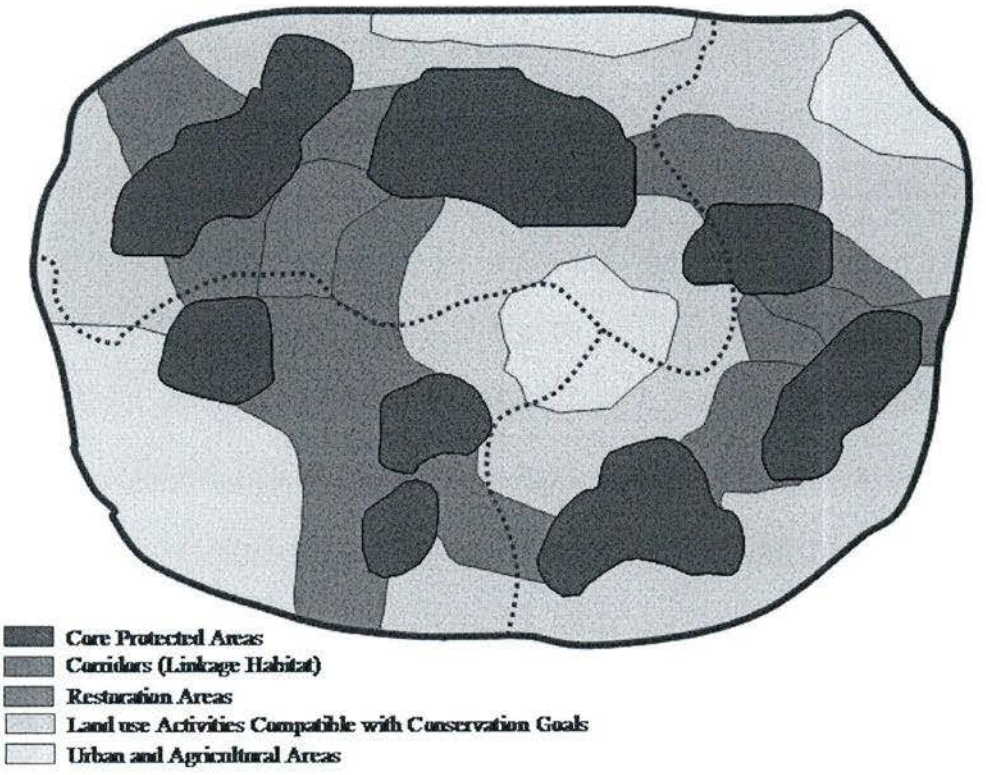

Figure 1. Conceptualized Vision of Conservation Success Using the Ecoregion-Based Approach (modified from Olson et al. 2001).

and Cooperrider 1994, Forman 1995, Peck 1998). However, according to this model, human settlements are considered appropriate only outside of these two zones. Until recently, the major intent of such exercises was to influence the land management policies of state and federal agencies who manage public lands.

Because much of the United States' biodiversity is found on private lands, there is growing concern over the decline of biodiversity in rural areas of the United States that are experiencing exurbanization. Recognizing the emerging reality of ecological change in the exurban U.S., conservation scientists are calling for new efforts to conserve species and habitats on these private lands (Knight 1999, Beatley 2000, Stein et al. 2000, Hilty and Merenlender 2003). For example, in the case of exurbanization in the Inter-Mountain West, Maestes (2003, 1425) has argued that "future conservation efforts may require less reliance on reserves and a greater focus on private lands." Likewise, Franklin (1993) has advocated the concept of "matrix management." Designed to supplement the reserve strategy, the matrix management concept includes the need to encourage diverse landowners to manage their lands for biodiversity goals.

Integrating Conservation Science into Land-Use Planning

Conservation scientists, land-use planners, and policymakers have responded to the decline of biodiversity on private lands by arguing for the need to integrate conservation science into more traditional land-use planning and policy practices because

local land-use governance influences ecological change (Beatley 1994, Beatley and Manning 1997, Beatley 2000, Duane 1999, Dale et al. 2000). Because, innovative approaches to land-use planning and new policies are viewed as the critical starting point for minimizing the detrimental impacts of exurban development (Duerksen et al. 1997, Beatley 2000, Theobald and Hobbs 2003, Maestes et al. 2003), conservation planners are asking: What is the most effective way for conservation science to influence land-use policy decisions at the interface between public good and private property; and thus, How can planning efforts limit the loss of habitat and open space on private lands (Miller and Hobbs 2002)?

Although research on the private lands conservation planning is still in its early stages, conservation scientists believe minimizing, or even reversing, the impact of current land-use trends requires moving land-use governance beyond the more limited considerations of species and habitats protected by state and/or federal law (e.g., the U.S. Endangered Species Act) and other regulations. In other words, the impacts on biodiversity should be considered in key stages of the land-use decision-making process, such as: 1) master planning (also referred to as comprehensive or general plans) and 2) site or design review. Indeed, many political jurisdictions (cities, counties, and even entire states) are being encouraged to develop new plans and policies that recognize the distribution of species and habitats across multiple parcels (and landowners) and direct future development to areas where the impacts upon biodiversity will be lessened. Likewise, some jurisdictions have begun to require individual landowners to assess a

site's ecology (e.g., presence of certain types of habitats) when building new structures and alter site plans to minimize ecological impacts. Conservation planning in these terms necessitates understanding the distribution of species and habitats on individual private parcels *and* across multiple ownerships—at a landscape scale—and managing these species accordingly. Yet this effort is not merely a scientific or technical endeavor, but is shaped by important social, political, and economic factors. The goal of this dissertation is to examine the integration of conservation into land-use policy within these socio-political contexts.

The Social Practice of Planning

While conservation scientists and planners have mostly concentrated on *technical* issues facing scientific integration (Duerksen et al. 1997, Theobald et al. 1997, Dale et al. 2000, Sanderson et al. 2002, Odell et al. 2003), such as developing GIS-based mapping exercises and designing more efficient ways to identify important habitats for protection (Peck 1998, Duane 1999, Theobald et al. 2002), social scientists point to a need to better understand the socio-political issues that influence planning and policy, which often shape on-the-ground implementation of new approaches (see e.g., Berkes 2004). Indeed, Mascia et al. (2003: 649) argue that:

> Although it may seem counterintuitive that the foremost influences on the *success of environmental policy* could be social, conservation interventions are the product of human decision-making processes and

> require changes in human behavior to succeed. Thus, conservation policies and practices are inherently social phenomena, as are the *intended and unintended* changes in human behavior they induce.

Thus, understanding the gap between science and social factors has potentially significant implications for the success of conservation policy. In fact, the local politics of planning are an important element in the development of conservation policy (see e.g., Feldman and Jonas 1997), because policies may not be supported by community members if they are viewed as illegitimate.

Meanwhile, research on exurbanization highlights growing social conflict, particularly over land use issues, in communities experiencing exurban growth (Nelson 2001, Smutny 2002, Walker and Fortmann 2003). In some exurban areas, long-time residents may still depend upon resource-extracting industries or express culturally-based affinities toward these industries and land uses, and conflicts have often developed with newcomers (and some 'old-timers') who value amenity-based rural-residential economies (Jobes 1993, Rasker 1994, Power 1995, Nesbit and Weiner 2001, Eser and Luloff 2003) or those residents in search of a better quality of life (Duane 1999, Walker and Fortmann 2003). These conflicts have often revolved around the management of natural resources and recreation on public lands, agricultural land uses (e.g., cattle ranching, orchards, and vineyards) (see e.g., Nelson 1999), and extractive resource industries on private property (e.g. timber and mining) (see e.g., Nesbitt and Weiner 2001, Eser and Luloff 2003). Less

well-understood is what these conflicts mean for the development of new land-use policies and planning approaches that seek to mitigate the negative impacts of residential development on biodiversity.

Community social change is not the only issue important to a socio-political understanding of the success of conservation policy in the exurban U.S. Efforts to conserve biodiversity and habitats in exurban places potentially have direct consequences for the wealth generated by the land conversion process (Hulse and Ribe 2000): both for the conversion of resource lands to residential development and the conversion of existing residential uses to higher intensity uses. Put another way, conservation science and its application through planning has the potential to impact lands managed for their natural resource values (e.g., agriculture, ranching, timber), and importantly, also to impact the real estate market and broader development.

Although there is growing recognition that the socio-political context is critical to the success of conservation planning initiatives, few researchers have examined new conservation initiatives in the exurban United States and their reception by 'targeted' communities (including reactions by special interest groups, the development industry, politicians, landowners, and voters) (see Feldman and Jonas 1997 for a notable exception) and the politics that surround these alternative planning approaches. This dissertation addresses this gap in the literature about conservation planning by examining the following questions: 1) What political and economic interests support the formulation

of alternative planning efforts and policies—directed toward both the site- and landscape-scales—that are intended to address ecological concerns? 2) How do voters and landowners react to these types of conservation initiatives? and 3) What lessons does a social perspective have for conservation practice? To examine these questions, the dissertation applies the theoretical lens of political ecology in order to understand the interaction of conservation science, land-use governance, social change, and local politics. By taking a political ecology approach, this research seeks to elucidate critical social and political factors that contribute to the success (or failure) of conservation policy in particular communities.

Political Ecology

The field of political ecology—with its intellectual roots in the disciplines of geography, anthropology, and environmental history, among others—is one of several emerging "bridging" fields that examine "linkages between social systems and ecological systems" (Berkes 2004: 624). Political ecology provides a robust analytical framework for understanding the socio-political complexity of integrating conservation science with land-use planning, because the field combines "the concerns of ecology with a broadly defined political economy" Blaikie and Brookfield (1987: 17). This integrative concern emphasizes the need to understand the dialectical relationship between society and its use of natural resources (Paulson et al. 2003).

Political ecologists are interested in the relationship between nature, development, and local peoples and the conflicts that emerge over the control of, access to, and the use of, resources that often occur (Bryant 1998, Paulson et al. 2003). In studying these conflicts, political ecologists have tended to focus on several critical themes: the economic and ecological context of local production, the legitimacy of local users and uses, the coherence and capacity of state action, and the role of community institutions (see Blaikie and Brookfield 1987, Bryant and Bailey 1997, Watts 2000). Political ecology has historically focused on these issues in the so-called 'Third World' but recent work in the field has brought attention to 'First World' places (McCarthy 2002, Robbins 2002, Walker 2003). These authors agree that "the core concerns and approaches of political ecology are directly relevant to research on environmental *politics* in First World locales" (McCarthy 2002: 1297; emphasis added).

A unifying definition of politics has only recently emerged in the literature of political ecology. Paulson et al. (2003, p. 209) define politics as "the practices and processes through which power, in its multiple forms, is wielded and negotiated" and that "politics are related in various ways to social relations of production and decision-making about resource use… [T]hese are exercised in diverse arenas, on multiple scales, and infused with cultural knowledge and value." This emphasis on culturally situated knowledges recognizes that treating science as external to social relations has the

potential to "legitimize the interests of certain groups over others" (Paulson et al. 2003: 209). Thus, political ecologists view science as an important arena through which power is exercised.

In turning its attention to the First World, Robbins (2002) argues that political ecologists need to pay greater attention to the role of central institutions of power and their influence on environmental outcomes. For Robbins, this requires combining awareness of the micro-politics of place, or informal political arenas, with a broader focus on the realm of formal politics. Meanwhile, Walker and Fortmann (2003) suggest that county planning represents a meso-scale arena of power that is central to understanding the struggles to control natural resources in First World places, such as the exurban American West. Taken together, political ecology stresses the need to examine the entirety of claims to legitimacy in governing land use and claims about what is the correct knowledge from which to make those decisions.

Toward a Political Ecology of Land-Use Planning: The Case of Nevada County, California

Political ecologists stress the need to examine particular places, and as a result, generally rely on case studies to examine questions regarding the politics and control over resources in these places. This dissertation follows this political ecology tradition and examines the politics of conservation planning in the exurban United States through

the use of a case study from a rapidly growing county in the northern Sierra Nevada Mountains of California. By applying political ecology to conflicts over land-use governance in Nevada County, California, this dissertation moves beyond an analysis of the technical components of conservation-oriented land-use planning to provide a socio-political framework for evaluating the potential for success of similar conservation policy endeavors in exurban communities in other parts of the United States.

Nevada County, California's experience with exurbanization is typical of changes occurring in many such areas throughout the United States (Beyers and Nelson 2000, Shumway and Otterstrom 2001, Nelson 2001, Nelson 2002, Smutny 2002). In-migration has more than tripled the county's population since 1970 and the earlier economy and culture of mining, ranching, and farming has largely been replaced by an economy of land and real estate speculation that began in the late 1960s and early 1970s (Walker et al. 2003). From 1957 to 2001, the acreage of private rural land in the county under primarily residential use increased from 30 percent to 70 percent, with an almost equal decrease in agricultural land (Walker et al. 2003). With this transition, rural gentrification has ensued through the in-migration of high-tech workers and industries, equity and investment fund migration, and the resettlement of large numbers of urban retirees (Duane 1999; Walker and Fortmann 2003). Finally, new ideas about land-use planning have emerged in response to the land-use pressures associated with exurban migration.

Community conflict over land-use governance has dominated politics in Nevada County for at least the past decade. In the mid 1990's many in the county perceived that their concerns about the impacts of rapid growth were ignored when the county put together a new community master plan—known as the 1995 General Plan (Duane 1999). An initiative that originally started out as a community visioning process ended in bitter disappointment among many participants when the then-ideologically conservative ('fast-growth') Board of Supervisors dismissed the extensive input to the plan from working groups composed of community members. By 1998, 'slow-growth' advocates had mobilized the necessary forces to win control of county government and control over the county's land-use governance. In fact, many county observers viewed the 1998 election as a referendum on the future of planning and development in Nevada County because two of the four candidates running for office ran on slow- or planned-growth agendas (Duane 1999). The new 4-1 planned-growth majority meant the 'old-timers' of Nevada County, with their penchant for growth, had, for the first time in 150 years, lost control of the political machinery and its ability to decide how development would be guided (Walker and Fortmann 2003).

The political changing-of-the-guard in the late 1990's brought to the Nevada County government dramatically new ways of thinking about land-use planning and the impact of development on the landscape. Although the new general plan had included several new policies designed to protect important natural resources from rapid residential growth, such as the clustering of new homes and provisions to reduce the loss

of oak woodlands and the county's forest resources, the final plan failed to adequately address broader impacts. By 2000, the 'planned growth' board of supervisors began addressing these policy gaps in the 1995 General Plan through an effort to expand the existing focus on parcel-scale environmental impacts to include broader considerations of the *landscape* scale. This effort resulted in Natural Heritage 2020 (NH 2020), a two-year long process that attempted to develop a comprehensive strategy for "identifying, managing, and protecting the natural habitats, the diversity of plant and animal species, as well as the open space resources found in the County" (Nevada County Natural Heritage 2020 Program 2001). The work was expected to result in the formulation of recommendations for implementing new county conservation policy and marked the boldest move yet by the county to mitigate for the environmental consequences of growth.

Instead of bringing the community together around a shared vision for the future, as county supervisors and proponents had hoped, the program created a political firestorm. Entering the 2002 election, supervisors Elizabeth "Izzy" Martin and Bruce Conklin, NH 2020's chief advocates and architects, found themselves fighting for their political lives. Both supervisors were challenged by opponents who ran campaigns built almost entirely on their opposition to NH 2020. Of particular interest, Conklin faced one of the most vocal critics of the planning process: private property activist Drew Bedwell, who led a vigorous effort to stop the process. Among the different strategies employed by Bedwell were repeated claims that NH 2020 was part of a United Nations conspiracy in Nevada

County. In the end, Conklin lost by a razor thin margin (19 votes of the approximately 6,900 cast) (Nevada County Elections Office 2002), while Martin lost to Robin Sutherland by a sizeable measure (55-43%) (Nevada County Elections Office 2002). Although both of the newly elected supervisors have made statements recognizing the importance of addressing growth, it is clear that their opposition to NH 2020 places them in a position that denies the validity of what many land-use planners, conservation scientists, and citizens would have described as just 'good planning.'

Because Nevada County's experience with the exurbanization process typifies other areas of the American West, the failure of NH 2020 and the ensuing election losses provides an opportunity to examine the politics of land-use governance and conservation planning on private lands. While the NH 2020 program attempted to integrate much of current thinking about conservation into its land-use planning policies, the *conflict* raises important questions about efforts by conservation scientists and planners to use Geographic Information Systems (GIS) and conservation science to reduce the ecological consequences of exurbanization through land-use governance. The experience of NH 2020 highlights the social and political challenges facing these efforts.

To fully understand the failure of NH 2020 and conflicts over alternative land-use governance in Nevada County, this dissertation uses a mixture of qualitative and quantitative methods to examine the politics of environment in this exurban county. This approach resulted in a closer examination of the interaction of conservation science,

planning processes, *and* community politics in the Nevada County than is often the case in other studies of environmental politics in the United States (see McCarthy 2002). The data for this investigation come from a variety of sources: 47 in-depth interviews with elected officials, participants in the NH 2020 process, planning commissioners, and members of special interest groups; extensive review of county documents, including meetings of the Board of Supervisors and the planning commission; attendance at key meetings related to NH 2020, both program meetings and at Board of Supervisor meetings; 16 phone interviews with landowners living in areas adjacent to development proposals; 12 in-person interviews with landowners, review of numerous articles published in the county's largest daily newspaper, *The Union*, as well as newsletters and flyers sent out by special interest groups in the county; and responses from a survey mailed to randomly selected landowners in the county (see Chapter III for more details). This research also benefited from access to approximately 10 interviews previously conducted by Dr. Peter A. Walker as well as data from collected through an earlier survey mailed to landowners by Dr. Walker. These multiple sources of data were triangulated to analyze the politics of the environment in Nevada County.

Overview of the Dissertation

The dissertation is broken into three self-contained manuscripts (Chapters II, III, and IV) and a final chapter (Chapter V) that discusses conclusions synthesized from the previous three chapters. Each chapter contains its own literature review and draws upon

distinctive 'datasets' for analysis. Chapter II addresses the broad topic of landscape-scale conservation and the resistance by property rights groups in Nevada County to the use of conservation science embodied by Natural Heritage 2020. Through in-depth interviews and participant observation, this chapter explores the political struggles that resulted when competing visions for future development—each underlain by different ideologies of nature—collided in the arena of land-use governance. This chapter argues that claims of global environmental conspiracy were an important part of the efforts by pro-growth and development interests to regain political control of the county land-use governance. Chapter II is coauthored with Dr. Peter A. Walker and has been published in *Environment and Planning A*.

Chapter III further explores the political backlash to Natural Heritage 2020 and the wider community response to NH 2020 by analyzing data from a landowner survey. The chapter examines the conflict in light of current thinking by conservation planners about how to achieve private lands conservation, and examines the implications that the politics of biodiversity mapping—a key element of NH 2020 in Nevada County—have for conservation practice in other exurban places. Importantly, this analysis suggests that the outcome in Nevada County was not inevitable. Rather, had the program been structured differently, it may well have had greater success and might not have resulted in the loss of political control by 'slow-growth' supervisors.

Finally, Chapter IV investigates the application of conservation planning principles to the site-scale—in the form of conservation subdivision design—and the politics that have resulted from the use of this alternative development practice in Nevada County. The chapter presents a detailed case study of three development proposals and the politics surrounding the review process for these projects. This case study demonstrates the potential for developers to use principles from conservation planning to maximize building opportunities. Together, these cases highlight the extent to which subdivision design is shaped by the political tensions associated with competing notions of rural development held by community members.

CHAPTER BRIDGE

The **first journal manuscript** examines the efforts by a newly elected 'planned growth' board of supervisors to incorporate principles of conservation planning, specifically landscape-scale planning, into the county's land-use policy. This effort was met with community resistance, including claims of a United Nations conspiracy, and ultimately the program was ended and its supporters on the Board of Supervisors voted out of office. The article emphasizes the need for conservation planners and scientists to better understand the politics and social relations of the places where the generalized approaches of conservation planning are applied. Dr. Peter A. Walker is the second author on this manuscript, which was published in *Environment and Planning A.* It appears here with the permission of Pion Limited.

CHAPTER II

WHOSE VISION? 'CONSPIRACY THEORY' AND LAND-USE PLANNING IN NEVADA COUNTY, CALIFORNIA

Opening their newspapers on February 27, 2002, readers of *The Union* in Nevada County, California, found a full-page advertisement featuring a map of California and Nevada awash in red, orange, and yellow (Figure 1). Captions in the adjoining text, produced by an ideologically conservative national foundation, claimed that the map showed the extent of future United Nations-mandated biodiversity reserves. Other captions described the alleged loss of freedom that would result from the implementation of this reserve system and the network of corridors promoted by The Wildlands Project, a continent-wide effort to 're-wild' North America and protect its biodiversity (see Noss and Cooperrider, 1994). The advertisement's purpose was to link the U.N. and the Wildlands Project to a county-sponsored 'collaborative' land-use planning program known as "Natural Heritage 2020: A Vision for Nevada County." Allegations of a U.N.-sponsored environmental conspiracy in Nevada County became a central part of a bitter political conflict over efforts by the county's Board of Supervisors to address the loss of habitat, open space, and working landscapes related to ongoing development authorized by county policy.

Less than a year later, in July 2002, Natural Heritage 2020 (NH 2020) was ended prematurely, and the ensuing elections of November 2002 wrested control from a 'slow-growth' Board of Supervisors and returned it to pro-growth interests. Drew Bedwell, one of the chief proponents of the idea of a U.N. conspiracy in Nevada County, and another conservative candidate, who both ran campaigns based almost solely on opposition to NH 2020, unseated two pro-NH 2020 County Supervisors. We argue that the successful campaign against NH 2020, and the associated shift in the political composition of the

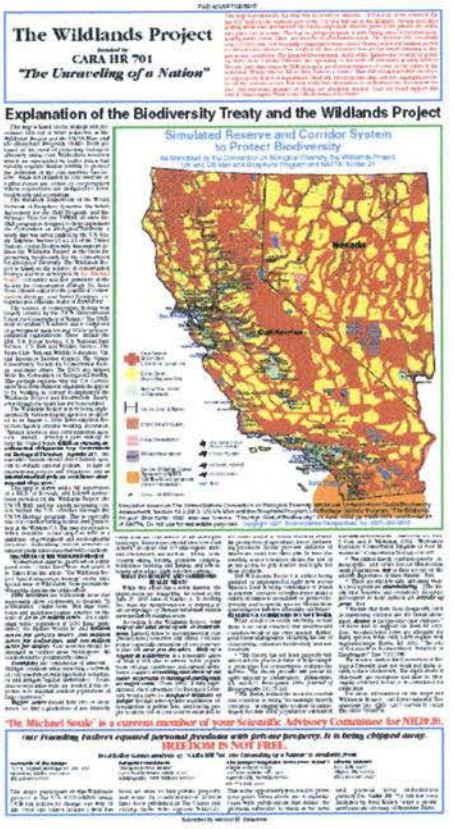

Figure 1. The February 27, 2002 Advertisement in the Grass Valley *Union.*

Board of Supervisors, should challenge the tendency by planners and scientists to dismiss claims of conspiracy as merely frivolous. This paper examines the role that claims of global environmental conspiracy played in halting the NH 2020 planning process, the ensuing loss of control over county government suffered by slow-growth advocates, and opponents' ability to chart a new direction for land-use policy. We examine the rhetoric of conspiracy as a political phenomenon and ask why it appeared effective in contributing to the collapse of NH 2020 in Nevada County.

More broadly, we suggest that this case illustrates why conservation science and planning may be susceptible to such claims. Although described as a `collaborative' process, we argue that the conservation science employed in NH 2020 contained certain preconceived scientific visions of the landscape and of how environmental mitigation should be pursued. The experience of NH 2020 shows that such scientific visions (when viewed as espousing `universal truths') can provide the conspiratorial `hook' for opponents of conservation planning by undermining the perceived legitimacy or `localness' of scientific practice. We also suggest, however, that the power of conspiratorial rhetoric to affect real changes is context specific. Thus, in our examination of the debates over land-use planning in Nevada County, we examine the social context and meanings that gave resonance and power to claims of conspiracy to help understand why county residents might accept them.

We argue that the effectiveness of conspiratorial rhetoric can be adequately understood only in the context of the political and economic drivers and the diverse interests that propel such ideas to the surface of political debates. Our case study shows that the conflict over NH 2020 was most fundamentally about differing ideological interpretations of the landscape tied to competing forms of rural capitalism (Walker and Fortmann 2003). Specifically, the interjection of global conspiracy theory into the conflict over NH 2020 came from pro-growth and development interests in the community (local developers and other building interests, as well as investors from outside the community) that were at the time engaged in a political strategy to regain control of county government, and conspiratorial rhetoric appears to have helped to achieve that goal. We argue, however, that the effectiveness of the rhetoric of global conspiracy reflected more than just crude political deception by pro-growth segments of the community.[1]

Specifically, we explore the idea that the rhetoric of global conspiracy in the fight over NH 2020, while clearly inflated and at times cynical, nevertheless tapped into real ideological, conceptual, and methodological connections between global conservation science and local conservation planning. These connections are indirect, and do not rise to most definitions of conspiracy. Nevertheless, NH 2020 did in fact mirror broader—indeed, global—discourses of conservation science. Thus, claims of conspiracy, such as the advertisement in *The Union*, aimed to paint the use of principles of conservation biology and conservation planning as representing an 'outside' political agenda and as a

[1] See Walker and Hurley (2004) for discussion of the efforts to derail the collaborative planning process.

form of social control, whose use was able to instill fear among landowners. That is, not only the policies associated with NH 2020 but the particular type of *science* behind the program came under direct political attack. Thus, we suggest that, if not recognized, the genuine conceptual links between global conservation science and local land-use planning—with their shared scientific language and ideologies—can make conservation planning vulnerable to political attacks such as those that contributed to the demise of NH 2020.

In the following sections we discuss the theoretical framework for examining our case study before sketching the background of NH 2020 and its relationship to the politics of land-use planning in Nevada County. Next, we examine the science employed in NH 2020 in relation to the claims by opponents that NH 2020 was a conspiracy, and we assess whether a conspiracy existed.

Methods

This research is the product of multiple qualitative and quantitative methods and data sources used by the authors (separately and together) in Nevada County between 1999 and 2003. These include 67 in-depth interviews with key informants (county officials and activists); 104 semi-structured interviews with Nevada County landowners; a mail-in survey of 358 households; attendance at NH 2020 and other planning meetings; and public documents and records.

Toward a Political Ecology of Land-use Planning

We begin by observing that land-use planning is a key site of political power in which differing groups vie for control in part through competition over the landscape visions, or 'environmental imaginaries,' that guide the planning process. We emphasize the role of science in lending legitimacy and power to particular visions. We stress, however, that, at least in the case of Nevada County, scientific discourses are far from hegemonic or uncontested. Indeed, as we will explore later, we suggest that in Nevada County the counter-narratives of global environmental conspiracy can significantly undermine the hegemony, and even the perceived legitimacy, of a particular science and associated practices of land-use planning.

Land-use planning is an important institutional arena where struggles to define the meaning of the natural environment and how communities structure their relations with nature take place (Herrington, 1989; Whatmore and Boucher, 1993; Hillier, 1998; McCann, 1997), but one that has been largely neglected by political ecologists. Political ecologists have long been concerned with struggles among local peoples, and between local peoples and outsiders, over control and access to resources (e.g., Peluso, 1992; Neumann, 1998; Schroeder, 1999). Political ecology examines "the political dynamics surrounding material and discursive struggles over the environment..." Bryant (1998: 79), paying specific attention to the "rules, norms, and systems of authority and power" in particular places that control the use of natural environments (Robbins 1998, page

410). However, these struggles and the ways they take place within or through formal institutional politics have received too little attention in the political ecology literature (Robbins, 2002), particularly in studies of the so-called First World (McCarthy, 2002; Robbins, 2002; Walker, 2003a). Competing visions in land-use planning reflect the constellation of social and economic interests that have power to shape land-use governance (Halseth, 1998; Hulse and Ribe, 2000). Indeed, we argue that land-use planners actively work to create an arena (increasingly through collaborative or participatory approaches) where those with differing visions of the future of the landscape compete (Hillier, 1999a, 1999b; McCann, 2001; Shipley, 2002).

We draw from Peet and Watts' (1996) idea of an 'environmental imaginary' as a means for understanding how different visions of nature are woven into and emerge through local politics. This concept focuses specifically on the links between power, knowledge, and practice and their role in creating new systems of meaning for nature and how it should be used. Peet and Watts' concept pays particular attention to the struggle over symbolic meanings of nature among different actors who have the power to *institutionalize* those interpretations through norms and customs that determine access to, and control over, nature.

In this way we integrate political ecology into broader studies of the regulation and meanings of space and landscape. Interpretations of nature form the basis for how society regulates community practices toward spaces; or, in other words, how communities

regulate land use (Harvey, 1996). Beatley (1994, page 4) suggests that "moral judgments about land use are ultimately made by individuals, but they can occur at different social, governmental, or institutional levels." Landowners make claims to certain rights, but not all moral rights are legally guaranteed. Rather, these claims are expressions of what certain actors and social groups think are their rightful entitlements. As such, struggles over land-use rights can be seen as struggles over the symbolic meanings of nature and the right to (or prohibition of) particular material practices that flow from those interpretations (Bourdieu, 1977; Peters, 1984; Moore, 1993). McCann (1997, page 641) shows how institutional sites, such as planning commissions, serve as "vitally important spaces" in processes of landscape production. Through these procedural means, powerful actors can legitimate certain discourses, and associated land-use practices, over others. In his analysis of planning decisions in Kentucky, McCann (2001) demonstrates how a collaborative planning process was controlled to create outcomes that conform to the economic models of hired consultants.

Whatmore and Boucher (1993, page 169) directly address the narratives that govern planning's treatment of nature: "[l]and-use planning formalizes the separation between nature and abstract space through the written codes of legal statute and professional conduct which impose a site-based, rather than system-based, narrative structure on its treatment of the environment." Their research on "environmental planning gain" in the United Kingdom points to three narratives that permeate planning: narratives of conservation, commodities, and ecology.

We emphasize that struggles to define appropriate societal practices toward nature increasingly are influenced by the role of scientific expertise in describing nature as well as corresponding practices. For example, literature on private lands conservation in the United States calls for the integration of principles from conservation science—including conservation biology and landscape ecology—into more traditional land-use planning efforts (see Dale et al, 2000; Beatley, 2000; Theobald et al, 2000). This type of integration falls neatly within the parameters of the ecology narrative described by Whatmore and Boucher (1993). As Whatmore and Boucher note, the ecology narrative gains a great deal of legitimacy from "its scientific credentials" (page 170). Efforts to apply conservation science in the U.S. emphasize the protection of important ecological functions (including habitats), while proponents stress the scientific underpinnings for implementing these new approaches (see Peck, 1998; Dale et al, 2000).

As political ecologists, we stress that these scientific definitions of nature are inherently political. As Whatmore and Boucher argue, competing narratives of nature in planning have important (re)distributive effects for land-using interests. In particular, the focus of the commodity narrative as opposed to the ecology narrative envisions human actions and their impact on the environment in very different ways, with implications for how different places can be treated by the development process. The ecology narrative values nature in ways that have important social and economic implications and relies heavily on a regulatory planning ethos (Whatmore and Boucher, 1993, page 170).

The emergence of a new, more ecologically-focused development ethos is becoming evident across the United States, as many land-use planners, conservation scientists, and residents pay greater attention to the consequences of development on the ecology of local areas (see Duerksen et al, 2000). Customary land-use practices and development trends are being re-examined and evaluated for their impacts on species and ecosystems. However, the ways conservation science represents environmental 'problems' reflect particular ideologies of nature, which, put into practice through land-use planning and land-use government, have material consequences.

This valorization of the ecology narrative in the United States stems in part from broader international scientific and environmental discourse and social practices. Escobar (1998: 55) has observed that biodiversity protection through elite scientific management is a social concept that "goes well beyond the scientific domain." In the debate over biodiversity, as with other environmental issues of international concern such as the global climate change debate, scientific discoveries often lead to principles that are proposed to guide the *social* responses to natural problems. As Wynne (1994) notes, the ways in which these principles are translated into practice are often taken for granted. Bryant (1991) concurs: the techno-managerial perspective prevalent in global change science formulates and implements strategies without much consideration of the social, political, or cultural impacts. For example, Cronon (2000) questions whether efforts to develop a set of ecologically-based land-use management principles should remain the province of ecologists alone.

While we strongly concur with the view that scientific management, with its particular environmental imaginaries, plays a central role in shaping land-use management and politics, we suggest that the narratives of global or elite science are not necessarily hegemonic; indeed, at the scale of local environmental politics they may be specifically and actively contested or rejected. Science, as numerous scholars have pointed out, is often seen as a superordinate discourse that exerts social control because it has the authority to describe our 'natural' problems (Wynne, 1994). In much of the political ecology literature science is portrayed as a dominating and unassailable force that generates policies that are then resisted by local peoples defending their livelihoods. For example, in Java, as Peluso (1992) notes, scientists were unopposed in their analyses of forest conditions, creating policies that became the source of bitter bush warfare.

In further interrogating the notion that ecologists and conservation biologists are the experts most appropriately positioned to guide land management practice, we are also reminded that science does not necessarily start out as universal. Latour (1987) has argued that science is at all points a *local* enterprise (for example, in the use of local laboratories), but that through the extension of these networks (more recently referred to by Latour as a *series of transformations*—Latour 1999) across space and time, science achieves the appearance of 'universality.' This process of becoming universal provides ecological science with the appearance of, or creates the right to speak of, ecological 'truth'. Through the practice of creating local biotic inventories, for example (what Latour might call a particular type of 'black box'), conservation biology research has

generated universal notions of material reality whose assumptions are rarely questioned and are often implied to transcend time and space in their applicability to the conservation of biodiversity.

In our case study from Nevada County, we find in the struggle over the Natural Heritage 2020 (NH 2020) land-use planning program that the very perception of the dominance of a particular global scientific discourse, along with real conceptual links (though not a 'conspiracy'), became a tool for resistance against the environmental imaginaries embedded within conservation science. In Nevada County, resistance was focused not against policies but directly against the methods and ideologies of a particular branch of science whose practices could not be legitimately viewed as universal—allowing its non-localness to be challenged when applied to the specifically local activity of land-use planning. Environmental science—in particular the concept of biodiversity and the field of conservation biology—was contested from the outset in the NH 2020 conflict as opponents resisted its inclusion in the political processes that shape land use. Drawing strength from real conceptual links and shared language between local land-use planning and conservation science, claims of global conspiracy became central in the conflict over visioning the landscape and what moral rights and whose material interests would be recognized as legitimate by land-use planners.

The experience of NH 2020 has broad implications.[2] Like many conservation planning efforts, the program was intended to focus on protecting important areas of ecological value for humans and other species through incentive-based measures controlled by centralized management. Undeveloped open spaces (many of which are owned by the county's largest landowners) might become valued for their recreational, habitat, or other ecological values, instead of their development potential. In this sense, the approach reflects efforts to protect a public good through "the negotiated transfer of value from private capital (developers, landowners, builders, etc.) to a public authority" (Whatmore and Boucher 1993, 170) or other non-profit entities. The NH 2020 case study illustrates, however, that significant resistance may be posed against the assumption of scientific legitimacy behind these approaches. The case highlights competing visions of nature and their claims about appropriate forms of knowledge and their integration into the planning process. By paying attention to the ways that particular visions are contested and legitimated through local land-use planning, we argue that political ecologists and others may gain a clearer understanding of *whose* visions are institutionalized within planning and other policy-making processes.

[2] Several opponents with whom we spoke made it clear that this was not merely an issue in Nevada County but indicative of wider efforts in California and across the American West. Moreover, the involvement of the Paragon Foundation (which many proponents of NH 2020 referred to as a 'Wise Use' organization) involvement in producing *The Union* advertisement suggests that opposition in Nevada County is representative of resistance to such planning efforts by a wider network.

Origins of NH 2020: Institutions of landscape visioning

Natural Heritage 2020 did not spontaneously emerge; it is rooted in local interpretations of State of California planning laws that institutionalize processes of visioning the landscape. In California, state laws are the primary mechanisms that guide the planning process and translate policy from words on paper (themselves reflecting the values of stakeholders and economic interests) to patterns on the landscape. The state's General Plan Act requires all counties and municipalities to develop a comprehensive plan that addresses a series of common elements, such as land use, conservation, and open-space conservation. Individual jurisdictions, however, decide how to address each of the required components, relying on two different sets of implementing regulations: the zoning ordinance and subdivision regulations (Fulton, 1999). The state's Subdivision Map Act gives local governments authority to decide what is required to gain approval of land division and empowers locally elected officials to shape the nature of development (Fulton, 1999). Together with zoning regulations, the Subdivision Map Act translates policy into specific provisions for individual parcels, and thus applies broader social or community visions to individual private owners. In this way, county-level general plans are supposed to represent the intersection of state land-use laws with the particular visions of political and economic actors in local jurisdictions.

Together, these state laws require planners and politicians to consider the potential environmental impacts of local land-use decisions and policies (Fulton, 1999). The

California Environmental Quality Act (CEQA) largely focuses on enumerating the process for doing so, and does not define specific outcomes or goals (Fulton, 1999). CEQA specifies whether policies or specific development proposals need to be reviewed, based on whether they pose a significant impact. However, under the law, *local* jurisdictions are supposed to determine what constitutes significant impacts—and thus what vision constitutes environmental quality. In Nevada County, previous conservative-majority Boards of Supervisors met state requirements by inserting the appropriate language into general plans, but they appear to have done little else to actually put these goals into practice. Nevertheless, to comply with CEQA, the county's most recent General Plan, adopted in 1995, included visioning language (drafted by environmentalist minority members of the Board of Supervisors[3]) that provided a legal launching pad for what would become NH 2020. Under California law, this vision is clearly to be determined *locally*—lending non-local scientific or environmental visions little institutional legitimacy, and creating opportunities for claims of outside interference, or even 'conspiracy.'

Shifting land-use politics and the demise of NH 2020

Nevada County is located in the heart of California's historic 'Gold Country' in the Sierra Nevada Mountains (Figure 2). Since the Gold Rush of 1849, the region has experienced dramatic transformations of its society and landscape (Farquhar 1965;

[3] Interview A, 5 July 2001, Nevada City, CA.

Figure 2. Location of Nevada County in California (*Map by Erik Strandhagen*).

SNEP 1996). Following the Gold Rush, open-range cattle grazing, orchards, timber, and hard rock mining became the economic mainstay. By the mid-1950s, however, the last large commercial mines closed, and the traditional resource-based economy has been in decline ever since. By 1998, employment in agriculture, forestry, and mining (together) in Nevada County dwindled to 2 percent of local jobs (SEDD 2001, 11-13).

Located an hour drive from Sacramento, and a 2.5 hour drive from the San Francisco Bay Area, Nevada County became home to a 'second Gold Rush' by the 1960s (Duane 1996, 245) in the form of land speculation and development for waves of urban migrants

moving to the county in search of investments in cheap land and a better quality of life (Walker 2003b). Walker and Fortmann (2003) report that the acreage of private land in the county under primarily residential use increased from 30 percent in 1957 to 70 percent in 2001, with an almost equal decrease in agricultural land. Between 1965 and 2001, the county's population nearly quadrupled, from 25,100 to 94,361, almost exclusively through in-migration (Berliner 1970, 3; U.S. Census Bureau 2003). The growth in population and associated landscape fragmentation has been promoted by development companies such as the Boise Cascade Corporation that created large residential subdivisions on the county's former ranch and timberland in the 1960s (Berliner 1970).

With exurban in-migration, new land-use pressures have been accompanied by new ideas about land-use planning. As a long-time planner noted, "it wasn't until about the early 1980s that anybody cared what was going on from a land-use standpoint in Nevada County; it wasn't until our population had grown to have a lot of people who escaped the metropolitan areas."[4] Concern over increased development was especially apparent in the mid 1990s in public responses to the formulation of a new comprehensive land-use policy in the 1995 General Plan (Duane, 1999). An effort that started out as a community visioning process ended in disappointment for many participants. The final plan decided upon by the ideologically conservative Board of Supervisors at the time largely ignored extensive input from community members who had participated in working groups. The

[4] Interview B, 29 March 2002, Grass Valley, CA.

resulting frustration led to the political mobilization of citizens concerned about the dramatic growth allowed under the new plan (Duane, 1999).

By the next election, the necessary forces had been mobilized to win control of county government and control over its planning processes. The 1998 election was widely seen as a referendum on the future of planning and development in Nevada County because two of the four candidates running for office ran on slow- or planned-growth agendas (Duane, 1999). After the election, a new 4-1 slow-growth majority meant pro-growth 'old-timers' had, for the first time in 150 years, lost control of the county's political machinery and its vision of how development would be guided (Walker and Fortmann, 2003). The 2000 elections reaffirmed this new majority.

Responding in large part to the county's tremendous growth, the new environmentally-oriented Board of Supervisors initiated NH 2020 in May 2000. Arguing that the 1995 General Plan failed to sufficiently detail how environmental impacts would be mitigated (as required by CEQA) proponents of NH 2020 pushed for implementing mechanisms that were more than just vague language. These supervisors wanted explicit policies that would address the growth authorized by the General Plan. In an effort to mitigate for environmental impacts, the process was supposed to create a new landscape-scale plan for development in the county that would replace the site-by-site mitigation approach (and an ad hoc system of awarding exceptions to the county's 'old guard' of large landowners).

Comprised of a Community Advisory Committee (CAC), a Scientific Advisory Committee (SAC), and a number of working groups, NH 2020 was touted as a collaborative effort between political leaders, the county's planning staff, technical experts, and the general public. The project was funded in part through the Sierra Business Council (a group derided as "the Sierra Club in suits" by opponents[5]) and aimed to create a comprehensive strategy for "identifying, managing, and protecting the natural habitats, the diversity of plant and animal species, as well as the open space resources found in the County" (Nevada County Natural Heritage 2020 Program, 2000). Notably, these goals were predetermined (a fact upon which opponents seized to question the program's 'collaborative' intent). To achieve these goals, the program was expected to result in four different planning products: 1) a county-wide biotic inventory; 2) a habitat management plan; 3) an open space district: and 4) a vegetation ordinance.

This new vision for Nevada County was not shared by all of its residents. Billboards declaring "No on NH 2020" quickly became ubiquitous in the county. At least two new property rights groups were formed in opposition. Representatives of large landowners and conservative business interests became prominent sights at Board of Supervisor meetings, while 'environmental' groups remained strangely silent. A recall effort was launched against Supervisor "Izzy" Martin, a leading proponent of NH 2020 who was described as the "leader of the gang" (the epithet "gang of four" was used against the four slow-growth supervisors). On a daily basis, letters-to-the-editor appeared in the county's

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[5] Interview C, 20 March 2003, Grass Valley, CA.

largest newspaper with headlines such as "NH 2020 is socialism," "Enviros after your property," "Pagan Greens control county," and "U.N. threat to our freedom."[6] Opponents, often employing what were described by proponents as "tactics right out of the Wise Use movement's handbook," shouted down NH 2020 leaders in public meetings, and some NH 2020 leaders reported threats of physical violence and even death.[7]

This climate of intimidation and fear included claims that NH 2020 was a direct product of a global environmentalist conspiracy directed by the United Nations. Speaking to the Nevada County, California, Republican Women's Club in 2001, Drew Bedwell, a candidate for County Supervisor, presented a flow chart that directly traced the flow of authority from the United Nations' Agenda 21, the International Union for the Conservation of Nature, and UNESCO to the Nevada County Planning Department. Bedwell bluntly claimed that under guidance from the United Nations,

> you've got regulations and activists and lawsuits working in collusion to take away—they've taken away—our public lands. Now they've gone to work on private property rights. That's where Natural Heritage 2020 comes in. They'll use this as just another tool to identify properties and to take properties… (Republican Women's Club of Nevada County 2001)

Bedwell's comments were extreme but hardly unique in the fight over NH 2020. Many of the claims made in the advertisement that appeared in *The Union* (Figure 1) linking NH 2020 to the U.N. and the Wildlands Project were echoed in public meetings, letters-to-

[6] *The Union*, Grass Valley/Nevada City, CA 10/5/00; 11/6/00; 9/18/00; 7/27/02.

[7] Interview D, 20 March 2003, Penn Valley, CA; Interview K, 6 July 2001, Penn Valley, CA.

the-editor, and other forums. Proponents failed to see the symbolic significance of the membership of Michael Soulé (one of the founders of the science of conservation biology, who is well known in property rights circles for advocating the 're-wilding' of private land) on NH 2020's Scientific Advisory Committee. Yet supporters of NH 2020 often reacted to claims of 'outside' collusion with derision tinged by condescension.

As absurd as it seemed to supporters (most dismissed it as unimportant and irrelevant), the conspiracy rhetoric lingered as part of the campaign against NH 2020 and its proponents. Following the narrow defeat of an effort to recall pro-NH 2020 Supervisor "Izzy" Martin in July 2001, anti-NH 2020 activists turned to the 2002 elections, in which Martin and Supervisor Bruce Conklin, also a supporter of NH 2020, were running for re-election. Property rights activist Drew Bedwell declared his candidacy for Conklin's position, and political newcomer Robin Sutherland challenged Martin. Both ran campaigns built almost solely in opposition to NH 2020. The acrimony escalated, and on April 30, 2002, Supervisor Martin, declaring a wish to "no longer split the community in half," requested the program be quickly ended, without achieving an open space or habitat management plan (Karpa, 2002a). (The biological inventory, however, was eventually completed and published as the re-titled Natural Resources Report.)

In November 2002, Drew Bedwell, the chief proponent of the idea that NH 2020 was linked to a global environmental conspiracy, was elected to the Board of Supervisors over

incumbent Conklin (albeit by a razor-thin 19-vote margin). Together with Sutherland's convincing 12-point defeat of Supervisor Martin (Nevada County Elections Office, 2002), control of the Board of Supervisors was returned to the pro-growth interests, and the prospect of integrating principles of conservation biology into the county's long-range planning declined to virtually nil. In a watershed election decided by only 19 votes, it is impossible to know whether conspiracy rhetoric made the winning difference for Bedwell and Sutherland, but this rhetoric clearly galvanized conservative activists and provided an avenue to challenge the legitimacy of the scientific vision behind NH 2020.

Natural Heritage 2020: Whose vision?

> Well, all of a sudden this grassroots movement came out of nowhere. People who hadn't been standing in line during the last general plan update, or hadn't been the usual suspects and following the [development] process just appeared on the scene, and came unglued [by] this *global* approach... so this sort of conspiracy theory paranoia swept over the public...(our emphasis)[8]

Proponents of Natural Heritage 2020 say they were dismayed by the acrimony engendered by the program because, in their view, they were simply carrying out the mandate of the county's 1995 General Plan, which was created by a previous conservative Board of Supervisors. As one county planner explained, "In the General Plan there are a number of policies that say the county will prepare a county-wide biotic inventory, shall prepare a county-wide habitat management plan, shall consider forming

[8] Interview E, 24 September 2003, Nevada City, CA.

an open-space district."[9] Thus, proponents maintained that the goal of NH 2020 was not to create regulations, but to implement existing policies in the 1995 General Plan.

We suggest, however, that the effort to implement the goals of the 1995 General Plan reflected a new kind of vision for planning in Nevada County, and this vision was the crux of the conflict, as much or more than any specific policies that might have resulted. The fundamental source of contention in the NH 2020 conflict was over what mitigation measures were needed. The most heated disputes were over the efforts to implement the General Plan's call for a biotic inventory and a habitat management plan to mitigate the environmental impacts of ongoing development. The choice of the slow-growth Board of Supervisors to actually implement the language of the General Plan represented a new vision and a major departure from the days when the county's Board of Supervisor's simply inserted the appropriate language to meet state requirements, with little or no effort to actually implement these goals on the ground.

Natural Heritage 2020 signaled not only a shift toward active implementation of state environmental planning guidelines but also a shift of scales in planning, from parcel-by-parcel planning to a county-wide *landscape*-scale approach based on principles of conservation biology. Such efforts are designed to identify important habitats for conservation and then codify protection measures through long-range, comprehensive planning (see Knight, 1999; Beatley, 2000; Dale et al, 2000; Miller and Hobbs, 2002).

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[9] Interview F, 28 March 2002, Nevada City, CA.

This approach relies on evaluating the known distribution of biological diversity and an assessment of conservation opportunities, taking into account areas of intact habitat, suites of habitat for rare or sensitive species, or habitat corridors among existing natural areas (Duerksen et al, 2000)—a vision alien to Nevada County in the past. In explaining how the biotic inventory might be used to plan for habitat and open space, one county planner offered a clear picture of the shift in focus implied by the landscape-scale approach,

> So the same thing with oak woodlands, endangered species' habitat, that type of thing. [Under current approaches] [w]e'll protect that immediate tree, or that immediate small area that that endangered species might use. Some would call that mitigation… As a conservation biologist, I say, if you can't maintain those physical processes [that maintain biodiversity] that we talked about—fires, floods, natural environmental flux—[if] you can't maintain some sense of the natural hydrology and climate, it's questionable whether you've protected anything.[10]

Efforts by proponents of NH 2020 to downplay the changes associated with the program, and to claim that there was really very little that was new in it, rang hollow to those familiar with the vision of planning under the county's 'old guard.' Proponents of NH 2020 insisted on describing the program as an "empty box," suggesting a politically and ideologically neutral *tabula rasa* to be inscribed through community input. Yet, landscape-scale visioning, based on principles of conservation biology—with its normative prescriptions for landscape conservation—were explicit guidelines in the science of the NH 2020 process. Visitors to the NH 2020 website could read about the

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[10] Interview F, 28 March 2002, Nevada City, CA.

principles of conservation planning through a link to supplementary material (Natural Heritage 2020, 2000). In Nevada County in the past, the interpretation of environmental impacts required under CEQA had long been characterized by a narrow, parcel-by-parcel vision. Anti-NH 2020 activists understood the significance of this shift, and argued that the implied neutrality of the "empty box" masked a hidden agenda—a new *vision.*

Whether or not NH 2020 contained any intentionally hidden agenda, the program clearly entailed new priorities for land-use policy. Opponents challenged the need for new mitigation measures, especially the biotic inventory and the use of principles from conservation biology. In short, the conflict over the shift to landscape-scale planning represented a struggle over whose vision of environmental quality would guide the material development of the landscape through planning.

Specifically, by incorporating principles of conservation biology, NH 2020 reflected normative ideas about how to manage lands for the survival of species and their habitats. The conservation biology literature in particular, and biodiversity conservation efforts in general, focus on specific visions of nature and advocate for species and their ecosystems (see Odenbaugh, 2003). Specifically, conservation biology envisions a 'right' kind of nature that verges toward a reverence for wilderness. Much has been made of the problematic implications of the wilderness ideal in conservation, most notably William Cronon's essay, 'The trouble with wilderness' (1995; see also Neumann 1998). Cronon (1995, page 81) argues, "[a]lthough at first blush an apparently more 'scientific' concept

than wilderness, biological diversity in fact invokes many of the same sacred values… ." To opponents, this normative shift of visions implicit in NH 2020 signaled a broader political agenda; they viewed this ideological and political shift in terms of the changes in the conceptualization of—and, ultimately, policies regarding—property rights that were implied by NH 2020's vision.

As Whatmore and Boucher (1993) suggest, the application of the landscape visions of conservation biology may have important (re)distributive effects through policies that determine what types of land use are considered appropriate on private land. For example, areas of habitat that are produced through human actions may be 'reappropriated' solely for wildlife. In a very material sense, conservation-based planning redefines where development should or should not be allowed. Such policies reflect a redefinition of property rights in terms of the contribution of individual parcels to the health of the broader ecosystem.

Not surprisingly, conservative opponents vigorously resisted this 'revisioning' of the landscape in terms of how private property can promote ecological functions across entire landscapes. Opponents recognized that this 'revisioning' was not specific to NH 2020 alone; the program reflected ideologies and priorities embedded within conservation biology. Therefore, opponents set out to attack not only NH 2020 but the *science* behind the program. One advocate for a major business group that opposed NH 2020 underscored the issue:

> "When you're talking about conservation biology, I'll just take a leap here [sarcastic tone] and say that means we're going to preserve large blocks of some sort of ecosystem… show me the data that that's going to be more successful… [and] if we're going to have large intact ecosystems, that means something else [development] is not going to happen."[11]

Proponents generally responded to this kind of critique of the science behind NH 2020 with derision. As a member of the NH 2020 Citizen's Advisory Committee put it, "[they] attack the whole idea of science… they're not throwing science back at us, they're just generally attacking the idea of science."[12] These comments imply that science should be unassailable and its universality unquestioned—and that any criticism of the ideologies and priorities of science that is not itself framed in explicitly scientific terms should not be dignified with a response.

When specifically pressed to respond to the question of whether the program and the science behind it implied a changed vision of environmental quality, NH 2020 leaders were only slightly more forthcoming. One key leader of NH 2020 stated, "that's truly what it's doing."[13] However, this leader did not see the shift as problematic, insisting instead that, "the vast majority of the work that's being done in the [NH 2020] science program is *simply* the collection of this data from all the available sources" (our

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[11] Interview G, 28 May 2002, Truckee, CA.

[12] Interview H, 28 March 2002, Penn Valley, CA.

[13] Interview I, 29 March 2002, CA.

emphasis). This theme—that NH 2020 was 'simply' about an unproblematic scientific approach (rather than a changed vision)—was recurrent among proponents, who consistently maintained the program was about science and good planning, not about ideology or politics.

This interpretation ignored the political history of Nevada County and the redistributive effects of conservation-based planning. For example, the habitat management plan (which was cancelled) was supposed to "take [an] impact and reduce it to a level of less than significant"[14]—a vision with enormous political and economic implications. Despite this, some proponents resolutely downplayed any political implications. The county planner in charge of NH 2020 stated, "I don't care a damn about politics, all I care about is the science"[15]—an attitude that infuriated opponents and fueled charges of misrepresentation by NH 2020 leaders.

Despite the refusal of some proponents to acknowledge the political implications of the NH 2020 vision, opponents feared the shift in planning approach was a step toward increased regulation of land use on private property. When viewed within the political-historical context of Nevada County, there are legitimate reasons for this concern. Elected officials in Nevada County did not have a history of strong enforcement of environmental regulations. Historically, the county's elected leaders focused "on getting entitlements—

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[14] Interview J, 24 May 2002, Nevada City, CA.

[15] Interview K, 25 July 2002, Nevada City, CA.

prior development potential entitlements for certain property owners… they really did not focus on the effects of the policies [on the environment]."[16] As one county planner acknowledged, prior to NH 2020, "the county never mitigated development impacts from a biological and habitats perspective."[17] Another proponent agreed:

> right now… [we] just do piecemeal onsite habitat management and mitigation… That's how we're doing it now. We could have written a comprehensive management plan for the county. This [NH 2020] would have been a way to do that [landscape-scale management] for the county.[18]

A landscape-scale vision for planning would have represented a very new way of developing land-use policy and potential regulations in Nevada County.

In a very material sense, the use of a landscape-scale planning approach held the potential to redefine where development should or should not take place. NH 2020 was supposed to identify "highly desirable areas for conservation because of the value of their habitat, whether for plants or animals."[19] Nevada County's initial proposal for a biotic inventory, and ultimately, its Natural Resources Report would have facilitated this process by providing explicit recognition of places in the landscape with particular environmental

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[16] Interview B, 29 March 2002, Grass Valley, CA.

[17] Interview J, 24 May 2002, CA.

[18] Interview L, 24 May 2002, Penn Valley, CA.

[19] Interview J, 24 May 2002, Nevada City, CA.

value.[20] As a county planner with the program explained, by "having a GIS database,… [t]he advantage is that it gives planners and people who are concerned about the environment an even playing field, because… everyone will know what the existing resources are… so hopefully the county will be able to mitigate the impacts."[21]

Thus, although it was true, as NH 2020 supporters stated, that the program did not propose any new regulations, the biotic inventory was designed to identify places that merit special attention by policy makers. Opponents were aware of this, and their fear was that NH 2020 would serve as the basis for policies of habitat protection that would alter customary land-use practices under the guise of 'simply' implementing the county's 1995 General Plan. Above all, opponents of NH 2020 feared that the application of a landscape-scale conservation approach in land-use planning would lead not only to new regulations but to public 'takings' through property condemnations. This fear appears to have gained traction with some landowners in the county, given the wide distribution of signs stating "No on NH 2020: protect your property rights." As one of the scientists involved with NH 2020 stated, alluding to the reserve-strategies of conservation planning, "there is a backlash against conservation biology because people [think we] are going to draw big circles around large areas of public and private land and try to acquire private land forcefully; I think that's part of why people are afraid of it."[22]

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[20] See Robbins (2001) for a critique of environmental inventorying.

[21] Interview J, 24 May 2002, Nevada City, CA.

[22] Interview K, 25 July 2002, Nevada City, CA.

Despite their considerable use of vitriolic rhetoric and hyperbole, opponents were generally correct in their assessment that NH 2020 would have represented a fundamental shift of vision in development had it been fully implemented. Proponents of NH 2020 generally failed to acknowledge that this fundamental shift was anything more than just 'good planning' and 'objective' science. The more questionable claim by anti-NH 2020 activists was the assertion that the program was a product of a global *conspiracy*.

Was NH 2020 a conspiracy?

While we found no evidence to support the claim that NH 2020 resulted from any direct influence of global institutions such as the United Nations, we suggest that the broader conceptual and ideological shifts described above make the idea of linkages between NH 2020 and broader conservation efforts less preposterous than proponents of NH 2020 maintained. While NH 2020 was not the child of the United Nations' Agenda 21, or any other global conservation program, a plausible argument can be made that it was a cousin of such programs—descended from a shared intellectual lineage and vision rooted in principles of conservation biology. To conservatives and long-time residents who were familiar with Nevada County's traditional *laissez faire* approach to development and land-use planning, the use of a biotic inventory and the landscape-scale approach in planning clearly indicated 'outside' influences.

While the most rhetorically flamboyant leaders of the NH 2020 opposition (such as county supervisor candidate Drew Bedwell) claimed that these influences proved a conspiracy, other opponents were more subtle and chose to distance themselves from these inflated claims. A leading member of a prominent opposition group summarized this more moderate view succinctly, "There *is* a U.N. connection; a U.N. *policy* connection"[23] and went on to suggest that the idea of an active conspiracy theory was a separate issue.

While opponents provided no evidence of direct causation between global conservation programs and NH 2020, the idea of a "policy connection" is at least remotely plausible. Agenda 21, for example, is a very real effort by the United Nations, with the goal of a "comprehensive plan of action to be taken globally, nationally and locally by organizations of the United Nations System… in every area in which humans impact on the environment" (UN 2003). Through this program, the United Nations encourages all levels of government to address the biodiversity 'crisis,' often through policy changes, such as those based on a landscape-scale vision of habitat protection. The similarities to NH 2020 are striking. One local journalist put it this way: "read United Nations 'Agenda 21: Promoting Sustainable Human Settlement Development,' and Nevada County's Natural Heritage 2020 documents side-by-side and much of the language is similar" (Karpa, 2002b). One anti-NH 2020 activist put it more baldly. Referring to the inclusion of Dr. Michael Soulé (an internationally-known conservation biologist associated with

[23] Interview C, 20 March 2003, Grass Valley, CA.

the Wildlands Project) on the NH 2020 Scientific Advisory Committee, the activist stated, "[NH 2020] scientists… had their own political agendas; for example, Michael Soulé was involved, and he's the advocate for, 're-wilding' the Sierra. Hello? What more do you want?"[24]

In this sense, claims by Drew Bedwell and others of a global environmental conspiracy, while apparently groundless in-and-of-themselves, nevertheless served as effective tools that conjured fear among property owners about the threat of 'outside' control. These claims were made more credible by the quite real conceptual and ideological similarities between NH 2020 and various international conservation programs—similarities that derived from the programs' shared origins in the principles of conservation biology. It is these conceptual ties, we argue, that made NH 2020 susceptible to claims of conspiracy.

Conclusions

Ultimately the story of Natural Heritage 2020 in Nevada County is about the competition between differing visions for the future of the landscape more than about any specific policies that might or might not have emerged. It is a story of a struggle between differing social groups over whose vision should guide planning in the years to come. In the case of Nevada County, this competition emerged as certain exurban migrants brought new ways of imagining the county's future that strongly diverged from the

[24] Interview C, 20 March 2003, Grass Valley, CA.

county's past practices, and held dramatic redistributional potential. Opponents recognized the shift from a parcel-by-parcel approach in planning to one in which private property would be assessed in terms of its contribution to broader ecosystem health as a significant departure from, and threat to, historic planning approaches that had long served traditional development interests in the county well. The rhetoric of conspiracy, while not founded in literal truth, revealed important social realities: opponents perceived a significant threat from the shift to landscape-scale planning, and the congruencies between broader conservation science and NH 2020 provided them an opportunity to attack the program as 'outside' interference in county land-use policy

Resistance to the conservation science at the heart of Natural Heritage 2020 further suggests that claims of the 'non-localness' of science may find traction from the act of making science 'universal'—a situation that Latour's concept of science networks appears not to have anticipated. This suggests that scientists need to pay greater attention to the tensions between local visions and knowledge and the visions of nature that circulate among scientists and planners.

Indeed, the experience of NH 2020 demonstrates the danger in simply dismissing claims of environmental conspiracy that arise in the local application of conservation science. No matter how groundless, these claims can be effective in the political realm. Clearly, many conspiracy claims wrongly asserted causality with regard to NH 2020: the United Nations is not directly involved in Nevada County (nor, as some anti-NH 2020 activists

claimed, was The Nature Conservancy founded by Adolf Hitler).[25] Yet the fact that these claims were wrong does not obviate the need to understand why they display real social power. The effectiveness of such claims signals social realities that planners and scholars disregard at their peril. The experience of NH 2020 shows that planning is more than just 'good policy'; it is an arena for competing visions of nature that guide social and environmental change. It also indicates that conservation science quietly contains important normative principles that are visible to opponents of such approaches, if not to planners themselves. Planners should recognize that science is not necessarily a self-evident good, and that when opponents perceive that the ideologies of conservation science conflict with their own values they may attack science itself. Claims of conspiracy may become an effective tool to challenge conservation science when this science derives (even indirectly) from 'outside' visions.

Given the push to integrate principles of conservation biology into land-use planning, planners may find that explicitly recognizing and acknowledging the important shifts in vision associated with conservation-based planning is ultimately more effective than downplaying these shifts or dismissing their real connections to 'outside' scientific values. Planners may benefit by working to understand the social meanings that give the seemingly irrational rhetoric of conspiracy real social and political power, and by openly examining and defending the need for new visions.

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[25] One informant repeated this assertion by a prominent opponent of the NH 2020 process. Interview E, Penn Valley, CA.

In this sense, for conservation practice to be viewed as legitimate in communities experiencing social and political turmoil, planners and conservation biologists might be better served in finding solutions that are built from the ground-up, in ways that do not rely upon the imposition of a preconceived vision of how to protect or conserve the natural heritage of a particular place. This type of approach may necessarily involve wider definitions of what constitutes natural heritage, a proposition that may be somewhat startling to conservation biologists. At the same time, conservation practice might also be better served by developing more transparent solutions to the types of redistributive effects that likely would have been created by Natural Heritage 2020's vision. Instead of leaving this issue as an afterthought or simply relying on 'universal' policies or planning tools, tackling this problem head-on may have reduced the amount of fear among many landowners.

CHAPTER BRIDGE

The **second journal manuscript** in this dissertation (Chapter III) further examines the conflict over Natural Heritage 2020 and emphasizes the need for conservation planners and scientists to better understand the politics and social relations associated with conservation practice in specific communities. In this case, however, the manuscript examines the reaction by landowners to the program and explores the extent to which the planning program's failure might have been avoided. The chapter extends the application of the political ecology framework to links between power, ideas of community trust, and the actual policy tools employed in land-use planning. This analysis suggests that conservation planners' insistence on emphasizing science before discussing the use of particular policy tools may be problematic in the arena of land-use policy. This manuscript has been prepared for submission to either *Ecology and Society* or *Conservation Biology*, two journals whose primary audience is scientists and policymakers concerned with conservation science and the practice of conservation.

CHAPTER III

PUTTING THE CART(OGRAPHY) BEFORE THE HORSE: THE POLITICS OF PRIVATE LANDS CONSERVATION PLANNING

INTRODUCTION

Conservation Planning and the Politics of Mapping

In the United States, private lands harbor a great deal of biodiversity (Ricketts et al. 1999, Wilcove et al. 2000, Hilty and Merenlender 2003). At the same time, there is growing concern among conservation biologists and land-use planners about rapid development in rural areas (Maestes et al. 2003) that has resulted from the increasing migration of people from urban and suburban areas and the resulting proliferation of low-density housing patterns (Nelson 2001, Walker et al. 2003). Because this type of low-density development contributes to species and habitat loss (Theobald 2000, Hansen and Rotella 2002, Maestes et al. 2003, Liu et al. 2003) concern over this loss has led some observers to conclude that conservation planning must not neglect this critical geography (Knight 1999, Stein et al. 2000) and that conservation management must move beyond protecting public lands (Franklin 1993, Maestes et al. 2003).

Responding to the decline of biodiversity on private lands, a growing body of literature has given much attention to the science of designing conservation landscapes ecological (Duerksen et al. 1997, Dale et al. 2000, Theobald and Hobbs 2002, Theobald et al. 2002, Hulse et al. 2002). This literature on 'designing conservation landscapes' advocates ecological mapping and priority-setting exercises that use GIS technologies to inventory, or map, the biological resources in a particular area (Figure 1). Conservation scientists use this information to evaluate the ecological importance of specific areas and identify those areas with conservation value (so-called 'priorities') or that are prime candidates for restoration initiatives. By identifying a key set of priorities for conservation action, these scientific prioritization exercises are intended to influence land-use decision-making processes.

At the same time, there is also a growing literature that examines the economics of conservation management (see e.g., Ruitenbeek 1992, Shogren et al. 2003, Hughey et al. 2003, Michael 2003) and the importance of using non-regulatory approaches to conservation on private lands (Belliveau 1993, Langpap and Wu 2003, Wilcove and Lee 2004). While the literature on conservation landscape design emphasizes priority-setting as the most effective means to integrate key conservation goals into local land-use policies (see Noss and Cooperrider 1994 for a discussion) the conservation economics literature emphasizes economic efficiency in conservation management (Hughey et al. 2003). Much less attention has been given to the social and political

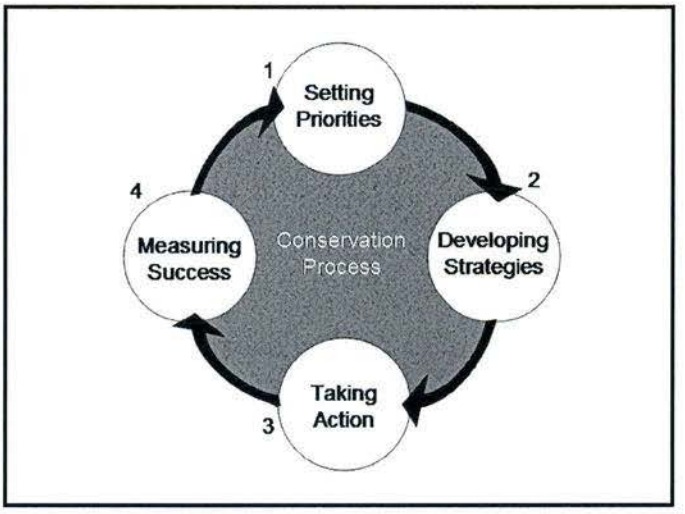


Figure 1. Conceptual Model of the Conservation Planning Process (adapted from Groves 1993).

factors that might influence the outcomes of priority-setting exercises and their efficacy with regard to achieving important conservation goals.

This article examines the politics of private lands conservation planning and the implications these politics have for conservation practice. Within this context, it is important to note that ecological mapping and priority-setting efforts are viewed by conservation planners as important tools for community discussions about conservation (TNC 1997, Groves 2003). For example, Duane (1999) has suggested that GIS is an important tool for achieving conservation goals, because it allows stakeholders to debate valuable information about specific places and to use this information to analyze alternative options. Critically, this approach appears to assume

that the biodiversity mapping exercises themselves will be viewed as *apolitical* acts and will be welcomed by community stakeholders participating in community-based conservation efforts.

Although there is an extensive literature on collaborative planning or participatory natural resource management (see e.g., Yaffee 1996, Wondolleck and Yaffee 2000, Brick et al. 2001, Baland and Platteau 2000, Western et al. 1994, Conley and Moote 2003), much of this literature lacks a nuanced view of the politics involved (Walker and Hurley 2004). Groves (2003) acknowledges three categories of stakeholders in conservation planning processes: primary, secondary, and opposition stakeholders. By definition, primary stakeholders are those who have considerable power or authority over the lands under evaluation (e.g., the Bureau of Land Management or the U.S. Forest Service). By contrast, secondary stakeholders, have less direct authority over land management or governance decisions (e.g., tourism operators or recreational guides whose livelihoods are tied to the management of public lands). Citing property rights groups in the western United States as an example, Groves (2003) describes opposition stakeholders as those groups who regularly oppose conservation efforts. This categorization, however, oversimplifies the political landscape of private lands conservation.

The politics of conservation planning on private lands extend beyond the traditional focus on a narrow set of stakeholders in the collaborative arena. First, there is a

crucial difference between decision-making about land management practices on public lands and the governance of land-use practices on private lands. Because land-use governance in the United States is primarily a county and city-level endeavor (see Cullingworth 1993, Platt 1996), individual landowners and all residents are stakeholders in conservation-based land-use decision-making. Second, treating proponents of property rights as an undifferentiated group is problematic in the United States, where there is widespread but differential concern about environmental problems and where land also has tremendous cultural importance.

Numerous observers have commented on the distinctive way that Americans think about the meaning of land *and* the role that control over land plays in local *politics* in the U.S. (see e.g., Plotkin 1987; Coyle 1993, 1994; Jacobs 1998, 1999; Robbins and Foster 2000). Pralle and McCann (2000: 54) point out that "the language of property in the American legal and political tradition has constituted a pervasively 'contested terrain." It is within this context that Jacobs (1998) has noted that Aldo Leopold's "Land Ethic" seems to hold a warning about the potential backlash against the environmental movement, noting that Leopold warned that "conservation is paved with good intentions which prove to be futile, or even dangerous, because they are devoid of critical understanding either of the land, or of the economic land use." (Leopold 1968: 225, as quoted in Jacobs 1998: 37). But it would be wrong for conservation planners to focus solely on land-use economics in understanding the potential for backlash to conservation aims. As Jacobs (1998: 37) notes,

> The cultural myth of freehold private property—the open spaces of the American West, the attitude of 'it's my land and I can do what I want with it!'—define the American character as much as any characteristic. To be an American is to own and control private property. So, while public opinion polls show that environmental protection is supported by most Americans, many of these same citizens can be deeply disturbed by the public regulatory programs developed to achieve this goal.

Moreover, Pralle and McCann (2000: 58) note that "it is a mistake to focus on the courts as the only, or even the primary arena of legal mobilization and political contestation over property rights in the contemporary period" when in fact the most lively expressions of contestation over property rights often take place in local political forums and legislative bodies.

Geographers and anthropologists recognize that maps and mapping exercises are tools of political power (see Sack 1986, Harley 1988, Orlove 1991, Pickles 1995, King 1996, Walker and Peters 2001, Hodgson and Schroeder 2002). On one hand, maps have been frequently used as essential tools in the process of land appropriation (Willems-Braun 1997, Vandergeest and Peluso 1995, Neumann 1998). On the other hand, maps have also been used as tools for social change (Peluso 1995, Nietschmann 1995, King 1996, Hodgson and Schroeder 2002). Thus, an important issue in the politics of private lands conservation is how landowners interpret biodiversity mapping exercises. For conservation planners, this is not a matter of interpretation: biological inventories and maps of biodiversity are objective data from which location-specific conservation goals are derived. But the process of mapping

biodiversity on privately owned lands is also the process of defining land according to ecological criteria. Put another way, a conservation planner's intact oak woodland might be the site of a landowner's dream home or the source of a child's college tuition. This act of defining the landscape in a particular way is also an act of power.

The act of mapping has important implications for the success of the conservation planning and land-use governance on private lands (Hurley and Walker 2004). Viewed within this context, the politics of land and property rights in the United States suggests that a crucial issue for conservation success is determining whether inventories of biological resources and biodiversity mapping exercises are viewed by landowners and other members of a community's electorate as tools for the *appropriation* of land or the control of particular land uses. If, as Jacobs (1998) suggests, landowners view this as an *end* in itself, priority-setting exercises are not likely to be considered politically legitimate. If, however, landowners view these efforts as tools that can address common social concerns through politically acceptable policy mechanisms, then they are more likely to accept them as tools for legitimate social change. The intent of this article is to examine a key assumption of conservation planning practice, namely the prioritization of ecological mapping over the formulation of policy alternatives, when applied to private lands and within the context of local politics.

Setting Conservation Priorities in Nevada County, CA: Natural Heritage 2020

Located in the central Sierra Nevada Mountains of California, Nevada County is typical of many rural counties experiencing rapid residential growth in the American West (Duane 1999, Walker and Fortmann 2003). The county is home to scenic mountain vistas, quality fishing opportunities, access to public lands, and numerous other natural amenities that draw increasing numbers of people seeking a better quality of life. Between 1965 and 2001, the population of Nevada County grew from 25,100 to 94,361 (Berliner 1970, U.S. Census 2003), and with this growth, experienced dramatic changes in the makeup of its economy, culture, and land uses (Duane 1999, Walker and Fortmann 2003). Along with this growth, concern among many residents about environmental impacts has also grown (Duane 1999, United Way of Nevada County 2001, Walker and Fortmann 2003).

By 1998, concern about the future of the county's growth led to a new direction for county land-use governance. During the early 1990s residents of Nevada County witnessed a long and contentious fight over how best to address the consequences of ongoing growth through a process to update the community's master planning document known as the 1995 General Plan (see Duane 1999; Walker and Fortmann 2003; Hurley and Walker 2004). By the time the resulting plan was formally adopted in 1995, many citizens had become upset over the perceived arrogance with which the county supervisors had developed the plan—ignoring a great deal of community input

during the plan's formulation—*and* the potential dramatic growth that it would allow (Duane 1999, Walker and Fortmann 2003, Hurley and Walker 2004). The stage was set for the county's overwhelmingly Republican voters to elect a new 4-1 "slow-growth" or "planned growth" majority to the county's board of supervisors (Duane 1999, Walker and Fortmann 2003) in 1998. The change in leadership, along with the presumption of general community concern, ensured that the new board would act to address the shortcomings of the 1995 General Plan (Duane 1999).

Recognizing the potential environmental impacts of the growth (and types of growth) authorized by the 1995 General Plan, the newly elected supervisors proposed the collaborative planning effort known as "Natural Heritage 2020: A Vision for Nevada County" (hereafter NH 2020) in May of 2000. The culmination of at least a decade of struggle to address concerns about growth, NH 2020 was essentially three planning programs in one. The goal of the program was to identify, manage, and protect the county's natural habitats, including a diversity of plant and animal species, its open space resources, and working landscapes (Nevada County Natural Heritage 2020 Program 2000). The newly elected supervisors and the county's planning staff assumed that by combining the three planning issues together they could address community concerns and provide an efficient means to address several planning issues simultaneously.

NH 2020 was comprised of elected officials, the county's planning staff, technical experts, and several prominent citizens who had applied to be on the citizen advisory committee (see Nevada County Natural Heritage 2020 Program 2000). The program represented a local effort to integrate principles of conservation biology into the county's existing land-use policy, which focused primarily on site-level environmental impacts and did not address larger landscape-scale concerns (Hurley and Walker 2004). Through this process, supporters believed the program would implement key provisions of the 1995 General Plan. In the opinion of the new board and planning staff, the 1995 General Plan required the preparation of a countywide biotic inventory and creation of implementing measures to reduce the overall negative impacts of development. In designing the NH 2020 process, Nevada County's board of supervisors turned to a committee of scientific experts to conduct a watershed-scale inventory of the county's natural resources focusing on "small-patch" and "large-patch" ecosystem types (e.g., montane conifer forests versus fens). According to the process, as outlined by the board of supervisors, members of NH 2020's Citizen Advisory Committee would use the information to develop key conservation priorities and strategies for implementation. By conducting this county-wide inventory of biological resources, NH 2020 supporters believed the county would finally have the scientific foundations for a habitat management plan, a meaningful conservation-oriented Open Space District, and a new vegetation ordinance.

NH 2020 never made it that far. What began as an innovative planning effort ultimately became a political nightmare and was by many accounts a complete failure. Instead of developing a blueprint for conservation in the county, the biotic inventory and the efforts to map the county's ecosystem types created tremendous community turmoil. Ultimately, the conflict ended in a deeply bitter political battle for control of the board of supervisors in the 2002 elections (Walker and Fortmann 2003; Hurley and Walker 2004; Walker and Hurley 2004). In the process, the board of supervisors prematurely ended the program, even before it made any recommendations about open space or habitat concerns. Two of the program's key architects lost their reelection bids; both were replaced by candidates who ran campaigns on "anti-NH 2020" platforms. Within 6 months of taking office, despite the pleas from the many scientists and program supporters in the room, the newly elected supervisors met in a packed boardroom, and together with the supervisor who was previously in the minority, effectively voted to shelve the program's biotic inventory (now named the Natural Resources Report) (personal observation).

For many county observers, the furor over NH 2020 came as a complete surprise. Duane (1999: 422) observed what many in the county had accepted as the new reality: the Rural Quality Coalition—a group of citizens concerned with the quality of life and the state of the environment—"finally proved in the 1998 elections that it had the political power to implement its vision [for county development]." There is, however, a long history in Nevada County of concerns about property rights derailing

efforts to control growth (Duane 1999). Despite this political history and the fact that for two years NH 2020's opponents continually attacked the program as a threat to the property rights (see Hurley and Walker 2004, Walker and Hurley 2004), NH 2020 organizers and the board of supervisors failed to meet these charges with anything beyond a vague promise not to violate landowner property rights (Interview A 2002, Interview B 2003). Instead, NH 2020's creators and many directly involved with the program clung to the notion that the information on the county's natural resources generated by the process would provide effective information and result in land-use decision-making that would benefit conservation in the county.

Walker and Fortmann (2003) have argued that the NH 2020 conflict represented a struggle to retake control of the county government by the historic power structure. Walker and Hurley (2004) found evidence that property rights groups, with ties to this power structure, made every effort to intentionally derail the collaborative process. Likewise, Hurley and Walker (2004) have shown that the rhetoric of public opponents objected specifically to the inclusion of conservation science in the formulation of county land-use policy. These authors, however, do not examine the views held by the wider public about the debate and what these mean for the practice of conservation planning.

In contrast, this paper examines the thoughts of Nevada County landowners on NH 2020, their ideas about the county's rural quality and environmental quality, their

environmental attitudes, their opinions about land-use governance, and their opinions about policy mechanisms in an effort to understand the interaction of these factors with the structure of the NH 2020 program. This paper argues that a fundamental problem with NH 2020 was its failure to tackle the politically sensitive issue of how conservation goals would be achieved on lands that had been 'prioritized' by the ecological mapping exercise. By prioritizing the mapping of biological resources over discussions about how to implement conservation through concrete policy mechanism, NH 2020 provided the program's organized opponents with a political void that could easily be filled with fears about the real loss of property rights. In short, the leaders of NH 2020 put the metaphorical cart(ography) before the horse. The end result was a county populace that largely viewed the NH 2020 biological inventory as a tool of government power at best and as a tool for land appropriation at worst, not a means for addressing common concerns among many residents about the county's future.

METHODS

Survey data

This paper relies primarily on data from a survey (Appendix 1) mailed in October 2003 to 1,100 randomly selected addresses from Nevada County's official property parcel database (Nevada County 2003). The survey was designed to explore multiple

aspects of the county's electorate and their opinions about the NH 2020 planning program. The debate about NH 2020 often included discussions about the county's rural and environmental quality. Because these terms potentially represent two different concepts, the landowner survey (Appendix 1) asked landowners to characterize what they personally thought of as environmental and rural quality. Next, I asked respondents about the importance of and degree of threat to Nevada County's environmental quality and rural quality. To gauge attitudes toward nature and the proper relationship of humans, the survey contained several questions similar to the New Environmental Paradigm (see Dunlap 1978) but modified following the work of Van den Born et al. (2001) and de Groot and Van den Born (2003). The survey asked landowners about land-use governance, land-use policy tools commonly associated with conservation endeavors, and Natural Heritage 2020 and the resulting conflict.

Of the 1,100 surveys sent out, 199 completed surveys were returned (18.5%), 10 surveys were returned without forwarding information, address correction service was provided by the U.S. Postal Service for 15, and three uncompleted surveys were returned. The results reported here do not include these figures. Although surveys were addressed to the person listed as the owner of the property "or current occupant" in an attempt to not exclude non-landowners, all 199 responses came from landowners. This result is not surprising given the fact that the vast majority of residents in Nevada County own their own homes (75.8% according to the U.S. Census Bureau, 2003).

The overall survey response rate was much lower than expected (a survey mailed in 2002 resulted in a 30% response rate, Walker, unpublished data). There are four possible factors that contributed to this low response: 1) budget and time constraints limited me to one unannounced survey mailing, 2) at least three other surveys during the past three years have included questions about the NH 2020 planning program, 3) at eight pages, the length of the survey may have dissuaded many landowners from completing the form; and 4) some respondents perceived the survey instrument as biased toward environmentalist values. This perception appears to be related to the sheer number of questions that address environmental issues, the proper relationship of humans and nature, and the NH 2020 conflict. Because the survey was initially designed to understand voting behavior among landowners for the 2002 elections, the mailing primarily targeted landowners in districts where elections for supervisor had been held. In both of these districts, surveys were mailed to four hundred landowners, while only 100 surveys were mailed to landowners in the three remaining districts. Response rates were comparable for all five districts (Table 1).

The sample was 41 percent female, 83 percent of respondents were older than 40-years of age, at least 62 percent of respondents earn greater than $40,000 per year, and 64% have at least a college degree (Table 1). A comparison of the sample data with the 2000 census data shows that the sample does not differ greatly in terms of age, but a higher percentage of males responded to the survey. Twenty-five percent of respondents have lived in the county for six years or less, while 50 percent of

respondents have lived in the county longer than 16 years. Comparison with 2002 voter registration records indicates that the sample is generally reflective of the political make-up of the county (Table 1), with some deviation. Democrats and Republicans are slightly under-represented, while independents and Greens are slightly over-represented in the sample. Voter registration numbers indicate that the 45 percent of county voters in the fall of 2002 were registered Republicans and 31 percent registered Democrats (Nevada County Elections Office 2004). This difference is likely attributable to the mailing distribution, which included more surveys mailed to the district with the highest differential between Republicans and Democrats. There

Table 1. Summary of Demographic Information for Returned Surveys.

Age		**Income**		**Party Affiliation**		**Education**	
< 25	1%	< $15,000 -	2%	Republican	33%	High School	18%
26 – 40	10%	$15,000–$24,999	6%	Democrat	24%	Some college	9%
31 – 40	9%	$25,000–39,999	15%	Independent	21%	Undergraduate	29%
41 – 50	14%	$40,000–69,999	26%	No response	16%	Prof. degree	10%
51 – 65	41%	$70,000–99,999	18%	Green	5%	Graduate	25%
> 65	19%	> 100,000	18%	Libertarian	1%	Doctorate	2%
No response	6%	No response	15%			No response	7%

were a greater number of responses from landowners in the districts where 2002 elections were held, although the response rates for landowners among supervisor districts were comparable to the other districts.

These survey results are also supported by information gathered during multiple visits to Nevada County between 2000 and 2003. Field visits included attendance at key NH 2020 meetings; Board of Supervisors meetings during and after NH 2020; analysis of program documents, minutes from program meetings, and minutes from board of supervisor meetings; and 75 semi-structured interviews with elected officials, planning staff, participants in the planning process, members of special interest groups active in the community debate, and a subset of landowners. Although the survey's sample size was small, the results capture a wide range of opinions about NH 2020 and the 2002 elections. In particular, responses to the open-ended questions about NH 2020 indicate that a wide range of views about the NH 2020 are clearly represented, including a substantial number of candid responses from landowners opposed to the program. These responses provide evidence for many of the claims made in interviews with individuals who participated in the planning process and whose views span the political spectrum. Taken together, this triangulation among survey responses, participant observation, and interviews with multiple parties provides a more comprehensive understanding of the public perceptions of the planning program and resulting politics.

Analysis

To better understand the politics of Natural Heritage 2020, landowners were asked to describe the stated intentions of the program, their personal impressions of the program, and why they thought the two supervisors had lost their reelection bids (Appendix 1). I also used this information to determine whether a respondent was supportive of, or opposed to, the planning program and then compared responses to statements in each of the other categories (e.g., ideas about environmental quality, environmental attitudes, etc.) to see how the groups differed. Because just 126 of the 174 respondents provided sufficient information to assess their stance on the planning program, this analysis also discusses situations where the pattern of responses from the supporter/opponent subset differs from the general pool of respondents. Taken together, these characterizations provide insight into the discrepancies between the environmental values espoused by landowners, their support for alternative policy tools, their ideas about land-use governance, and their support for the conservation objectives central to NH 2020.

RESULTS

Of the 126 respondents, 56 percent indicated that they did not support the planning program, while 44 percent indicated support for the planning process. These results suggest there was a general split in the community over whether the program was a

good idea. At the same time, the intensity of responses suggest strongly that the controversy over Natural Heritage 2020 was hardly overblown and that the controversy contributed significantly to the resulting shift in the county's government. Despite the small sample size, these survey responses provide a better understanding of the community's reaction to Natural Heritage 2020, particularly when combined with landowner opinions about the status of the county's rural and environmental quality, attitudes toward nature and the environment, and opinions about land use governance and policy.

Opinions about Natural Heritage 2020

To many of the respondents who supported Natural Heritage 2020, the failure of the program was tied to property rights issues, and more specifically, to *fear* among county landowners over the potential loss of their property rights. For example, several felt the program had been defeated by "people's fears about the NH 2020 program, because they thought it would challenge their personal property rights." Some responses were deeply cynical about such fears, indicating that the two supervisors had been "targeted by narrow minded, right wing, paranoid schizophrenics." One informant "couldn't believe that anyone would be so paranoid." While some proponents acknowledged this was an understandable reaction, many proponents perceived the fear as tied to the political maneuvering of key special interests in the debate. For example, many proponents thought the program was ended

"because of a campaign based on fear of losing private property rights, [which was the result of] a cyclical backlash from old-time conservative county [residents], and possibly outside, financial contributors." Calling it an "unfortunate loss of a unique opportunity" another informant repeated a common sentiment, suggesting the fear mongering was the result of political opponents, who repeated "disinformation by [supervisor candidate] Bedwell and right wing extremists." Several responses linked this "fear mongering," the political opposition, and financial contributions—whether from local or outside sources—to "developers [who] had deeper pockets." One landowner summed up things by saying that "money from outside the county (from Republicans and developers) was used to smear NH 2020 and those who supported it." Many of these assertions echo common sentiments expressed in interviews with NH 2020 officials.

Despite their personal support for the program, several landowners raised concerns about the program and how it had been handled by the board of supervisors. Two proponents specifically indicated that the implementation of the program had been mishandled. As one landowner explained, "the upfront job of selling the need for NH 2020 was not done properly." Another informant believed "the Board did not clearly articulate what NH 2020 would really do or what it would really accomplish." To these landowners, the issue was that "people misunderstood the issues they supported. [Instead,] people reacted out of the fear of losing their property rights because of misinformation." As a result, these proponents questioned whether the program had

been the best approach, arguing that the conflict resulted in the "failure to adopt a policy we need in this county [, but I] don't know if 2020 was the answer though." For all of these landowners, the assumption appears to have been: if the program had been handled better and the community had just understood the program better, then it would have been successful. This sentiment was also common among some interviewees who had been involved with county planning issues in the past (Interview C 2003).

An overwhelming majority (80%) of those who opposed NH 2020 indicated that they thought the program raised very real and important property rights issues; there was, in most cases, no equivocation on this point. Comments by program opponents overlap to a great extent, but subtleties appear important to understanding the opposition of these stakeholders. By far the most common responses describe NH 2020 as a vehicle "to take away the rights of private property owners." While many of the responses from opponents reiterated the property rights theme (60%), some were much less forceful in their responses: "it *felt* like government grabbing for rights belonging to land owners" (emphasis added). At the same time, many respondents (42%) acknowledged that the intent of NH 2020 was "to help government control growth and development" but several of these respondents (15% of all opponents) felt the approach was being led by "elitists who wanted to control others." Thus, for many opponents (29%), the concerns over property rights also concerned issues of power and questions about proper government representation.

For several respondents, the issue highlighted the fact that the supervisors had ignored their constituency. In their opinion, these supervisors "did not represent the majority views" of their constituents, or as another person said, "they did not accurately represent peoples' views." Another landowner indicated that "[these supervisors] were motivated by self interest and forgot how they were elected and who elected them. They failed to listen to the people they represented" while yet another put it more simply: "[the supervisors] were in left field and didn't listen to the people." Indeed, several responses describe a perception of arrogance when describing the defeated supervisors' insistence on pursuing the NH 2020 program in the face of community opposition. For another respondent, NH 2020 was "a political tool for an unprecedented power grab" that was based on "misrepresentation and attempted deception for political gain…" These perceptions led at least one landowner to get personally involved: "[NH] 2020 was not wanted by most people; it was shoved down our throats… I worked to defeat it." Such sentiments suggest a failure by the supervisors to address landowner concerns, which ultimately translated into active opposition.

A few respondents suggested that the problem went deeper, describing the imposition of NH 2020 as the result of supervisors who did not "reflect the values of our community." These supervisors were "running rough shod over other people's rights to control their own property," and "the population recognized NH 2020 for what it was, a tree hugger initiated attempt to steal property owners rights." Even one

respondent who indicated that there were "too many people moving in [and that] traffic [is] twice what it was 5 years ago" labeled the supervisors responsible for NH 2020 as "environmental whackos, jerks." For one respondent the fact that NH 2020 would clearly "hinder growth, [through] gather[ing] information on plants, animals, and open space map" meant that the program represented a "radical environmental view." Another landowner's response reinforces this feeling, suggesting that "their emphasis on habitat for animals [took] priority over people" and that was a problem.

Three additional responses merit special attention and suggest a particular ideological interpretation of the NH 2020 program. These comments reinforce the extent to which some landowners perceived the focus on habitat as an exercise in power and not necessarily about conservation *per se*. First, NH 2020 was the result of "elitists, mostly new comers [sic], [who] wanted to control the future of Nevada County by their science, their red tape, their vision and to hell with what anyone not in their mindset wanted." The second response described NH 2020 as the result of "environmental groups trying to take control of land development… pushing [the] land trust agenda." The third suggested the supervisors who supported NH 2020 were representative of the "[e]litists who move to Nevada County with preconceived errant notions of the environment, rural quality, working landscapes and [the] government role in controlling private citizens and their property and the fact that they don't see themselves, or their moving here, as part of the problem." NH 2020 would have potentially meant "further restrictions on development of private properties by using

watershed protection or 'endangered' species protection. [The] inclusion in any special protection areas could have severely limited use of one's property." Referring to the recall election of California governor Gray Davis—a hot political topic at the time—this individual went on to point out "[the supervisors at the time] arrogantly thought they had the power without repercussion, just like our last governor." The final outcome, as one respondent summed it up, the people voted "for change; [they] were tired of the totally environmentalist position of the Board of Supervisors (4 of the 5 voted in a block all the time)."

Landowner characterizations of rural and environmental quality

Although there was overlap among the responses describing rural and environmental quality, there were important differences. The responses in the rural quality category included the aesthetic beauty of the county's landscapes, the pace of life and friendliness of people in the community, and the county's agricultural and ranching heritage. These attributes suggest that for many in the county, rural quality is related to human communities or aesthetic concerns. Independence and freedom from government were also themes in this category but were not widespread. Characterizations of the county's rural quality were very similar when responses by supporters and opponents are compared. While both groups emphasize aesthetic

landscape concerns, the pace of life, and the absence of a lot of people, a subset of opponents emphasize the importance of 'small town' community and rural land uses (e.g., ranching).

Overall, responses in the environmental quality category focused on aspects of ecological health, (e.g., clean water), access to open space, ample outdoor recreation, the abundance of forests and mountain streams, and an abundance of wildlife. Supporters and opponents of NH 2020 both view the county's environmental quality in terms of an amenity that includes concerns about ecological health and function, but a number of supporters indicated that the county's environmental quality also means meeting the needs of other species. In general, there were few explicit references to native flora and fauna or specific mention of local habitats—attributes that were the focus of the county's ecological mapping efforts.

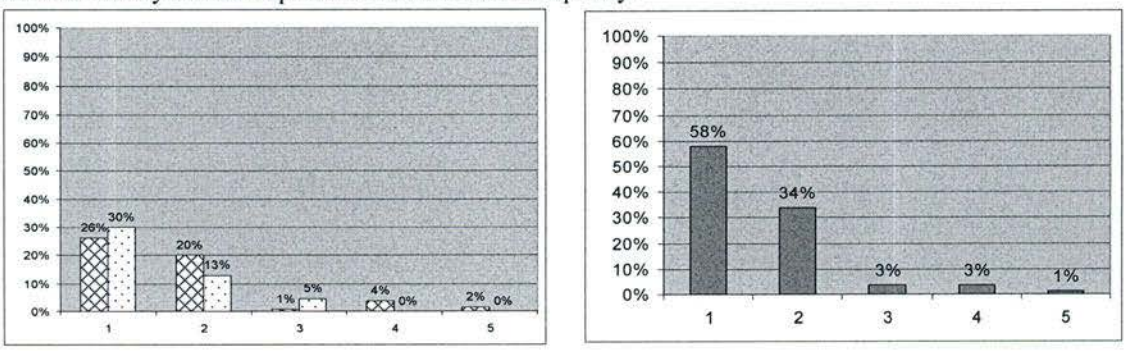
Opinions about the importance of the county's rural and environmental quality

Overwhelmingly, survey respondents think Nevada County's rural quality and environmental quality are the county's most important features (Figure 2). At the same time, the level of agreement about the importance of environmental quality is lower than that for rural quality. Likewise, respondents indicated they think that the county's rural quality and environmental quality are both under threat, although more landowners think that rural quality is under threat than think that environmental

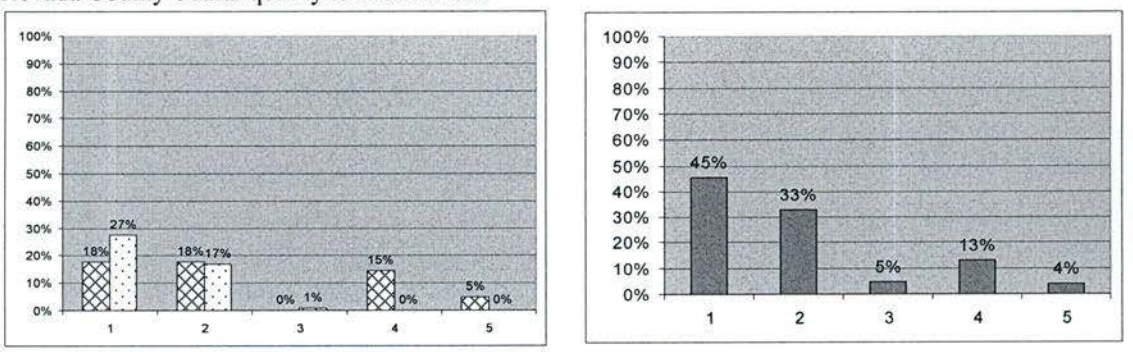
quality is under threat (92% versus 72% respectively). Finally, while a majority of respondents (67%) agreed that the environment needs protection, a relatively strong minority of residents (21%) in the county do not believe the county's environment needs protection.

Supporters and opponents of NH 2020 agree that the county's rural quality is an important feature (Figure 2), but differ over whether that rural quality is threatened. Similarly, supporters and opponents believe the county's environmental quality is important, although there is greater disagreement over this question among opponents when compared to the importance of rural quality. A large percentage of program supporters (69%) believe that environmental quality is threatened, while opponents are evenly split on this question. An almost identical pattern is apparent when looking at the need for environmental protection, but with a greater number of respondents (24%) disagreeing strongly.

Nevada County's most important feature is its rural quality.



Nevada County's rural quality is under threat.



Nevada County's most important feature is its environmental quality.

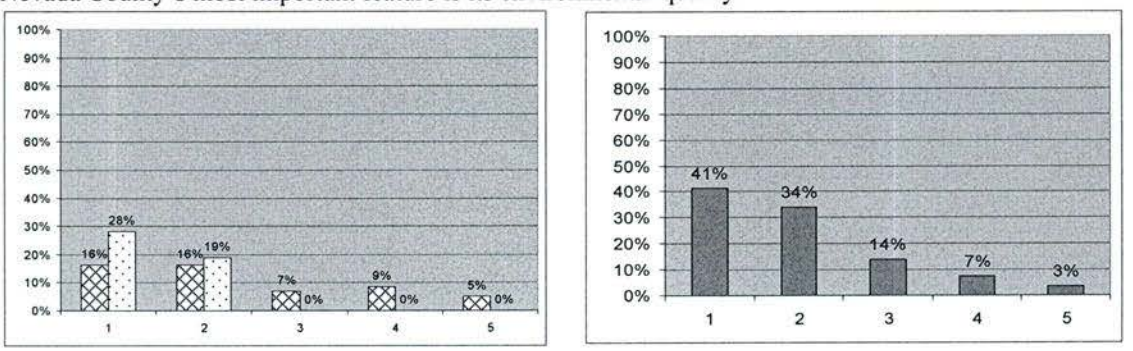
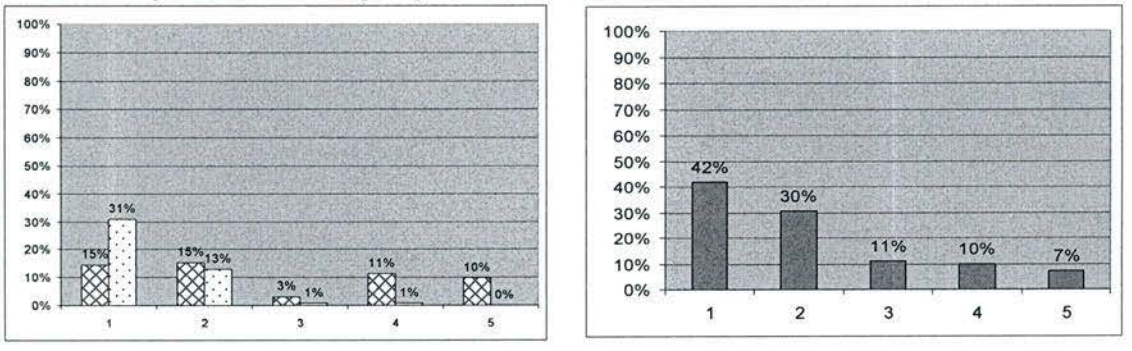


Figure 2. Landowner Opinions about the Importance and Status of Nevada County's Rural Quality and Environmental Quality Relative to their Support for Natural Heritage 2020. Graphs on the left (N=126) depict levels of support among NH 2020 supporters and opponent. Cross-hatched = Did not support NH 2020; Dotted = Supported NH 2020. Graphs on the right depict overall response rates for the sample (N=174). 1 = Strongly Agree, 2 = Agree, 3 = No Opinion, 4 = Disagree, and 5 = Strongly Disagree

Nevada County's environmental quality is under threat.



Nevada County's environment needs protection.

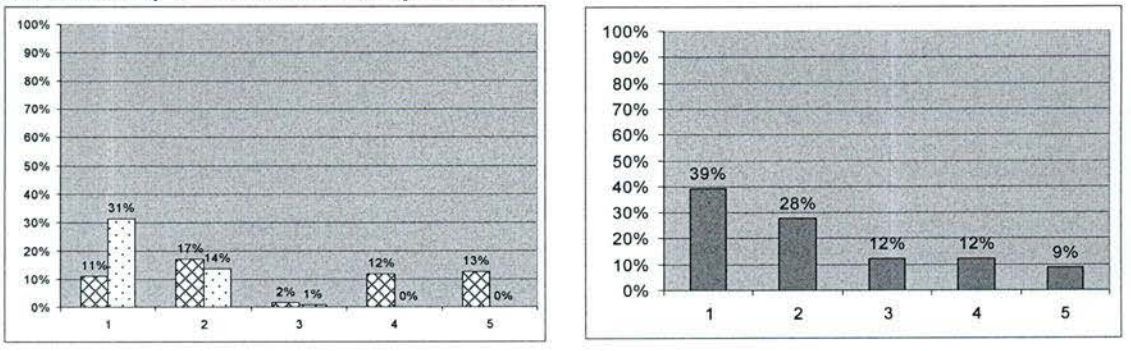


Figure 2 (continued). Landowner Opinions about the Importance and Status of Nevada County's Rural Quality and Environmental Quality Relative to their Support for Natural Heritage 2020. Graphs on the left (N=126) depict levels of support among NH 2020 supporters and opponent. Cross-hatched = Did not support NH 2020; Dotted = Supported NH 2020. Graphs on the right depict overall response rates for the sample (N=174). 1 = Strongly Agree, 2 = Agree, 3 = No Opinion, 4 = Disagree, and 5 = Strongly Disagree

Threats to the county's rural quality and environmental quality

By far the most common threat described by respondents (N=136, 78%) was population growth or the number of people moving to the county. Respondents who were concerned about rural quality also indicated that overdevelopment and poor planning were threats. While a few respondents indicated that the arrival of people from the city is a threat, an even smaller number indicated that the previous board of supervisors (referring to the pro-NH 2020 board) was also a threat. This theme also appeared among respondents who were concerned about threats to the county's environmental quality. However, concern over air pollution—coming from the Sacramento Valley—and the impacts of large residential developments were more common. A few respondents also expressed concern about the impact of cattle ranching and ongoing logging on the county's environmental quality.

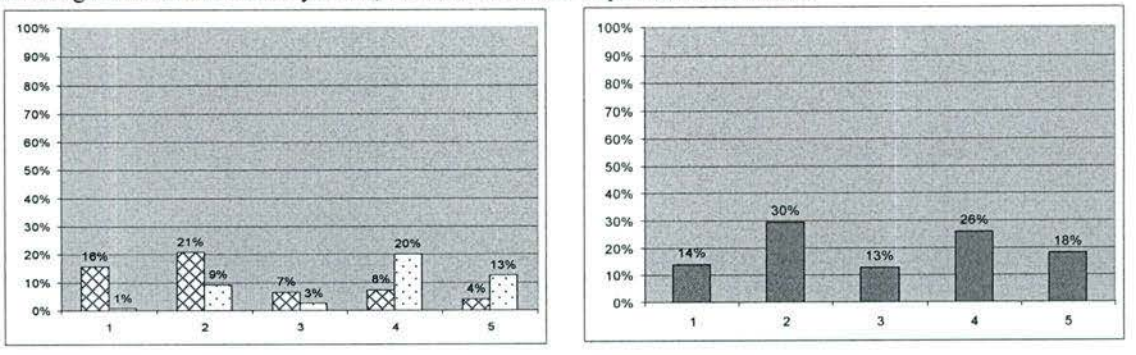
Interesting differences emerge when the responses of NH 2020 supporters and opponents are compared. In terms of threats to rural quality, supporters of NH 2020 tend to emphasize the themes of uncontrolled development, the proliferation of large subdivisions, and developers subdividing old farms. A few of the opponents express similar feelings, but many of the responses from opponents emphasize the increasing population and lack of adequate infrastructure to *support* this growth—not necessarily opposition *to* this growth. Importantly, comments about the arrival of urbanites with

"city values" and too much government control, including for environmental protection, are present among responses from opponents. In contrast, supporters and opponents both emphasize the threat posed by air pollution from the Sacramento Valley, while supporters tend to indicate that pressure from development interests to grow is problematic. Again, opponents tend to stress population growth, while some think the county's government is part of the problem.

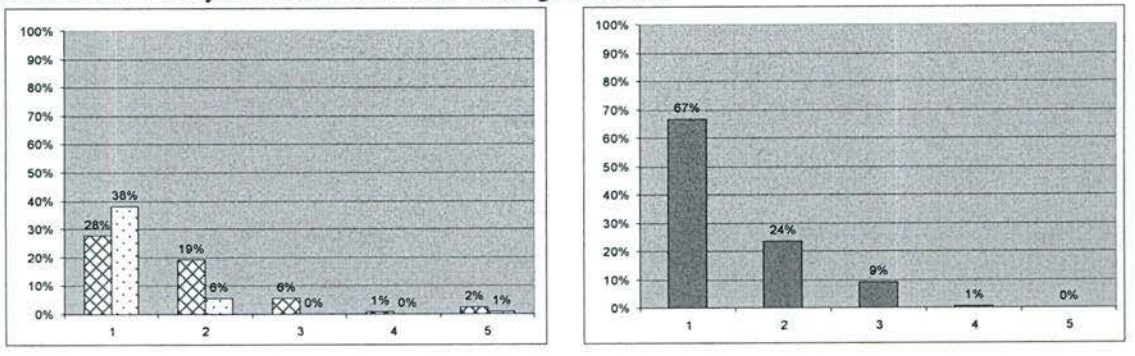
Environmental attitudes

A majority of respondents agree that humans do not have the right to alter nature to satisfy their wants and desires (Figure 3). However, respondents were evenly split on the question of whether humans are more important than nature. These responses depict deference for the rights of nature, which extend beyond the basic needs of humans. The dissonance between the two responses suggests respondents are, to some extent, conflicted over the question of where basic human needs end and where desires begin. Respondents believe overwhelmingly that humans have a duty to conserve nature for future generations and landowners believe that humans should adapt to nature rather than modify it to suit them. Further, respondents agree that humans have a moral duty to ensure that plants and animals have a place to live. Although these responses do not address the question of how humans should adapt their interactions with nature, or where protection of plants and animals should take

Although nature has value by itself, humans are more important than nature.



Humans have a duty to conserve nature for future generations.



Humans have the right to alter nature to satisfy wants and desires.

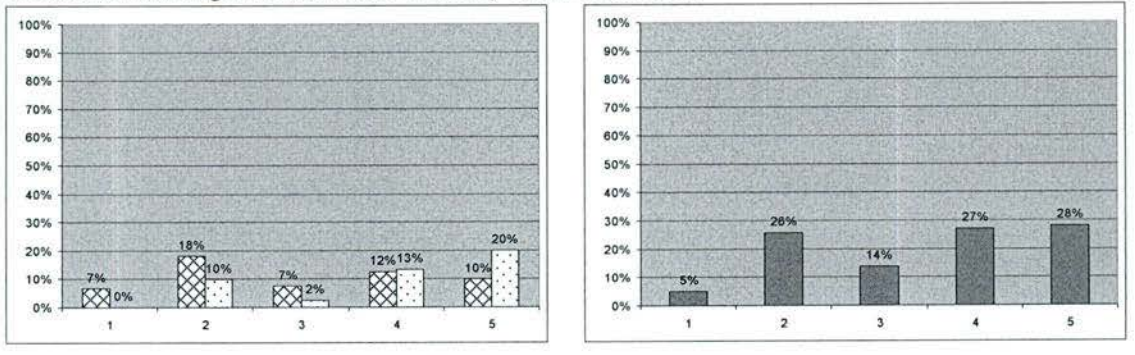
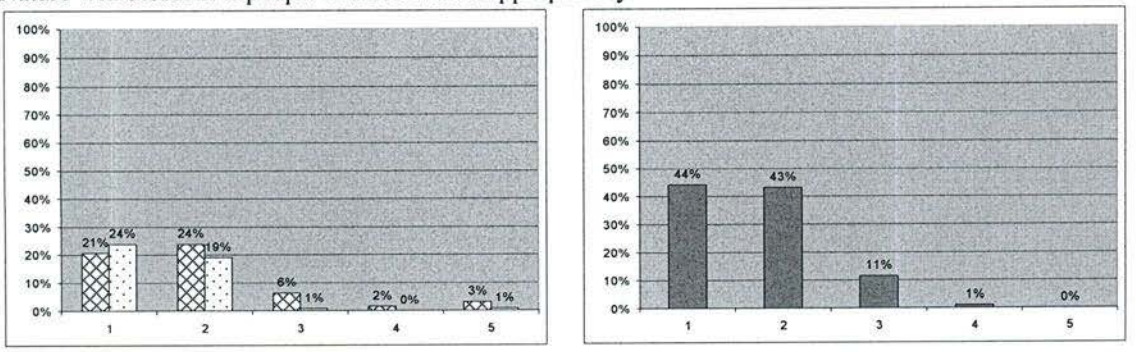
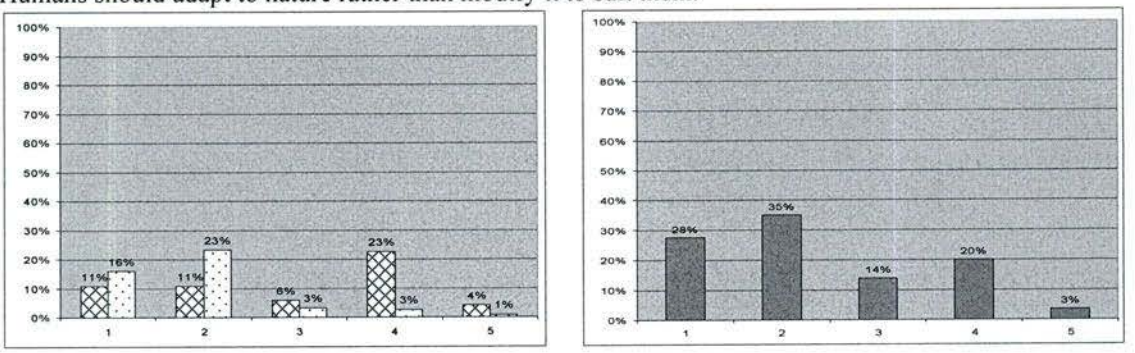


Figure 3. Landowner Attitudes toward the Environment Relative to their Support for Natural Heritage 2020. Graphs on the left (N=126) depict levels of support among NH 2020 supporters and opponents. Cross-hatched = Did not support NH 2020; Dotted = Supported NH 2020. Graphs on the right depict overall response rates for the sample (N=174). 1 = Strongly Agree, 2 = Agree, 3 = No Opinion, 4 = Disagree, and 5 = Strongly Disagree

Nature will blossom if people interact with it appropriately.



Humans should adapt to nature rather than modify it to suit them.



Humans should not dominate nature, but work together with nature as a partner.

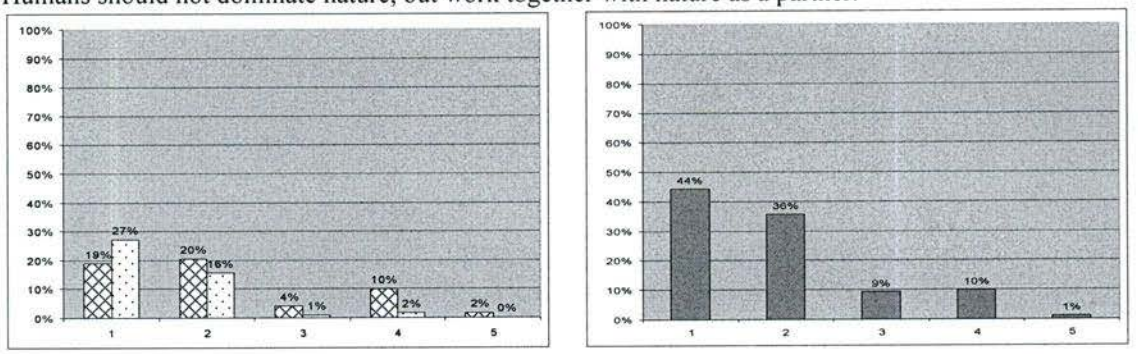


Figure 3 (continued). Landowner Attitudes toward the Environment Relative to their Support for Natural Heritage 2020. Graphs on the left (N=126) depict levels of support among NH 2020 supporters and opponents. Cross-hatched = Did not support NH 2020; Dotted = Supported NH 2020. Graphs on the right depict overall response rates for the sample (N=174). 1 = Strongly Agree, 2 = Agree, 3 = No Opinion, 4 = Disagree, and 5 = Strongly Disagree

Humans have a moral duty to ensure that plants and animals have a place to live.

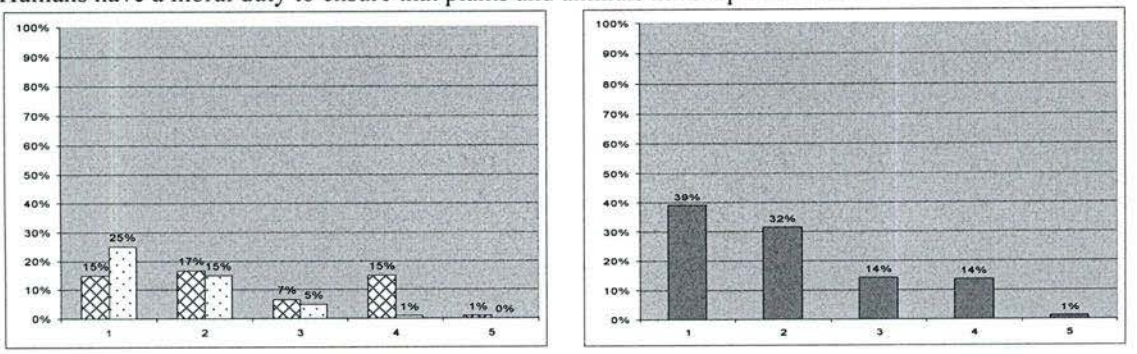


Figure 3 (continued). Landowner Attitudes toward the Environment Relative to their Support for Natural Heritage 2020. Graphs on the left (N=126) depict levels of support among NH 2020 supporters and opponent. Cross-hatched = Did not support NH 2020; Dotted = Supported NH 2020. Graphs on the right depict overall response rates for the sample (N=174). 1 = Strongly Agree, 2 = Agree, 3 = No Opinion, 4 = Disagree, and 5 = Strongly Disagree

place, these questions suggest Nevada County landowners exhibit an environmental ethic that considers the consequences human actions have on non-human nature.

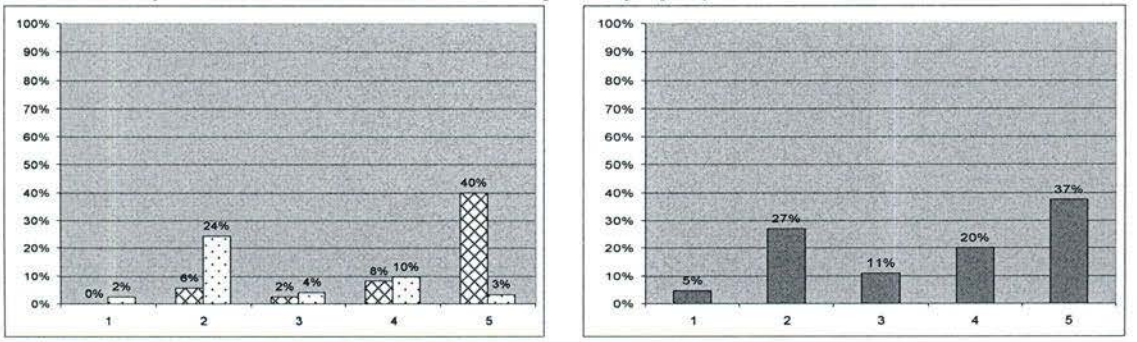
While there appears to be common ground about attitudes toward the environment among NH 2020 opponents and proponents, there are also some important differences. First, a majority of program proponents disagree that humans are more important than nature, while opponents tended to agree with this statement. Second, while project opponents are evenly split over the issue of humans and their right to alter nature, supporters of the program tend to strongly disagree with this statement. At the same time, the vast majority of respondents agree that humans have a duty to conserve nature for future generations and that nature will blossom if humans interact with it appropriately. Most respondents indicate that humans should work with nature as a partner and not dominate it and agree that humans have a moral duty to ensure the survival of plants and animals, although a relatively strong minority of opponents disagrees with this statement. While these responses suggest that many landowners in the county share common philosophical ground on environmental issues, they also point to differences about how landowners might prioritize human actions relative to non-human nature.

Opinions about land-use governance

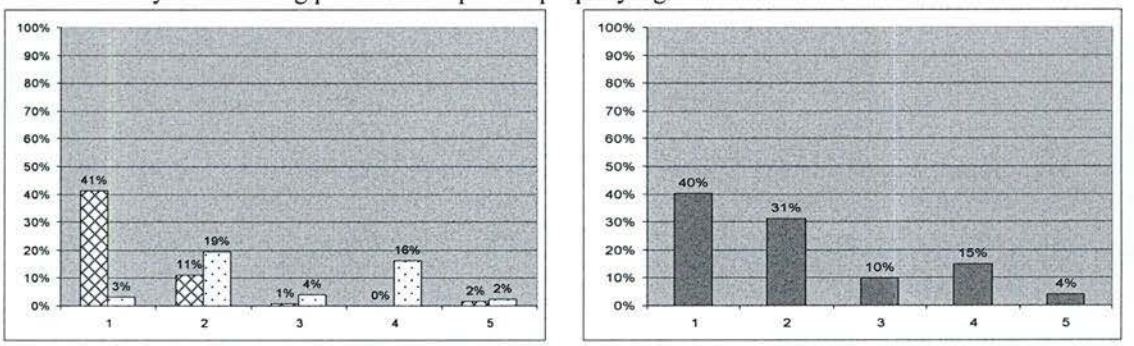
A clear majority of landowners disagree with the statement that the county needs more government control of land use on private property (Figure 4). Instead, an overwhelming 75 percent of respondents indicated that the county needs strong protection of private property rights, with 42 percent indicating they *strongly agreed* with this statement. Although it is possible that the NH 2020 conflict influenced the results, these numbers are similar to the results from an earlier survey during 2000 when the program was just getting underway (Walker, unpublished data). Respondents appear to be split over the role of the county's Board of Supervisors in determining the county's land-use policy—more so than with any other issue. If they are split on the role of the board of supervisors, landowners are clearly opposed to the State of California getting involved in land-use decision-making.

The overwhelming majority of NH 2020 opponents indicated that they believe strongly that the county does not need more control of land use on private property (Figure 4), while the majority of program proponents believe more control is needed. Likewise, program opponents strongly agree that the county needs strong protection of private property rights. Interestingly, program supporters appear to be split on this issue, with a rather large minority of program supporters agreeing that private property rights are in need of protection. Whether a landowner is a supporter or an

Nevada County needs more control of land use on private property.



Nevada County needs strong protection of private property rights.



Nevada County's Board of Supervisors is the appropriate government entity to determine the county's land-use policy.

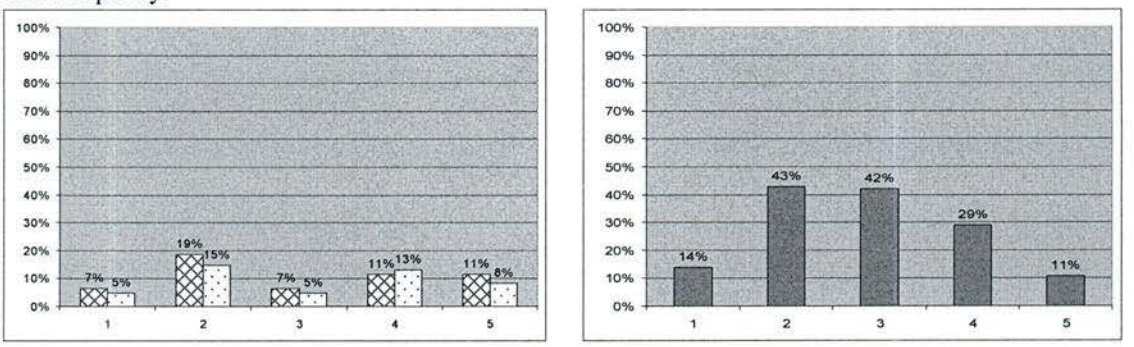
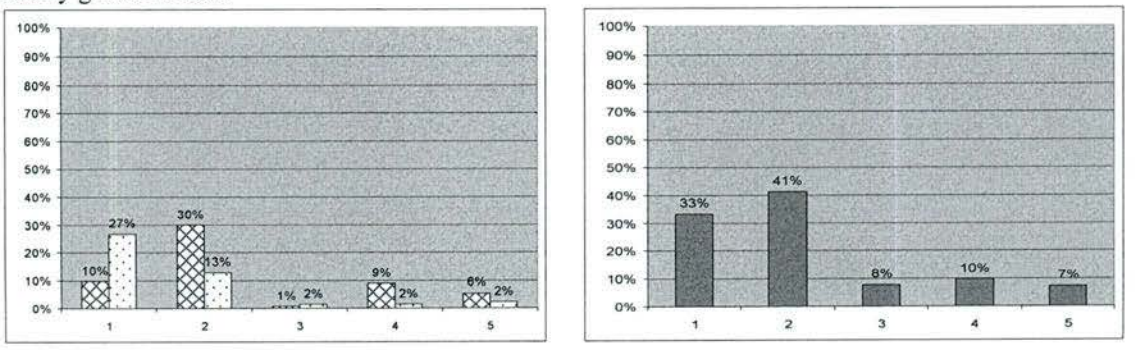


Figure 4. Landowner Opinions about Land-Use Governance Relative to their Support for Natural Heritage 2020. Graphs on the left (N=126) depict levels of support among NH 2020 supporters and opponent. Cross-hatched = Did not support NH 2020; Dotted = Supported NH 2020. Graphs on the right depict overall response rates for the sample (N=174). 1 = Strongly Agree, 2 = Agree, 3 = No Opinion, 4 = Disagree, and 5 = Strongly Disagree

Nevada County's Planning Department should develop plans and programs as needed to address county growth issues.



The State of California is the appropriate government entity to determine the county's land-use policy.

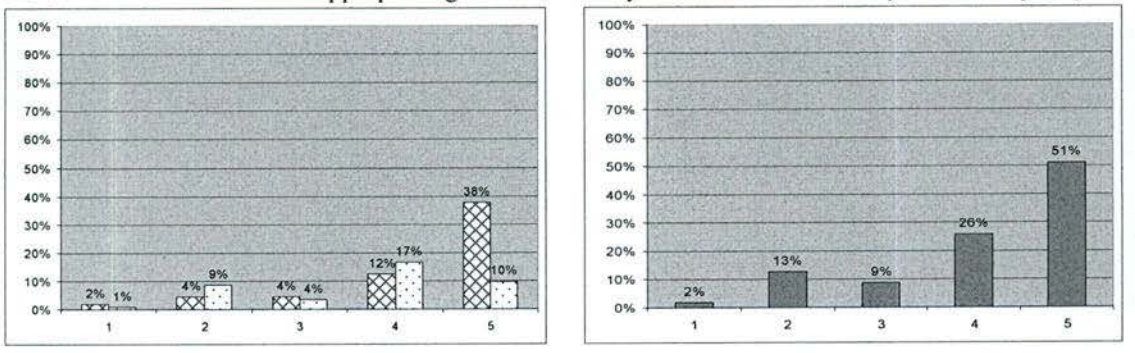


Figure 4 (continued). Landowner Opinions about Land-Use Governance Relative to their Support for Natural Heritage 2020. Graphs on the left (N=126) depict levels of support among NH 2020 supporters and opponent. Cross-hatched = Did not support NH 2020; Dotted = Supported NH 2020. Graphs on the right depict overall response rates for the sample (N=174). 1 = Strongly Agree, 2 = Agree, 3 = No Opinion, 4 = Disagree, and 5 = Strongly Disagree

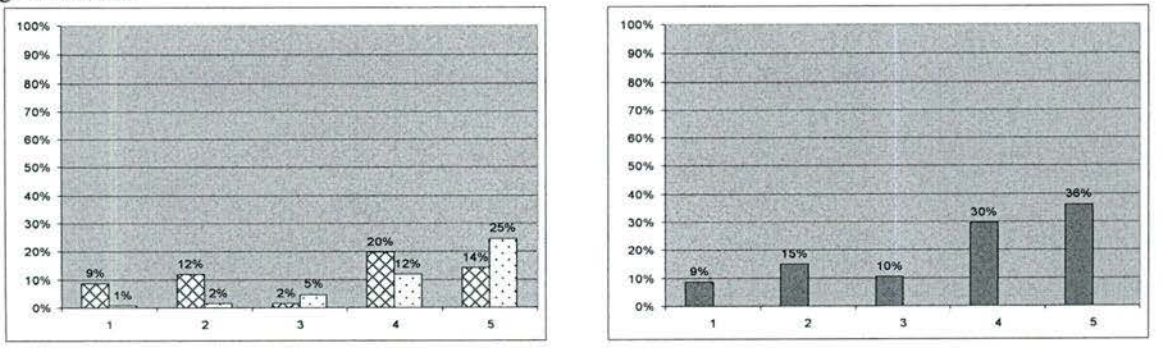
opponent of the planning program, there are mixed feelings about the role of the county's Board of Supervisors in determining county land-use policy. These numbers reflect the dramatic contention during the past several election cycles in Nevada County and suggest the extent to which decisions about land-use in the county have become polarized. Despite their ambivalence about the Board of Supervisors, respondents feel strongly that the planning department should play a role in addressing the county's growth. This finding is interesting because more than one interviewee indicated that NH 2020 was initially a planning staff recommendation (Interview A, Nevada City, 2002). Thus, in the abstract it appears landowners are supportive of the role of planning staff, but ambivalence about the role of Board of Supervisors reinforces the politicized nature of county land use governance. Finally, survey respondents appear unified in their opposition to involvement by the State of California in county land-use policy. In reality, the state is a major player in county land-use decision making in California, particularly when it comes to determining the procedural requirements with which counties must comply (see Fulton 1999), although many residents are unlikely to know much about these requirements. Nevertheless, these data suggest that landowners in Nevada County favor strong local control of planning and land-use policy decisions.

Opinions about land-use policy tools

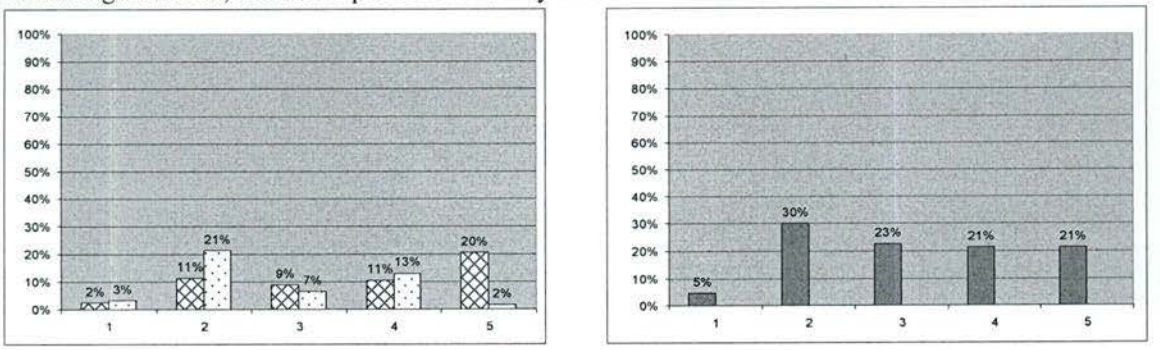
Survey respondents support many of the land-use policy tools commonly advocated in the literature on private lands conservation (Figure 5). Indeed, many respondents recognized the need for government intervention in land-use governance; 29 percent of respondents agreed that the real estate market alone could solve problems that result from growth. Both program proponents and opponents disagree that county growth issues will best be addressed by the real estate market, although a substantial minority of opponents agrees with this statement. The biggest surprise was the dramatic degree of support among landowners (82%) for "zoning or other regulatory policies" to address growth issues. This finding reveals strong support for current county policy while also raising new questions about the conflict over NH 2020.

There are some interesting differences between supporters and opponents of NH 2020. Program supporters tend to believe that land trusts and other non-profits will best address growth issues, while opponents of NH 2020 tend to disagree. Although NH 2020 supporters agree more strongly about the role of zoning and regulatory policies in controlling future growth, there is substantial common ground among opponents and proponents in the survey about this issue. Proponents and opponents also support the use of incentive-based approaches as a way to deal with growth issues. Opponents appear more comfortable with incentive-based approaches that rely on the purchase of development rights or conservation easements, while NH 2020 supporters appear slightly

County growth issues will be best addressed by allowing the real estate market to function without government.



County growth issues will be best addressed by allowing not-for-profit groups, such as land trusts and other similar organizations, to address problems that may arise.



Planning tools, such as zoning and other regulatory policies, should be used to control growth in the county.

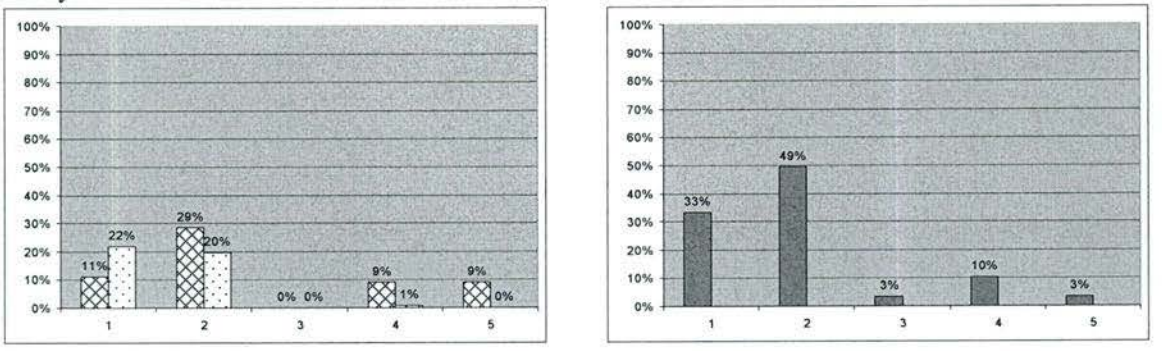
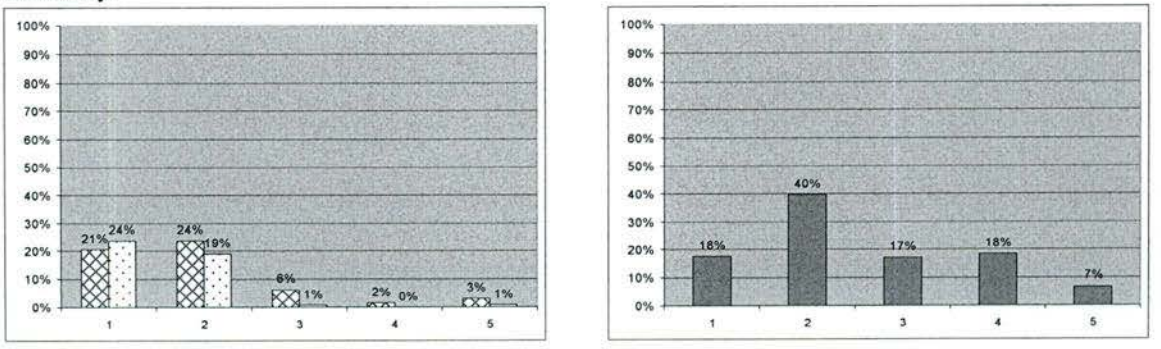
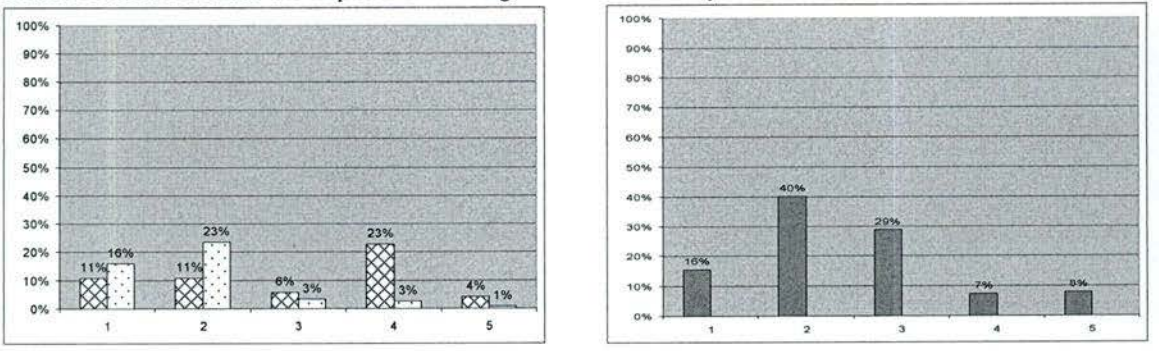


Figure 5. Landowner Opinions about Land-Use Policy Tools Relative to their Support for Natural Heritage 2020. Graphs on the left (N=126) depict levels of support among NH 2020 supporters and opponent. Cross-hatched = Did not support NH 2020; Dotted = Supported NH 2020. Graphs on the right depict overall response rates for the sample (N=174). 1 = Strongly Agree, 2 = Agree, 3 = No Opinion, 4 = Disagree, and 5 = Strongly Disagree

Planning tools, such as tax incentives and other non-regulatory policies, should be used to control growth in the county.



The sale of development rights by landowners to private entities or the sale of conservation easements should be used to reduce the impacts of future growth in the county.



Policies, such as the clustering and avoiding construction in environmentally sensitive areas, should be used to reduce impacts of future growth in the county.

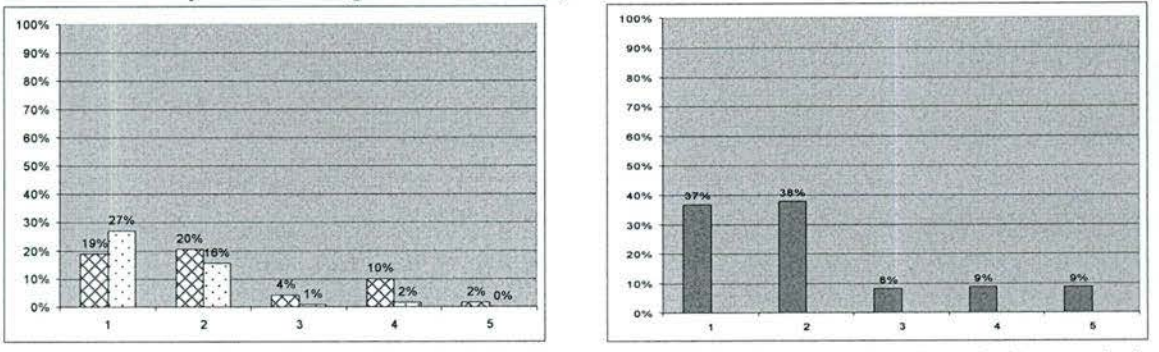


Figure 5 (continued). Landowner Opinions about Land-Use Policy Tools Relative to their Support for Natural Heritage 2020. Graphs on the left (N=126) depict levels of support among NH 2020 supporters and opponents. Cross-hatched = Did not support NH 2020; Dotted = Supported NH 2020. Graphs on the right depict overall response rates for the sample (N=174). 1 = Strongly Agree, 2 = Agree, 3 = No Opinion, 4 = Disagree, and 5 = Strongly Disagree

more comfortable with the use of tax incentives. Likewise, proponents seem more supportive of clustering development and site-based environmental mitigation measures.

DISCUSSION

Survey results strongly suggest that many landowners in the county believed that Natural Heritage 2020 was a threat to their property rights. While program supporters point to a campaign of alleged lies, deception, and misinformation that created this fear, the survey results reveal an important reality: landowners simply did not trust the program, and, ultimately, its creators. Given the cultural significance of property rights in the United States (Jacobs 1998, Plotkin 1987), and the active resistance to the program by organized property rights groups (see Hurley and Walker 2004), this finding is perhaps not particularly surprising. Indeed, the long history of concerns about the impact of environmental regulation on property rights in Nevada County suggests that the reaction to NH 2020 by landowners in Nevada County is the latest incident in a recurring pattern (Duane 1999). What is so interesting about the survey is the apparent paradox between the political outcome and how landowners view the county's environment and threats to its quality.

Survey results portray a county whose landowners believe the county's rural quality and environmental quality are important and threatened, have relatively strong environmentalist attitudes, favor local control of land-use decision-making, and support a

variety of land-use policy tools to address the impacts of growth on the county's rural and environmental quality. In fact, there is common ground on many of these issues among supporters and opponents of the NH 2020 program, suggesting that there is reason to believe that the failure of NH 2020 could have been avoided. More critically, survey results indicate that many landowners in Nevada County are supportive of the types of policy mechanisms most commonly used to achieve key conservation goals on private lands.

Closer examination of differences within groups suggests potentially significant differences. First, while not everyone agrees on common definitions of rural quality and environmental quality, the majority of responses capture elements of ecological health and ecological function. Still, a minority of respondents in both categories emphasized freedom from government control, both in their responses to open-ended questions about NH 2020 and in structured questions about land-use governance (Figure 4). Likewise a minority of respondents indicates the need for strong government involvement in land use decision-making (Figure 4). Second, while a majority of landowners thinks these two qualities are threatened, opponents of NH 2020 do not perceive such a threat. Yet, at the same time the majority of landowners are concerned about ongoing development. Here again, there appear to slight differences between supporters and opponents. While NH 2020 proponents tend to blame developers and, to a lesser extent, a lack of government control, opponents are generally more worried about the continued arrival of more people from the city and how the county's infrastructure will *support* this growth. The

underlying message here appears to be that it matters how we address this problem; it should not be a matter of stopping development or simply applying an urban solution to a rural place. Third, there are some important differences among landowners in their environmental attitudes that likely contributed substantially to the vitriolic nature of the conflict. For example, while opponents tend to agree that humans are more important than nature, supporters agree that nature is at least as important as humans. In addition, some landowners do not think that humans need to adapt to nature, but rather are free to modify it to suit them. Some of these same respondents also indicated that they disagree that humans have a moral duty to ensure that plants and animals have a place to live. Many, but not all, of these responses came from program opponents, including some that indicated that they strongly disagree with this statement.

These differences within groups paint a picture of two different types of opposition to and support for the program. I define the conceptual axes of these groups by the degree of concern for environmental impacts and the acceptability of government interference (Figure 6): I propose calling these *ideological opposition* (or support) and *pragmatic opposition* (or support). Along the vertical axis are the elements of environmental concern. Questions about Nevada County's environmental rural quality, the degree of threat to these qualities, and questions about attitudes toward the environment address fall along this axis. The horizontal axis captures the acceptability of government intervention on behalf of environmental issues, including ideas of governance and the tools for implementing conservation. This conceptual schematic suggests the potential fluidity of

concerns over property rights, because it anticipates that not all landowners (or stakeholders) in a community will accept high degrees of government intervention to address environmental problems. Indeed, this appears to be the case with the conflict over

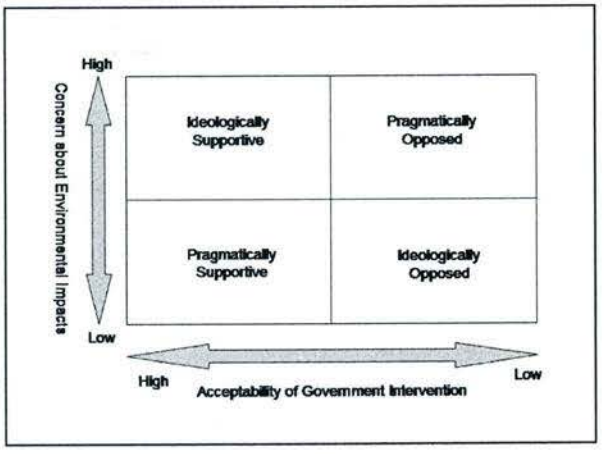


Figure 6. Conceptual Model of Opposition to Environmental Planning and Policy.

Natural Heritage 2020. Moreover, the schematic anticipates the possibility that stakeholders may accept non-regulatory pathways to achieve conservation goals, even when those goals are not particularly important to them. At the outer limits of this spectrum are those who oppose conservation at all costs, and those who support conservation by all necessary means. The case of NH 2020 suggests that the program failed because some landowners were ideologically opposed to the effort, while many landowners were concerned about how the program would achieve the goal of conserving areas identified as important through the county's mapping exercise.

In the presence of policy uncertainty, this schematic suggests that pragmatic supporters will likely oppose conservation interventions, because these landowners will default to protecting their own property rights (see Plotkin 1987). In implementing NH 2020, the program's creators followed the conventional wisdom of conservation planning practice and began the process by taking stock of the county's natural resources. It was this mapping effort, and the involvement by prominent conservation biologists, that ignited the initial response by special interest groups (Hurley and Walker 2004). But from the outset of the program, NH 2020 failed to articulate just how this information would be used. It was this failure to describe how the program specifically would be implemented that likely led to the widespread rejection of NH 2020. There was, in fact, complete policy uncertainty from the public's perspective. This reading of the NH 2020 conflict is supported by the discrepancy between the percentage of landowners who indicated that NH 2020 was a threat to property rights and the degree of support for particular policy tools often used to conserve land. In the absence of this much needed information, well-organized property rights groups were able to successfully fill the void with fear about how the information from the biodiversity mapping *might* be used. This effort appears to have succeeded in swaying a county populace that the NH 2020 biological inventory was a tool of land appropriation, and not, as the program's opponents suggested, a means for addressing common concerns among many residents about the county's future.

CONCLUSIONS

Concerns about the loss of private property rights have become a common part of political debates about conservation in the United States (see e.g., Jacobs 1999). While conservation planners have paid particular attention to the application of principles of conservation planning to land-use policy, less attention has been given to critical issues concerning the politics of land when this conservation planning targets private property. It is within this context that I draw attention to the difference between issues of priority-setting or biological inventories and the political expediency of addressing questions about how these ecological targets—often the properties of private individuals—will be treated once they have been mapped. I do not want to suggest that private property rights are inviolate in the face of important ecological issues and potential conservation crises. Nor do I want to suggest that notions of what constitutes a public, or common, good should be left solely to ecologists, conservation advocates, or politicians (see Cronon 2000). For conservation on private lands to be truly effective, however, conservation planners must pay greater attention to the ways in which their ideas of best practice interact with, and stand to be interpreted within, the politics of particular places. This requires particular attention to the attitudes that people in these places have toward property rights, about government, and toward conservation.

Given the survey's small sample size, there is reason for caution in interpreting these results as truly reflective of the county's landowners, or of landowners in other parts of

the United States. It is clear, however, that the survey responses reflect many of the nuances of the wider conflict over Natural Heritage 2020 (personal observations). The landowners in this survey differ rather dramatically on their interpretations of what NH 2020 was intended to do, and more importantly, what this program *meant* for the county's landowners and their individual private property rights. Regardless of where one stands on the issue of private property rights and the proper relationship of landowner responsibility for conserving nature, it is clear that the issue of property rights was central to the failure of Natural Heritage 2020. In the case of Nevada County, the 'backlash' led to a new county government, which has been much friendlier to development.

Implementing countywide conservation planning—planning that targets private property—requires transcending the political specter of government intervention, as evidenced by survey responses (Figure 4). Perhaps more critically, the responses by landowners to questions about NH 2020 and its intended purpose emphasize the importance of doing so within a highly charged political arena. Natural Heritage 2020, had it continued, would more than likely have been implemented through non-regulatory policy tools. Survey results suggest that many in the county—even opponents of the program—support the use of these policy tools (Figure 5). While many proponents will likely argue that this proves the opposition was successful in their deception, I would suggest that this assertion misses a critical point, namely that this message was never really communicated to the citizenry of Nevada County.

Landowners (and voters) who fear their private property rights will be threatened are likely to resist planning efforts, even when they believe the goals being addressed are important. In Nevada County, the county's board of supervisors publicly stated that they would not violate landowners' private property rights, but they simultaneously left unanswered key questions about what policy mechanisms would be used to address conservation priorities identified in the biotic inventory. Instead, planning officials and sitting supervisors steadfastly defended the notion of inventorying the county's biological resources as a form of best planning practice. In short, they clung to a notion prevalent in conservation planning that establishing priority areas for conservation is the critical first step in achieving conservation goals. By not explaining to their constituents in specific terms how the results of the inventory would be applied and how the community would benefit, they put the metaphorical cart before the horse.

When pursued through local governance, the political reality of private lands conservation strongly suggests that conservation planners should rethink the initial sequencing of their approach to achieving conservation goals. The gap in the process between the initial step of setting conservation priorities and the step intended to decide the exact path to conservation in the resulting places is the critical space in which the trust of landowners may be either won or lost. While some landowners, including many who vocally denounced Natural Heritage 2020, are likely to oppose any expansion of conservation on private lands based on ideological grounds, other landowners appear more likely to have based their opposition on pragmatic grounds (e.g., fear of government

intervention and unknown impacts to their personal property rights). In Nevada County, this pragmatic resistance appears to have manifested itself in the rather large numbers of landowners who expressed concern about the environmental impacts of growth, but who clearly opposed NH 2020 as the solution. Winning the support of this pragmatic resistance might very likely have led to the success of this conservation effort within the political context of Nevada County.

CHAPTER BRIDGE

The **third journal manuscript** in this dissertation (Chapter IV) examines the application of principles from conservation science to site-scale land-use policy. Conservation Subdivision Design (CSD) has been advocated as one way to address the potential loss of biodiversity that results from the exurbanization process. Like the preceding chapters, this manuscript looks at the politics surrounding project proposals that incorporate this type of alternative design. Nevada County residents appear to support this type of planning approach in the abstract, but in the specific cases reviewed here, the use of CSD by developers to maximize their economic gain results in opposition to this potential solution. The chapter further highlights the political nature of the solutions proposed by biodiversity conservation planners. This analysis also further extends political ecology's understanding of resource dynamics in First World settings. This manuscript has been prepared for submission to the *Annals of the Association of American Geographers* or *Environment and Planning A.*

CHAPTER IV

MAKING ROOM FOR NATURE: THE POLITICS OF CONSERVATION SUBDIVISION DESIGN IN NEVADA COUNTY, CALIFORNIA.

Representing the South County Area Neighbors, Brian Bisnett, a local landscape architect, stood before the Nevada County planning commission to offer his thoughts on a controversial proposal for a new 230-home housing project known as Wolf Creek Ranch Estates. The proposal was the latest test for a relatively new county land-use policy designed to make residential development more sensitive to local ecology. On behalf of the group, and as a neighbor to the project himself, he urged the commission to

> reject the proposal so we can come up with a plan that is more compatible with the rural quality of the surrounding neighborhood. It's a bad use of a very significant property. It's a bad use for a number of reasons. To begin with, and very importantly, 230 units, an average of three acres per unit, this project is far, far too dense, even given the staff's recommended reduction to 175 units, or four-acre zoning. It's still an inappropriate density. It's hard to imagine what anyone was thinking when they decided to invest so much time and effort in applying this sort of density. A look at a topographic map will tell you, or a walk through the land, that this is a property with a lot of steep slopes, a lot of significant oak groves and riparian habitats… To target a property like this for this sort of development I believe simply to be poor design. Another very important issue we're faced with here in this project is lack of compatibility with some very important elements, and key elements of, the General Plan… It's been represented as a clustered project, and certainly the General Plan supports clustering to maintain rural quality and protect environmental resources. The problem, as I see it, is this project hasn't been clustered to

> maintain rural quality or protect the quality of life or resources… [This project has] too many impacts and too few benefits. On behalf of the South County Neighbors Association, I ask you to deny the project.[1]

Mr. Bisnett's impassioned speech was greeted by loud applause; his testimony was just the beginning of the latest round of public comment in an ongoing review of this proposal to subdivide 691 acres of ranchland for the construction of new homes in this rapidly growing rural area (one of many so-called exurban areas) of the Sierra Nevada region of California. One after the other, residents from the surrounding area rose and approached the commission to offer their own reasons why the project should not be approved, and instead, be sent back to the drawing board to better address community concerns (Nevada County Planning Commission 2004). Indicative of a new trend among proposed subdivisions[2] in the county, the Wolf Creek Ranch Estates case suggests growing concern about the use of this new land-use policy and its use by developers in this exurban county.

The contemporary planning literature suggests that the Wolf Creek Ranch Estates subdivision proposal—specifically key design elements that this proposal incorporates—offers a new model of residential development in exurbia. Current models of exurbanization portray a rural countryside that is being 'carved up' through the continuing parcelization for new development. Given horizontal and vertical pressures on

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[1] Nevada County Planning Commission (2004).

[2] In this chapter, subdivision refers to the splitting of an individual property, or parcel into more than four parcels, a threshold of significance in Nevada County for determining higher levels of review by planning staff.

lands owned and managed for their natural resource values, as structural changes in commodity markets disrupt earnings potential (vertical pressure) and in-migration leads to increased land prices (horizontal pressure; see e.g., Marsden 1998), this model describes ongoing conversion of resource lands to residential uses, albeit often at relatively low densities (parcels greater than 5-acres). This pattern of land-use is viewed by conservation scientists as a threat to the survival of traditional resource activities (e.g., farming, ranching, and timber harvest) (see e.g., Nelson 1999) and to the persistence of native species and their habitats (i.e. biodiversity) (Theobald 2000, Hansen et al. 2002, Hansen and Rotella 2002, Liu et al. 2003, Maestes 2003). Thus, land-use planners and conservation planners have sought to integrate conservation science into site-scale development and to provide a model of development that is more amenable to both local ecology and the needs of the local community. But as Mr. Bisnett's comments suggest, these alternative forms of development face a potentially significant set of social and political challenges.

Indeed, these Nevada County planning commissioners were used to hearing impassioned challenges to the appropriateness of building such a large subdivision in an area surrounded predominantly by homes on five and ten-acre lots. Since the 230-unit proposal was first submitted in 1997, the project had been before the commission several times, as part of complying with various county requirements for project review. This time, however, the importance of the neighbors' testimony took on greater urgency, as the developer was applying for a rezone of the parcel and approval of the project's

vesting map, which would 'lock in' the number of housing units and the actual physical layout of the project on the property. As the comments by Brian Bisnett clearly suggest, however, several elements of the proposal are contested by the South County Area Neighbors, not the least of which is the concept of what constitutes appropriate subdivision design in this rural part of Nevada County.

What might this challenge by neighbors and neighbors' groups tell us about barriers to the use of alternative development approaches, including conservation subdivision design, that are intended to address environmental concerns in exurban areas? Further, what might this tell us about the tension between the expansionary tendencies of capitalism and the exclusionary tendencies of local land-use control that are critical elements of land-use planning (see e.g., Plotkin 1987, Duncan and Duncan 2001)? To begin with, the Wolf Creek Ranch Estates proposal raises important questions about the suggestion in the planning literature suggests that conservation subdivision design offers a model of design that is both amenable to the local ecology and that satisfies the desires of the local community. This argument, it would appear, does not resonate well with Brian Bisnett's argument about, and neighborhood concern over, the *reality* of Wolf Creek Ranch Estates, suggesting far different political realities in this case. Indeed, the debate over Wolf Creek Ranch is illustrative of growing conflict over the use of this policy by developers in Nevada County. Rather than reducing community concern, the use of clustering by some developers in recent county project proposals suggests the practice might be adding to community frustration, and raises questions about whether

clustering is seen as an appropriate form of development in the county. The story of clustered development in Nevada County further highlights the political ecology of land-use planning and the ways in which policy elements that appear to mitigate for the detrimental impacts of growth are differentially viewed, and in some cases resisted, by different groups within the community.

This article examines the concept of conservation subdivision design, an effort to build residential housing in ways that minimize ecological consequences, and its use within the political dynamics of Nevada County, California. I argue that policies built upon principles of conservation science, the same principles resisted at the county-wide scale in Nevada County (see Hurley and Walker 2004, Walker and Hurley 2004) are also resisted at the site-scale, but for very different reasons. This approach to development strategies appears to be deployed at the site-scale to maximize the potential growth and thus, engender resistance in the community among those who are supportive of protecting their surrounding rural environments, but see the use of these alternative development approaches as growth-inducing, and by some who question the general logic of the approach itself. More broadly, far from being a question solely of design, this research demonstrates the need by those who advocate alternative approaches to development, particularly through their institutionalization in policy, to pay attention to the political realities facing their use in particular places and the potential for their use by development interests in ways that may not have been intended.

Conservation Subdivision Design: Beyond Politics?

Ideas about 'conservation' or 'environment-friendly' neighborhood development have been discussed in the planning literature for at least the past decade (see e.g., Beatley and Manning 1997). Covering a wide range of alternative approaches to the design of local communities and neighborhoods, such as 'smart-growth', 'sustainable neighborhoods', or 'eco-developments,' these fall within the umbrella term of 'conservation subdivision design' (CSD), a term made popular by Randall Arendt (1996). These approaches have been variously described as leading to 'more livable communities' (Arendt 1996) and creating developments "that satisfy social, economic, and ecological criteria for sustainability" (Duane 1999, p. 311). Although these terms are not fully interchangeable, they grow out of a common concern for the processes that lead to 'rural fragmentation'[3] and often share the core principles of creating development patterns that use land more efficiently; create more affordable communities (because they reduce overall infrastructure); conserve open space and natural resources; protect wildlife habitat by minimizing habitat fragmentation and loss (Duerksen 1997, Theobald et al. 1997, Beatley 2000, Mackenzie and Merenlender 2000, Odell et al. 2003); and protect historic sites, scenic quality, and rural character (Duane 1999, McCallister 1999). In short, CSD represents a site-scale response to the issues of 'rural sprawl' and the habitat loss and fragmentation that typify concerns among conservation scientists.

[3] The concept of rural fragmentation collapses the concern over loss of natural resource areas and agricultural practices and the threats to biodiversity brought on by the increase in areal extent of low-density development.

Three features are central to conservation subdivision design as a substitute to conventional development practice, which make it an appealing solution to the impacts of low-density development and conventional subdivisions. First, the layout of lots (pattern of development) is designed to avoid areas deemed to have conservation value, without reducing the overall number of the lots (see e.g., Theobald et al. 1997). The result is lots that are usually much smaller in size. In many cases, the spatial arrangement of houses will be 'clustered' together, although in some designs the layout can be rather linear. Second, by limiting the size of residential lots and clustering the houses together, the remaining land on the site can be 'set aside' for designation as 'open space' to provide amenities (e.g., golf courses, equestrian facilities, neighborhood gardens), to protect sensitive environmental resources (e.g., wetlands, riparian areas, endangered species habitat, or other habitats of concern), and to conserve portions of a site for resource use (e.g., farming, cattle ranching, timber harvest). Third, lands in the 'open space' category are supposed to be legally restricted from further residential development through the use of conservation easements, deed restrictions, or other mechanisms that lead to permanent protection. Taken together, these three mechanisms produce an alternative development pattern on the landscape that is supposed to minimize the impacts of urbanization and maximize the benefits of conservation. As Duane (1999; see also Arendt 1996) notes, many jurisdictions across the country have implemented policies that either require or encourage this approach to development. Relatively little attention, however, has been given to the actual use of these design elements and the reactions among different groups in the community they have engendered.

Indeed, conservation subdivision design is often seen by planners as a 'win-win' solution to otherwise intractable issues of growth management, because it allows development, while also paying attention to the needs of people and the environment in exurban places. In fact, much of the literature on conservation subdivision design exhibits a type of boosterism. Where the literature actually considers political realities, it seems to largely consider situations where the policies of local governments act as barriers to this type of alternative approach (Arendt 1996, McCallister 1999). Daniels (1997; see also McCallister 1999), however, has suggested that the practice might lead to further farmland loss. In a somewhat speculative fashion, Duane (1999) recognizes the potential for resistance by community members, but characterizes this resistance as based largely on fear. First, surrounding neighbors living on larger acreages are afraid of suburban-style densities and the potential for traffic problems. Second, these neighbors fear that the remaining open space will only serve as a type of holding action for future development. Third, residents fear ugly developments and a loss of privacy in cases where these clustered homes might be located in close proximity to their own homes. Duane argues that designing clustered developments in ways that minimize the scale of the development, *ensuring* that open space is permanently protected, and providing vegetative buffers to protect privacy, will eliminate these fears. These arguments echo the tone found in the wider literature, which suggests that by faithfully executing proper design, CSD will transcend the tricky issues that often characterize the politics of growth and growth management in exurban communities.

In contrast to the current literature on CSD, this article examines the *institutionalization* of key principles of CSD into land-use policy as part of a political process. The article further explores the politics that arise through the *practice* of development and the *use* of conservation subdivision design in Nevada County. First, it might be useful to consider conservation subdivision design as an example of the new conservation territories that are part of what Zimmerer (2000) has described as the new conservation boom. These territories, Zimmerer contends, represent nature-society hybrids, where human-dominated landscapes are "for the management of biogeophysical impacts and the expansion of markets" (p. 359). At the same time, Plotkin (1987) has argued that there is a longstanding tension in the United States between the expansionary tendencies of capitalism and the exclusionary tendencies of local groups to resist, often through the exercise of local land-use prerogatives, unwanted economic uses (as well as social change) and new types of land-use intensification. Along these lines, Duncan and Duncan (2001) have shown that social elites seek to maintain class-based landscapes of social exclusion "through highly restrictive zoning policies for residential land and by 'protecting' hundreds of acres of undeveloped land as nature preserves." Further, as Chapter I showed, efforts to protect species and their habitats have been vigorously resisted in Nevada County, based on ideas of landscape that are tied to competing forms of rural capitalism (Walker and Fortmann 2003). Politics have been central in this struggle.

Second, a unifying definition of politics is emerging in the literature of political ecology. Paulson et al. (2003, p. 209) define politics as "the practices and processes through which power, in its multiple forms, is wielded and negotiated" and that "politics are related in various ways to social relations of production and decision-making about resource use… [T]hese are exercised in diverse arenas, on multiple scales, and infused with cultural knowledge and value." At the same time, Hulse and Ribe (2000) have suggested that efforts to incorporate considerations of local ecology into the "institutional processes and procedures" of land-use control must compute well with the wealth that is fueled by the conversion of land for development purposes. Thus, to fully understand the politics of resistance to conservation subdivision design, it is necessary to examine the interaction of policy, the practice of actual project proposals within these policies, and the politics of land-use decision-making, and the role that power plays in this interaction.

Conservation Subdivision Design in Nevada County: Just A Question of 'Good Design'?

To begin the examination of the practice of clustering, I explore the general question of how conservation subdivision design and the major policy mechanism of clustering have been viewed by landowners in Nevada County as an approach to development since its official inception in county policy in 1995. When asked about whether clustering should be used to reduce the impacts of future growth, an

overwhelming majority of respondents agreed with the approach.[4] These results suggest overwhelming support for the concept of clustering development, in the abstract, as a way to mitigate impacts of future growth, but this support does not speak to the location- and context-specific issues involved with individual projects. More specifically, this support does not address the extent to which clustering may resisted on a case-by-case basis due to aesthetic factors, as either aesthetically displeasing or as deviating from previous practice,or when it is viewed as co-optation by the development community. To explore this issue in greater detail, I interviewed current and former members of the county's planning commission about the practice. [5] Among commissioners, the policy of clustering received mixed reviews as an appropriate policy. More than anything, these one-on-one interviews with commissioners pointed to specific issues about individual projects that they had to consider, but several common themes did emerge from these discussions.

First and foremost, commissioners pointed out that neighbors generally do not "complain specifically about clustering, but they complain about how many houses are

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[4] These results are from a stratified random sample of landowners in the county (N=174). Respondents were asked to indicate their level of agreement with the statement: "policies, such as the clustering of houses and avoiding construction in environmentally sensitive areas, should be used to reduce the impacts of future growth in the county." 37% of respondents strongly agreed, 40% of respondents agree, 5% have no opinion, 9% disagree, and 9% strongly disagree.

[5] Interviews were conducted with a total of eleven current and former planning commissioners who have served on the Nevada County planning commission since 1996. They are considered to represent the spectrum of politics in Nevada County, including commissioners appointed by conservative and liberal members of the Board of Supervisors.

going to be in there."[6] A former planning commissioner highlighted the fact that many residents do not see the practice as consistent with the way things have been typically done in the county, suggesting that "there's lots and lots of folks around here who want to do it the way they've always done it,"[7] while another emphasized:

> I heard from plenty of the neighbors: 'if you have 50 acres and 10 houses, give them all 5 acres, don't put the ten houses on 3 acres and have 47 acres of open space.' That's just not something they really like, just because it's not typical... Clustering is not something that is typical in Nevada County. Having a house on two, three, or five acres is more typical...[8]

The same commissioner went on to point out that "even though it's [the project] surrounded by open space, [it] is something totally different to them, or is totally different to Nevada County, especially in some of the rural areas, and I think that's why there's some apprehension to clustering..." These comments reflect Duane's assertion that neighbors are fearful of these projects. Several commissioners confirmed that residents also were afraid that undeveloped land might be developed in the future. One commissioner confessed to personal fears that "a supportive board of supervisors" might one day "figure out a way to get the property rezoned and the open space subdivided."[9]

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[6] Interview A, Alta Sierra, 10-7-2003. This observation was reaffirmed during phone interviews with project neighbors. Many of the neighbors spoke first about density; only after I asked questions explicitly about the concept of clustering did they speak directly to the clustering issue.

[7] Interview B, Nevada City, 9-16-2003

[8] Interview C, by phone, 12-07-2003

[9] Interview D, Grass Valley, 8-11-2003

In this regard, "[s]ome people would rather just see development happen one house at a time, not 300 houses at a time. It scares the hell out of them."[10]

Commissioners also explained that many people testifying before them were concerned about aesthetics. A former planning commission offered a personal opinion on this issue, saying

> My big objection to clustering was aesthetic…I never felt that clustering was a good trade off. I thought the ugliness of all these houses close together on these little tiny lots was a much more, a much more negative offset to the alleged environmental gains that we'd get.[11]

Another commissioner indicated that the secret to allaying these fears, echoing the arguments made by Duane, rests with design, because "design is just a key element to making projects better, both environmentally and aesthetically."[12] The same commissioner, however, also admitted that the use of clustering is highly contextual, and that allaying these fears was perhaps an easier task with smaller projects.

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[10] Interview C, by phone, 12-07-2003

[11] Interview A, Alta Sierra, 10-7-2003

[12] Interview A, Grass Valley, 9-29-2003

Traffic is almost always an issue, according to commissioners, in these rural areas of the county.[13] "The neighbors were in the country and they wanted to keep their country atmosphere and so they were concerned about that issue and about traffic."[14] Review of the environmental documentation from three different projects, however, confirm that these fears are not, as Duane (1999) suggests, unfounded. Rather, given the intensity of the proposed projects, the impacts of future traffic are dramatic, and appear to be very real. These impacts are well documented in the collection of environmental documents for each of the projects (see Environmental Science Associates 1998; PMC 2000, 2001; Cotton Bridge Associates 2003).

Concern over the number of houses *and* the density was clearly the major issue brought up by planning commissioners in their discussions about conflicts over the clustered projects they had reviewed; these factors fuel, for example, the reality of future traffic impacts. As one former commissioner suggested, "the mere fact that there's that density, I think some people don't like it because of the intensity of the development when it's finally done."[15] One commissioner, referring to a recently proposed development, known as Deer Creek Park 2, explained the resulting density of homes in starker terms: "It's [the policy of

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[13] This factor is characteristic of testimony given by citizens in planning commission meetings, and was a common concern expressed when interviewing neighbors of the Wolf Creek Ranch Estates project by phone.

[14] Interview F, by phone, 10-30-2003

[15] Interview C, by phone, 12-07-2003

clustering] being bastardized, really (laughs). That's a harsh word, but when the county developed clustering, it was seen as a way of allowing development where you necessarily wouldn't have development because of physical constraints."[16] These accounts raise an interesting issue, namely whether clustering is being used to maximize the number of building opportunities through the use of higher densities *or* whether it is being used to minimize impacts, the issue touched on by Mr. Bisnett in his planning commission testimony. This dichotomy also raises the difficult issue of determining what constitutes the best approach to mitigating the environmental impacts of a proposed development.

Two commissioners challenged the practice altogether when talking about the recent, large-scale projects. These challenges are interesting, because they highlight the tension between design and intensity of use on one hand, and environmental mitigation on the other. They are also interesting because the two commissioners perhaps reflect wider feelings about this practice within Nevada County, since both have consistently been seen as standing on very different sides of the growth issue. The first commissioner, who was appointed by a 'pro-growth' supervisor indicated:

> ...that clustering was really terrible, I thought. If they're building houses and they've got... 100 acres of land and it's zoned 5-acres per lot, so you can build 20 houses on there. But instead of doing that, we're going to take 10 acres of that, or a corner of that10 acres... and we're going to build the 20 houses in there, and actually that's an exaggeration because

[16] Interview with G, Nevada City, 9-29-2003

> most of them go on a ¼ acre… We take the other 80 acres, or 90 acres of that land, and then we decide whether we can fence it, or not fence it, what we're going to do with it, what we're not going to do with it, and that's supposed to be better, and I don't know why that's *better*. I don't know why it's not better that you can build a house on 5 acres of land…[17]

By implication, the commissioner challenged the environmental basis upon which clustering is advocated as a superior option. In fact, when asked specifically, this individual expressed their distaste for the approach:

> I don't think it does much for the environment. If we're trying to maintain a rural type community, we're a hell of a lot better off if we have one house every 5 or 10 acres... I just think the logic of clustering, the mathematical logic is flawed.[18]

Instead, the commissioner continued, "what we really ought to say is, 'okay you've got this 100 acre parcel, but only 70 acres is buildable, so you can build 7 houses on this property. You can't build 10."

A similar sentiment was expressed by a commissioner who by personal admission is a 'planned growth' advocate.

> I think that clustering, it was one of *the big* ideas that the old board of supervisors put in the new general plan. On a list of ways to mitigate impacts, it was not the top priority of anybody, but the old board clung to it. Folks on my side had a lot of problems with it, because you could take a

[17] Interview A, Alta Sierra, 10-7-2003

[18] Interview A, Alta Sierra, 10-7-2003

> 100 acre piece of ground, 90% of which is completely unsuitable for development, totally straight up and down [referring to slope], bare rock, completely unsuitable, wouldn't perk [referring to the availability of sufficient water on-site] and you could take all the development, if you had 5-acre minimums, and put 20 units on the 10 acres down here and call that clustering… We felt that they should only be allowed, when clustering occurred, it should still be sensitive to what the same capacity of the land would have been, no matter what, wherever you put the thing… (emphasis in original)[19]

While the first commissioner recognized limits to the number of houses on a given parcel, based on physical and environmental constraints, the individual favored the conventional approach to development. The second commissioner's comments also suggest that limits, based on physical and environmental constraints, should drive the determination of the number of units that should be allowed on a given parcel, only after this happens would clustering be okay. These quotes strike at the core of the issue surrounding conservation subdivision design: what is the appropriate number of housing units that should be allowed in a specific proposal that seeks to subdivide a parcel, the specific location of the resulting units (or clusters) on the property, not to mention, as Mr. Bisnett's testimony indicated, what a particular project's approval would mean to the integrity of the county's general plan and what his organization saw as the developer's questionable use of the clustering provision.

The question of how to determine the appropriate number of units for a given clustered development, however, is one that has not adequately acknowledged within the

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[19] Interview B, Nevada City, 9-16-2003

literature on conservation subdivision design. The presumption in much of the literature is that a county's existing zoning will adequately answer this question, but this conclusion potentially ignores the local politics of development in a particular community. In fact, this issue is clearly a source of contention within Nevada County. As one commissioner explained, "We have certain critical investment groups, or extended families, in Nevada County who are used to sitting in the halls of power, and who own a lot of land."[20] Within this context, two planning commissioners specifically located resistance to the use of clustering as a direct legacy of the county's 1995 General Plan update process and the concurrent general plan designation process, which was thought to have been strongly influenced by the development community in the county (see Walker and Fortmann 2003, Walker and Hurley 2004). One former planning commissioner put it this way, the "old board of supervisors set us up for this" noting that the problem we have here is that we have a general plan that has good policies in it… But it [the plan] bore no relationship to the zoning act that was approved, so the plan calls for putting development around the cities, but [the] Wolf Creek Estates [proposal] calls for subdividing ranchland" in a rural region.[21] Another planning commissioner put it more succinctly "now we're living with the problems… of these rezonings." These comments situate the role of county policy in creating resistance to conservation subdivision design, and indicate to some extent the links among power, the political process, and the institutions and procedures for developing and implementing land-use policy.

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[20] Interview H, Nevada City, 8-6-2003

[21] Interview B, Nevada City, 9-16-2003

Origins of Clustering in Nevada County: The 1995 General Plan Update

Conservation subdivision design, and the policy of clustering more specifically, has a particular history in Nevada County. As an element of county policy, this approach to development, like the struggle over NH 2020 discussed in the previous chapter, is set within broader struggles among 'planned growth' and 'pro-growth' interests over how to best mitigate for the environmental impacts of growth, but at the *site*-scale in the county.[22] It is this power struggle among economic interests, such as 'critical investment groups', 'extended families', and a diversity of individual landowners, and the clash of ideas of landscape (Walker and Fortmann 2003), as expressed through the political process, that have given rise to the county's particular land-use policies. Moreover, it is within this political dynamic that subsequent development projects have been proposed, and against which these proposals are evaluated. Ultimately, it is this power struggle that provides the context within which decisions over the details of, and approval for, individual projects are made. Clustering and the assortment of policies, which taken together, comprise the ability of developers to implement conservation subdivision design in Nevada County, were the product of the contentious general plan update process.[23] Much of the contention over the general plan, as Chapter I suggests, focused on the exclusion of community participation, but it also included substantive concerns

[22] See also Walker and Fortmann (2003), Hurley and Walker (2004)

[23] Interview D, Grass Valley, 8-11-2003

over decisions made simultaneous with the official update and events that happened subsequent to the plan's approval.

Through the general plan update process, the major elements of conservation subdivision design were codified in county policy. On paper, the general plan details an approach to development that should: 1) foster a rural quality of life; 2) sustain a quality environment; 3) develop a strong diversified, sustainable local economy; and 4) ensure planned land use patterns that will determine the level of public services appropriate to the character, economy and environment (HBA 1995). Geographically, development in the county is supposed to be directed into the county's 'community regions' and away

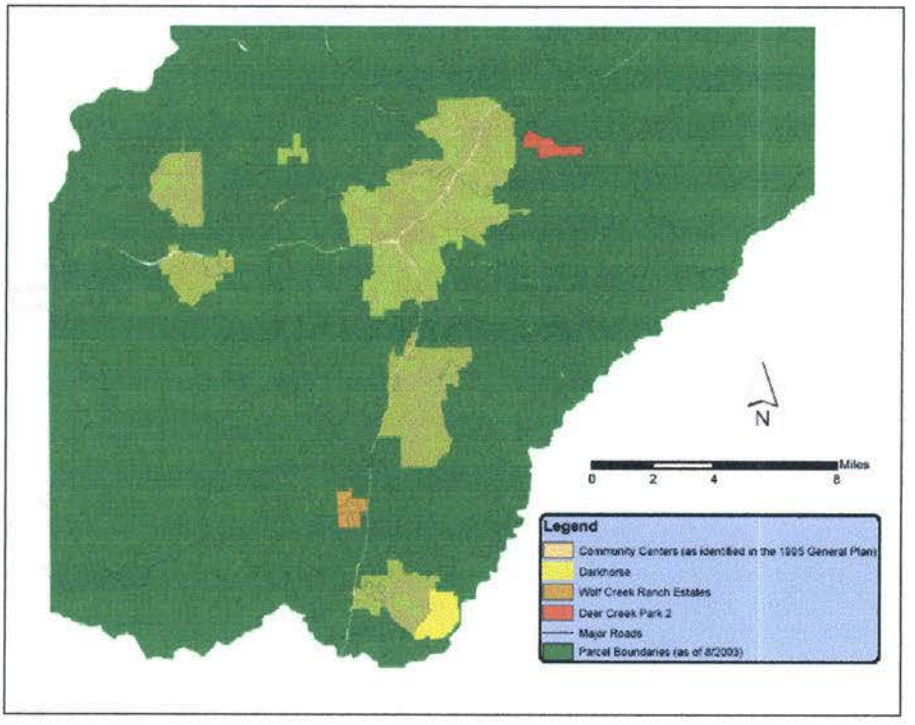

Figure 1. Selected CSD Projects in Western Nevada County.

from the county's 'rural regions' (Figure 1). This broad statement represents the county's intent to preserve the rural character of the landscape and preserve the natural environment, including natural habitats, water resources, forests, mineral resources, and scenic qualities. Clustering was became a potential mechanism to help realize these goals.

As an idea, clustering had originated first in the community working groups who participated in the general plan update process.[24] The county's consultant, a well-respected national planning firm also suggested the measure be included within the document, although the Board of Supervisors made it optional in some areas. According to the general plan, the "clustering of development is an effective and direct means to provide for the maintenance of the rural quality of life and protection of environmental resources which are important to Nevada County." General plan policy directs all land division proposals to submit "a clustering option in areas that are inside the rural regions of the county," but clustering is not required. The exercise of this option, however, is designed to "maintain the open, pastoral character of development which gives *definition* to these Rural Regions, and to protect environmental features by preserving areas containing such features as Open Space." (p. 37). At the same time, requests from state agencies, such as the California Department of Fish and Game, led to formal recognitions of new resources, including oak woodlands and landmark oak trees, as 'sensitive environmental resources' in the plan, thereby elevating their status as a consideration in

[24] Interview D, Grass Valley, 8-11-2003. This former commissioner also indicated that clustering had been advocated by the county during the 1970s, but that the practice was eschewed by the real estate community, who saw the practice as not meeting market realities.

site design. In the end, clustering and new language detailing concern over environmental resources suggested a new direction for land-use policy in the county. However, as one planning commissioner told me, while the plan had some good policies, that really was not the whole story.[25]

In *practice*, the 1995 General Plan was seen by many in the community concerned with 'planned growth' as lacking real teeth.[26] Beyond the extreme frustration expressed over the rejection of community input (see Walker and Hurley 2004) and failure to develop adequate mitigation measures for the plan at the landscape scale (see Hurley and Walker 2004), there was growing concern over two additional issues. First, there was considerable frustration among those in the 'planned growth' camp about the parallel process through which several landowners were allowed to apply for higher intensity land-use designations, in what came to be known as the general plan designation process. A former planning commissioner explained the process in these terms: "you handed them an application and they gave you approval."[27] The process awarded these landowners increased development rights, by giving them new general plan designations that would allow for higher intensity development.[28] Moreover, from a geographic standpoint, the process awarded several applicants higher potential housing densities in areas that were

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[25] Interview I, Penn Valley, 5-24-2002

[26] Interview J, Grass Valley, 5-07-2002, Interview I, Penn Valley, 5-24-2002

[27] Interview B, Nevada City, 9-16-2003

[28] Interview D, Grass Valley, 8-11-2003

outside of the mapped community regions, thereby creating potential conflicts over future subdivision proposals in the county's rural region. Second, the board of supervisors "immediately handed out the maximum density possible under the new general plan on each parcel"[29] highlighting an approach to planning that differs from other places. As this same commissioner noted,

> [s]ome counties create a general plan, put the general plan land use designations on a map, and then the zoning underneath isn't changed. But you're allowed to come in and to ask for a higher zone change under the general plan, under the new designation. And then you have to show what you're going to do to mitigate your impacts to come up to that intensity.

The contradiction between policy goals and the *reality* of the 1995 General Plan became apparent almost immediately after the plan was approved, when the first major subdivision proposal, known as Darkhorse, came before the county planning commission for consideration. Proposed by the Baldwin Family and an investment group from nearby Roseville, the 1,046 acre project site was one of the parcels that had applied for, and had received, increased development intensity, albeit with a requirement for a planned development. The Darkhorse project set out to convert an area that had largely been "used for generations as ranch land"[30] into a "world class golf course and housing subdivision."[31] This meant that the developers were eligible for a maximum of 300 single

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[29] Interview B, Nevada City, 9-16-2003

[30] Interview D, Grass Valley, 8-11-2003

[31] Interview K, Lake of the Pines, 8-7-2003

family homes on 846 acres, with the remaining 200 acres approved for the golf course, but that the project would be required to submit a master plan as part of the development process. Importantly, from the perspective of the general plan and the issue of clustering, the project fell outside of the Lake of the Pines 'community center' placing it in a 'rural region' that according to the new general plan was an area where "only those types and densities of development which are consistent with the open, rural lifestyle, pastoral character, and natural setting" should be allowed.

From the perspective of *implementing* the county's new general plan policies, two key issues emerged as a result of the Darkhorse proposal. First, the project meant intensive development outside of 'community regions,' counter to the general plan's stated goals. Second, both the planning commission and, upon appeal, the county's Board of Supervisors voted to waive the requirement for a full environmental review, continuing a long history of giving projects a so-called 'mitigated negative declaration.'[32] For Darkhorse opponents, the project was introducing significant growth into a rural area. "This isn't just a little project: this is hundreds of homes… This was a *big project* and by anybody's definition, something that you needed to have an EIR done on."[33] Many in the

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[32] Interview F, by phone, 10-30-2003; Interview B, Nevada City, 9-16-2003. Mitigated negative declarations refer to a situation where the project design has been reviewed and deemed to have already sufficiently mitigated its impacts on the environment, meaning the project does not require the preparation of a full environmental impact report under the California Environmental Quality Act (see Fulton 1999). This designation also means that the public does not have the opportunity to directly comment, on, and potentially effect changes to, project design, impacts, and the resulting mitigation measures (see Fulton 1999, Duane 1999).

[33] Interview B, Nevada City, 9-16-2003

community, including at least one planning commissioner, saw the decision as a 'broken promise' by the Board of Supervisors, and it represented a troubling precedent to newly elected 'planned growth' minority members of the Board of Supervisors (Nevada County Board of Supervisors 1997). In the end, the newly formed Rural Quality Coalition[34], through organization of a highly successful petition drive and the filing of a lawsuit, what one informant called a "double whammy,"[35] successfully forced the project applicants to undertake a full environmental review.[36] Thus, the Darkhorse case signaled that future subdivisions of this magnitude would have to conduct full environmental reviews, particularly in rural areas of the county.

Darkhorse also set a new precedent in the county by demonstrating the ways in which the new policies might be used to achieve the maximum number of units in environmentally sensitive areas. The project proposed the maximum number of houses allowed, clustering the 300 single-family homes on just 300 acres (one acre parcels on average), setting aside 200 acres for the golf course, and 'dedicating' the remaining acreage to open space (Environmental Science Associates 1998). The project's environmental documentation framed the subdivision within the language and terms of the new General Plan's central policies, which described the need to: maintain distinct

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[34] See Duane 1999, Walker and Fortmann 2003, Hurley and Walker 2004. This group grew out of the frustration over the 1995 General Plan process, and the treatment by members of the community by the Board of Supervisors.

[35] Interview L, Nevada City, 9-8-2000

[36] ibid, Interview B, Nevada City, 9-16-2003; see also Duane 1999.

boundaries between rural and community regions, use innovative land use measures that promote open space and the preservation of environmentally sensitive areas, encourage resource management in subdivisions in areas with rural general plan designations, integrate open space considerations in the resulting land-use patterns, and other associated general plan language focusing on the role of clustering and resource protection (Environmental Science Associates 1998). In comparison with its neighbor, Lake of the Pines, a gated and entirely fenced subdivision, the proposal created significant open space for the protection of oak woodlands, wetlands, migratory corridors for deer, and areas that will continue to be used for cattle grazing. Ultimately, the project was approved and housing construction began in the summer of 2003. In the end, through the use of a combination of conservation easements and deed restrictions on some residential lots that extend into wildlife areas, one project proponent suggested the subdivision creates a place where "critters [are] as unintruded upon as possible"[37] and provided a model for future development in the county.

In fact, the lesson of Darkhorse has not been lost on other developers in the county. Since Darkhorse was approved, two additional projects, both the products of the general plan designation process, have been proposed by local developers. The first of these, Wolf Creek Ranch Estates, represents what many in the county see as a growth-inducing, leap-frog type project, because it would extend critical infrastructure (e.g., treated water by the local irrigation district) into this rural region, which is needed by at

[37] Interview K, Lake of the Pines, 8-7-2003

least one other approved, but not yet constructed project. The second project, known as Deer Creek Park 2, raises concerns within the community because of its unique interpretation of policies regarding the 'open space' component for the subdivision. These projects demonstrate the extent of the interrelationship among the power of local development interests, county politics, and resistance to conservation subdivision design.

Conservation Subdivision Design: Resisting Expansionary Tendencies

From the time the Wolf Creek Estates project was submitted for formal consideration to the most recent planning commission hearing, individual neighbors, neighbors' groups, and other groups in the county concerned with growth, such as the Rural Quality Coalition, have been fighting to reduce the size and intensity of the project. Located in the southwestern portion of the county, the project was originally conceived in 1991 and was envisioned as a 5-acre planned development. However, the consultant who at the time was reviewing the county's general plan recommended ten-acre parcels, citing the lack of public water and sewer (Nevada County Planning Department 2004a). In response, the family submitted an application for a general plan designation change, and "in exchange for a commitment to bring public water to the site and a clustered" project with a comprehensive site plan and promises to provide substantial open space, the family was successful in obtaining three acre densities for the project site (Nevada County Planning Department 2004b, p. 1). As a result, the project proposal went from the recommended 69 units to the proposed 230 units and this density, plus the clustering of

parcels necessary to maintain this number, has been at the core of every plan since the project was formally submitted to the planning department for consideration in 1997.

Throughout the years of review, neighborhood groups and environmental activists have questioned the willingness of the developer to produce a proposal that is consistent with the county's general plan. Through the environmental review process, the neighbors were able to comment on what they saw as key discrepancies with the proposal and county policy. South Nevada County Concerned Citizens[38] challenged the project's consistency with the general plan, noting:

> The proposed density far exceeds the language and intent of the General Plan for Rural Regions. The land use surrounding this project is 5, 10, 20, 40 acres per dwelling; yet, this project proposes 230 units on 270 acres yielding 1.2 acres per dwelling. (PMC 2000, p. 3-78)

Still other letters focus on the way these would personally impact their properties, including this letter, which makes clear the link between density and aesthetics:

> This proposal is too large—too many homes—causing a severe impact to our area. The loss of the agricultural nature of our home with the increased traffic, noise, bad air, loss of trees and our privacy, all appear to be significant impacts which according to the Draft EIR are unavoidable. The 'buffer areas' are not large enough. The rural nature of our home is very important to us and we request that you protect us and lower the density of this project to 100 or less homes. (PMC 2000, p. 3-39)

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[38] This is a separate organization from the group, South County Area Neighbors, referred to at the beginning of this chapter, further highlighting the extent to which these issues are being politicized.

Virtually all of the letters questioned the increased traffic the project would generate, leading The Wolf Mountain Homeowner's Association to call for a 50% reduction in the number of lots. Thus, the question of this project's appropriateness had less to do with the project design than it had to do with a battle over how many houses would be built, a direct result of the increased intensity awarded by a previous Board of Supervisors.

Significantly, the South County Neighbor's Association was able to force the issue of the size and density of the project through an appeal of the project's initial environmental review document to the Board of Supervisors. In lodging their challenge, the group pointed out that significant and unavoidable impacts were being overlooked—a situation that required the applicants to *consider* lowering the density of the project, or alternatively, meaning that the planning commission should *require* the project applicants to lower the density as a more appropriate mitigation measure. The Board of Supervisors, which was comprised of a 'planned growth' majority at the time, upheld the appeal and ordered the developer to consider alternative project designs, including two suggested by South County Area Neighbors. Both alternatives reduced the overall number of lots available for development. The first alternative argued for "a total residential lot count of 69 lots…" based on using a minimum lot-size of 10 acres to calculate the allowable number of units, but with "lot sizes of 5 acres and greater" and where the "remaining 333 acres would be dedicated as open space and privately owned and maintained by a homeowners association" (PMC 2001, p. 1-6). Importantly, the neighbors association argued that "the lot sizes under this alternative would be more equivalent to lot sizes in

the surrounding area than would those under the proposed project..." (PMC 2001, p. 1-6; Figure 2) Moreover, this alternative would maintain significant open space buffers between the project and the majority of existing landowners adjacent to the project. The second project alternative offered by the neighborhood association involved the elimination of 115 lots, or half of those that had been proposed. In this case, the equation used to calculate the number of housing units was based on a 5-acre minimum lot size, but the site design provided by the group showed the resulting units on much smaller lots, covering only 287.5 acres, and keeping the remaining 403.5 acres as dedicated open space. This layout design also created extensive open space buffers between the majority of surrounding neighbors and the proposed residences.

Upon completion, the revised environmental document showed that the current design was not option with the least environmental impact. Moreover, the alternative designs proposed for evaluation by the developer, which maintained 230 units for the parcel, had fewer impacts than their preferred option, but had greater impacts than the reduced intensity versions submitted by the South County Neighbors Association. The neighborhood group had shown that while project design was obviously part of the problem, the real issue was the politics that had led to awarding the developer with, what was in their opinion, the high number of possible housing starts.

Yet the finding of the environmental review has not resolved the question of what minimum lot-size (under a conventional approach) should be used to calculate the

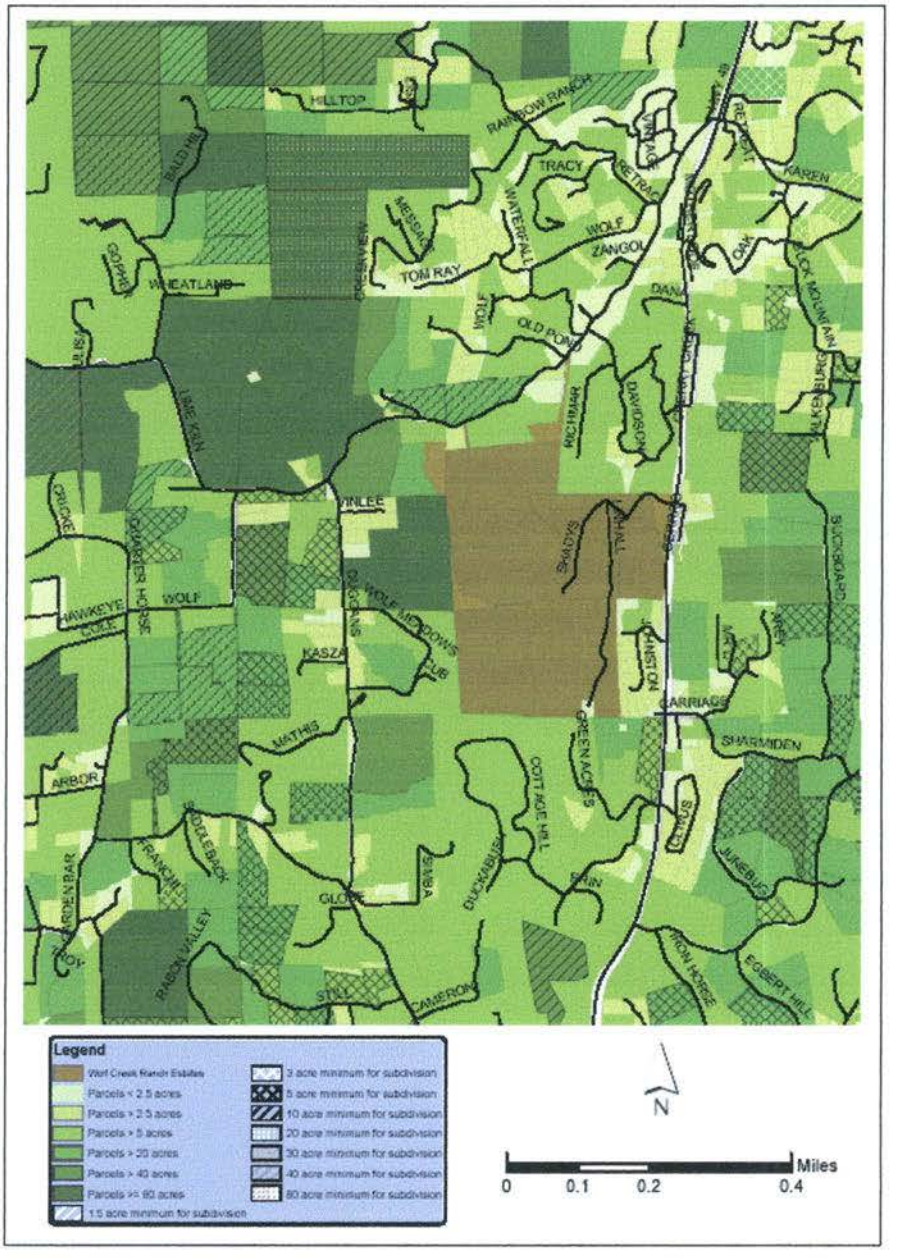

Figure 2. Geographic Context of Wolf Creek Ranch Estates. The figure shows the proposed project's location relative to the density of the surrounding area.

appropriate number of homes, nor has it led to a decision about how many homes will actually be built. Instead, the developers have consistently maintained the 230 units as necessary to the success of the project, leading to a continued political fight by the neighbors against the project. It is within this context that Brian Bisnett spoke so passionately in his testimony before the planning commission at their meeting to consider a rezone of the property on February 12, 2004. At that meeting, the developer proposed to reduce an area of dense clusters on part of the project. In their place, the owners of the property had decided to retain three parcels (each with agricultural easements) in their personal ownership and a ten-acre part of the project, formerly slated for a park, would now be the site for 55 future condominium units. After a grueling meeting, planning commissioners decided not to rule on the proposal, but the planning commission's chair[39] implored the developer to work with the neighbors to resolve the issues involved. One opponent—also a former planning commissioner—has suggested that regardless of what the planning commission decides, the developer is likely to appeal the decision to the Board of Supervisors where it is believed the project would be approved at the density preferred by the developer (the current proposal). Perhaps typifying the cynicism among some opponents, the appearance of condominiums in the project, and the failure of the

[39] The current chair of the planning commissioner is considered by many observers in Nevada County to be 'in the minority' because he was appointed by a 'planned growth' supervisor. Planning commissioners in Nevada County, however, have a history of demonstrating their independence, although the votes on many decisions related to development that are appealed to the Board of Supervisors often fall along ideological lines.

commission to outright reject the idea[40] led one neighbor to write to the local newspaper, publicly suggesting that situation was just another example of "developers with the money it takes to get the county to listen [to them]" (*The Union* 3/01/2004).

The controversy over conservation subdivision design and the use of clustering does not stop with the Wolf Creek Ranch Estates proposal. Another project, known as Deer Creek Park 2, suggests what a clustering project in the higher elevation, more forested areas of the county might look like. [41] The project is unique among the three in that it proposes a subdivision on land that is heavily forested, with typical vegetation cover that includes ponderosa pine, black oak, manzanita, incense cedar, and Douglas fir, and in localized areas, steep terrain, including slopes above 30 percent.[42] While Darkhorse and Wolf Creek Ranch Estates represent conservation subdivisions in the rolling hills of the southern part of the county, where oak woodlands and open fields characterize a landscape shaped by an agrarian history of cattle grazing, Deer Creek Park 2 represents a test of county policy and its application to the conservation of lands in areas currently managed for timber production. Located just outside of, and up the hill from Nevada City, the project is the work the Terra Alta Development Corporation. Terra

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[40] Two members of the commission publicly expressed support for exploring this opportunity to put affordable housing into the project (Nevada County Planning Commission 2004).

[41] At the time this was being written, the project's initial environmental review report was being rewritten by the consultant, because it had been deemed inadequate by county staff. As the county's project tracking system notes, several problems with the document "require a considerable amount of work to address and resolve." (Nevada County Planning Department 2003, p. 1)

[42] This threshold has been a longstanding criterion within county policy for determining whether portions of parcels are buildable.

Alta is headed by the son of the company's founder (the developer responsible for the adjacent neighborhood along the northern perimeter of the project site, Deer Creek Park 1), Lance Amaral, who is often labeled by his project's opponents as one of the 'good ol' boys,' referring to his family's long-time presence in the county as timber operators and land developers.[43]

Deer Creek 2 highlights perhaps even more dramatically the political nature of conservation subdivision design. According to the project's environmental document, "overall, the General Plan and zoning anticipate a maximum of 193 single-family units on the property" (Cotton Bridge Associates 2003, p. ES-1). In fact, the proposal calls for the maximum number of 193 residential units on 580 acres in an area characterized by narrow, winding, and relatively steep roads. Implementation of the project would result in 404 acres of 'open space,' a small amount of land for a community sewage disposal facility, and home sites ranging from half acre to two acres lots. Interestingly, from a density perspective, Deer Creek 2 would roughly match the densities of some of the surrounding parcels (Figure 3); for example, neighbors in Deer Creek 1 (along the northern border of the proposed project) mostly sit on parcels that average roughly 1.5 acres. However, Deer Creek Park 2 has created great concern by many in the surrounding neighborhoods.[44] For opponents of the project, the issue is once again the intensity of the

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[43] This label was described as commonly used by 'planned growth' advocates (Interview H, Nevada City, 8-6-2003).

[44] Interview M, Nevada City, 9-25-2003.

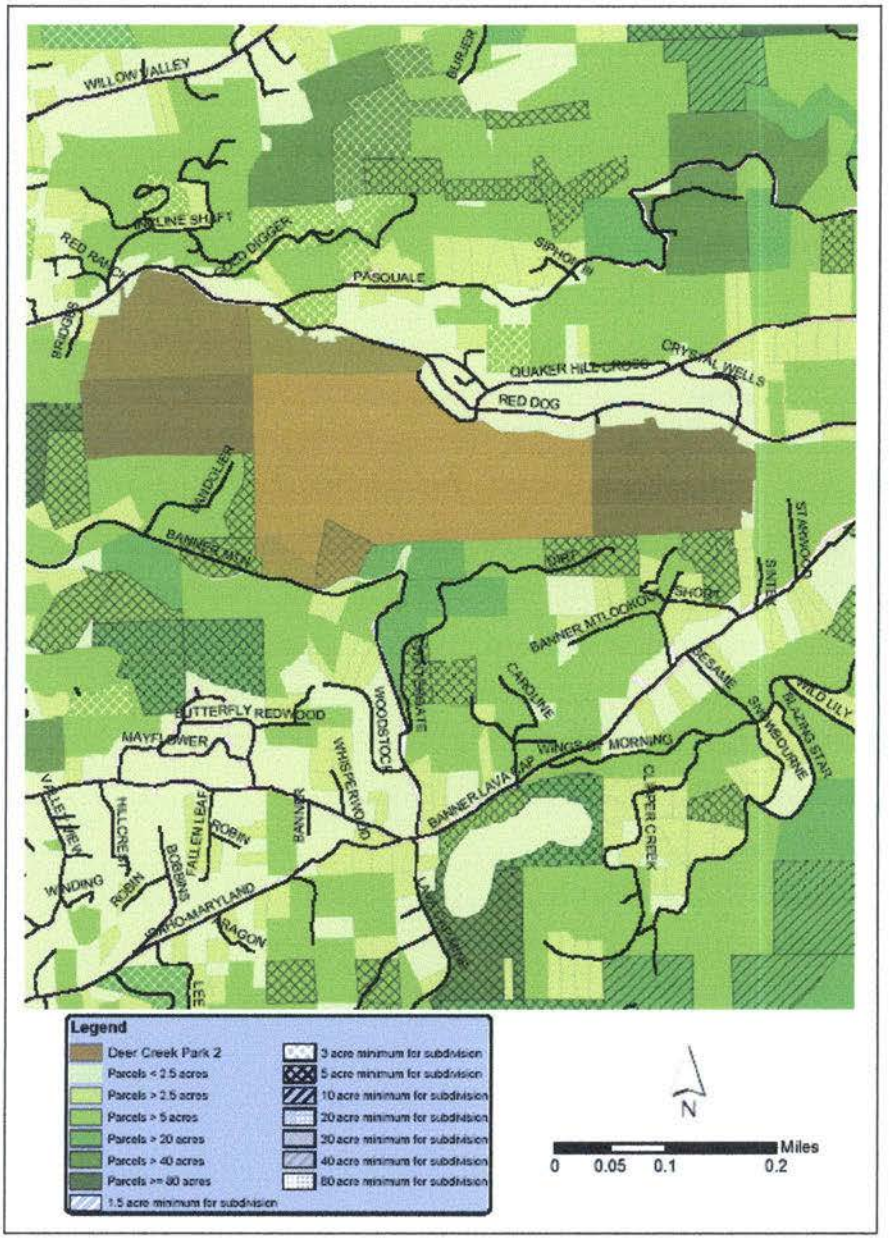

Figure 3. Geographic Context of Deer Creek Park 2. The figure shows the location of Deer Creek Park 2 relative to the density of the surrounding area.

project. Olivia Diaz, a candidate currently running for the Board of Supervisors, has called it "a classic example of sprawl" (*The Union* Editorial Board 2004), describing it "as problematic for neighbors" because of "increased traffic, noise and possible pollution of nearby Deer Creek..." (Druzin 2003).

Two factors contribute to the degree of controversy over the Deer Creek Park 2 project. First, as a former planning commissioner explained to me, and referring to the developer involved in this case:

> the community around Nevada City is basically ruthless on the issue of wanting to protect their borders... they are extremely wealthy people who live up there, who do not take kindly to being looked down the nose at because their grandpa just happened to be here a hundred years ago and they made a hell of a lot of money doing questionable activities.[45]

Further highlighting this tension, another prominent county official referred to the looming development on Nevada City's door step, while pointing to a cartoon on the office wall, as "funny, because this lady here is getting her nose rubbed in it"[46] (Figure 4) The cartoon symbolizes the historic relationship between Nevada City, the original home of the owners of the gold mines, and the neighboring city of Grass Valley, the historic

[45] Interview B, Nevada City, 9-16-2003

[46] Interview N, Nevada City, 9-29-2003

home of the mineworkers. While Nevada City steadfastly guards its boundaries, including efforts to stop Deer Creek Park 2, many working residents of the county cannot afford to buy their homes, hinting that there are issues of social exclusion involved.

Figure 4. Nevada City – Grass Valley Growth Cartoon. Source: Crabb (2003)

The second issue that seems to contribute to the resistance that has emerged against this particular project is the proposal's particular use of conservation subdivision design to retain ownership of the remaining open space and manage it "for long-term sustained yield timber production" (Cotton Bridge Associates 2003, p. ES-1).[47] This approach, as the projects environmental review documentation points out, conserves both

[47] Several informants referred to grassroots organizing by various neighborhood associations in the surrounding area.

a portion of the county's natural resource base and reduces the overall impact of development on this habitat type. Indeed, it is a situation that appears to be supported by current county policy, which states that clustering should be used "to support grazing, forest management, and crop production coexistent with residential uses" as part of encouraging "resource management in subdivisions in the Rural General Plan Designations." Thus, clustering not only provides the developer with the opportunity to maintain the maximum number of dwelling units, but also the opportunity to own and manage the 'open space' for continued economic gain. Yet, this issue has angered many neighbors and activists who see it as a way for the developer to 'have his cake and eat it, too' and who do not see the protection of the county's natural resource base, in this case timber lands, as contributing to a public good, as is the case with other open space in the conservation subdivisions described above.

Deer Creek 2 still has a long way to go before any final decision is made about the project. Among other issues, given the inadequacy of the project's initial environmental documentation, the project still must go through another round of environmental review and hearings before the planning commission. The issues involved with the Deer Creek Park 2 proposal, however, are reflective of the continuing use of principles of conservation subdivision design to maximize economic return by clustering homes and setting aside open space to protect environmentally sensitive lands and natural resources. Yet, the Deer Creek Park 2 project, in some people's minds at least, clearly pushes the boundaries of what is acceptable conservation subdivision design.

Discussion and Conclusions

Struggles by neighbors to stop, or significantly modify, new development projects are a common form of land-use dispute in many urban and suburban areas in the United States; these disputes are also likely to become increasingly more common in exurban areas. Analysis of innovative approaches to development, such as those represented by conservation subdivision design, within the context of local land-use politics, and their potential to contribute to these disputes is less common, however. It is in this context that I draw attention to the difference between issues of design and project decisions that are clearly within the political realm, such as the interpretation of policy and the ultimate decisions that will be made about what will or not be allowed with the Wolf Creek Ranch Estates and Deer Creek Park 2 proposals. I do not want to go as far as to suggest that all neighbors are resistant to the proposed projects; indeed, a few interviewees indicated their support for the growth and the jobs that the construction of these houses would bring. Nor do I want to suggest that all neighbors favor lower densities *and* clustered subdivisions. As one neighbor to the Wolf Creek Ranch Estates Project put it, "clustering houses together is simply bad planning"[48] echoing the thoughts of one planning commissioner discussed above. Rather, I want to highlight that the use of conservation subdivision design principles through the development process is not merely a question of design, but inherently part of a broader politics of land use.

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[48] Interview with Neighbor A, by phone, 3-24-2004

The Fear of Conservation Subdivision Design. If, as Duane (1999) has suggested, resistance is about fear, then better design might lead to a reduction in this resistance. Clearly, fear was a factor in the fight over Darkhorse, Wolf Creek Ranch Estates, and Deer Creek Park 2, as well as other projects, as planning commissioners pointed out. In each case, opponents were extremely uncomfortable with the size and intensity of proposed projects. Indeed, this was the major issue with neighbors in all three cases. Planning commissioners also pointed to a general lack of comfort among the public about how these projects deviated from past practice. Moreover, some commissioners personally expressed concern over the certainty that the resulting open space areas would not be developed in the future, given the track record of decision-making by various county boards of supervisors. Project opponents exhibit, and at least one planning commissioner personally expressed, fear of the offensive aesthetic that is likely to result from the construction of these subdivisions. Likewise, neighbors in most cases express fear over impending traffic problems, but the evidence suggests that these fears are well-founded in each of these cases. In fact, as the continued insistence by the developer Wolf Creek Ranch Estates to maintain a 230-unit maximum case suggests, these fears are about more than better design.

Framing the resistance to these projects as a matter of design, however, suggests that disputes over conservation subdivisions are about the layouts of the proposed subdivisions, and other relatively minor details, when in fact fears about the projects in Nevada County stem from a deeper source: their intensity, or the basis upon which the

total number of houses for a given project was, or will be, determined. Compared to urban development issues, this question is the exurban equivalent of deciding whether to allow the construction of a four-story or a twenty-story residential tower. Design may be important to making either building fit within the general neighborhood context, but it cannot answer the question of which building is more appropriate to the neighborhood within existing policy; this is both a question of how existing policy was created *and* how that policy is eventually interpreted. In these cases, the decisions leading to the policy dilemmas discussed above were made by elected officials, believed by some in the community to be 'pro-growth' and who, according to some of the planning commissioners who were interviewed, created the problem—seemingly suggesting that they had sought to create contradictions in policy that might allow developers to circumnavigate key elements of the county's General Plan. Moreover, *interpretations* of the existing policies are ultimately what lead to decisions about actual projects and what will or will not be built; these are the products of political processes. Whether final decisions are made by planning commissioners, who are appointed by elected officials, or by the elected officials themselves, determining the appropriateness of conservation subdivisions cannot be seen as separate from politics.

Arguably, the three cases presented here could be said to be poor examples of conservation subdivision design, because they fail some critical test of what a truly environment-friendly subdivision should be. While this may be the case, I argue that this fact misses the critical point: the introduction of these criteria in any future policy, their

specifics, and the means by which these policies would be 'enforced' in future project decisions are all the result of politics. These must be examined in terms of power relations and exactly who within, or from without, the community has the ability to achieve these ends. Only to the extent that developers are either constrained in this fashion, or are motivated by some other imperative, will good design perhaps solve the question of resistance in these terms. An analysis of the politics of conservation subdivision design, and the policies that shape its use, provides the opportunity to understand resistance within the broader context of the expansionary tendencies of capitalism and corresponding exclusionary forces in particular places.

Conservation Territories and Market Expansion in Exurbia. If, however, we view conservation subdivision design as an example of a conservation territory, as has been described by Zimmerer (2000), we can begin to ask to what extent such projects represent the expansion of economic markets (and the expansionary forces of capitalism) into new areas and why they are resisted (attempts are made to exclude them). The extension of residential housing markets into the rural Nevada County landscape is nothing new; indeed, as Chapter II highlighted, this has been the trend for many decades in Nevada County. Rather, the resistance to the use of conservation subdivision design can be viewed as evidence that neighbors wish to exclude particular *forms* of conservation subdivisions, namely those that represent to them the expansion of suburban housing markets in the rural countryside. Developers who propose conservation subdivisions, on the other hand, can attempt to make their case within the policy parameters of the

county's general plan, arguing that they are effectively mitigating the impacts of their developments on environmentally sensitive and key natural resources. By retaining 'islands' of nature within these subdivisions (e.g., oak woodland), which often include some form of habitat management plan, developers attempt to foster a greater degree of legitimacy for their project proposals.

Moreover, viewing conservation subdivision design as a new form of conservation territory suggests new understandings of the link between efforts to integrate local ecology into the "institutional procedures and processes" and the wealth produced during the land conversion process. In Nevada County, resistance arises, it would appear, when this integration computes 'too well' with the wealth that fuels this conversion. Put another way, local neighbors resist the use of conservation subdivision design by developers to maximize economic gain when it conflicts with their own local prerogatives. This suggests that conservation subdivisions might be subject to the same types of exclusionary politics that have typified conflicts in suburban communities. This also means that the broader effort to integrate principles of conservation science into land-use decision-making must pay closer attention to both the historical expansionary tendencies of capitalism *and* the exclusionary forces that arise from local land-use control imperatives. Here, I would argue, it is important to remember resistance may be directed at particular types of land-uses, as exhibited in the case of Deer Creek Park 2. While this resistance is clearly linked to the intensity of the project proposal, there is also strong community sentiment about resistance to the landowner retaining ownership of the open

space and managing it for timber harvest. This stands in rather stark contrast to the cattle grazing and other agricultural land uses that have been proposed for the 'protected open spaces' in other conservation subdivisions.

To the extent the examples of conservation subdivision design presented in this chapter can be understood as the exercise of power and the strategic use of clustering to maximize economic gain, and expand more intense development into new areas, then political analysis is central to understanding the ability of design to foster alternative development practices that will be successful in particular places. This analysis raises the question whether 'good design'—in the form of a 'properly' written set of codes—can ever truly eliminate political manipulation. Further, this analysis is critical to understanding the proliferation of the practice of conservation subdivision design and its various forms. This type of analysis offers key insights into the continual struggle to determine whether and where conservation subdivision design is most appropriately used, to decide the intensity of use (e.g., how many houses are suitable) for a given site, and the power to validate which uses are appropriate within protected 'open space(s)'. Within the context of political ecology, the design and construction of actual conservation subdivisions must always be understood, simultaneously, as the exercise of good design co-existent with the exercise of particular power configurations that produce differential environmental impacts.

CHAPTER V

CONCLUSIONS

The decline of biodiversity, as well as the loss of natural resources, is a serious issue in many parts of the United States experiencing the effects of exurbanization. As more people continue to move to rural areas in search of a better quality of life, the decline of biological diversity is likely to get worse in some places. In response to this concern, conservation planners have been asking how conservation science can best address influence land-use policy decisions and how planning efforts will be most effective at addressing this loss of habitat. Because there is a growing awareness that the success of conservation policy is not solely dependent on technical solutions but is strongly influence by socio-political factors (see e.g., Raedeke et al. 2001, Mascia et al. 2003), this dissertation examined an exurban community in California to better understand what these factors have meant for new and innovative conservation policy intended to address the decline of biodiversity in the community.

The findings of this dissertation suggest that the social and political conflicts occurring in exurban places are important influences on the success of conservation policy designed to address the ecological consequences of the exurbanization process. Indeed, the importance of specifically recognizing private lands conservation planning as

a political act—imbued with all of the complexities associated with exercises in power—with potential impacts for economic interests cannot be overlooked by conservation practitioners.

The lessons from Nevada County suggest that the use of land-use planning as an umbrella for achieving private lands conservation goals faces at least three significant challenges. First, private lands conservation planning may be viewed as an outside influence by some members of the communities where these efforts are attempted. In these situations, stiff political resistance is likely to develop among those in the community who are, or who believe they will be, adversely impacted by the redistributive effects that are surely to result from landscape-scale planning. In Nevada County, property rights groups in the county, along with community groups with strong economic interests in preserving the status quo of development, were able to challenge the legitimacy of the Natural Heritage 2020 planning program on these grounds. While proponents viewed the tactics employed by NH 2020 opponents as political deception, this analysis found ample evidence to support claims by the opponents who pointed to very real shifts in the vision of future county growth contained within NH 2020.

Second, the politics of land and land-use governance suggest a need to rethink the process by which conservation planners pursue their conservation goals. Because biodiversity mapping is a tool fraught with political power, conservation planners must recognize that landowners represent a significant stakeholder group in any priority-setting

exercise. Landowners (and voters) who fear their private property rights will be threatened are likely to resist planning efforts, *even* when they believe the goals being addressed are important. At the same time, it is important to remember that this group of stakeholders is relatively fluid in its political make up. While some landowners in Nevada County invariably would oppose any expansion of conservation on private lands based on ideological grounds, other landowners appear more likely to have based their opposition on pragmatic grounds (e.g., fear of government intervention and unknown impacts to their personal property rights). In Nevada County, this pragmatic resistance spelled the end of the program. Had the organizers of NH 2020 openly discussed the policy tools that would have been used to achieve conservation goals, they may have well won the support of many landowners who ended up resisting the program on pragmatic grounds.

Third, principles of conservation subdivision design, like those efforts that target the conservation of habitats and ecosystems at the landscape scale, take place within a political and economic framework. The inclusion of these planning principles within the county's land-use policy, as well as the interpretation of this policy, were subject to cooptation by development interests—much to the dismay of many neighbors surrounding the proposed projects. In fact, the application of these design principles has led some landowners to advocate for developments that are more like their own, and which, perpetuate the very land-use patterns that are of such concern to conservation

planners. The lessons from Nevada County's experimentation with conservation subdivision design highlight the inevitable tensions between the expansionary nature of capitalism and the exclusionary tendencies of individual landowners.

The research in Nevada County, however, suggests that there is hope for ongoing efforts at private lands conservation planning, at both the site- and landscape-scales. Many residents in the county expressed a great deal of support for the NH 2020 program and for the use of site-scale development approaches that will certainly reduce the ecological impacts associated with exurbanization. Likewise, many of those landowners who were opposed to NH 2020 expressed support for the types of policy tools that have often been used in other places to achieve conservation goals similar to those pursued through NH 2020. In fact, a significant finding of this dissertation is that NH 2020 might well have been successful, had the program been structured differently.

Indeed, this finding demonstrates the need for conservation scientists to better understand their work within the local politics of the places they work, and the social factors that contribute the success (or failure) of their efforts. The conflict over NH 2020 suggests the planning effort may have had greater success had the county's government begun by building greater community buy-in before insisting on setting conservation priorities through ecological mapping. Had the county begun with a more opportunistic approach, designed to demonstrate respect for landowner property rights and highlight the types of conservation interventions that would be used to achieve specific goals in the

future, the county's electorate may well have been very supportive of the overarching goals of NH 2020. For example, the county could have engaged individual landowners in known areas of ecological importance with non-regulatory conservation interventions (e.g., the use of conservation easements, landowner stewardship agreements, purchase of development rights) and then have moved on to set key conservation priorities through systematic mapping of the county's ecologically significant areas.

Finally, this dissertation contributes to the continued development of political ecology as a field in two important ways. First, the struggle over conservation design and private property rights in Nevada County demonstrates political ecology's relevance to our understanding of environmental politics in so-called 'First-World' places. This case study illustrates the importance of paying attention to formal political institutions, particularly county land-use planning, as sites of contestation where competing norms, values, and ideas of natures influence the regulation of practices toward nature and natural resources. Second, the lessons from the Nevada County case study highlight the need to apply political ecology's rich theoretical framework to questions of conservation practice and the politics that result. In particular, this analysis has provided a more balanced examination of the conflict, including the role of science and its use as a source of power, as well as examination of the stakeholders and the broad spectrum of opinions about rural and environmental quality, land-use governance, land-use policy, and how these social and political factors interact to shape perceptions of, and reactions to, private lands conservation practice.

APPENDIX A

Landowner Survey

Survey on Land Use Policy in Nevada County

INSTRUCTIONS

- LANDOWNERS and RENTERS: Please fill out the survey to the best of your ability.
- If you are new to the county, please help us by answering all relevant questions.
- REMINDER: All questionnaires are anonymous

If you have questions about this survey, please feel free to contact:

Patrick Hurley

Thank you for taking the time to participate in this study. This survey is part of an ongoing research project by the University of Oregon that examines the land-use history of Nevada County and the politics surrounding land-use decision making. This questionnaire will provide important information about your thoughts on issues of county government and land use. *If we may contact you again in the future, please write your name, phone number, and best time to reach you in the space provided at the end of the survey* (we will NOT give this information to ANYONE else: unlike commercial surveys, we are prohibited by law from doing so).

A WHAT ARE YOUR VIEWS ON NEVADA COUNTY'S ENVIRONMENT AND LANDSCAPE? *(Please indicate your level of agreement with the following general statements about Nevada County and its environment).*

1. Nevada County's most important feature is its rural quality.
   Strongly agree *Somewhat agree* *No opinion* *Somewhat disagree* *Strongly disagree*
2. Thinking about "rural quality," what attributes or characteristics first come to your mind?

   First attribute or characteristic: _____

   Second attribute or characteristic: _____

   Third attribute or characteristic: _____

4. Nevada County's rural quality is under threat (please circle the most appropriate answer).

   Strongly agree *Somewhat agree* *No opinion* *Somewhat disagree* *Strongly disagree*

If you indicated you disagreed with #3, please skip #4 and go onto #5.

5. In your opinion, what are threats to Nevada County's rural quality?

6. Nevada County's most important feature is its environmental quality (please circle the most appropriate answer).

   Strongly agree *Somewhat agree* *No opinion* *Somewhat disagree* *Strongly disagree*

7. Thinking about "environmental quality," what attributes or characteristics first come to your mind?

   First attribute or characteristic: _____

   Second attribute or characteristic: _____

   Third attribute or characteristic: _____

8. Nevada County's environment is under threat (please circle the most appropriate answer).

   Strongly agree *Somewhat agree* *No opinion* *Somewhat disagree* *Strongly disagree*

If you indicated you disagreed with #7, please skip #8 and go onto #9.

9. In your opinion, what are threats to Nevada County's environment?

10. Nevada County needs strong environmental protection. *(Please indicate your level of agreement)*

Strongly agree *Somewhat agree* *No opinion* *Somewhat disagree* *Strongly disagree*

B WHAT ARE YOUR VIEWS ON COUNTY GOVERNMENT AND LAND USE CONTROL?

(Please indicate your level of agreement with the following statements about Nevada County government and land use control)

11. Nevada County needs more government control of land use on private property.

Strongly agree *Somewhat agree* *No opinion* *Somewhat disagree* *Strongly disagree*

12. Nevada County needs strong protection of private property rights.

Strongly agree *Somewhat agree* *No opinion* *Somewhat disagree* *Strongly disagree*

13. Nevada County's Board of Supervisors is the appropriate government entity to determine the county's land-use policy.

Strongly agree *Somewhat agree* *No opinion* *Somewhat disagree* *Strongly disagree*

14. Nevada County's Planning Department (the office responsible for land use planning and permitting) should develop plans and programs as needed to address county growth issues.

Strongly agree *Somewhat agree* *No opinion* *Somewhat disagree* *Strongly disagree*

15. The State of California is the appropriate government entity to determine the county's land-use policy.

Strongly agree *Somewhat agree* *No opinion* *Somewhat disagree* *Strongly disagree*

16. County growth issues will be best addressed by allowing the real estate market to function without government interference.

Strongly agree *Somewhat agree* *No opinion* *Somewhat disagree* *Strongly disagree*

17. County growth issues will be best addressed by allowing not-for-profit groups, such as land trusts and other similar organizations, to address problems that may arise.

Strongly agree *Somewhat agree* *No opinion* *Somewhat disagree* *Strongly disagree*

18. Planning tools, such as zoning and other regulatory policies, should be used to control growth (amount and where it occurs) in the county.

Strongly agree *Somewhat agree* *No opinion* *Somewhat disagree* *Strongly disagree*

19. Planning tools, such as tax incentives and other non-regulatory policies, should be used to control growth (amount and where it occurs) in the county.

Strongly agree *Somewhat agree* *No opinion* *Somewhat disagree* *Strongly disagree*

20. The sale of development rights by landowners to private entities or the sale of conservation easements should be used to reduce the impacts of future growth in the

county. (Conservation easements are individualized restrictions on a particular parcel voluntarily entered into by a land owner)

Strongly agree *Somewhat agree* *No opinion* *Somewhat disagree* *Strongly disagree*

21. Policies, such as the clustering of houses and avoiding construction in environmentally sensitive areas, should be used to reduce the impacts of future growth in the county.

Strongly agree *Somewhat agree* *No opinion* *Somewhat disagree* *Strongly disagree*

C **WHAT ARE YOUR VIEWS ON NATURAL HERITAGE 2020?** From May 2000 to July 2002, Nevada County's government pursued a planning program known as Natural Heritage 2020 (hereafter NH 2020). (*Please answer the questions to the best of your ability; Tell us what you know or don't know*)

22. To the best of your knowledge, what was the stated purpose or objectives of NH 2020?

23. What, in your impression, was the purpose of this program?

24. When did you first hear/learn about the program?\

25. How did you react to the decision by the county to end the program?

D **WHAT ARE YOUR VIEWS ON THE RECENT COUNTY ELECTIONS?** In November 2002 Nevada County elected two new supervisors to the county's Board of Supervisors. In District 3, Drew Bedwell replaced Bruce Conklin. In district 4, Robin Sutherland replaced Elizabeth "Izzy" Martin. The new supervisors took office in January 2003. In thinking about your response to the following questions, please answer according to how you felt when the election results were finalized and before the new supervisors took office.

26. The outcome of the most recent election for supervisor (October 2002) will be good for the future of development in the county.

Strongly agree *Somewhat agree* *No opinion* *Somewhat disagree* *Strongly disagree*

27. The new Board of Supervisors represents a balanced approach to the issue of land development in the county.

Strongly agree *Somewhat agree* *No opinion* *Somewhat disagree* *Strongly disagree*

28. The previous Board of Supervisors (prior to January 2003) represented a balanced approach to the issue of land development in the county.

Strongly agree *Somewhat agree* *No opinion* *Somewhat disagree* *Strongly disagree*

29. In your opinion, why do you think both of the supervisors running for re-election were defeated?

30. Has your opinion about the new supervisors changed in any way since the supervisors took office?

If you answered yes, please explain:

31. Are you registered to vote (circle one)? Yes / No

32. Did you vote in the most recent county election? Yes / No

E **In this section, please think about your attitudes toward Nature.**

33. Please indicate your level of agreement with the following statements (please check the appropriate row and column)?

	Strongly Agree	***Agree***	***No Opinion***	***Disagree***	***Strongly Disagree***
Humans have the right to alter nature to satisfy wants and desires.					
Although nature has value by itself, humans are more important than nature.					
Humans have a duty to conserve nature for future generations.					
Nature will blossom, if people interact with it appropriately.					

Humans should adapt to nature rather than modify it suit them.					
Humans should not dominate nature, but work together with nature as a partner.					
Humans have a moral duty to ensure that plants and animals have a place to live.					
I would like to spend a summer alone in the high Sierra, feeling at one with my surroundings.					
Nature is very important for its spiritual powers.					

F In order to help classify your data, we need some basic information about you. Please remember that *none* of this information will be released to *anyone* else, and we will never cite you by name.

34. In what year were you born? _____

35. Are you male or female? M / F

36. What is your annual income (for adults living in your household)(please circle one)?

<15,000 *15,000–24,999* *25,000–39,999* *40,000–69,999* *70,000–99,999* *>100,000*

37. Political Party Affiliation: _____

38. Primary Income source: _____

39. Secondary Income source: _____

40. Number of people in your household: _____ (Adults: ____ Children: ____)

41. Do you own the property on/home in which you live? Own / Rent / Other:

_____

42. Do you own other properties in Nevada County? Yes / No Number of Acres: _____

43. Please indicate the highest level of education you have attained (for example, high school, undergraduate degree, professional degree, graduate degree):

_____

44. Do you live in Nevada County (please check one):

_____ Full-time→ When did you (or your family) first begin *residing* in Nevada County? (Year) _____

Where did you live prior to coming to Nevada County? _____

_____ Seasonally

_____ Only occasionally

_____ Never

45. What attracted you (or your family) to Nevada County? (Please rank: 1=most important; "N/A"=not applicable)

_____ Scenic/environmental qualities and/or open space

_____ Recreational opportunities

_____ To "get away from the city"→ Please specify (pollution, crowding, etc.)

_____

_____ Feeling of rural community

_____ Natural resources→ Please specify (farmland, timber, etc.): _____

_____ Other→ Please specify: _____

Please let us know if you have any other comments:

_____

_____

_____

THANK YOU *for taking the time to answer this survey!!* We will be continuing our study, including interviewing interested landowners. *If we may contact you again in the future, please write your name, phone number, and best time to reach you* (we will NOT give this information to ANYONE else: we are prohibited by law from doing so.).

Name: _____ Phone Number: _____ Good Time to Call: _____

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