

**Land Trusts and Private Land Conservation:  
A Trans-Atlantic Comparative Analysis of the  
Ethics-Economics-Policy Paradigm**

**By**

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## **DECLARATION**

I hereby declare that this dissertation has been composed by me and that all work presented in this dissertation is my own, unless specifically stated otherwise.

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## ABSTRACT

Research carried out in the UK and US investigated land conservation from a multidisciplinary perspective. The primary focus is on conservation on private lands, and concentrating on the role of non-profit sector land conservation organisations. The work explores the role that an integrated decision-making framework could play in this sector, and lays an appropriate base for future development of such a framework, termed the Integrated Land Conservation Decision Support (ILCDS) model.

This work is grounded in the fact that many land use decisions have greater long-term impacts that are more absolute than most other private and governmental choices. Evaluation of attitudes and values of mainstream populations toward land use and conservation was conducted through, focus groups, surveys and interviews. These evaluations were coupled with an investigative assessment of legislation in the UK and US.

Central to this study was the multifaceted exploration and analysis of the dimensions, differences, commonalties, and fragmentation of private sector land protection in the UK and US. By enriching the evaluation in this way, the study identifies both the absence of, and the need for an appropriate analytical framework for evaluating long-term private sector land conservation decisions. Interviews were used to examine the experiences of land trusts and to evaluate the validity and utility of an integrated decision-support tool, as the ILCDS model.

This thesis addressed, and realised, the objective of presenting and examining *the ethics-economics-policy paradigm* in the contextual setting of private land protection efforts of land trusts in the US and UK. The underpinnings that embody the paradigm as it relates to establishing the framework for the ILCDS model were mapped out for the purposes of identifying specific directions for future development of the decision-support model. The information represents a holistic assessment of the beliefs, logic and values embedded in the mainstream UK and US populations on land use and conservation issues.

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## List of Abbreviations & Acronyms

AFT	American Farmland Trust (US)
AONB	Areas of Outstanding Natural Beauty (UK)
APA	American Planning Association
ARC	American Rivers Conservancy (US)
ASI	Areas of Scientific Interest
CARTs	Conservation, amenity and recreation trusts (UK)
CCS	Countryside Commission for Scotland
CCW	Countryside Commission for Wales
CERCLA	Comprehensive Environmental Response, compensation and Liability Act (US)
CEV	Conservation Easement Value
COCS	Cost of Community Services Studies
CWA	Clean Water Act (US)
EC	European Community
EN	English Nature
ESA	Environmentally Sensitive Areas (UK)
ESA	Endangered Species Act (US)
EU	European Union
FMV	Fair Market Value
ILCDS	Integrated Land Conservation Decision Support Model
IRC	Internal Revenue Code (US)
IRS	Internal Revenue Service (US)
JNCC	Joint Nature Conservation Committee (UK)
LLI	Land Legacy Initiative (US)
LNR	Local Nature Reserves(UK)
LPO	Limestone Pavement Order (UK)
LTA	Land Trust Alliance (US)
LWCF	Land And Water Conservation Fund (US)
MA	Management Agreements
MNLT	Minnesota Land Trust (US)
MSLT	McDowell Sonoran Land Trust
NCC	Nature Conservancy Council (UK)
NEPA	National Environmental Policy Act (US)

NHA	Natural Heritage Area (Scotland)
NNR	National Nature Reserve (UK)
NPACA	National Parks and Access to Countryside Act (1949)
NPC	National Parks Commission (UK)
NPF	National Parks Foundation (US)
NPGs	National Planning Guidelines (UK)
NRCS	Natural Resource Conservation Service (US)
NT	National Trust for England, Wales and N. Ireland
NT (S)	National Trust for Scotland
PACE	Purchase of Agricultural Conservation Easement programs (US)
PAN	Planning Advice Note (UK)
PDO	Potentially Damaging Operation (UK)
PDR	Purchase of Development Rights (US)
PPG	Planning Policy Guidelines (UK)
RAP	Reserve Acquisition Policy (UK)
RCRA	Resource Conservation and Recovery Act (US)
RSPB	Royal Society for the Protection of Birds (UK)
SAC	Special Areas of Conservation (UK)
SEPA	State Environmental Protection Acts (US)
SINC	Site of Importance for Nature Conservation (UK)
SNH	Scottish Natural Heritage
SPA	Special Protection Areas (UK)
SPNR	Society for the Protection of Nature Reserves (UK)
SSSI	Site of Special Scientific Interest (UK)
TCPA	Town and Country Planning Act (UK)
TNC	The Nature Conservancy (US)
TOPT	The Oxford Preservation Trust (UK)
TPL	Trust for Public Lands
TSCA	Toxic Substances Control Act (US)
UCEA	Uniform Conservation Easement Act (US)
USDA	United States Department of Agriculture
UWT	Urban Wildlife Trust (UK)
WCA	Wildlife and Countryside Act (UK)
WVWA	Wissahickon Valley Watershed Association (US)



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**CHAPTER 1**

**INTRODUCTION**

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## CHAPTER 1

### Introduction

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#### 1.1 Prologue

Since the day when, according to Genesis, "the Lord God took man and put him in the Garden of Eden to dress it and keep it" (Genesis, Ch.2: 15) people have responded in the course of everyday living as much to their physical surroundings as to the social, as much to land and the things on it as to other people. If it is true by another view that life began with water, it none-the-less rests on land and the places where we live, work and play are central to our values.

The focus of this thesis is grounded in the fact that many decisions about land use have greater long-range impacts that are both more extended and fast than most other private and governmental choices. Although it may very well be, that what we are able to do with land depends considerably on the decisions of the past, the choices we have yet to make will influence the way of life for our children and generations to come. In 1974 Clifford C. Nelson, President of The American Assembly on Land Use, stated:

"The decision-making process in American land use that has served the past will not serve the present and future. As we face new problems, we must think and act anew."

In the intervening years, little actual progress has been made and both the UK and the US continue to place greater demands on their land resources. It is only in the past decade or so that we have come to know that some of our most ecologically vulnerable and valuable land resources have not been adequately protected.

## 1.2 Focus and Hypotheses

This thesis and associated research centres on non-profit sector land conservation in the UK and US and is represented by the following hypotheses which will be evaluated through a triangulated approach using both qualitative and quantitative methods:

- 1) That conventional tools and techniques used in the land trust conservation decision-making process are inherently flawed in that they frequently focus exclusively on the bioecological to the exclusion of social values (i.e. community attitudes) and economic information.
- 2) That in order to make sound judgements on the perpetual protection of limited land resources, land trusts require an integrated decision-making approach that extends beyond traditional bioecological constraints and incorporates both qualitative social and quantitative economic information.
- 3) That revised decision-support models and evaluation methods comprised of a broader data set than is currently employed are necessary both to replace and complement existing bioecological and environmental evaluation procedures within the private non-profit land conservation sector.

The evidence, discussion and observations presented in this thesis are at the forefront of research into the issues cited above. Throughout the thesis appreciation is given to the fact that while research has priorities distinct from practice, when making long-term decisions on the use of land the latter must remain critical, and its intrinsic biases, presumptions and procedures must be regularly reviewed in light of new information and technologies.

### 1.3 Examinations Undertaken

In order to thoroughly address the hypotheses a series of examinations is undertaken. They include:

- a comparative analysis of attitudes toward land use and conservation issues at the forefront of public consciousness in the UK and US,
- an evaluation of current land conservation laws and policies in the UK and US, particularly as they apply to the private non-profit sector land conservation,
- an exploration into both the development and usefulness of an integrated land conservation decision-support tool, and
- an assessment of composite frameworks (e.g. values, policies, attitudes, willingness to contribute/support, etc.) pertaining to land use and private non-profit sector land conservation for the UK and US.

To obtain the diversity of data necessary for such investigations an extensive multi-phased survey technique was employed in both the UK and US.

It is as appropriate here as anywhere to say that the exploration into private land conservation efforts in both the United States and Britain, in light of this multi-faceted paradigm was planned from the outset. The primary purposes were to evaluate the dimensions, commonalties, differences, and fragmentation of the protection of private lands in the UK and US. By enriching the evaluation in this way the discussion and conceptual model developed bring about an appropriate platform for enhancing private land conservation efforts in both countries.

## 1.4 The Structure

Chapter Two presents the conceptual framework for the Integrated Land Conservation Decision Support (ILCDS) model. The model developed through this research is discussed early in the thesis as it exemplifies an appropriate fundamental structure for a decision–support mechanism that arises from the above hypotheses and is important in rationalising various aspects of the overall discussion in context. As revealed through coverage of the conceptual ILCDS model the complexity of the underlying concepts is clear.

Chapter Three comprises a review of current land conservation legislation and policies in the US and Britain. This assessment further demonstrates the complexity and dynamic nature of the ethics-economics-policy paradigm. The apparent motivations, linkages and ‘blame’ for the sprawling development patterns that have charmed the U.S. since the close of WWII and more recently embraced in Britain are addressed.<sup>1</sup> While balancing the pros and cons of a proposed action seems like a common sense approach to decision-making, in both the US and UK it is frequently not embodied in the legislation. At the heart of the conundrum, is that the regulations, policies, ordinances and plans that govern the use of private land, focus on *how* the land will be developed, not *if* it should be developed. The essential purpose of regulation is therefore, not to conserve land but to see to it that developments are of the desired type and intensity, that design criteria are met, that local infrastructure can handle the increased load, and that the effects on services, and taxation are considered. Despite this and other flaws, both countries have promulgated, at various levels, a multitude of land use laws over the past several

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<sup>1</sup> Sprawl must be clearly defined at the outset as it reoccurs throughout the thesis and it is not just any form of suburban growth, but a particular form. Technically, it is low-density development beyond the edge of service and employment, which separates where people live from where they shop, work, recreate, and go to school, thus requiring cars to move between zones. An inductive derivation from literature on “sprawl” centres predominantly on ten characteristic traits of sprawl which include: 1) unlimited outward extension, 2) proliferation of low-density residential and commercial settlements, 3) fragmentation of power over land use among a number of small communities, 4) leap frog development, 5) no centralised planning, 6) dominance of transportation by private automobiles, 7) widespread strip commercial development, 8) great fiscal disparities among localities, 9) segregation of types of uses in different zones, and 10) reliance predominantly on trickle-down process to provide housing for low-income households. Gustanski, J.A. (2000 *b*) “Land Trusts and Conservation Decision-making: The Integrated Land Conservation Decision Support Model”, in *Protecting the Land: Conservation Easements...past, present & future*, Island Press: Washington, DC (in press).

decades. This substantial body of legislation has at its core the purpose of protecting, and providing for the conservation of important land resources.

Due largely to their focused remit, current land use policies tend to exemplify the less than holistic nature of mechanisms devised and used by conservation organisations and agencies to guide them in the decision-making process. The policy analysis furthers the identification of the clear need to broaden the data set beyond conventional boundaries of the ranking tools so frequently used in evaluating lands for long-term conservation.

In that much of the work of this thesis is dedicated to learning from the experiences of both nations, particular attention is given to a unique piece of US federal legislation, the Uniform Conservation Easement Act (UCEA) and its various state counterparts.<sup>2</sup> The UK does not currently have such universal enabling legislation as that of the UCEA. The UCEA has proved to be instrumental in perpetually protecting millions of acres of private land since the 1980's in America. The success of this legal mechanism and the tax benefits it bestows on its grantors has now fostered the adoption of similar legislation in the majority of Canadian provinces to promote the protection of private lands within their jurisdiction. While a full-scale evaluation of this legal tool is out with the scope of this thesis considerable attention is due given the defined private sector boundaries.

Chapter Four focuses on the triangulation of methodologies used to construct the required data set. The multi-phased survey approach used centres on eliciting reliable qualitative information that addresses public opinion and values as well as

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<sup>2</sup> Conservation easements will be covered in greater detail in Chapters 3, and 7, it is however useful here to identify their general characteristics. A 'conservation easement' is a less than fee non-possessory interest in a parcel of land created by deeds executed with the same formalities associated with the other forms of real estate conveyances. While conservation easements can be conveyed in the US by a landowner, to either a qualified tax exempt 501(c)(3) land trust or, a government agency, it is a growing band of the former that have capitalised on the strength and flexibility of this land protection tool. US Code, Title 26 §170 (h).

Conservation easements are assumed to be perpetual. However, the term of any specific easement may be limited to a fixed period of time or ended upon the happening of a specific event, such as the extinction of a species for which the protected land serves as a habitat. The easement may also give the parties the authority to modify its terms by mutual agreement.

Conservation easements may be enforced by the original grantor of the easement, the land trust or public agency to whom the easement is granted, or a third party specifically named in the agreement.

the associated processes, tools and techniques used by land conservation organisations in the US and Britain. Throughout the thesis, discussion refers to the use of both *qualitative* and *quantitative* information, however here attention is given to that of the qualitative realm. This is based on the premise that data-type is determined by appropriate representation. Which is to say, that while quantitative data alone may be sufficient for conducting a Cost of Community Services Study (COCS), an ecological evaluation or a risk assessment for example, they are not appropriate for eliciting or explaining the complex set of connections, sentiments and emotions that arise at the individual, or collective community level.

Phase I began with a series of focus groups conducted in the US and UK. The use of focus groups allows for the combination of many different aspects of qualitative research and adds the complexity of group interaction appropriate to this research (Kruger, 1998). The information distilled from the focus groups resulted in the Phase II mail survey. Phase III consists of a series of 135 total interviews, approximately a 10% sampling of known land conservation organisations in the US and Britain. The data set derived from these processes was not available in any clear form and could not have been developed using existing information. It is worth noting here that the data obtained from the three-phase process significantly outweighs that which is actually used in this thesis and should be of value to future research efforts.

Chapters Five, Six and Seven detail the findings of the various survey methods employed. In addition there is a comparative element that seeks to identify differences, commonalties and patterns between attitudes towards land use and conservation in the US and Britain.

These three chapters discuss the main findings of the multi-phased survey process and comprehensively establish the need to incorporate the social context of community values into the decision-making process. A series of twelve semi-structured urban/suburban and rural focus groups conducted between March and June 1996 were used to examine and define the range of land use and conservation issues at the forefront of the public consciousness in the UK and America. With the aim of revealing factors, issues and concerns the information distilled from the focus



groups was used to develop the issue set that accompanied the Phase II mail survey. The mail survey served to both clarify various issues and to provide a route to quantitative measure. The mail survey was substantively uniform for the US and Britain and was distributed between June and August 1996.

Chapter Seven centres squarely on the organisations at the heart of private sector land conservation efforts—land trusts.<sup>3</sup> The scope and context of land trusts in the US and conservation and amenity recreation trusts, their counterparts in the UK are presented. For the purposes of this thesis and simplicity, the term *land trust* is predominantly used. Heightened public concern over the past several decades has forged the way for many of the successes and the increasingly important role played by these organisations. Though the intent is not to fully document and analyse the work of land trusts, some understanding of the roles they play and the tools, techniques and mechanisms currently available (largely through enabling legislation) helps to frame the context of the ethics-economics-policy paradigm. To accomplish this succinctly Chapter 7 enters the scrutinising monocle of the land trust sector. The chapter both provides a brief background for understanding land trusts (Section 7.2) and explores, analyses and presents the results of the Phase III expert interviews conducted in the US and UK (sections 7.3—7.6). Again, the conservation easement is discussed in light of its actual use, and reflection is given to the success this tool has had over the last several decades in the US. The latter sections of the chapter explore foundations from the land trust sector in support of full-scale development of the ILCDS model.

The concluding chapter, Chapter Eight summarises the conceptual framework of the ILCDS model presented in Chapter 2 in light of the ethics-economics-policy paradigm, the legal analysis, and results obtained from the Phase I focus groups, Phase II mail surveys, and Phase III expert interviews. The usefulness of the conceptual framework is examined and new questions raised from the current research are briefly explored. In closing, future research directions are proposed and

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<sup>3</sup> Land trusts are typically non-profit conservation organisations that work predominantly with private landowners to protect their land for conservation, recreation, and other public benefit purposes. See Chapter 7.



the current work's contribution to both understanding and forging a new direction in 'valuing' private lands for conservation purposes is assessed.

The structure of this multidisciplinary thesis differs somewhat from a more traditional approach in two principal ways. First, the conceptual integrated decision-support model that arises from the hypothesis and ensuing research is presented early in the thesis rather than at the close. This structure enables a more cohesive understanding of the connections between of the various elements of the ethics-economics-policy paradigm in context as well as providing discussion to assist in rationalising various aspects of the overall discussion. Secondly, the dimensions of this work do not present a format that embraces a solitary literature review structure; thus, discussion of existing literature applicable to the various aspects of this multidisciplinary work is appropriately interwoven throughout the thesis.

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## CHAPTER 2

### **An Alternative Paradigm and the Conceptual Framework for the Integrated Land Conservation Decision Support Model**

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Adapted from: Gustanski, J.A., Edwards-Jones, G. and Squires, R.H., **The Ethics-Economics-Policy Paradigm: the foundation for an integrated land trust conservation decision-support model**, *Urban Ecosystems, Special Issue, Vol.3(4)*, Jan. 2000. (*in press*)

(See Appendix 2-1)

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## CHAPTER 2

### **An Alternative Paradigm and the Conceptual Framework for the Integrated Land Conservation Decision Support Model**

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#### **2.1 Restatement of Hypotheses**

- That conventional tools and techniques used in the land trust conservation decision-making process are inherently flawed in that they frequently focus exclusively on the bioecological to the exclusion of social values (i.e. community attitudes) and economic information.
- That in order to make sound judgements on the perpetual protection of limited land resources, land trusts require an integrated decision-making approach that extends beyond traditional bioecological constraints and incorporates both and qualitative social and quantitative economic information.
- That revised decision-support models and evaluation methods comprised of a broader data set than is currently employed are necessary both to replace and complement existing bioecological and environmental evaluation procedures within the private non-profit land conservation sector.

#### **2.2 Prologue**

To protect, or not to protect that is the question. Given limited human and financial resources, land trusts are frequently faced with choices. Such decision-making requires that choices be made between diverse interests. These decisions often encompass complex and interrelated biological, cultural, and economic issues and present several important questions. Are we making sound decisions in the lands we choose to protect? What is current community sentiment towards the lands under consideration? What are the social and economic implications for the community if the lands are protected versus left available for development? To what extent do we try to integrate the choices or decisions about protecting lands in our community with

local and regional long-range plans? These are questions that increasingly private non-profit land trusts and their public counterparts are having to answer—yet the tools to adequately and judiciously assist them do not currently exist.

As Chapter 3 will illustrate, a melange of legislation and programs are now in place in the UK and the US to protect a diversity of land resources. At the heart of many of these efforts are the more than 1,200 (US) and 170 (UK) local, regional and national land trusts that either facilitate the protection of lands through tools like the conservation easement, management agreements, ownership or in supplement to public agency efforts (Dwyer and Hodge, 1996; Land Trust Alliance, 1998; and, Gustanski and Squires, 2000). While such efforts generally receive broad public support, no formal examination of the interwoven linkages between social and economic values, policies sanctioned through our laws and land conservation has been made. Here the conceptual integrated land conservation decision-support (ILCDS) model is introduced.<sup>1</sup> Aims of the model, as prescribed by the ethics-economics-policy paradigm, are to integrate concerns of economic efficiency, equity (between and within generations), behavioural models of resource use and ecological integrity, and other patterns of human and economic development within a private land—land trust context.

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<sup>1</sup> The need for local input and participation in land conservation measures and assessment of benefits generated is a critical component to the success of the more than 1,200 land trusts throughout the US and the 140 or more such organisations in the UK. The land trust model restores a level of local responsibility for managing the bioecological resources of the community that have been traditionally removed from the local people and transferred to central government agencies in offices in distant cities. In the past, abrogation of these responsibilities has frequently removed local communities from the decision-making process, resulting in the local communities being not only removed from the process, but with feelings of deep seated apathy.

## 2.3 Introduction

Land—this single word has any number of connotations. It signifies solid ground, the physical environment at large, a rural farmstead, an urban industrial site, public and private property and for some, it holds deep personal meanings. This diverse association of ideas about land shows the extent to which the concept is interwoven with culture and points clearly to differences in the perceptions and values toward land in society (Norton, 1994). These differences in turn give rise to some very difficult land use issues and conflicts.

The purpose of this chapter is to present and examine the *ethics-economics-policy paradigm* in the contextual setting of private land protection efforts of land trusts in the UK and US. Here the theoretical underpinnings that embody the paradigm as it relates to establishing the framework for the conceptual development of an Integrated Land Conservation Decision Support (ILCDS) model are presented. Relative findings from Phase I focus groups, Phase II mail survey, and Phase III expert interviews were used in the development of the ILCDS model. The conceptual design approach used aims to develop a format useful to both those working with the day to day complexities of protecting private land resources as well as those working within the arena of policy advancement.

The organisational challenges and complexity of the paradigm in this context are discussed. Attention is given to the issue of land tenure as it relates to individual stewardship responsibility and the protection of private land resources and the development of the ILCDS model. Discussion throughout the chapter seeks to tie together various aspects of these multifarious elements that are inextricably bound. In drawing together these compound issues that emanate from our interaction and relationship with the land the structure for the ILCDS model is put forth.

### 2.3.1 Setting the Context

To set the context of this chapter and thesis, clarification and familiarisation of the role of both land trusts and their work, particularly in the protection of private

land resources, is important.<sup>2</sup> Land trusts in both the UK and the US are predominantly local, regional, or state-wide non-profit organisations that work with private landowners to protect their land for conservation, recreation, and other public benefit. They work to conserve land that is important to the communities and regions in which they operate by undertaking or assisting direct land transactions.<sup>3</sup> Such transactions may include land acquisition, conservation easements, management agreements, or other interests in real property that enable public benefit from the land.

Lands acquired or otherwise protected by land trusts may include, but are not exclusively limited to; scenic vistas, urban parks, gardens, greenways and wildlife corridors, open space, wetlands and groundwater recharge zones, farmland, cultural and historic lands, habitat, and river corridors. Each land trust has its own mission statement, specific to its setting and region, though there is a common intent among land trusts—the protection of land resources.<sup>4</sup> The Grandfather of all land trusts, The Trustees of Reservations, in Massachusetts, was formed in 1891, to protect the parkways in and around Boston designed by the renowned landscape architect, Frederick Law Olmsted, Sr. (The Trustees of Reservations, 1997).<sup>5</sup> Whether in 1891

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<sup>2</sup> Over the past two decades, a vast body of laws and resulting policies in both the US and UK have been promulgated to protect a range of environmental concerns. Much of this body of legislation has at its core the purpose of providing for the conservation of important land resources. These policies, laws and regulations attempt to address predominant values of a society, and many aim to manoeuvre private landowners in the direction of protecting their land through various tax incentives, and market interventions. For example, in the US, the federal government encourages the conservation of land through the federal income tax code IRC § 170(h). See also, Uniform Conservation Easement Act (UCEA) §1 *et seq.*; Title 26 USC § 170 (h). In addition, 46 states have now adopted some form of conservation easement enabling legislation. Many have also enacted complimentary public programs to protect land resources using conservation easements.

<sup>3</sup> The terms “community” or “communities” as used throughout refer both to the place in which people live, and collectively to the people themselves. Individuals within a community interact with each other, share a sense of a common future, if not a common past, and work together to help meet each other’s needs and promote the common welfare. Community dimensions may be urban, suburban, ex-urban, or rural.

<sup>4</sup> Although, for example, the Federal Constitution of the US makes no reference to environmental rights or responsibilities. In the National Environmental Policy Act (NEPA), Congress recognised that “each person should enjoy a healthful environment and that each person has a responsibility to contribute to the preservation and enhancement of the environment.” Title 42 USC § 4331 (c).

<sup>5</sup> This Boston-based organisation began in response to land development spurred by a growth in US population from 38 million to 76 million between 1870 and 1900.

or 1991, land trusts have formed largely in response to two predominant factors, rapid population growth, and the development of land.

As of mid 1998, more than 1,200 land trusts were operating in the US, providing protection for some 1.9 million hectares (4.7 million acres) of land across the country (Land Trust Alliance, 1998). In Britain, land trusts number approximately 125 conservation, amenity and recreation trusts (CART's); though fewer in number than in the US their efforts are no less remarkable, with over 525.2 thousand hectares or 1.3 million acres (2.7% of the land area) of protected lands as of 1990 (Dwyer and Hodge, 1996). While there are no hard and fast figures attached to those organizations working exclusively to protect urban land resources, a quick study of location reveals that a vast majority of both UK and US organizations are located within urban centers and in those regions experiencing the greatest development pressures. From Birmingham, England to Houston, TX, and from Los Angeles to London, land trusts have undertaken an array of projects to promote urban open space and programs to improve recreational and environmental education opportunities for the communities in which they reside.<sup>6</sup>

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<sup>6</sup> Interviews with: Dr. Simon Lyster, Director General, The Wildlife Trusts, London, July 1997; Chris Parry, Birmingham, Urban Wildlife Trust, June 1997; David Behm, Executive Director, Legacy Land Trust, Houston, TX, May 1998; and Andy Hammer, Executive Director, Palos Verdes Peninsula Land Conservancy, Los Angeles, May 1998.



### 2.3.2 Issues of Land Ownership: understanding connections, expectations and obligations in context

Key to the alternative ethics-economics-policy paradigm<sup>7</sup> is the appreciation that the success of efforts to conserve private land is dependent on the willingness of landowners to refrain from exercising some of the rights of ownership in the interest of the public good (Gustanski, 2000 *a*).<sup>8</sup> Similarly, understanding the important role of, and emphasis placed on, the protection of private lands is fundamental. The total landmass of the US is approximately 929.2 million hectares, of which approximately 262 million hectares, or 28.2 percent, are owned and/or managed by the Federal Government, with about another 105 million hectares, or about 11.3 percent, held by state, county and other governmental divisions (U.S. Bureau of the Census, 1991; U.S. Department of Agriculture, NRCS, 1992; U.S. Department of the Air Force, 1994; U.S. Department of the Interior, 1994, and 1995; and U.S. National Park Service, 1994). The remaining 562.2 million hectares, about 60.5 percent, is privately held. In the UK, the figures are even more revealing, with approximately 7.67 million hectares, or one-third of the total 22.78 million hectares of land held by national, regional or other governmental divisions (Whitman, 1996; HMSO Land Registry, 1996; Ministry of Defense, 1998; Department of the Environment, 1998: *pers. com.* Belcher, 1998). The remaining 15.11 million hectares, about 66 percent, is privately held.

With nation-wide averages for both countries of 60% or more of the total land mass held in private ownership, one might ask why, then, has the conservation of

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<sup>7</sup> It is useful here to address what is intended by “paradigm”. Paradigms are defined either as models or patterns, or as ways of thinking about or valuing situations, or as a framework that defines a set of rules we live by. Some consider a number of paradigms to be in force at any given time, and others look only at the significant or ubiquitous ones. The important factor is to recognise when shifts occur between the major paradigms, so we can operate in the context of future changes rather than in the past. The alternative paradigm proposed here, the ethics-economics-policy paradigm, calls for changes in the relationships among governments, non-profit land conservation organisations, and communities. It shifts the debate and responsibility for land conservation from the public to the private realm, together with traditional attendant conflicts, and firmly grounds questions of community goals and values, while encouraging constructive partnerships during the implementation of wide-ranging community land use goals. This paradigm shift has significant implications for land trusts, and calls to question traditional decision making methods employed.

<sup>8</sup> Conservation of privately owned land, in context, involves the owners’ voluntary surrender and/or assignment of certain property rights to protect the land from an undesired use over the long term.



land resources historically been expected to be principally a function of government rather than that of private landowners? Although outside the boundaries under examination, this question must stay in the frontline of our consciousness during our explorations.

This history in both the UK and US has essentially had the effect of requiring governments to respond by setting aside land to be held in its natural state or for a variety of recreational uses. To the extent possible, the respective governments have addressed concerns about a host of environmental impacts by limiting potentially damaging activities, including unwanted development, principally through regulation. However, the past two decades have seen a shift in interests and public attitudes.<sup>9</sup> New demands have been placed on the protection of privately owned lands—an interest that plays an important role in complementing government efforts. This interest in the protection of private land and the concept of stewardship has invoked a surge of land trust activity in both the UK and US.

The increased effort and interest in protecting privately held lands has occurred for a number of reasons, including;

- 1) Economic development of the past several decades has resulted in sprawling development patterns. This has effectuated the destruction of forest, agricultural and historical lands, wetlands and other ecologically important lands, to the point of near elimination in some regions of the US, making conservation imperative a “now or never” proposition a literal reality.<sup>10</sup>

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<sup>9</sup> Attitudes, refer to the extent to which a person agrees or disagrees with a certain action or concept; a learned disposition manifesting itself in a general state of readiness either to itself or to react toward an object or class of objects in either a favourable or unfavourable manner in a more or less consistent and characteristic way.

<sup>10</sup> Sprawl must be clearly defined at the outset, as it is not just any form of suburban growth, but a particular form. An inductive derivation from literature on “sprawl” centres predominantly on ten characteristic traits of sprawl which include: 1) unlimited outward extension, 2) proliferation of low-density residential and commercial settlements, 3) fragmentation of power over land use among a number of small communities, 4) leap frog development, 5) no centralised planning, 6) dominance of transportation by private automobiles, 7) widespread strip commercial development, 8) great fiscal disparities among localities, 9) segregation of types of uses in different zones, and 10) reliance predominantly on trickle-down process to provide housing for low-income households.

- 2) The real market value of private land, particularly in urban areas, has risen dramatically at the same time government's fiscal resources have been depleted.
- 3) Many people who have acquired land in the past few decades are now trying to make plans for the future, wanting to ensure that some or all of their land is protected.
- 4) Environmental awareness has generally increased in the last 25 years.

With the pressures of urbanisation it is apparent that the undeveloped land that is left to an owner's beneficiaries—no matter how well intentioned those beneficiaries are—will come under intensive pressure for development if protection measures are not taken now.

As the figures tell, millions of hectares of *private* lands have been protected throughout the UK and the US through the efforts of land trusts, yet, there remains no documented measure to support their important role—thereby leaving a substantial gap in our understanding of the balance, connections, expectations, and obligations between landscape and society.<sup>11</sup>

Traditionally, regulations, policies, and plans governing the use of private land have focused on *how* the land will be developed, not *if* it should be developed. From the earliest modern application of the land-use zoning power in the US initiated in 1867 in San Francisco, to Britain's Town & Country Planning Act of 1949, and subsequent revisions, the principle purpose of regulation has been, not to conserve land but to assure that developments are of the desired type and intensity, that design criteria are met, that local infrastructure can handle the increased load, and that the effects on services, and taxation are considered. More recent examples echo similar ideologies. “The most fundamental policy of the Santa Clara County General Plan pertains to countywide strategy for managing and accommodating urban growth and

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<sup>11</sup> Protected area or land, as defined under Article 2 of the International Convention on Biological Diversity, is a ‘geographically defined area which is designated or regulated and managed to achieve specific conservation objectives. We expand this definition by requiring that land so designated, be “legally” protected from activities which would adversely affect the natural, agricultural or open space attributes of the land resource.

development” (Santa Clara County Planning Commission, 1994). In the UK, the 'Development Plan' has never been so important since the law now requires that all development should fall within the guidance of the local development plan (Town and Country Planning Act, 1990). Planning Policy Guideline 1 (PPG1), also reaffirms the role of the planning system in meeting the needs of a growing and competitive economy, in providing for new development.

The constructs of the conventional paradigm, which implements government policies, planning and development controls, agricultural policy, and taxation structures, has been largely responsible for the way in which lands have been used (Dwyer and Hodge, 1996), protected, and otherwise managed (Gustanski, 1997). For any number of reasons, the traditional government-driven regulatory paradigm that attempts to coerce people to protect land often falls far short of intended government program goals. Principal among these is our failure to realize that conservation has more to do with socio-economics and psychology than ecology, planning theory, and law. As Eckholm (1976) states, “Land use patterns are an expression of deep political, economic and cultural structures; they don’t change overnight when an ecologist sounds the alarm that a country is losing its resource base.”

The emerging metaphysics of conservation is a call to ethical responsibility, focusing squarely on the values that are a requisite to a just and sustainable world.<sup>12</sup> These ‘values’ should not be confused with mere individual preferences. They arise naturally and continuously from the act of our participation in community and in nature.

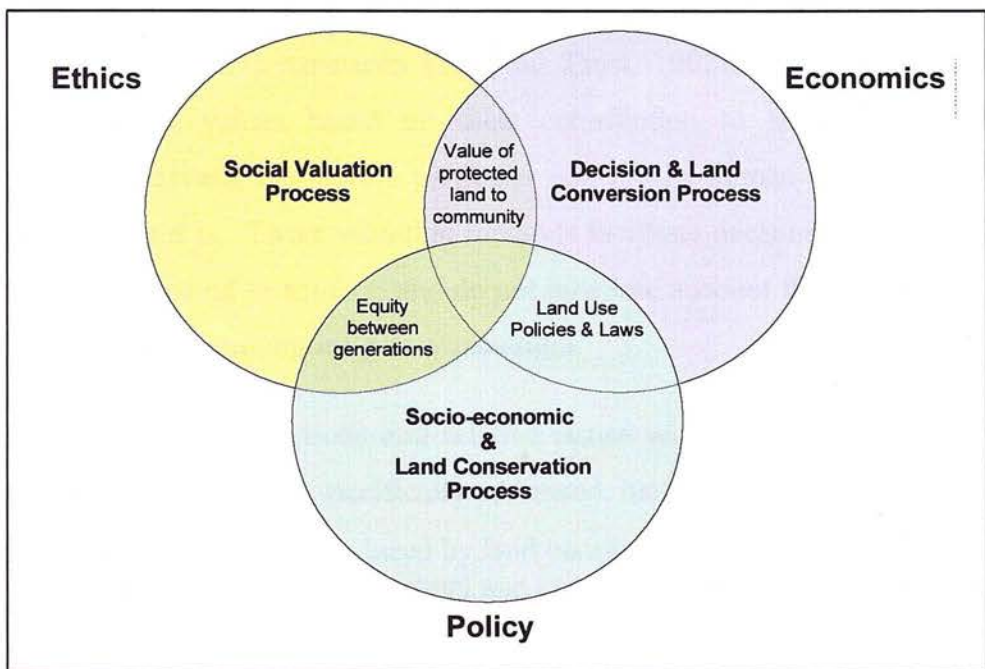
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<sup>12</sup> The distinction between value in use and value in exchange was first developed by Aristotle in his *Politics*, and was elaborated on by Adam Smith in his *Wealth of Nations*. Interestingly, however, Aristotle did not advocate the design of social systems according to the maximisation of value in use. Rather the common good could be achieved only by limiting wants and desires. Wants were relevant only so far as some basic goods - agricultural goods and necessities - were concerned. Thereafter, denial of wants was necessary to achieve the common good. To some extent therefor, Aristotle advocated a ‘limits to growth’ viewpoint some environmentalists find attractive to this day. The ‘theory of value’ in economics is, however, about the theory of determining value in exchange. Value in use is, of course, essential for exchange to take place; otherwise, there would be no incentive for exchange. See Allingham, M. (1982) *Value*, Macmillian: London.

### 2.3.3 Forging an Alternative Paradigm

What does this mean in terms of forging an alternative paradigm for land conservation leadership into the 21st century? This challenge to the land conservation community calls for the design and application of integrated transdisciplinary models such as the ethics-economics-policy paradigm (Figure 2.1). Within the context of land trusts and private land conservation, the alternative paradigm establishes the foundation for development of a decision-support system that integrates concerns of economic efficiency, inter and intra-generational equity, resource use, and ecological integrity, along with other patterns of human and economic development.<sup>13</sup> Concepts and applicable modules characterised by the paradigm represented in Figure 2.1 are covered later in the chapter.

Figure 2.1. Land use decision-making & the ethics-economics-policy paradigm



<sup>13</sup> While it is likely that the model may be successfully used by other resource managers and planners alike, the scope of discussion herein is limited to that of the subject research in which land trusts are the primary focus. Economic systems such as those organised around markets naturally attempt to achieve efficiency. Whether or not they also achieve equity is a purely coincidental matter. Equity or its negative inequity differs from equality or inequality in that they are matters of value judgement, whereas the latter are factually descriptive and refer to distribution.

Through analysis of the ethics-economics-policy paradigm, the objective here is to lay the foundation for development of an affordable, user-friendly decision-support tool to empower land trusts in proactive planning, enhance their ability to justify particular decisions made, and to garner public and political support.

## 2.4 Theoretical Issues

The key question in the conservation of land resources is whether or not a particular parcel of land should be protected. Such decision-making requires that choices be made between diverse interests. These decisions often encompass complex and interrelated biological, cultural, political, and economic issues. In an effort to make sound choices, past practices have commonly been made by evaluation systems to numerically rank certain features of a property proposed for protection or by assigning market values to objects and activities as a means of choosing the best option—as in cost-benefit analysis or cost of community services studies (Gustanski, 1991; American Farmland Trust, 1992). Tangible goods and services are given values based on their contribution to humanity's growth, development or success; the more a particular end fulfills human wants and needs, the more valuable it is. These valuation methods facilitate decisions by the ranking of one choice compared to another, and do not take into account the broader context set forth by the ethics-economics-policy paradigm.

Other important questions and relative issues within the context of private land conservation, though not specifically addressed, include:

- How can those benefits produced by land conservation efforts that are not directly included in the price of land and constituent environments protected be valued?
- What, if any, role is played by 'anchor' parcels of protected private lands?
- What contribution can protected private lands make to the local or regional economy?
- What scale of land conservation and urban or suburban regeneration is required to generate a potential for satisfying lifestyle demands, which in turn, reinforce the success of private land conservation efforts by attracting people to existing developed core areas over suburban or rural developments?
- What role does conservation play in contributing to the image of a community?



Many important land use questions are now seen as being as much value-based, grounded in cultural preferences constrained only by the feasible range of choice and income, as they are fact-based, founded on scarcity values (e.g., available land versus competing demands). Today, sound decisions are seen as requiring knowledge of not only relevant facts, but also meaningful values (More, et al 1996). Values can be used to make judgments or specify the relationship between things. Rational values involve standards for truth; moral values address standards for conduct; aesthetic values identify standards for appreciation; and spiritual values seek standards for meaning (Freeman, 1993).

The land market and conditions under which buyers and sellers who are both willing and able to negotiate will do so chiefly affect the protection of private land. Humanity values land and its diverse resources for many reasons. First, land is an input to various production processes that generate income (e.g., food, recreation, etc.). Second, land is location where the value derived depends more on its location relative to other economic activities than on the intrinsic character of the land itself. Third, land may be a consumer good, valued for altruistic and/or ethical reasons (Aylward, 1992; Gustanski, 1997). Some may get utility by holding title to land, while others derive value from its scenic character, as habitat for wildlife, or as a place of solace. In this context, its consumption does not diminish the availability of land for the use and enjoyment of others. As part of the character of a place, land is a bona fide public good in that no one may be excluded from enjoying its services and the marginal cost of an additional user is zero.

Public policies or individuals can control the flow of these services, creating different benefits, and costs. For example, an hectare of wetland may trade in the real estate market on the basis of its value for commercial or residential development; however, this value is likely to be significantly different from the value of its services as wildlife habitat, as a means of controlling floods, or as a groundwater aquifer recharging mechanism (Barbier, 1993). Because these services exhibit the neo-classical characteristics of externalities, common property, and public goods, market forces cannot be relied upon for them to reach their highest valued use. This economically recognised failure of the market system to correctly allocate

and price environmental services and resources creates the need for other means of measuring values in order to accurately guide decision-making (Barde and Pearce, 1991; Freeman, 1993). Generally, it is a mixture of these three forms of value that are important to people, forming the basis for a bid against others in competition for the available utility. Important to remember, is that land also has value as an immobile asset due to its scarcity, that may increase or decrease in value over time.

While decision-makers in the UK and the US set policy frameworks, it is in communities and largely on private property that action will take place. Taken on a case by case basis, individual actions may not appear significant, yet the cumulative impacts will shape and determine the future of the community. The ethics-economics-policy paradigm invokes the need to listen to the views of the people who are most directly affected by changes in land use and the landscape of their communities, and to those responsible for the management and protection of land resources and their diverse ecosystems.<sup>14</sup> In this regard, land trusts are ideally situated. Their unique position, combined with the use of integrated decision-support tools that take account of both qualitative and quantitative information, will enable land trusts to play an integral role in the development of conservation strategies that are more likely to succeed in promoting local and regional land protection efforts—and in ensuring a more sustainable future.

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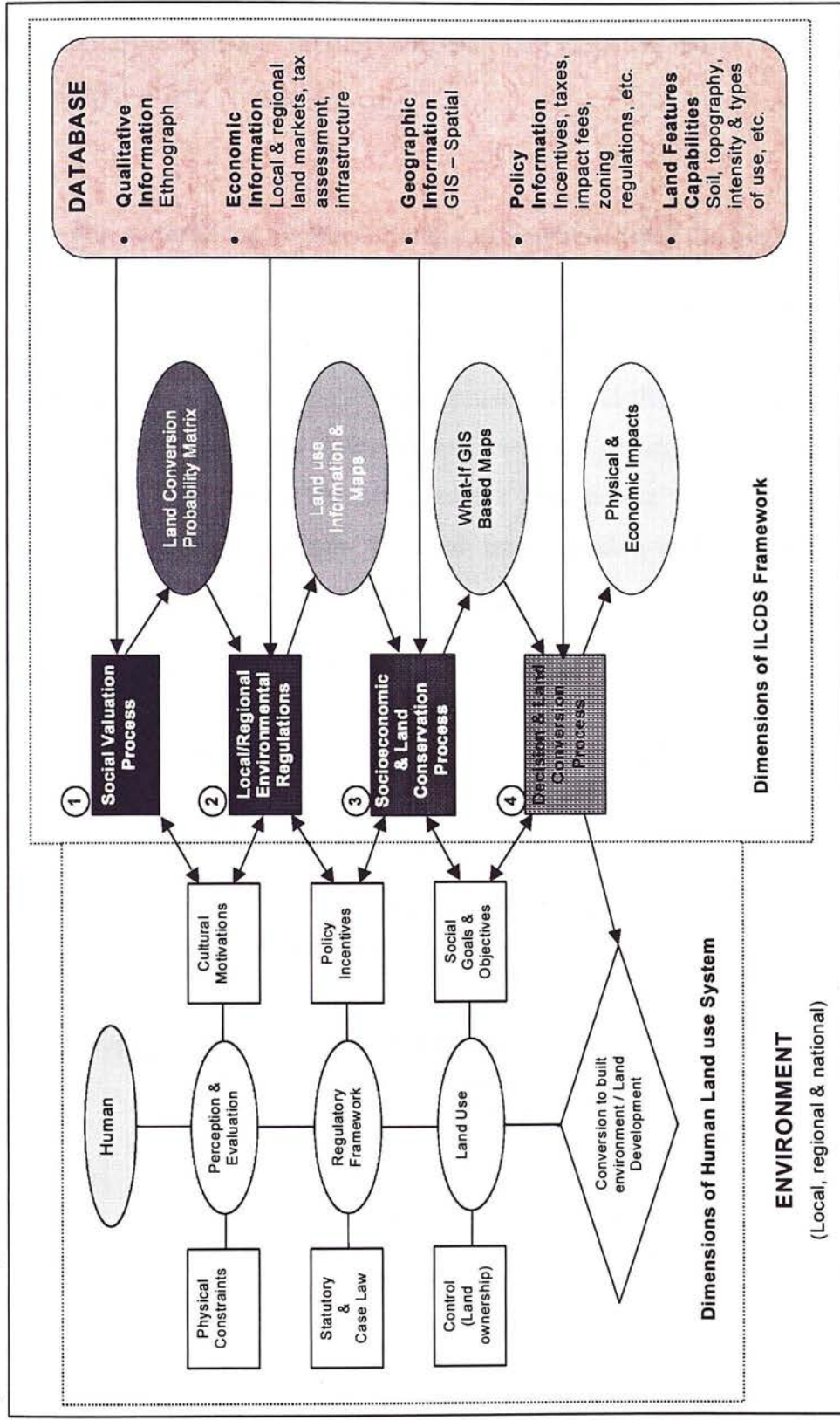
<sup>14</sup> As projected by the ethics-economics-policy paradigm, the ecological environment is not independent of the human community. There is a reciprocal relationship between people and the environment. The natural environment exerts certain controlling influences over society, while society at the same time through various manifestations of social, economic and political forces, controls its environment.

## **2.5 The Conceptual Setting**

An integrated land conservation decision support model (ILCDS), could facilitate land conservation organisations and agencies to make sound judgements on the perpetual protection of limited land resources, using an integrated decision-making approach (Figure 2.2). Extending beyond traditionally used ecological and agricultural constraints, ILCDS's synthesised system will incorporate both qualitative and quantitative information required to evaluate the protection of privately held land in an inter-generational context.



Figure 2.2. Integrated Land Conservation Decision Support (ILCDS) model structure

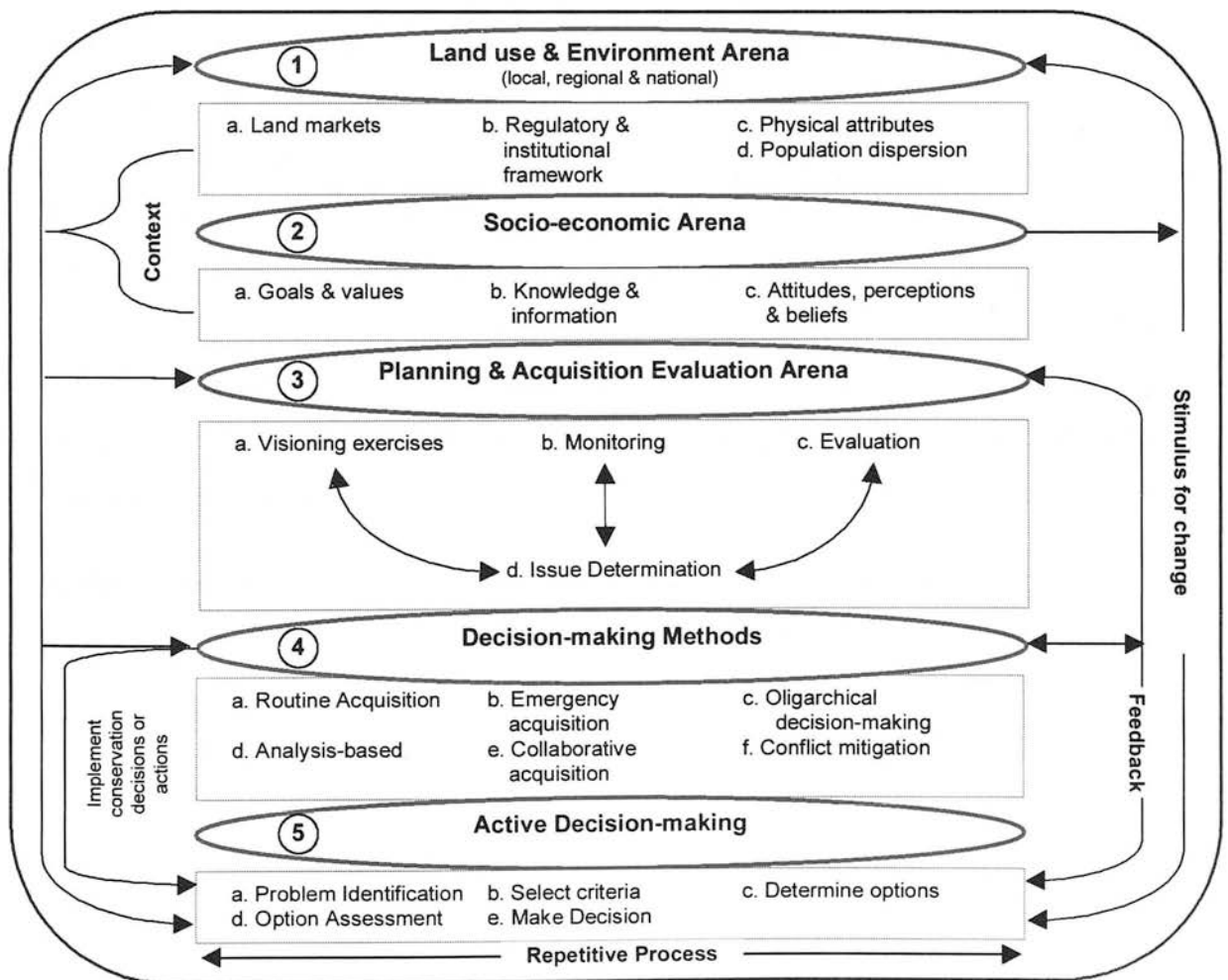


Ideally, full-scale development of the ILCDS model will provide a comprehensive, flexible and user-friendly framework for mounting social, economic, land resource and policy information, to examine alternative conservation-development scenarios. It is intended that the ILCDS framework be as flexible in facilitating the decision-making process as land trusts are in their diverse application of land protection strategies.

### 2.5.1 The generalised decision-making process: framing the paradigm

This section organises pertinent information obtained through the Phase III interviews by beginning with an examination of the traditional land trust decision-making environment. Figure 2.3 conceptualises the challenges and complexity of the processes surrounding the ethics-economics-policy paradigm in a land trust context. Each of the five arenas, the whole of the components that comprise the various processes and stages within the land trust decision-making context, are more completely explained in the following section.

Figure 2.3. Land Trust Decision Making Environment



### 2.5.1.1 Land use & environmental arena (local, regional, national)

Within the first arena is the state of land use and the environment (local, regional and national), enveloping four broadly defined conditions of: a) land markets, development pressures and availability of land; b) regulatory environment & institutional framework, land use and conservation policies; c) population dispersion, habitat fragmentation, ecological succession, etc.; and d) physical attributes (land use and changes in land use).<sup>15</sup>

*a. Land markets.* The availability (supply and location) of land, subject to regulatory constraints and conflicting development pressures (demand) govern market interactions in allocating land to particular uses—and users. As the total supply of available land is fixed, land prices are often regarded as being determined by demand alone. Standards of efficiency are frequently considered analogous with value and thus, proponents of a free market economy frequently equate the most profitable use with its “highest and best use”. This presumed association neglects the significance of social considerations and ignores public goods and externalities. Intervention to reconcile demand and supply creates new dimensions for decision-making that can alter land values and patterns of land use (Harvey, 1992; Balchin et al., 1995).

*b. Regulatory & institutional framework.* Institutions are patterns of expected human behaviour that are enforced by both positive and negative social sanctions. The context of decision-making with regard to the protection of land and other natural resources is shaped and reinforced by both our formal and informal political institutions, statutes, and economic and community institutions. Competition for land has no meaning outside of that institutional infrastructure that is part of the market. The mix of regulations and incentives that affect potential options will change over time to reflect values and preferences of the population (Paris and Chenile, 1991; Pearce and Turner, 1992).

*c. Population dispersion, habitat fragmentation, ecological succession, etc.*

Considerations driving decision-making in this domain include questions about

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<sup>15</sup> Herein the term “arena” is used to generally refer to the sphere or domain of influence suggested by related category headings.

present populations and their distribution (human, plant and animal), their associations with one another, and shifts in structure and species composition based on fragmentation or connectivity due to natural and anthropogenic factors (Noss, et al, 1997).

*d. Physical attributes (land use and changes in land use).* Conversion of land uses is important to all human issues that involve land. From forestry to economics to biodiversity and conservation to sociology to soil science, all expressly acknowledge and act within a dynamic landscape (Borman and Kellert, 1991; Forman, 1997).

### **2.5.1.2 Socio-economic arena**

Within the second arena are the socio-economic foundations of our communities, including, political institutions, economic systems, goals, attitudes and values, etc. Processes effect change within both the first and second arenas. The state of land use and the environment, the more predictable of the two, shifts on its own as well as under the coercion of human influences. In the socio-economic arena, the changes that occur are predominantly idiosyncratic and generally outside anyone's control, yet everyone in a community is instrumental to shifting cultural values (Morrish and Brown, 1994).<sup>16</sup>

The first two arenas, land use and environment, and socio-economic, are social or human-constructed processes—reality percolated through a sieve of words, notions, perceptions, beliefs, and actions, resulting in values, and ultimately patterns of behavior. It may be asserted that individuals collectively manufacture the environmental issue set, of which land use and conservation issues are major players.

As will be discussed in Chapter 4, Phase I focus groups provided names or labels for such an “issue set” (e.g., transportation, urban sprawl, forests and deforestation, destruction of wildlife habitat, preservation of historic sites,

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<sup>16</sup> Herein cultural values are defined as those beliefs and customs of a society at a given time; a complex body or assemblage of beliefs, morals, customs, religions and laws which has evolved historically and are handed down from one generation to the next as a force that determines behaviour and standard characteristics of a society.

exploitation of natural resources, population, etc). The purpose of incorporating the issue set into the Phase II mail survey was to enable both UK and US respondents to indicate their perceptions on who is responsible for causing the problems (e.g., developers, greed of consumer oriented society, industry, etc.) and who should be responsible for providing solutions (e.g., government, industry, developers, non-profit organisations, public at large, etc.) It also helped to determine 'who' respondents identified as the stakeholders with respect to the negative consequences of the problem and costs affiliated with providing solutions. The socio-economic arena defines how various issues relate to each other. The conditions discussed are a) goals and values, b) knowledge (pre-existing and new information; and c) attitudes, perceptions and beliefs.

*a. Goals and values* generally refer to preferences. Goals that compel land use decision-making often include development control, planning, land conservation, and retaining a sense of place. Common values that propel decisions include issues of stewardship, sustainability, intergenerational equity, and economic stability (Table 2.1).<sup>17</sup>

Human-influenced landscapes are strongly affected by the integration of social, economic, environmental, and political factors that influence the land use decision-making process. These systems operate within an overall ethical perspective that is not always clearly rationalised or articulated (Beatley, 1994). The primary interacting properties relevant to the paradigm's multifarious concept are incorporated in Table 2.1.

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<sup>17</sup> Although notions of sustainable development and sustainability are fundamental concepts in any discussion on the conservation of natural resources they remain vague. I choose not to engage in this discourse, however, and instead depend on intuitive understandings. In human systems, sustainability suggests reproducibility of the social unit, through satisfactory economic performance. Related to the human system, the ecological dimension extends our use; that is, ecological sustainability intimates reproducibility of the resident ecosystem. Thus, sustainability suggests harmonious long-term relationships between human systems and the environment, when taken as a term of sufficient abstraction to include natural and human dimensions.



Table 2.1 Values in the ethics-economics-policy paradigm

Dimensions	Social/Ethical	Socio-Economic	Environmental—Ecological	Socio-political
<b>Land Resources</b>	Access, conservation of resources, stewardship	Exploitation, use of resources	Natural resources, water, air, bioecological systems	Education, human resources, population
<b>Sustainability</b>	Ecocentrism, ideology, justice, stewardship	Employment, carrying capacity, inter and intragenerational equality	Biodiversity, quality, ecological continuity	Community health and welfare
<b>Community</b>	Shared values, coexistence, trust	Employment, poverty, need, choice	Biodiversity, natural amenities	Empowerment, identity, cognition, participation

An interesting characteristic of multidisciplinary discussions about the protection of environmental resources such as land, is that each discipline has a perception that the resource has a ‘value’ defined in terms of the concerns of that discipline, and that this value is in some sense distinct from ‘economic value’. In part, this follows from the perception that economic value is the same as market price. Most scientists, and those working in the land conservation field, are acutely aware, however, that market prices often insufficiently capture the value such resources have in supporting human activity.

The breadth of policies enacted since the era of environmental enlightenment in both the UK and the US reflects how shifts in predominant cultural values can work to guide the regulatory and policy framework. In coming to an understanding in the context of decision-making, ‘values’ must be examined in light of their effect on policy dedicated to the protection of land.

Attitudes, perceptions and beliefs towards time, goods, nature, and market vary. It is suggested that what we might, for example, call ‘nature,’ is in fact a projection of social values and order on the environment. One can observe as many ‘natures’ as societies and/or value systems. Similarly, attitudes towards goods, time,

market and conservation of land as an element of nature vary from one place to another, and presumably over time. These perceptions are at the inception of any analysis of the interactions between humans and their complex relationship with the land.

The concept of value relies on a determination of importance that frames the basis for preference. This preference is achieved through our behavior, which includes decisions that ultimately transform the landscape. Individual value systems are fixed in an elaborate aggregation of cultural orientation, experiences, and religious influences to name a few. Economists believe that some of these values can be, and are, expressed in market systems. However, experience reveals that market-based monetary systems are intrinsically flawed by presuming people become better off by satisfying existing preferences and not by changing their preferences (Costanza, 1994).

**b. Knowledge & information** encompasses both pre-existing and new information, which may be either common or scientifically proven knowledge pertaining to the land use and environment issues and the social structure of the community. In a broader sense, data, information and knowledge are part of a continuum, where one blends into the next as the result of one action or another, with no clear boundaries between them (Debons, *et al*, 1988).

**c. Attitudes, perceptions, and beliefs.** These synonymous abstractions are used to describe people's views of their current environmental and socio-economic context. An individual's perceptions, beliefs, and thus choice heuristics, are often biased and contradictory to scientific findings and fundamental decision theory (Zeleny, 1982).

### **2.5.1.3 Planning & acquisition evaluation arena**

The third arena lends the functions of direction and administration. Decision processes are carried out according to results of the interpretative processes, and are constructed of the following sub-parts: a) visioning exercises; b) monitoring of the physical, bioecological and human processes; c) evaluation of population dispersion, new infrastructure demands, etc.; and, d) issue determination.

*a. Visioning exercises* are important for ensuring that the whole of the decision-making effort is oriented towards the sustainability of the community, and that potential threats or gains to the stability of its resource base due to proposed developments and/or conservation efforts, are brought to light. Community visioning entails developing dynamic perceptions about the future of the community, and assessing potential threats and opportunities that coincide with various possibilities. Scenario-building (Schwartz, 1991), conducting charettes (Arsenault, 1995), ecological baselines and assessments (Harker and Ungar-Natter, 1995; IEA, 1995), environmental and technological inventories, and Delphi techniques (McNamee, 1985), and citizen juries<sup>18</sup> (Crosby, 1974) are all widely used tools covered by a host of environmental and planning literature. Through such endeavors, a land trust may be better equipped to assess whether current issues pertaining to a specific conservation project or general land use may increase or recede in importance. Visioning may also reveal new issues and potential events that the land trust needs to consider. Forecasting of this nature is not about predicting the future but involves consideration of all future possibilities. Results obtained from such activities can also be used instructively by the land trust and the community. They may be used to guide monitoring activities on either protected parcels of land, or to facilitate the detection of potential problems on those under consideration for protection. If visioning results prove compelling, a land trust can use the information as the foundation for the determination of issues, for example, to force the land trust to consider whether the lands in question are of importance or concern to the community, and whether the organization ought to begin measures toward the protection of the land, or not.

*b. Monitoring* may appear to be a fairly direct exercise, particularly to the experienced land trust, the purpose being to aggregate data specific to each protected parcel, thus, enabling the tracking of existing and changing environmental conditions over time and to warn of possible new issues (e.g., Is the integrity of the land being protected? Is the intent of the conservation easement being upheld?).

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<sup>18</sup> Citizen Juries were developed and first used by Dr. Ned Crosby in 1973 at the Jefferson Center in Minneapolis, Minnesota. Although not typically used as a “visioning tool”, citizen juries have been used in connection with various stages of the planning process in the United States.



As a land trust grows, monitoring becomes an increasingly significant responsibility, with a host of related questions and expenses. What data requires collection? How often should baseline photographs be taken? What shifts in land use might require a new or substantial overhaul of the existing baseline report? How often should soils, water, and other environmental attributes of the protected area be assessed? What steps are required to remedy any infringements? There is an ever-increasing effort on the part of land conservation professionals to improve monitoring of lands under their care. It is also an area that often faces financial and administrative constraints. Efforts to take account of aspects of community attitudes towards the conservation of local and regional land resources suffer from these as well as other factors, including the safeguarding of privacy, and determination of appropriate techniques to achieve the desired goal (Heskin, 1991).

*c. Evaluation.* This process serves several purposes; principal among them is to facilitate education by helping the community to learn from the experiences of the land trust. At the organizational level this can be carried out through program assessment, case studies, year-end evaluations of achievements against established goals, and similar methods. However, evaluation also needs to occur at a macro-level (e.g. outside the immediate board/staff circle) to help the land trust understand how effective they have been in the eyes of the community they serve. One might imagine that many such evaluations could become a bit daunting, but when parcels of land—large and small alike—are protected in perpetuity it seems all the more prudent to undertake such evaluations. Long-term analysis is also required to substantiate scientific and policy predictions as they relate to the consequences of actions taken.

The product of the evaluation process, and changed perceptions resulting from the learning process; feed back into monitoring, visioning, and evaluation activities to augment monitoring strategies and cultivate the interpretive capacity of the land trust. There is also a feed back mechanism to ensure continuous enhancement of the socio-economic context within which decisions are made and policies established.

*d. Issue determination.* This process is directly fed by results obtained from monitoring, visioning, and evaluation activities. Information derived is used to identify specific lands or areas that require action and to match diagnoses to conservation tools that may come in one of many forms (e.g., conservation easements, out right purchase, testamentary gifts, donations, etc.) or a combination thereof. Principal fields of learning, such as law and medicine, are structured almost wholly around the fundamental concepts of diagnosis and action. The construction of most expert systems also encompasses this IF-THEN rule based framework (Lein, 1997).

The land conservation domain appears to be better aligned with sets of diagnostic categories that can be directly linked to the process and action of decision-making, than are other categories of environmental concern (e.g., siting of landfills, groundwater contamination, etc.). Features of conservation are generally viewed as environmentally positive and there are at least a handful of ecologically based analytical techniques that can be linked in part to the decision-making process and ultimately to actions taken.

#### **2.5.1.4 Decision-making methods**

Six general forms of decision-making aligned with the land or conservation interest acquisition process were reported during Phase III interviews held with land trusts across the UK and the US: a) routine acquisitions; b) emergency acquisitions; c) analysis-based & conservation decisions; d) oligarchical decision-making; e) collaborative acquisition; and f) conflict mitigation.

These methods of decision-making are not unique to issues of land conservation. They all take place within the larger context of institutional and social systems. The decision-making processes are also affected by, and in turn may affect, the structure of the land trust and other bodies involved in guiding the use and conservation of a community's land resources. Frequently, various decision-making methods act in harmony, and simultaneously over time, rather than in discrete form. For example, an analysis-based acquisition method may support an oligarchical method, which may in turn require conflict mitigation.

Over the past several decades, and coinciding with a period of vast expansion of land trusts and protected lands, the first four methods have been dominant. Among these methods, the analysis-based and oligarchical methods have prevailed for controversial conservation projects, those associated with significant costs and potential long-term consequences. More recently, however, collaborative acquisitions have received widespread attention as a method for navigating complex and costly conservation projects (Endicott, 1993).

**a. Routine acquisitions.** Executive, administrative, or technical staff within the land trust make decisions relative to every-day situations following set procedures. Decisions generally require specific, standard information (e.g., landowner contact information on a prospective easement or land donor). The handling of related issues may require experience and common sense but does not necessitate extensive analysis or unique knowledge.

**b. Emergency acquisitions.** Generally, within a land trust there are individuals (e.g., executive director, president, or a land protection committee) vested with the powers to make swift decisions in situations where lands valuable to the community or region are under eminent threat. Information is gathered quickly and may be incomplete. Instead of adherence to protocol and predefined procedures, “seat-of-the-pants” judgments are used to act on “gut instincts”. While others, particularly those holding the purse strings, may participate in emergency acquisitions or their aftermath, few others participate in the acquisition itself.

**c. Analysis-based.** Technical professionals within the land trust develop fastidiously crafted proposals on a specific conservation project or related land use issues for the ultimate decision-maker, which is typically the board of directors or trustees. Often the projects presented are more complex than routine easement or land acquisitions. Such projects may involve issues that have not been previously addressed by the land trust, may entail larger consequences (e.g., long-term uncertainties, or higher costs), or may pose some threat of conflict within the community. Depending on the level of complexity, the analytical process required can increase response time to weeks, months, or in some instances, even years. While people external to the land trust

may participate in the decision process, they typically do so only by providing input on their goals and values.

*d. Oligarchical decision-making.* Generally, decision-making by executive committee of the land trust reaches either agreement or a majority view on prospective conservation projects or issues related to protected lands. Discussion and negotiation among the executive or senior members follow staff presentations. Fundamental information is presented, including views on special interests within the community. Issues considered using this process commonly have important implications for the land trust. While views from outside the organization may figure into the decision process, individuals from outside the organization typically do not participate in actual decision-making.

*e. Collaborative acquisitions.* The past two decades have seen tremendous growth in the use of partnerships between both public and private organizations (Endicott, 1993). The process implies that people from all organizations involved, work together to achieve a common goal. Frequently, collaborative acquisitions are used for major acquisitions, to achieve more and better land conservation than any organization could accomplish alone. Collaborative efforts entail a learning process as well, due in part to the multiplicity of organizations and people involved. While there is little doubt over the benefits of collaborative efforts, the process can become extracted when compared to the usual flexibility of land trusts. As more information is gained on a particular project there is a continual process of re-evaluation of original goals, objectives, and values, which can result in anxiety as well as changes in project direction.

*f. Conflict mitigation.* Generally staff or board members undertake this process; to solve disputes related to particular conservation efforts where potential for conflict is high. Due to the complexity and enormity of issues that can be involved, the process commonly becomes protracted. Often it will begin with a meeting of people from both inside and outside the land trust who may represent different viewpoints. The process is circuitous and people present information from all sides of the issue, followed by debate and negotiation. Often the result is the need for additional information, creating further discussion and negotiation, and so on.

### 2.5.1.5 Active decision-making

Active decision-making forms the substantive phases and actions guiding the land trust's decisions. The following stages common at the land trust level parallel other compositions found in the decision-making literature (Sage, 1991; Lein, 1997). The framework, however, is slightly different, in that the identified actions are viewed more as housing the diverse methodologies involved in decision-making and not merely as stages in a number crunching process. The stages are: 1) problem identification; 2) select criteria; 3) determine options; 4) option assessment; and 5) make decision.

*a. Problem Identification.* Many prototypical decision-making structures refer to this as problem formulation (Sage, 1991). This stage centers on getting everyone acquainted with the issues involved. For a decision-making exercise to get underway, it is necessary to explicitly identify and focus on the problem in need of a solution. For example, problems in the land conservation context may be related to the financial implications of protecting a particular tract of land, present generation concerns, long-term viability of agricultural land, etc. Problem formulation takes place as part of the issue determination activity in the planning and acquisition evaluation process.

*b. Select Criteria.* This stage entails the designation of decision variables and measures to consider the feasibility of various decision choices. These must accurately represent the range of project-specific concerns and criteria (e.g., size, special features, soils, location, etc.) established by the land trust. Additionally, some thought should be given to applying weights to the criteria (Chenchile, 1991; Robinson, 1991; Lein, 1997). Weights, generally in the form of points along a fixed scale (e.g., 1—100) are typically assigned for various criteria based on such factors as quality of soil, proximity to urban area, access, road frontage, presence of endangered species, and so on.

*c. Determine Options.* This stage involves the identification of decision choices. More common conservation projects may be able to use an existing and well-defined set of options. At other times, the land use and conservation issues may be so



singular and intricate that a catalyst, such as a group brainstorming activity, may be needed to spawn a list of options.

**d. Option Assessment.** This stage uses appropriate analytical tools to assess the fit of alternative options against the decision variables from Stage II. In convoluted situations, analysis may need to be repeated with modifications made to the alternatives under consideration. Abundant techniques are available to assist with quantitative assessments of ecological and economic options (e.g., ecological risk assessment, wildlife population assessment, multivariate techniques, cost-benefit analysis, econometric models, risk based decision analysis, etc.)

**e. Make Decision.** In this final stage, a choice is made based upon the list of options and the results of the assessment. Decision-making techniques are driven largely by the institutional context. Within the institutional framework of land trusts, the electoral process is used most frequently. The electoral process is used to render decisions in a number of situations, from determining the fate of a proposed site, to influencing program direction, to nominating new directors. Citizen juries first used in the early 1970's in the US, have recently been lauded as an imaginative alternative for rendering various environmental decisions in the UK (Glaser et al., 1997; Institute for Public Policy Research, 1997). In the context of private land conservation, operative decision-making processes need to firmly approach uncertainty and the multiplicity of questions under deliberation.

Elements fundamental to the ethics-economics-policy paradigm include: 1) assessment of community values toward the protection of given private land resources; 2) cross-disciplinary analysis of land conservation's social and economic benefits; and 3) assessment of inter and intragenerational equity issues. Relative findings of Phases I, II and III, presented in Chapters 5, 6 and 7, were used in the development of the ILCDS model. Care has been taken to ensure conceptual design is based on a format useful to both those working with the day to day complexities of protecting private land resources as well as those working within the arena of policy development and advancement. The last segment discusses the operational dimensions of the proposed ILCDS model.

## 2.6 Foundations

In coming to a more comprehensive understanding of the implications for an instrument as the ILCDS model, a 10% sample of land trusts from across the UK and US were interviewed. Chapters 4 and 7 will clarify the interview methods used and discuss the findings respectively. Interviews were intended to identify a range of objectives, including; 1) institutional measures and interpretations of success, 2) land conservation methods or tools used, 3) community attitudes and anxieties; and, 4) need for a more holistic approach or instrument to guide the decision-making process.

As will be discussed in Chapter 7, the results of interviews carried out with conservation professionals in the UK and the US indicate a strong desire to use a more integrated framework to facilitate the decision-making process. Approximately 96% of the 139 land trusts interviewed felt that their organization's conservation efforts would ultimately be enhanced through the use of a decision-support tool that extended beyond traditional ecological criteria constraints and incorporated both qualitative social and quantitative economic information. Interviews were both regenerative and productive, and extended insights into potential uses for information gained through use of such a model.

The complex and interdisciplinary relationship of the *ethics-economics-policy* paradigm is set in a land conservation framework viewed from the little explored private lands perspective (Bennet, et al 1995; and, Wilcove, 1997). The last section of this chapter will introduce the conceptual integrated land conservation decision-support (ILCDS) model, frame fundamentals and operational dimensions (e.g., land resources, sustainability, community, environment, etc.) of the ethics-economics-policy paradigm and examine their integration in to the ILCDS model in context. Aims of the model as prescribed by the ethics-economics-policy paradigm are to integrate concerns of economic efficiency, equity (between and within generations), behavioral models of resource use and ecological integrity, and other patterns of human and economic development within a private land—land trust context.

The remainder of the chapter will now focus on the integration of the various properties elemental to the ethics-economics-policy paradigm and the ILCDS model in the context of private land conservation.

## **2.7 The Integrated Land Conservation Decision Support (ILCDS) Model**

As discussed throughout this chapter, the geographical dynamics in human-influenced landscapes are strongly affected by the integration of social, economic, and political factors that influence the land use decision-making process. The integrative nature of the ethics-economics-policy paradigm is now expanded to more completely identify the incorporation of its modules into a spatially explicit decision-support model to assist in the evaluation of private lands for long-term conservation. Here the conceptual foundations of the ILCDS model are put forth. Future work will be aimed at full-scale development of the ILCDS model and its relational database.

The model is developed on the premise that market processes, ethical responsibilities, human institutions, landowner knowledge, and ecological processes all influence private land use, and the conversion or protection thereof. Therefore, the land proposed for protection, the sustainability of its resource base, and those in the position of making land use decisions, will benefit from the integration of qualitative and quantitative data to facilitate and enhance the decision-making process. The structure for ILCDS model consists of four modules linked by a common fully relational database including: 1) social valuation process; 2) local and regional environmental regulations and land use laws; 3) socio-economic and land conversion process; and 4) decision and land conversion process.

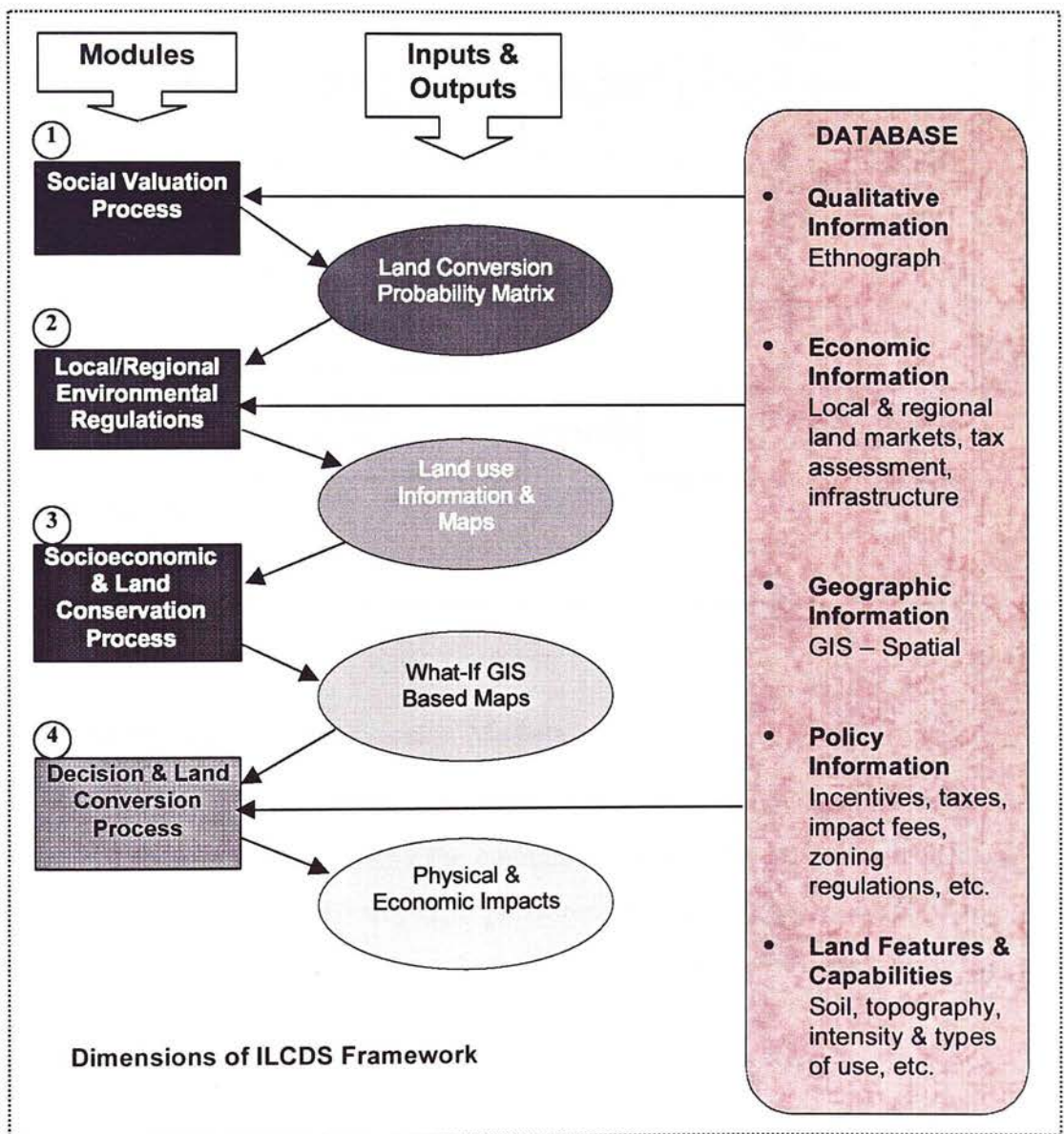
As communities grow and change, they significantly alter the landscape and associated natural resources. This process often leads to unexpected infrastructure costs and expensive long-term environmental problems. The ILCDS model seeks to integrate those elements traditionally missing from the land use decision-making process, particularly at the land trust level, in a way that will enable users to evaluate the implications of various decisions through: 1) maps; 2) social and economic



analysis of local and regional impacts; 3) result summaries; and 4) the creation of informative graphic aids to enhance presentation and understanding at the wider community level. Most importantly, ILCDS should allow land trusts, decision-makers and others concerned with land use issues in their communities, to look at various scenarios and chose which make the most sense for their community over the long-term. The work herein and the precipitate ILCDS model, therefore marks a significant change in direction from criteria, checklists, and other decision facilitation tools used by land trusts in the conservation of private lands.

Figure 2.4 expands the operational framework presented earlier in Figure 2.2 and is used here to provide a foundation for the expansion and description of each individual module that follows.

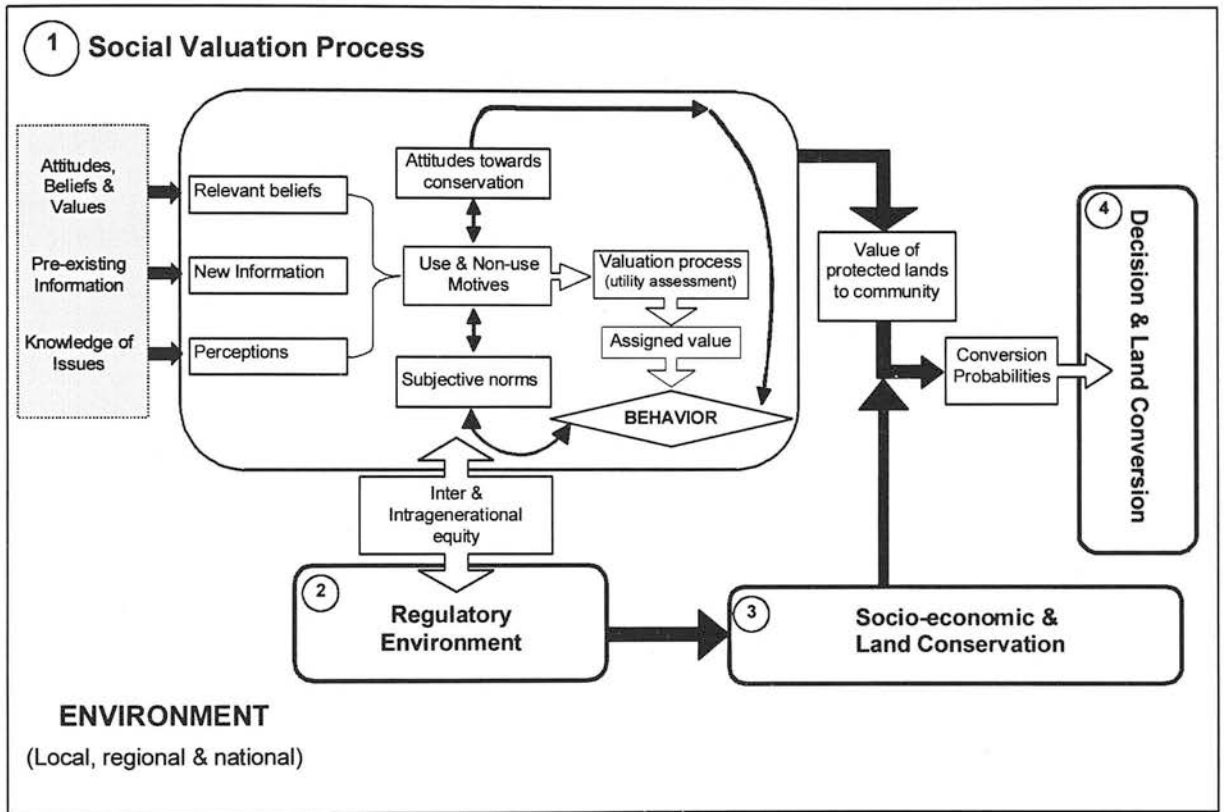
Figure 2.4 Dimensions of the Integrated Land Conservation Decision Support Model



### 2.7.1 Social Valuation Process Module

The first module, the social valuation process (Figure 2.5) contains the socio-economic models used to derive land conversion probabilities associated with land development. Probabilities are computed as a function of: 1) pre-existing information about environmental and land conservation; 2) characteristics of land ownership; 3) population density; 4) attitudes toward land conservation; 5) access and transportation costs; and 6) infrastructure costs (roads, utilities, schools and other public services).

Figure 2.5 Social Valuation Process Module

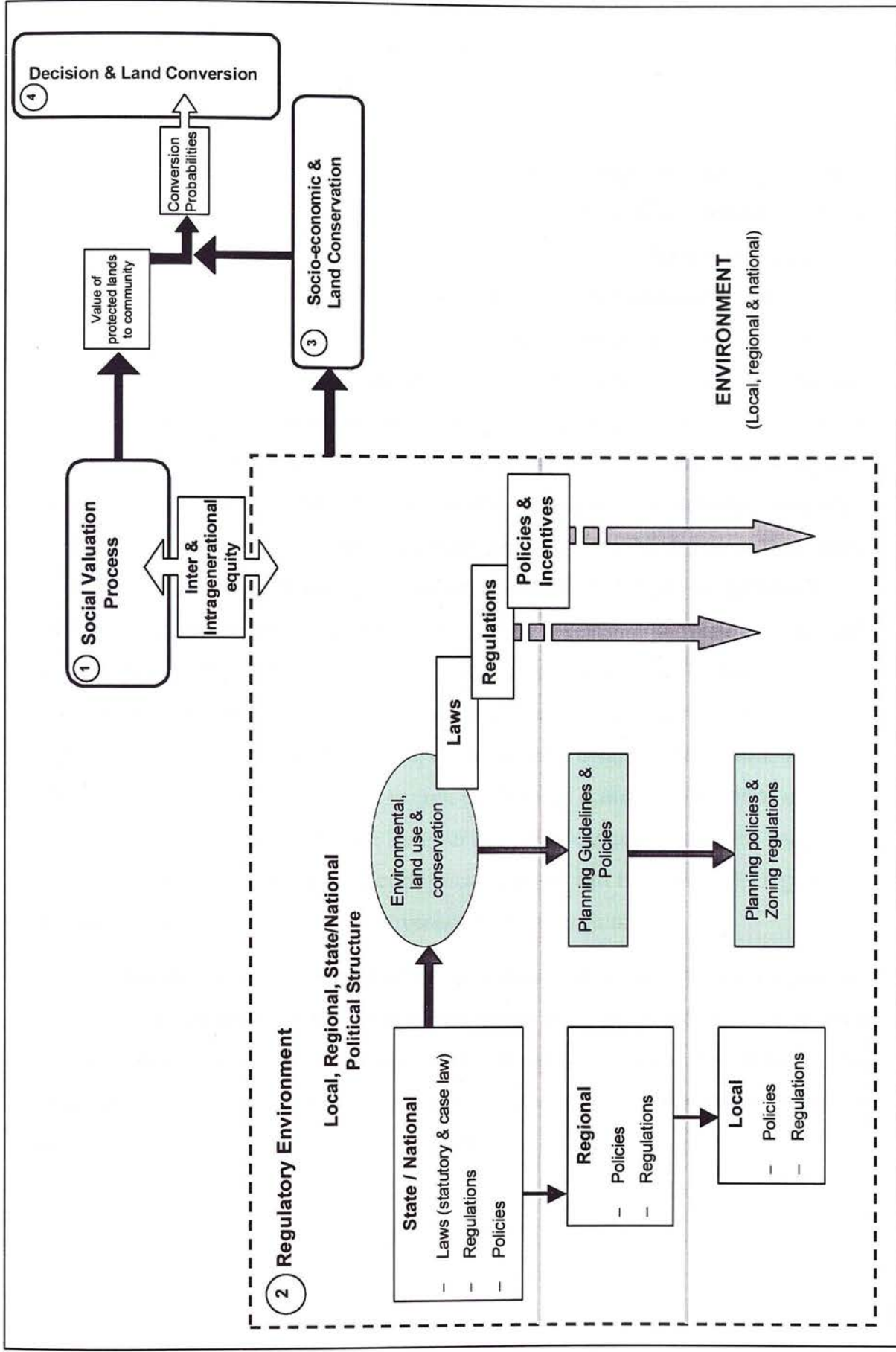


### 2.7.2 Decision & Land Conversion Module

The second module contains the local and regional environment information (Figure 2.6) used in determining the community value of a particular landscape. Its driving variables are 1) development pressure/land availability; 2) local & regional land markets; 3) planning process; 4) political structure; and 5) land protection and

conservation policies. The land conversion probability matrix resides in the first ILCDS module, receiving inputs determined from the social valuation module and accessing the same database of driving variables. It is intended that a single iteration of the model will produce a land use map reflecting the ethical and economic motivations behind the land use decision-making process as represented in the conversion probability matrix.

Figure 2.6 Regulatory Environment - Local/Regional Environmental Regulation Module



The conversion of land is one of the most important and dynamic elements of ecosystems; as reflected through the ethics-economics-policy paradigm, a complex suite of variables is involved. Figure 2.7 conceptually illustrates the function of land conversion probability and its role in the ILCDS model. The hypothetical landscape presented here is typical of the urban-suburban fringe. Tracts 1-4 are farmland. Tract 1, a small parcel, is some distance from a major highway, and is physically separated by a wooded creek bottomland area. Tract 2 is larger, intersected by a seasonal creek, and can be physically seen from the highway. Tract 3 adjoining tract 2, is smaller and somewhat physically separated from the highway by an area of woodland and open space, though it is in close proximity to a newer suburban residential development. The landowner has subdivided off three 1.2-hectare residential lots which contain one single-family residence each. Tract 4 is relatively small; it is physically separated from the other farms by the highway; and is in close proximity to the northern edge of the urban area, though the river provides somewhat of a natural buffer zone. Three residential lots of 1.6 to 2.8 hectares have been subdivided off. The motivating conversion variables will function differently for each tract depending on the specific nature of the relationship between the tract and the variables. For example, tracts 3 and 4 are under greater development pressures due to their proximity to urban infrastructure (e.g., water and sewer), a main highway, higher population densities and employment centres. Both farms are of a size that as independent units, they are not likely to be economically viable over the long-term. Tracts 1 and 2 are more likely to be held in agriculture over the long-term due to their location, size, and other physical features and landowner demographics that reduce the likelihood of their conversion in the near future.

Though most land conservation decisions facing land trusts are not so simplistic, for the purposes here it is supposed that the local land trust is faced with various constraints and must make a choice between one of the four tracts. The following example speaks to the development and use of the land conversion matrix as an important function of the ILCDS model.



Figure 2.7 Land conversion probability in a hypothetical urban/suburban fringe landscape.

**Tract 1:**

Conversion probability: 81 – Moderate-high

Weight	Relative Probability	Factors
4	3	removed from urban infrastructure though proposed new road would enhance access
3	9	questionable long-term economic viability due to size
2	9	current zoning – Agriculture; enrolled in preferential tax assessment program, tax low
4	3	elderly farmer, no children; would like to ensure the land remains in agricultural or open space

**Tract 3:**

Conversion probability: 96 – Very high

Weight	Relative Probability	Factors
4	9	near urban and suburban infrastructure
3	8	declining profitability due to size and performance of agricultural markets
2	8	current zoning - Rural residential (1) acre minimum lot size; taxes moderate due to location, enrolled in preferential tax assessment program
4	5	frustrated aging farmer

**Tract 2:**

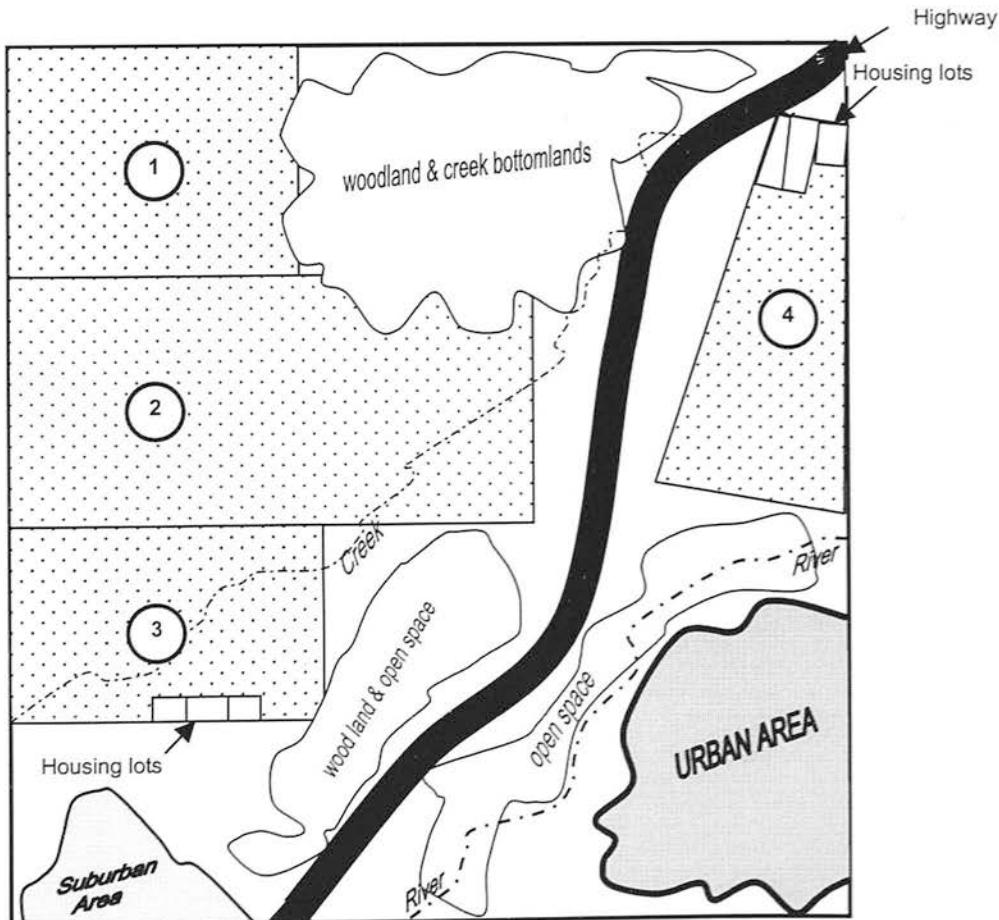
Conversion probability: 37 – Low

Weight	Relative Probability	Factors
4	5	distanced from urban infrastructure
3	1	economically viable farm
2	3	current zoning - Agriculture enrolled in preferential tax assessment program, tax low
4	2	young farmer seeking to expand land holding and enlarge operation in the long term.

**Tract 4:**

Conversion probability: 92 – High

Weight	Relative Probability	Factors
4	9	near urban infrastructure
3	10	not profitable for past 2 years due to tract size and agricultural markets
2	9	current zoning - Rural residential (3) acre minimum lot size, not enrolled in preferential tax program, taxes high
4	2	middle-aged executive/farmer; farming is not primary occupation

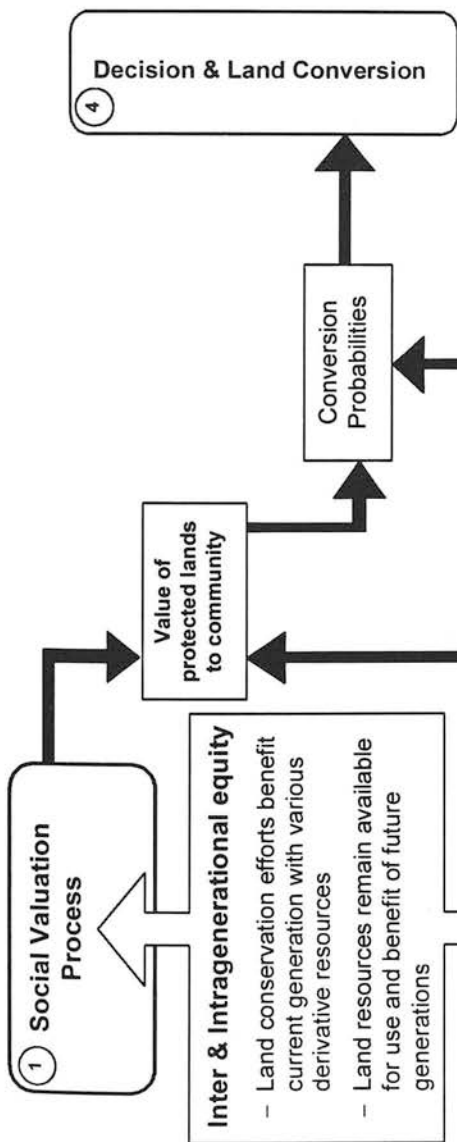


In theory, conversion probabilities are derived as functions of the social valuation process, regulatory environment, and socio-economic modules. A GIS is used to make spatial calculations between those parcels under consideration and drivers of land use conversion. Assigned values in the form of relative probabilities are then fed into the decision and land conversion process module, where again they are integrated with *parcel specific* data pertaining to motivating factors (e.g., land tenure and management, environmental and socio-economic factors).

### **2.7.3 Socio-Economic & Land Conservation Objectives Module**

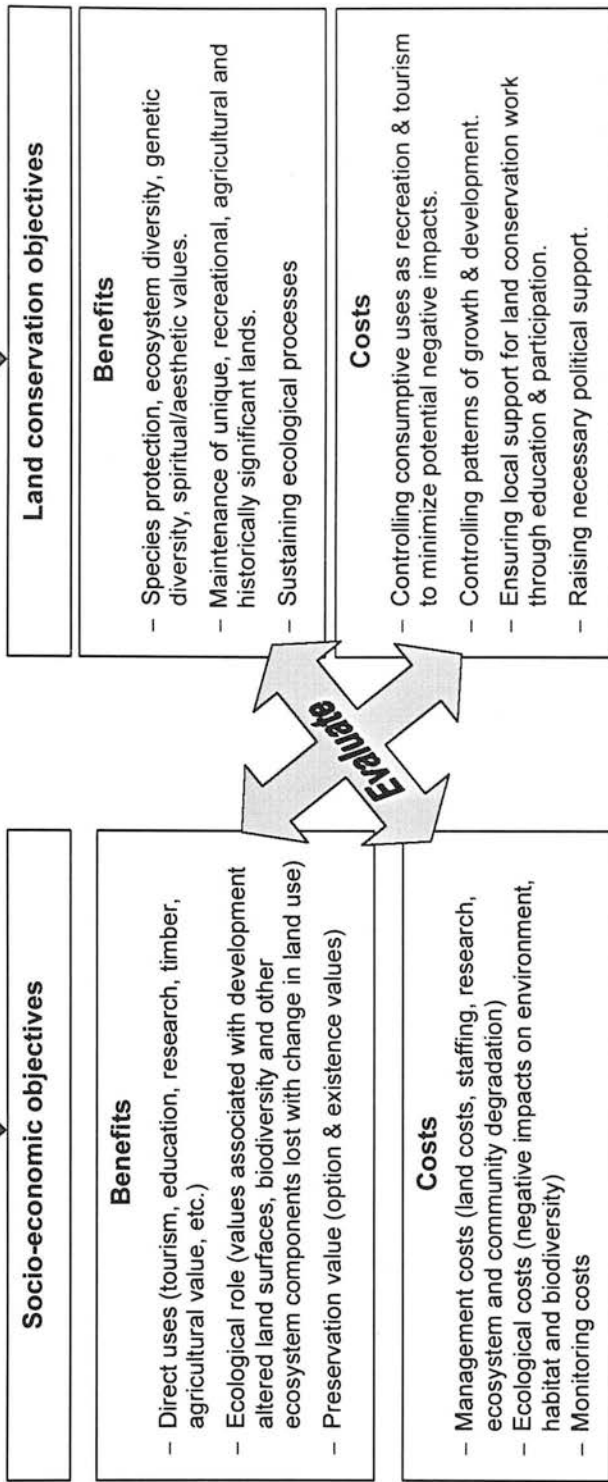
The socio-economic and conservation objectives defined in the third module (Figure 2.8) use the conversion probabilities and land cover maps produced by the second module to estimate impacts to selected resource-supply and planning process variables. These variables include the spatial arrangement of land uses and historical changes due to human impacts (Bockstael, 1996). Potential resource-supply variables include land values, available land, development pressures, land use regulations, and incentives. For simulations of land conversions, output maps that reflect predicted changes in land use over variable time and scales can be generated (Fishlike, 1995).

**ENVIRONMENT**  
(Local, regional & national)



**3 Socio-economic & Land Conservation Process**

**Deductive, Predictive & Prescriptive processes**

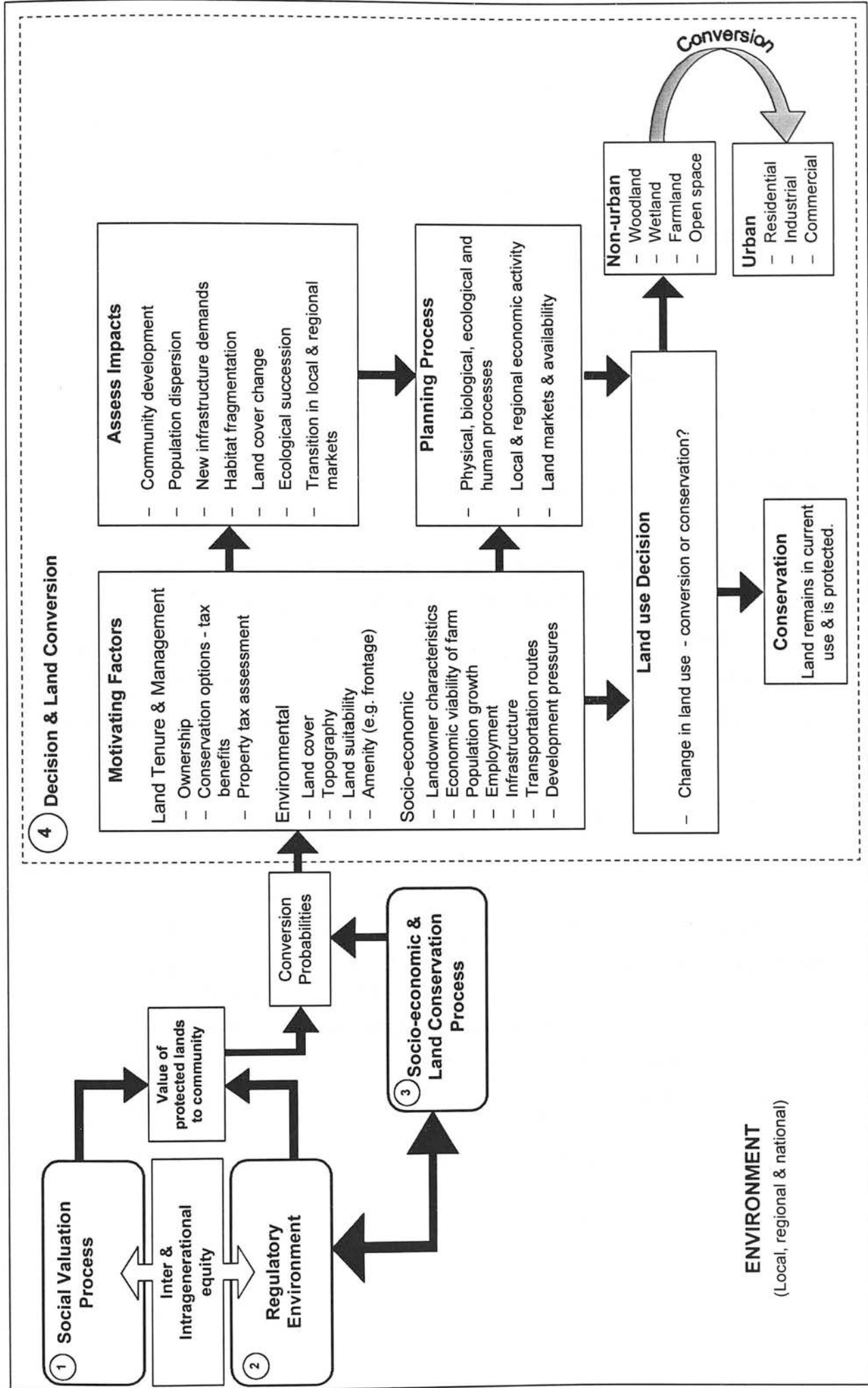




#### 2.7.4 Decision Module

In the fourth module, land use decisions and conversion information derived from the three other modules, and interactive land cover maps generated to estimate impacts on the local or regional land base, are used to project long-term inter and intra-generational physical and economic impacts of various land use decisions (Figure 2.9). Effectively, the fourth module uses a development pressure grid that is integrated with associated variables from motivating factors, impact assessment, and the planning process. Evaluations can then be performed at ten and twenty-year intervals to evaluate the longer-term local and regional economic impacts of various land conservation decisions (Robinson, 1991).

Figure 2.9 Decision & Land Conversion Module



## 2.8 Conclusion

Decisions concerning land use and the environment always involve costs and benefits, some with monetary values and some without. In an ideal world decisions are made where the benefits outweigh the costs. However in situations as in the conservation of land, where real-world decisions affect not only the immediate resource, but the connected community as well, monetary and non-monetary values must be incorporated into the whole of the decision-making process (Henle, 1996).

The great irony of the challenges facing the protection of privately held land resources is that the workings of natural phenomena—the ecological facts of life—are utterly unconcerned with human illusions about control over nature, destiny, values, biases, and concerns. The failure to appreciate the distance encompassed by this gap is one reason we find ourselves in our current position of correcting and re-evaluating entire values systems, namely those that have led to decades of sprawling development patterns in the name of economic growth and development, and to the current turning-point trends. In order to surmount this breach, we must work to bridge the gap in our understanding of the human-land relationship, and to discard the long-held illusions of separateness from the land. The ethics-economics-policy paradigm enables an enhanced consciousness that enables our recognition of both individual and community connections to this most elemental natural resource.

The challenge in context then, is to develop a decision-support tool that:

- 1) facilitates clear definitions of the land conservation decisions under consideration;
- 2) aids in determining or recognizing common community goals and values;
- 3) facilitates assimilation of values, both monetary and non-monetary into the decision-making process;
- 4) involves all stakeholders (community at large);
- 5) coordinates the views of those affected by decisions made;
- 6) integrates the perspectives of experts (i.e., land trusts, planners, farmers, ecologists, developers, etc.);
- 7) avoids blind reliance on single attribute or linear decision models in the face of complex non-linear decisions; and
- 8) facilitates determination of alternatives and solutions that serve to optimize the whole.

In this light, the ethics-economics-policy paradigm as embodied in the conceptual ILCDS model, is not about a matter of right or wrong decisions; it is a matter of facilitating sound decision-making by those charged with the use and conservation of lands within their jurisdiction. Making choices that contribute to individual community goals are aligned with the values of the people who live and work there, and do not detract from their ultimate purpose of protecting the communities sense of place (Morrish, and Brown, 1994). Heather Mann (1999) of the Urban Open Space Foundation poignantly sets forth these sentiments,

...it's time for land trusts to let go of many of the purist attitudes we have held, and to start valuing and cultivating the social benefits of our land protection work. By including people in our decisions, more sustainable management strategies will ultimately develop. (*pers. comm*, Mann, 1999)

Including people is central to the ILCDS model, which came about by seeking to address the needs of land trusts, a relatively small, distinctive sector working predominantly with private landowners at the local and regional level. These organisations, though perhaps different in their structure and approach, have long wrestled with the same questions as their public counterparts across the US and Britain. While this paper does not nearly approach full explication of the questions—or answers, it does lay a foundation to begin the process of asking the right questions and building the right tools to help provide answers to these questions.

As land trusts throughout America and Britain reiterated repeatedly throughout the Phase III interviews (Chapter 7), all the data and analysis in the world does not mean much unless the ability to communicate ideas and information to others in ways they can connect or relate to exists. This was and continues to be a primary consideration in the development of ILCDS, and why plans include several modes in which data can be displayed and presented.

Although the purpose of this dissertation is primarily aimed at evaluating and structuring the conceptual ILCDS model, there is no reason why the technology used to build numerous commercial software packages available today, making them fun and easy to play, cannot be built to support the land conservation decision-making process at the land trust level—and beyond. Future research will centre on full-scale

ILCDS model development. Primary objectives for the ILCDS are: 1) affordability; 2) accessibility–PC based; 3) ease of use and data input; 4) useful output in easy to understand formats; and 5) ability to respond to changing conditions. As funding allows, ILCDS will be tested on case study sites using an interactive, land use planning support system to assist in projecting future implications and evaluating the likely impacts of land use decisions.

Chapter 3, will both provide an interpretative analysis and exploration into the relationship between law and the social spatial landscapes through which law is conceived and from which it draws meaning in context. To maintain consistency in coverage between the UK and US the Chapter will assess legislative commonalties, differences and fragmentation as they pertain to the protection of private land resources, with respect to both countries.

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**CHAPTER 3**

**THE POLICY ARENA:**

**Assessing UK and US Enabling Laws and Statutory Instruments**

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### 3.1 Introduction

This chapter is both an interpretative analysis and an exploration into the relationship between law and the social spatial landscapes through which law is conceived and from which it draws meaning (Mitchell, 1994).<sup>1</sup> In an effort to maintain consistency in coverage the Chapter will assess legislative commonalities, differences and fragmentation as they pertain to the protection of private land resources, in both Britain and the United States. Applicability of European Community laws for the UK will be addressed as appropriate.

To set an apposite context the chapter also examines the nature of landownership, policies, and the evolving role of non-profit land trusts in the US and Britain in land use and conservation within this framework. Specific attention is given to conveyance of conservation easements, as this legal ‘tool’ has become a dominant feature in the protection of private lands across the US and more recently Canada, particularly at the land trust level.

#### 3.1.1 Characterising the Contextual Legal Setting

The law affects us all. Within the larger arena of land use and the environment in which the protection of land resources generally lies, decisions about the use to which particular land resources should be put are constantly being made. The laws and policies that have been enacted influence these decisions. Therefore, in

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<sup>1</sup> The meaning of the term landscape is extremely complicated and involves a long and intellectual genealogy. Throughout I tend towards treating landscape as a form of cultural practice and adopt Mitchell’s aim to “think of landscape, not as an object to be seen or a text to be read, but as a process by which social and subjective identities are formed.” I question therefore, the proposition that in contemporary western societies the landscape involves only the surface or topography of the land.



order to address the role of social influences and economic forces within the setting of private land conservation, it is important to know and understand the dimensions of the legal setting in operation.<sup>2</sup>

Law is rarely static and legal research and interpretation of law can be complex at its best. The law as it pertains to the conservation of land in both the US and Britain is further complicated in that not only does it implicate many different facets, it extends through and across several legal dimensions, including but not limited to common law, real property, planning, and environmental law. Assessing the nature of legislation governing the use, tenure and protection of land resources across two nations requires both an appreciation of the different legal frameworks and an understanding of the public consciousness and the influence it has over the policy domain.<sup>3</sup> The laws enacted depend on the social, political and economic context of a given society (Marchak, 1998). To aid in understanding the process in the UK and US, and ultimately a source of many existing gaps within the infrastructure of laws pertaining to the conservation of private lands, Figures 3.1 and 3.2 trace the bill to law course for each country at the national level.<sup>4</sup> Bills enable respective governments to carry out important aspects of party policy and to meet the demands of shifts in society's expectations. In both Britain and the US, the political party in power has a strong influence over the laws that are passed. Public opinion in turn influences what is socially acceptable. In recognition of growing public concern over environmental issues, the major political parties of both countries have linked

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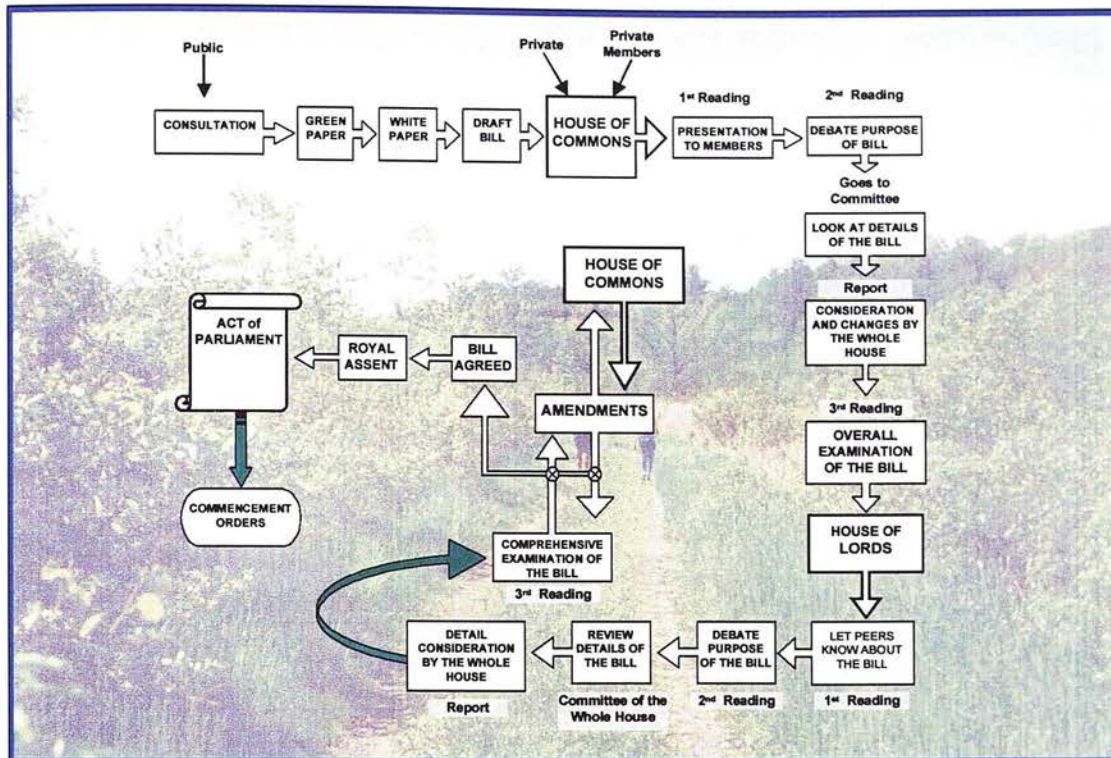
<sup>2</sup> Conservation as defined in U.S.C. Title 26, Section 170 (h) (4) Conservation purposes.

<sup>3</sup> "Tenure" is derived from English feudalism. Following the Norman conquest of England in 1066, all previous land rights were declared void and were replaced with grants from the new monarchy. Land tenure means the terms under which land is held; thereby determining the rights and obligations of the landowner.

<sup>4</sup> In the US each state has a system similar to that at the federal level. In the UK, Scotland has its own legal system, which functions in coordination with that depicted. This system has often resulted in legislation being separately drafted and considered or tagged on to legislation for England and Wales. Historically the separate legal systems have sometimes resulted in very different judicial decisions north and south of the border despite similar legislation. Occasionally, two or three separate Acts of Parliament are required, as in the Town and Country Planning Acts wherein three separate Acts were required one each for England and Wales, Scotland and Northern Ireland. With the advent of the Scottish Parliament, and passing of legislative competence from Westminster to Scotland this may change. Land reform issues are high on the list for early consideration by Scotland's new Parliament.

various aspects of environmental protection to their political platforms. Yet despite the British love affair with the countryside, successive governments have been rather slow to recognise the environment as a distinct policy issue. McCormick (1997) astutely notes “The most striking thing about British environmental policy is that there isn't one.” Actually, the US is similar in this regard, and lacks a comprehensive national environmental policy as well.

Figure 3.1 Bill to Act of Parliament Process in UK



Background: Kingsweston Down Area under management agreement with Avon Wildlife Trust.

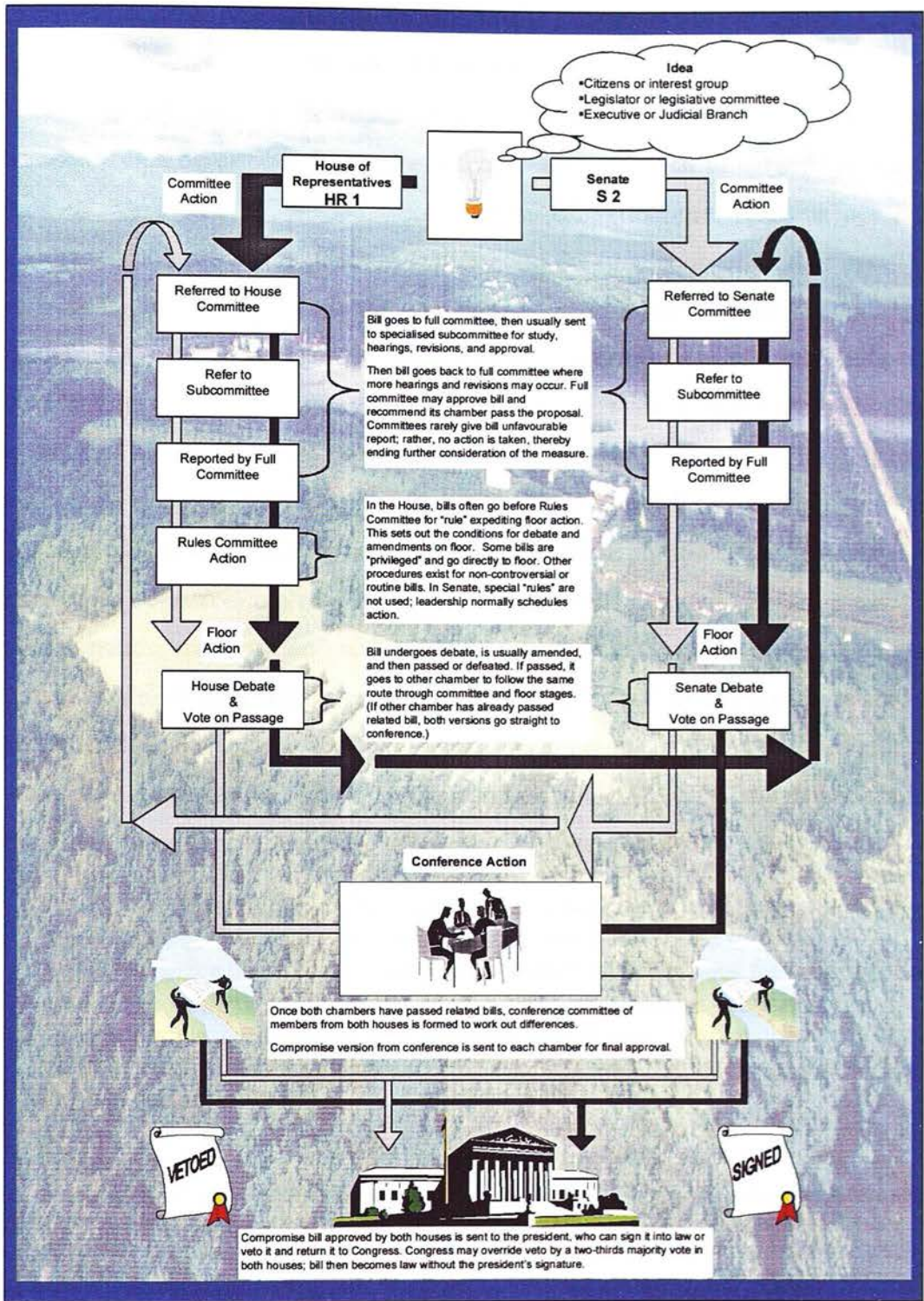
Unique to the legislative process in Britain is that despite several readings and debate on proposed legislation, amendments made can not fundamentally alter the nature of the bill as originally introduced (Greer, 1985).

Figure 3.2 shows the most typical way that proposed legislation is enacted into law at the Federal level in the US (U.S. GPO, 1977; Office of the House Parliamentarian, 1998; Bach, 1999). There are more complicated, as well as simpler, routes, and most bills never become laws. The process is illustrated with two hypothetical bills, House bill No. 1 (HR 1) and Senate bill No. 2 (S 2).

Both houses must pass bills in identical form before they can be sent to the president. The path of HR 1 is traced by a black line, that of S 2 by a grey line. In practice, most bills begin as similar proposals in both the Senate and the House.



Figure 3.2 Bill to Law Process in US



Background: Orchard in historic Hudson River "Olana Viewshed", New York. Protected by Scenic Hudson Land Trust with a conservation easement restricting the land's development in perpetuity.

Although the histories, legal systems and access to information contained therein may at times bear little resemblance to one another, the basic aspiration of the body of laws aimed at providing protection for land and its resources in the US and UK is much the same—to protect a variety of landscapes for their various unique attributes.<sup>5</sup> One observable difference is the general approach to agricultural lands. While in many parts of the US the protection of agricultural lands is not only embodied in policies and regulations dedicated to the protection of land, it parallels, and in some instances exceeds the attention given to natural areas. For example, Pennsylvania’s Agricultural Area Security Act describes agricultural lands, “as valued natural and ecological resources which provide needed open spaces for clean air, as well as for aesthetic purposes”.<sup>6</sup> Yet, in Britain there has long been a considerable separation between agricultural policies and those dealing with the protection of land resources for *open space* and *aesthetic* purposes. The government’s approach to “conservation” in the UK has bifurcated into two distinct areas that include “nature conservation” and “historic conservation”. This history of rather separate treatment has also made a relatively clear break from policies related to agricultural lands. None-the-less, at the heart of numerous laws and policies guiding the use and conservation of land resources in both the US and Britain are similar intonations. For example, Planning Policy Guidance note 2 on Greenbelts states:

“...the use of land in them [Greenbelts] has a positive role to play in fulfilling the following objectives: to provide opportunities for access to the open countryside for the urban population; to provide opportunities for outdoor sport and outdoor recreation near urban areas; to retain attractive landscapes, and enhance landscapes, near to where people live; to improve damaged and derelict land around towns; to secure nature conservation interest; and to retain land in agricultural, forestry and related uses”.<sup>7</sup>

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<sup>5</sup> For the purposes of this research and clarification, the ellipsis ‘UK’ is used to refer collectively and generally to England, Scotland and Wales (and respective affiliate Islands). All aspects of the research exclude NI. As appropriate, discussion will refer specifically to individual UK constituents.

<sup>6</sup> See for example, Pennsylvania’s Agricultural Area Security Act of 1981, which recognises the importance of agricultural lands. 3 P. S. § 901 et seq., (regulations issued by the Secretary of Agriculture found in 7 Pa. Code §138.1 et seq.).

<sup>7</sup> Department of the Environment, PPG2 Greenbelts (Revised) January 1995. Note: PPG’s are applicable in England, however, both Scotland and Wales have similar policies. See Appendix 3-1 for listing of Planning Policy Guidelines.

Alternatively, in the United States the Uniform Conservation Easement Act (UCEA) allows for the creation of conservation easements to protect lands for several reasons.<sup>8</sup> The Uniform Act adopted in Texas for example, states that a conservation easement can be created for at least one of five purposes:

[T]o... (1) retain or protect natural, scenic, or open-space values of real property; (2) assure the availability of real property for agricultural, forest, recreational, or open-space use; (3) protect natural resources; (4) maintain or enhance air or water quality; and (5) preserve the historical, architectural, archeological, or cultural aspects of real property.<sup>9</sup>

or in Minnesota:

[T]o protect "...natural, scenic, or open-space values of real property, assuring its availability for agricultural, forest, recreational, or open-space use, protecting natural resources, maintaining or enhancing air or water quality, or preserving the historical, architectural, archaeological, or cultural aspects of real property."<sup>10</sup>

Laws controlling the use to which land is put have existed for many years. Among the earliest examples is the Town Planning Act 1909 in Britain that gave central government a key role in statutory town planning. The 1909 Act allowed the Local Government Board significant powers by incorporating existing law, and adopting regulatory models, from other legislation. Thus, giving central government a wide range of administrative, judicial and legislative powers while omitting to define clear limits to them (Herbert-Young, 1998). The earliest modern application of the land-use zoning power in the United States was initiated in 1867 in San Francisco to isolate obnoxious land uses in such a way as to protect the environment, both physical and social, of existing residences (Gerckens, 1995).

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<sup>8</sup> Uniform Laws Annotated, Master edition, St. Paul, MN: West Publishing Company, 1968, as amended by 1998 pocket part 10.

<sup>9</sup> Tex. Nat. Res. Code Ann. § 183.001(1).

10. Minn. Stats. §84C.01.



The creation of “conservation areas”, though having different interpretations in the two countries, have long been recognised by respective statutes.<sup>11</sup> In Britain the term “conservation” has traditionally been qualified by either “historic” or “nature”, which as mentioned earlier has effected the creation of various pieces of legislation dedicated to their individual contexts.<sup>12</sup> This dichotomy in the UK may find its origins in the unusual beginnings of the nation’s early conservation laws that can be traced to the Housing Act of 1923 (Delafons, 1994; and 1997).

Buried in the Act and undebated is a an interesting and powerful section, Section 23, which stated:

“Where it appears to the Minister that on account of the special architectural, historic or artistic interest attaching to a locality it is expedient that with a view to preserving the existing character and to protect the existing features of the locality a town planning scheme should be made with respect to any area comprising that locality, the Minister may, notwithstanding that the land or any part thereof is already developed, authorise a town planning scheme to be made with respect to that area prescribing the space about buildings, or limiting the number of buildings to be erected, or prescribing the height or character of buildings, and subject as aforesaid in the Town Planning Acts, 1909 to 1923 shall apply accordingly.”<sup>13</sup>

Effectively the 1923 Act introduced the conceptual framework of ‘conservation areas’ though the term itself does not make an appearance until some 44 years later (Delafons, 1997). The details of how the 1923 Act came to include the strikingly comprehensive provisions of Section 23 which appear to be surreptitiously inserted trace back to discussions in Standing Committee and finally to the list of Marshalled Amendments to be moved in committee in the House of Lords on 9 July. The Earl of Crawford, Lord Wigan, sought to insert a new clause into the Bill which

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<sup>11</sup> See: Civic Amenities Act 1967 (UK), which introduced the concept of ‘conservation areas’. This is now embedded in the Planning (Listed Building and Conservation Areas) Act 1990 §69(1); Also, U.S. Statutes at Large, Vol. 32, Part 1, Chap. 820, and pp. 202-03. "An Act Reserving from the public lands in the State of Oregon, as a public park for the benefit of the people of the United States, and for the protection and preservation of the game, fish, timber, and all other natural objects therein, a tract of land herein described, and so forth." Public Act No. 121. U.S. Congress. 57th. 1st Session. Washington, DC: GPO (1902).

<sup>12</sup> See for example PPG 15 “Planning and the Historic Environment”; and National Trust Acts 1907.

<sup>13</sup> Emphasis added. (13 and 14 Geo. 5 c. 24).



was expressed in much the same terms as the final legislation.<sup>14</sup> Following then on 16 July an attempt to significantly enlarge the scope of the clause by seeking to insert the words “or restricted amenities” after “artistic interest” was made by Viscount Astor who had an interest in planning law. Though Astor’s proposal failed the Earl of Onslow succeeded in ensuring the provision would apply to Scotland (Cocks, 1998).

### 3.2 Law and Laws: an Introduction in Context

What is law?<sup>15</sup> More specifically what is “land use law?” Land use law, broadly defined, encompasses the full range of laws and regulations that influence or affect the development and conservation of the land. This law is intensely intergovernmental and interdisciplinary. In many ways land law is not dissimilar from a bridge—a very solid everyday thing which provides a pathway from one place to another. In US land use law there are countless intersections among federal, state, regional and local statutes; it is significantly influenced by other legal regimes such as environmental, administrative and municipal law, to name a few. Similarly in the UK, laws applicable to land use are found within numerous statutes spanning the domains of property, planning, environment, and local government laws.<sup>16</sup>

How do we interpret what the law says? There are numerous ways to interpret a statute.<sup>17</sup> Herein a combination of textualism, structural textualism, and

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<sup>14</sup> Ibid. at pp. 1871, 1874. Amendment refers to “protecting” rather than “protect” as in the Act.

<sup>15</sup> Though full exploration of this query is outside the boundaries of this research, within the ethics-economics-policy paradigm and the contextual setting it is important to recognise that law is an evolving product of diverse institutional actors. This is clearly demonstrated in *Babbitt v. Sweet Home Chapter of Communities for a Great Oregon*, 115 S. Ct. 2407 (1995); Scalia, J., dissenting.

<sup>16</sup> Scotland has long had its own legal system and therefore particular laws may differ from those implemented in England and Wales which are directed by the same body of national laws. While there appears to be a number of differences among early laws, more recent laws vary to a much lesser degree and often only the date of actual application distinguishes them.

<sup>17</sup> Labels such as intentionalism, purposivism, textualism, structural textualism and hypertextualism are employed by those charged with the task of interpreting or in a judicial sense “finding the law”.

purposivism is generally applied to examine words not only in their ordinary sense, but also in looking at the structure of the statute as a whole.<sup>18</sup>

### 3.3 Land, Property and Ownership

What is land? In law, land is referred to as real property or realty. Real property includes the land and the things attached to it—such as houses.<sup>19</sup> Land is unique; it is permanent, almost indestructible, has an income value and is capable of almost infinite division and subdivision (Lawson and Rudden, 1982). It is also ‘incorporeal hereditaments’—the intangible rights over the land, such as an easement. Real property is distinguished from personal property, which generally refers to things that are moveable.<sup>20</sup> In *Reynard v. City of Caldwell*, the court determined that the term “land” may be used interchangeably with “property”; it may include anything that may be classed as real estate or real property.<sup>21</sup>

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<sup>18</sup> Intentionalism endeavours to reconstruct congressional or parliamentary intent, frequently relying on its legislative history. Purposivism differs in that statutory language is measured against its purpose, which may be more broadly interpreted than is intended. Textualism looks to the definitions of words in accordance with their ordinary meaning. Structural textualism looks at the structure of a statute as a whole to determine if there is consistency surrounding key terms used throughout the statute. Both textualism and structural textualism are dependent on the internal context or rules of the statute, including grammar. Hypertextualism uses both rules of other forms of textualism in addition to analysing other statutes as if they were a reference guide or dictionary for interpretation. There is no uniformly accepted method for interpretation, ordinary or literal interpretations can sometimes lead to absurd results, wherein the “Golden Rule” is invoked. See Scalia, A. Judicial Deference to Administrative Interpretation of Law, 1989 Duke L. J. 511. Examples of Justice Scalia’s use of the Golden Rule can be found in *Green v. Bock Machinery Co.*, 490 U.S. 504, 527 (1989), and; *Kmart Corp. v. Cartier, Inc.*, 486 U.S. 281, 324 (1988). The golden rule may be used to modify the literal rule to avoid absurdity (McEldowney and McEldowney, 1996, p.13.)

<sup>19</sup> With the number of boundary and governmental changes, statutory revisions, treaties with Native American tribes, Spanish, French and English land grants, and fraudulent activities that have affected lands across the United States, it is impossible to give comprehensive treatment to the vast issues in a single dissertation chapter. Henry D. Whitney, noted 19th Century attorney, when describing the subject of real property in but one state, that of Tennessee, commented:

“The law of real property in Tennessee is of a peculiar and complex character, more so, probably, than that of any other State in the Union except those in which titles are affected by old Spanish grants, as for example Louisiana and Mississippi (Whitney, 1891).

<sup>20</sup> See Black’s Law Dictionary 5<sup>th</sup> edition, Definitions of the Terms and Phrases of American and English Jurisprudence, Ancient and Modern. St. Paul, MN: West Publishing Co., 1979, pp.1511.

<sup>21</sup> 55 Idaho 342, 42 P.2d 292, 297.

Thus, land in law is four dimensional as is reflected in two tenets—*cuis est solum eius est usque ad coelum et ad inferos*—literally ‘he who owns land owns everything extending to the heavens and to the depths of the earth’, and—*quicquid plantatur solo, solo credit*—‘what ever is attached to it becomes part of it.’ However, case law and other statutory limitations in both the US and UK has served to restrict these maxims in recent years.<sup>22</sup>

The ownership of land in both the US and Britain bestow certain property rights which arise out of law (statutory and common), custom, and the operation of private markets, with implications on how land and other natural resources are used. The laws of both the US and UK treat land and ownership of land in a particular way which is different from the ordinary way of thinking about land and its ownership. There is a specialised vocabulary in property law, a sort of ‘Double Dutch’ that includes words as *profit à prendre*, *fee simple* and *easement*.<sup>23</sup> In addition to having its own specific terminology, property law also uses some ordinary words like land and ownership, though in a much different way than they are used in everyday conversation. Its concepts can be difficult to grasp and new combinations are being constantly worked out, Lawson (1951) explains the problem like this:

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<sup>22</sup> See *Bernstein v. Skyviews & General Ltd.*, (1978) QB 479, which restricts the boundaries of the “heavens”; and, Civil Action Act 1982 § 76 which imposes a restriction on a owners right to sue in trespass or nuisance by providing that no action shall lie where an aircraft flies over a property at a reasonable height.

<sup>23</sup> Fee simple – The most extensive tenure allowed under the feudal system allowing a tenant to sell or convey by will or by transfer to a heir if the owner dies intestate. In modern law, almost all land is held in fee simple and this is as close as one can get to absolute ownership in common law.

Profit à prendre – A servitude which resembles an easement and which allows the holder to enter the land of another and to take some natural produce such as mineral deposits, fish or game, timber, crops or pasture.

Easement – Grounded in English common law, essentially a right of passage over a neighbour's land or waterway. An easement is a type of servitude. For every easement, there is a dominant and a servient tenement. Easements are also classified as negative (which prevents the servient landowner from doing certain things) or affirmative easements (the most common, which allows the beneficiary of the easement to do certain things, such as a right-of-way). Although right-of-ways are the most common easements, there are many others such as rights to tunnel under another's land, to use a washroom, to emit smoke or fumes, to pass over with transmission towers, to access a dock or a well.

“...above all, this part of the law is intensely abstract and has become a calculus remarkably similar to mathematics. The various concepts...seem to move among themselves according to the rules of the game which exists for its own purpose. So extreme are these various characteristics that they make of this part of the law something more logical and more abstract than anything that to my knowledge can be found in any other law in the world.”

Ownership as used in everyday parlance means the right of an owner to have exclusive possession and use of something and to be able to sell it or give it away. Land ownership is sometimes considered to imply the right to do whatever a landowner wishes with her or his land. Much of the popular debate over property rights appears to be based on this supposition. In fact, the reality of landownership is considerably more complicated. The laws of the US and Britain divides up land ownership into a bundle of separate ownership rights. This is rooted in English feudal law, the underlying principle of the system being that nobody owned land but the king, who gave rights over parcels of land estates to lords (Chappelle, 1997).<sup>24</sup> An estate then is not the piece of land itself but a bundle of rights in relation to a piece of land.

This “bundle of rights” constituting landownership, are not all necessarily held by the landowner.<sup>25</sup> The uses that a landowner may make of his or her land depend on who holds what rights within the bundle that constitutes ownership. The public and its representatives, including respective national governments, have long

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<sup>24</sup> Note: following the Battle of Hastings in 1066, William declared himself King and owner of all land. To this day in Britain, all land *ultimately* belongs to the Crown. Thus, if a person dies intestate with no heirs to inherit under the intestacy laws, his or her property goes back to the Crown (or Duke of Cornwall, or Duchy of Lancaster as appropriate). In reality, the lands value goes to the Treasury. Before this time, land ownership in ancient England, as with most objects, depended primarily on possession. You had it, you owned it. You wanted it, you fought for it. You found it, you kept it. There were no courts or police force ready to recognise or enforce “legal rights”, as today.

<sup>25</sup> Essentially the rights of landownership, or the proverbial “ownership bundle” is much like owning a bundle of sticks, each stick represents a different right that is attributable to landownership, i.e., development, forestry, mining, farming, recreation, etc. Rights typically removed from the land by a conservation easement include development and mining. Those rights that remain with the land are generally those seen as non-destructive and otherwise conducive to the protection of the resource itself, as well as particular uses of the land such as farming, forestry and recreation. (Gustanski, J.A., Chapter 1. Protecting the Land: Conservation Easements-Voluntary Actions-Private Lands. Gustanski and Squires, eds. Protecting the Land—Conservation Easements, Past Present & Future. Island Press: Washington, DC. pp. 1-37 (*in press*).

made use of this fact to influence public and private land use in ways that accomplish various public objectives. To understand how this influence is exercised, it is important to consider what property and ownership means.

Both property and ownership are legal notions fixed in social institutions (Jacobs, 1997; Marchak, 1998). They pertain not merely to tangible objects but to the intercourse between individuals and society that control access to these material objects. As Yougman (1993) points out, “The legal concept of property does not denote the tangible or intangible objects that are termed property in common speech. Rather, property as a legal concept refers to rights and interests in such objects.”

Real property refers specifically to interests in land, such as rights to draw water, graze livestock, grow crops or build houses. As Coase writes,

We may speak of a person owning land and using it as a factor of production but what the landowner in fact possesses is the right to carry out a circumscribed list of actions. The rights of a landowner are not unlimited... [For example,] it may or may not be possible to erect certain types of buildings or to grow certain crops or to use particular drainage systems on the land. This does not come about simply because of Government regulation. It would be equally true under the common law. A system in which the rights of the individual were unlimited would be one in which there were no rights to acquire (Coase, 1960).

Here, these legally defined rights and interests in land are considered from an economic perspective. Seen from such a perspective, interests in land represent expectations about what uses will be legally permissible over time, as well as expectations about the returns those uses will generate. Returns may be derived from farming, development, extraction of both surface and sub-surface resources (e.g. minerals, timber, etc.) as well as recreation and a variety of other uses. Land values reflect these alternative uses, and will change over time as expected returns to these uses change.

The importance of considering legally defined interests from an economic perspective becomes critical in the context of current debates in both the UK and the US over private property rights. In the US, for example legislation recently considered by Congress required that private property owners be compensated not



only when a “taking” occurred, but also whenever government actions diminish property values.<sup>26</sup> Because such values incorporate expectations not only about permissible uses but also about possible significant returns to those uses over time, interests in land require careful consideration.

### **3.4 Framework of Land Conservation Law and the Non-profit Sector**

The law, properly construed and used, serves as the legal context for an environmental decision-making process and is in itself a tool. What follows in Sections 3.5 through 3.6 and their respective sub-parts is an analysis of the framework and primary objectives of UK and US laws as they relate to the protection or conservation of private land. The policies pursued are also important in understanding the basis for the legal rules. Policy considerations involve assessing public opinion, understanding commercial and economic constraints and often balancing the interests of the consumer, the citizen and various interests groups simultaneously—or at least attempting to. Coverage here is designed to address those laws most relevant within the particular framework under analysis. Environmental, planning and other related policies develop at different levels of government activity (i.e national, state, and international laws). Assessment of the policy framework is essential in interpreting the application of legal powers and in providing a context for understanding both environmental problems as embodied by land use issues as well as the legal and scientific basis of applicable laws.

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<sup>26</sup> *Lucas v. South Carolina Coastal Commission*, 112 S. Ct. 2886, 2895 (1992). The Court determined that a regulation which deprives a property owner of all beneficial use of his property requires compensation, unless the owner's proposed use is one prohibited by background principles of property or nuisance law existing at the time the property was acquired.

The available historical evidence demonstrates that the drafters of the Bill of Rights included a takings clause to address outright physical appropriations of private property — such as government expropriation of private land for a road or some other public facility — but not to address regulation of the uses of property. However, the U.S. Supreme Court has ruled that certain regulations can go “too far” and therefore result in takings as well. In general, the Court has ruled that regulation, which, for all intents and purposes, is identical to a physical appropriation, amounts to a taking requiring payment of just compensation.

In that this research focuses on non-profit (voluntary) sector land conservation, it is both of interest and importance to understand the realm of the policy and political structure that ultimately defines their boundaries. While many similarities do exist, particularly with regard to stated goals, objectives and causes supported by land trusts in the US and UK—from a legal perspective, each nation has addressed the conservation of land and its diverse resources (i.e. cultural, natural, agricultural, habitat, open space, etc.) in its own unique way. In order to reflect on the paths chosen in an effort to attain common goals, the legal framework for each country is presented. Scanning the outline alone reveals different orientations. Generally, the system applied in the UK can be typified as being grounded in a planned system. The planning laws are set at the national level and play an important role in organising the structure through which all other land use laws are ultimately governed. However, in the US, a very different pattern has emerged, one that might be best generalised as being policy or statutorily grounded. Having said this, it should not be assumed that the laws pertaining to conservation of private lands in the UK or the US could be found under a single principle body of laws—to the contrary!

### **3.5 In the UK**

#### **3.5.1 Legislative framework assessment**

The laws of the UK have developed over centuries, but can be generally separated into common law, determined by precedent and statutory law, determined by Acts of Parliament (Bell, 1997; Elworthy and Holder, 1997). European law is rather more recent and somewhat easier to define, although its applicability to issues at hand appear to be limited in scope.

As noted earlier, Scotland has a different legal system from that of England and Wales. Each has its own court system and body of laws. English law is derived from English common law with a heavy influence of medieval Germanic sources. Scottish common law is derived from Roman law roots but has, over the past few centuries, developed many affinities with the English common law. Thus, while some of the older related legislation is significantly different, newer environmental and planning legislation appears to be increasingly uniform, differing only in date of



application, detail and responsible enforcing authority. To cover the entire breadth and depth of laws touching on land use and conservation would require a specialised textbook and is therefore impossible in this context. Therefore, the following sections focus broadly on laws that have been laid down through various Acts of Parliament and through EC Directives.

In 1942 the Report of the Committee on Land Utilisation in Rural Areas, (the “Scott Report”) made the assumption that agriculture and forestry were the true guardians of Britain’s countryside heritage and thus should lie outside the planning machinery which controls and addresses the built environment.

The unfortunate result has been that all pieces of legislation aimed at the protection of the countryside have effectively sought to allow some management over a resource that generally has escaped legislative control. This has in turn resulted in a tendency to designate areas of land over which there are certain powers created that often can only be enacted on a voluntary basis. This lack of statutory power, while bringing some benefits has also brought problems and has limited the efforts of local and regional land trusts in Britain. The National Trust Act of 1907 and amendments have lent substantial powers to the National Trust and will be dealt with separately.

While assessment will talk to various laws, principal among them are:

- Town and Country Planning (England & Wales) Act 1947
- National Parks and Access to the Countryside Act 1949
- Countryside Act 1968
- Wildlife and Countryside Act 1981.

Keeping in mind that Scotland has its own legal system and much of the legislation may not directly apply to Scotland. The Countryside Act (1968) for example has a similar Scottish counterpart.<sup>27</sup> Some of the idiosyncrasies of Scottish laws will be highlighted in section 3.5.5. It is instructive to examine the English and

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<sup>27</sup> Countryside (Scotland) Act 1967

Welsh experience, however, as many of the arguments and debates were paralleled in Scotland, but due to the separate legal system were addressed in different ways.

### **3.5.2 Statutory Law**

Legislation can take a more preventative course than common law by identifying and reacting to various constraints of society. The outline that follows serves first to give a general overview of environmental law in the UK. Secondly, to identify and highlight the body of laws together with the governmental structure for planning, environmental, and development control laws affecting the arena of private land conservation in the UK. Table 3.1 reflects primary UK and EU legislation applicable to conservation of natural resources together with related international conventions to which the UK is a member.

Table 3.1 Applicable UK and EU laws and International conventions on conservation.

Legislation	Objectives & Features
The National Trust Acts 1907 (with amendments to 1994)	Conferred statutory authority to the NT to acquire and hold lands, buildings and hereditaments and any rights, easements or interests therein or thereover any property of whatsoever nature for purposes of public enjoyment.
Town and Country Planning Act 1947	Provides county councils control over development
National Parks and Access to the Countryside Act 1949	Responsible for forming NCC, National Parks Commission (NPC), National Parks, ANOBs, NNRs, LNRs, and rights of way and access to open country.
Countryside Act 1968	Countryside Commission replaces NPC; provisions on access to the countryside and regard for conservation.
Ramsar Convention on Wetlands of International Importance 1971	Conservation of Wetlands of International Importance established, particularly as waterfowl habitats.
UNESCO Convention for the Protection of World Cultural and Natural Heritage 1972	Identification and conservation of natural and cultural sites of outstanding international value.
Wild Birds Directive 79/409/EEC	Provide for protection of wild bird species and their habitat in the form of SPAs.
Bonn Convention 1979	Provides for the conservation of migratory species of wild animals.
Wildlife and Countryside Act 1981	Designation of SSSIs, NRs, MNRs and Areas of Special Protection for Birds (AOSPs), Nature Conservation Orders, Limestone Pavement Orders (LPOs), and protected species.
Berne Convention on the Conservation of European Wildlife and Habitats 1982 (protected plant species list revised in 1991)	To conserve wild flora and fauna, including migratory species, and their natural habitats; contains schedules of protected species; used as the basis for UK wildlife legislation and EC Habitats Directive 92/43/EEC.
Wildlife and Countryside (Amendment) Acts 1985, 1991	Revision of protected species designations; SSSI designation operative immediately on notice from NCC.
Regulation 797/85/EEC and Agriculture Act 1986	Environmentally Sensitive Areas (ESA's) for protection of wildlife by adoption of suitable agricultural methods.
Environmental Protection Act 1990	Replacement of NCC by regional agencies and JNCC; various provisions for environmental protection, including additional protection for SSSIs, a prescribed list of polluting activities and substances and integrated pollution control.
Town & Country Planning Act 1991	Established requirements for planning permission.
Planning Compensation Act 1991	Provides added classes of projects requiring EIA; LA to safeguard conservation areas is strengthened.
National Heritage (Scotland) Act 1991	National Heritage Areas (NHAs) established; affordable special protection for both wildlife and land.
Habitats Directive 92/43/EEC	Special Areas of Conservation (SACs) for protecting habitat of both flora and fauna; lists priority species for SAC designations.
Environment Act 1995	Augments EPA 1990, establishes new regime for contaminated land & environmental liability

Adapted from: Morris and Therivel (1995)

### 3.5.3 Environmental Law – an overview

Environmental law is a term that is used traditionally in the UK to include a variety of legislation which is, in some way, concerned with the control of environmental damage. Some laws are very narrow and relate to only one issue or activity—such as the Mobile Homes Act 1983. In recent years many older laws have

been consolidated into large, wide ranging Acts. Two very important examples are the Environmental Protection Act 1990 and the Environment Act 1995.<sup>28</sup> These replaced and modified much previous environmental legislation.

During the last 20 years there has been a greater public awareness of environmental issues which have been brought to the public's attention by major world events such as the nuclear accident at Chernobyl and various oil tanker disasters around the world which received massive media coverage. In addition, pressure groups like Greenpeace and Friends of the Earth are constantly forcing environmental issues into the media. Within the European Union (EU), environmental legislation is a high priority and the UK has been forced to take it seriously through a number of EU Directives.

Environmental laws in the UK can be found in national laws of the United Kingdom, European Union laws and international laws. In the United States, environmental laws exist at the state, national and international level. Laws reflect policies, and policies reflect the vision of the government of the day and (to some extent) the will of the people. Consequently, legislation is always perceived as being weak by those who support it.

There is a wide variety of means available for the enforcement of environmental law. Criminal prosecution may impose a fine or imprisonment. Injunctions or claims for damages may prevent some harm from occurring or compensate for injury sustained. Licences, permits or contracts may regulate and set standards. For example, in the UK the Environment Agency is responsible for issuing discharge consents for companies wishing to discharge wastes into rivers. Such enforcement agencies have wide powers to inspect, report and take action.

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<sup>28</sup> Environmental Protection Act, 1990 c.43 (c. 43/1990); Environment Act 1995 (c. 25/1995)

### 3.5.4 The Laws and their policies

#### 3.5.4.1 National Trust Act 1907 to 1971

Incorporated as a not for profit association in 1894, the National Trust for Places of Historic Interest or Natural Beauty (National Trust or NT) is the longest standing, largest and without much question the strongest of the of the nations “land trusts”.<sup>29</sup> The National Trust Act of 1907, achieved two important goals which, over the years facilitated its position of dominance.

Perhaps most importantly, it conferred upon the NT certain powers envied by other land trusts operating in the UK. Subject to § 4(2) and the provisions of the Act, the NT may:

“...acquire by purchase gift or otherwise and may hold without license in mortmain lands, buildings and hereditaments and any rights, easements or interests therein or thereover any property of whatsoever nature and may manage or assist in the maintenance and management of lands as open spaces or places of public resort and buildings for the purposes of public recreation resort or instruction and may accept property in trust for any public purposes and may act in any trusts for trustee of any property devoted to public purposes and may do all acts or things and take all such proceedings as they may deem desirable in the furtherance of the objects of the National Trust and they may upon or with respect to any property belonging to them or in which they have any interest do all such things and make all such provisions as may be beneficial for the property or desirable for the comfort or convenience of persons resorting to or using such property and may exercise full powers of ownership over their lands and property according to their estate and interest therein no inconsistent with the objects for which they are constituted and may apply their funds to all or any of such objects.”

These powers, while significant in their own right were subsequently strengthened by future Acts of Parliament.

Section 21 of the 1907 Act deems certain property held by the NT to be inalienable “so far as the same is vested in the National Trust...for preservation for the benefit of the nation”. In furtherance of the inalienability clause the 1971Act

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<sup>29</sup> The National Trust (England & Wales) is the third largest land owner in the country after the State and the monarchy (Bromley, 1997)

§27 provides that §84 of the Law of Property Act 1925, which contains power to discharge or modify restrictive covenants over land, shall not apply to restrictions imposed for the purposes of (a) preserving; or (b) protecting or augmenting the amenities of; or (c) securing access to and enjoyment by the public of; any property which is or becomes inalienable under §21 of the Act of 1907 or §8 (Mansion and lands to be inalienable by National Trust) of the Act of 1939.<sup>30</sup> This puts the NT in a beneficial situation, with regard to prospective donors looking for assurance that land given to NT will be protected in perpetuity (Dwyer and Hodge, 1996).

Successive Acts of 1937, 1939, 1953 and 1971 made yet further provisions with respect to the transfer and protection of lands by the National Trust. Significantly, the 1939 Act extended provisions of the National Trust Acts 1907 to 1939 to the Isle of Man, provided approval was received from the Tynwald.<sup>31</sup> The powers conferred through various Acts have been deemed cumulative—thus enabling the National Trust’s unique prominence. Currently, the Trust holds about 400 separate and binding covenants over about 80,000 acres of open space across its jurisdiction (National Trust, 1997). Why these unique powers vested in the National Trust have not been granted to other conservation organisations in the UK, appears to be based on the NT’s position both in historical terms and in the earliest powers granted by the 1907 Act which conveyed the authority to promote permanent preservation...for the benefit of the nation.<sup>32</sup>

#### **3.5.4.2 Town and Country Planning Act of 1947**

While the primary instrument of ‘land use control’ in Britain during the first half century was the planning scheme, which was effectively control through zoning,

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<sup>30</sup> Note: National Trust Act 1971, Chapter vi contains the most significant modifications to the original Act of 1907. The fundamental purpose of the 1971 Act was first to amend the NT Acts of 1907 to 1953 and to convey further powers in the NT. The most recent amendments, 1980 through 1994, to the 1971 Act can be found in Schedules 1 and 2. The primary concern of recent amendments has been governance, council and voting issues.

<sup>31</sup> Ch. lxxxvi, National Trust Act 1939, 2 & 3 Geo.6, §16.

<sup>32</sup> Ch. cxxxvi National Trust Act 1907 7 Edw. 7, § 4 (1).

the 1947 Town and Country Planning Act (TCPA) introduced a system that was markedly different (Cullingworth and Nadin, 1994.)

With the advent of the 1947 TCPA, virtually all development was brought under statutory control through the Acts' requirements for planning permission (Gilig, 1997; Cullingworth, 1994). The Act had a profound effect on planning in the UK and its impacts resound throughout today's landscape. Under the 1947 Act planning was no longer just a regulative task, all areas of the country were now required to prepare strategic development plans, powers were transferred from the district to county councils—with the smallest unit for planning at the county level. Significantly, for private landowners was the nationalisation of development rights and associated values in land. Thus, landowners were placed in a position of owning only existing use rights and values in their land. Compensation for development rights was to be paid off once and for all from a national fund and developers were required to pay a development charge amounting to 100 percent of the increase in value of the land after development. Thus, the 'compensation bogey' was at last to be totally eliminated; and all future development would occur consistent with 'good planning principles.'

The planning system operates to secure the efficient and effective development and use of land in the public interest.<sup>33</sup> Its principal purpose, set out in the Environment White Paper *This Common Inheritance* (Cm 1200) is to "provide for homes and jobs, and to meet our desire for mobility, at the same time as conserving our heritage and protecting the environment." While environmental protection has long been an important focus of the planning process, it has never been its sole concern (Rowan-Robinson, 1997). The planning system is the key part of local administration, and its scope means that it can be a force for protection of the environment, or as is sometimes the case, it can allow the indiscriminate destruction of social, cultural and environmental 'wealth'. The planning system provides an important means for protecting and enhancing the environmental quality of the

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<sup>33</sup> Town and Country Planning Act (1990)



nation's towns, cities and countryside, and a forum for public information, involvement and debate.

Planning Policy Guidance Notes (PPG's) set out the Government's policies on different aspects of planning, (see Appendix 3-1). Local planning authorities must take their content into account in preparing their development plans. The guidance may also be material to decisions on individual planning applications and appeals. From the principal purposes of the planning system, three general objectives for development plans and development control can be set out:

- to set the land use framework for promoting economic development;
- to encourage economic, social and environmental regeneration; and
- to maintain and enhance the quality of the natural heritage and built environment.

All three have implications at national, regional and local levels, and relate to the global need to guide today's development in ways that can sustain our environment for the future.

The main piece of legislation is the Town and Country Planning (England and Wales) Act 1947, revised 1972, and substantially amended over the last twenty plus years. Scotland's principal piece of legislation bears a similar title, the Town and Country Planning (Scotland) Act 1997.<sup>34</sup>

#### **3.5.4.2.1 PPG2 Green Belts**

The notion of "green belts" appears to be lifted practically verbatim from the Abercrombie 'Greater London Plan'.<sup>35</sup> Green belts are "designated" by the SNH (formerly the Countryside Commission Scotland) or the Secretary of State in Scotland and the Countryside Commission for England and Wales. Essentially green

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<sup>34</sup> Town and Country Planning (Scotland) Act 1997. An Act to consolidate certain enactments relating to town and country planning in Scotland with amendments to give effect to recommendations of the Scottish Law Commission. [27th February 1997]

<sup>35</sup> Abercrombie, Greater London Plan, HMSO (1945).

belts are the result of national planning policy, expressed through County Structure Plans or development plans; as such they are open to review and amendment. The largest green belt in the UK is known as the Metropolitan Green Belt, around London. There are other major green belts around the West Midlands conurbation, Manchester, Liverpool, and in South and West Yorkshire. The principle of green belts established in 1955 is growing still in some parts of the country. For example, between 1979 and 1993 the green belt area designated in England doubled.<sup>36</sup>

The principle is that a certain area around a metropolis has certain controls against development in place. Precise Green Belt boundaries are laid out in Local Plans. The Local Plan is the document produced by the planning authority (usually a district or borough council in England) to provide a policy for planning decisions. Land within the Green Belt must contribute to one or more of the five purposes of the Green Belt set out in Planning Policy Guidance Note 2 (PPG2 Green Belts):

- To check the unrestricted sprawl of built-up areas
- To safeguard the surrounding countryside from further encroachment
- To prevent neighbouring towns from merging into one another
- To preserve the special character of historic towns
- To assist in urban regeneration.

In observing rules of textualism, notice that no explicit mention is made of nature conservation. The term 'Green' in this case does not have that meaning, although it is often wrongly thought to do so. Green Belts were so called long before the word 'green' gained the wider use it has today.

PPG2 also states that Green Belt boundaries should be drawn so that they endure, and will not need to be altered at the end of the plan period—in reality, however, green belts do change over time. Normally land is excluded which it is not necessary to keep permanently open, even if there is no known intention or need to develop the land in the foreseeable future. PPG2 recommends that readily

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<sup>36</sup> Indicators of Sustainable Development in the UK, HMSO

identifiable boundaries should be used whenever possible, such as roads, hedges, streams or belts of trees.

In some cases the area designated is not a circular 'belt' as the name implies, but something else, such as green wedges—axes of protected land which extend into the city, or even 'green lungs'—areas entirely surrounded by development. While there are not many who would question the benefits Green belts have in providing open space in urban areas, they have more recently been criticised for causing 'leap-frog' development. The so coined, leapfrog development is a form of urban and suburban sprawl, occurring where development takes place in rural countryside, rather than in the more heavily protected suburban greenbelt areas. This form of sprawling development is of course by no means new, and the American system of zoning has been the target of similar attacks.

Green belts remain an intrinsic part of the environment, yet are under increasing pressures as a result of the explosion in building of out-of-town shopping centres, and houses in the fringe areas of the nation's villages, towns and cities.

### **3.5.4.3 The National Parks and Access to the Countryside Act of 1949**

National parks are areas in England and Wales that have been so designated under the National Parks and Access to the Countryside Act 1949 (NPACA) because of their "inherent natural beauty".<sup>37</sup> National parks in England and Wales differ substantially in a number of respects than so named "national parks" in other countries. Perhaps the most important difference is that the land within a designated national park boundary is not in effect 'national'. For one they, the park itself, belongs to the state; secondly, the majority of the land is owned and managed by private landowners; thirdly, they are not 'parks' as used in common terminology. Rather they are working environments and public access may be restricted (Bromley, 1997).

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<sup>37</sup> NPACA (1949) §6(1), (2) and (3).

In general, Britain's approach to nature conservation since 1949 has been to identify and protect prime areas of scientific interest as representative of the remaining natural and semi-natural biological, geological and physiographical areas in the country through designations.<sup>38</sup> This philosophy is clearly articulated in the 1949 NPACA, wherein habitat conservation through site designation is an overarching goal. The Act did not seek to incorporate earlier ideas of integrating nature conservation within the broader framework of emerging rural policy. This thinking pervades much of land and environmental policy through much of the later half of the twentieth century. Table 3.2 reflects principal statutory designations in the UK and lands protected thereunder.

Table 3.2 UK Statutory Protected Areas (1991)

<b>Statutory Designation</b>	<b>Number</b>	<b>Area protected (Sq. km)</b>
National Nature Reserves (NNRs)	286	1,725
Local Nature Reserves (LNRs)	241	171
Sites of Special Scientific Interest (SSSIs)	5,671	17,785
Areas of Scientific Interest (ASIs)	46	634
Areas of Special Scientific Interest (ASSIs)	26	69
Special Protection Areas (SPAs)	40	1,344
Biosphere Reserves	13	443
Ramsar Wetland Sites	44	1,377
Environmentally Sensitive Areas (ESAs)	19	7,856
National Parks	10	14,011
Areas of Outstanding Natural Beauty (ANOBs)	541	52,580

Adapted from: Cullingworth and Nadin (1994); Blackhall, (1998)

<sup>38</sup> More than 80 types of statutory and non-statutory wildlife sites exist in the UK. Some, such as National Nature Reserves (NNRs) and Sites of Special Scientific Interest (SSSIs) are designated under Acts of Parliament. Others, such as wildlife sites are designated under international conventions or directives such as Ramsar sites, special protection areas and special areas of conservation. These international sites are first notified by SSSI, as are NNRs. Other sites are selected by local authorities as either Local Nature Reserves (LNRs) or Sites of Importance for Nature Conservation (SINCs). Many other titles are given to non-statutory sites by local authorities and their quality varies across the country. Other frequently used designations include: Areas of Outstanding Natural Beauty (ANOBs); Local Nature Reserves (LNRs); Areas of Scientific Interest (ASIs); Biosphere Reserves; Environmentally Sensitive Areas (ESA's); Ramsar Wetland Sites; and National Parks.

For more than 30 years the UK assumed a sectoral approach to rural land use policy. Agriculture, forestry and nature conservation followed independent paths. The major thrust of government policy was to increase output and productivity of forestry and agriculture by giving incentives in the form of grants and subsidies to promote efficiency. This in turn caused the loss of many areas of high nature conservation value. The loss was intensified by the restricted remit of the NCC in relation to other land use policies.<sup>39</sup>

#### **3.5.4.3.1 National Nature Reserves and Sites of Special Scientific Interest**

Under the 1949 Act the primary task of the NCC was to identify and establish by agreement, lease or purchase a series of National Nature Reserves (NNRs).<sup>40</sup> These NNRs served the dual function of protecting the most important habitats and of providing an opportunity for scientific research. In addition, Sites of Special Scientific Interest (SSSIs), a national network of sites representing features of nature, and especially those of greatest value to wildlife conservation, was designated. In contrast to NNRs where nature conservation is typically the chief land use, the conservation interest defined by a SSSIs must co-exist with other land uses; the assumption being that agriculture and forestry were attuned to nature conservation objectives. Land development was viewed as the core threat to the conservation interest.<sup>41</sup> As a result, local planning authorities were only required to confer with the Nature Conservancy before determining a proposal for development affecting an NNR or SSSI. With respect to applications for agricultural improvements and afforestation, no such sounding was deemed necessary as these actions were presumed to be environmentally benign—unless of course, grants were being sought.

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<sup>39</sup> See Nature Conservancy Policy 1950-1980.

<sup>40</sup> NNRs are managed as nature reserves and formally declared as such by EN, CCW or SNH under National Parks and Access to the Countryside Act 1949 §19 and the Wildlife and Countryside Act 1981 (WCA) §35. Management is carried out in specific agreed ways by EN, CCW and SNH as the owners or lessees of the land, or by agreement, with EN, CCW or SNH.

<sup>41</sup> “Development” as used in the Town and Country Planning (Scotland) Act 1947, as amended.

The assumption was that landowners were the bona fide custodians of the countryside and great faith was placed in them to maintain the conservation values of the countryside. Notifying a landowner of conservation interests in an SSSI was not even thought to be necessary. Such notions of 'inherent stewardship' went uncontested until the late 1960's.

The link between conservation and agriculture, which hinged on the maintenance of traditional land use practices, eroded as government policy promoted increased output through the use of grants and subsidies which at that time took no notice of nature conservation goals. The integrity of the vast SSSI system was undermined as the intensity of land use in rural areas increased (Balckhall, 1998).<sup>42</sup> The NCC was in a challenging position, unable to bring to bear much influence on the expanding farming and forestry sectors except in NNRs. Substantial damage to the conservation interest in SSSIs ensued, as they were for the most part defenceless. SSSIs in areas of intensive production became tenuous 'habitat islands'. From the 1970's it became increasingly obvious that significant habitat loss was taking place (Evans, 1992). Data gathered by the NCC heightened awareness on the attrition of the SSSIs, particularly in lowland areas (Cullingworth and Nadin, 1994). This pushed forth a review of policies for nature conservation. There were calls for the 'development control' system to be expanded to cover all forestry and agricultural actions in SSSIs as well as in the wider countryside. These extreme suggestions were not popular with land-owners with their long-established freedom to manage land without intrusion.

With its roots in the NPACA Act of 1949 and the operation of management agreements within this context effectively are but one of the duties of the NCC under the SSSI legislation. Essentially, SSSI sites were purchased or management agreements were reached with landowners, which then enabled whole landscapes to be managed as NNR's. By 1968, powers were given to the NCC to enable

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<sup>42</sup> Covering 1,366,067 ha or 6% of Britain's land surface by the early 1980s.



management agreements on any SSSI site, not just those with NNR designation. Few agreements were made, though, as funds were not readily available.

#### 3.5.4.4 Countryside Acts<sup>43</sup>

With the 1960s came a period of increasing real incomes and mobility. This led to mounting pressures on the countryside which were acknowledged in the 1966 White Paper *'Leisure in the Countryside'* and addressed by the Countryside Acts.

The Countryside Acts introduced for the first time a Countryside Commission for Scotland (CCS) and replaced the existing National Parks Commission (NPC), giving it wider powers and increased funding in England and Wales.<sup>44</sup> These commissions were initially organised as an advisory body whose purpose was to encourage public access and enjoyment of the countryside.<sup>45</sup> Concurrently, local authorities were extended to include, for example, the power to create “Country Parks”—another by-product of the Countryside Acts.

Unlike the national parks in England and Wales, countryside parks are designated by local authorities and overseen by respective Countryside Commissions (Evans, 1997). Countryside parks were intended to be places for general family recreation and enjoyment, and as such do not centre on outstanding natural beauty or the goals of wildlife protection. The Countryside (Scotland) Act 1967, for example defined such parks as ...“a park or pleasure ground in the countryside which by

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<sup>43</sup> 1967 (Scotland) and 1968 (England & Wales).

<sup>44</sup> Until the 1967 Act, Scotland had no official watchdog to guard against damaging development. With the establishment of CCS came the first government intervention into encouraging both conservation and recreation across the country. To this point, only a small handful of voluntary organisations did anything to champion the conservation of Scotland's spectacular countryside. (Evans, 1997; Cullingworth and Nadin, 1994)

<sup>45</sup> National Parks and Access to the Countryside Act 1949, §1. The actual wording of the subsection on the preservation and enhancement of the natural beauty relates to the duties of the National Parks Commission throughout England and Wales ‘and particularly in the areas designated’ as national parks. The Environmental Protection Act of 1990 revised the subsection to read: ‘the preservation and enhancement of natural beauty in England, both in the areas designated under this Act as national parks or as areas of outstanding natural beauty’ (ANOBs).

reason of its positions in relation to major concentrations of population affords convenient opportunities to the public for enjoyment of the countryside or open-air recreation.”

As a result of organisational changes made to the agencies accountable for countryside issues, Scotland and Wales now vest these responsibilities in single authorities: Scottish Natural Heritage (SNH) and Countryside Commission for Wales (CCW).<sup>46</sup> While the peculiar point of view justifying the unusual result in England is hard to follow, of interest are the first thoughts on integrated planning to come out of Scotland, built on the view that all countryside activities “are based on use, in one way or another, of the natural heritage”.<sup>47</sup>

Thus, while groups such as the Ramblers were doubtful as to the endeavour of Country Parks, a more thorough assessment suggests that their complaints are actually grounded in a broader dissatisfaction: “the refusal to face up to the controversial issue of the desire to roam freely over all uncultivated land” (Hill, 1980). The success and popularity of the Country Park is revealed in the fact that thousands of people are content to enjoy a ‘tamer’ brand of countryside. From the earliest parks established at Elveston Castle (Derbyshire), Wirral Way (Cheshire) and Culzean (Ayrshire) more than 300 Country Parks now dot the nations landscape. Hence, while the provisions on behalf of nature conservation may appear dubious—the fact remains that through Countryside Parks relief was given to wilds and less accessible areas of the nation’s countryside (Evans, 1997).

#### **3.5.4.5 The Wildlife and Countryside Act 1981**

In 1981, confronted with demands for reform the Conservatives introduced new legislation to deal with the problem of species protection and habitat loss. The

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<sup>46</sup> See, Select Committee on Science and Technology, Nature Conservancy Council (1990) and the Government response (1990).

<sup>47</sup> Scottish Natural Heritage (1992) *An Agenda for Investment in Scotland’s Natural Heritage*. Perth: SNH

Wildlife and Countryside Act (WCA) was initially drafted in close consultation with the farming lobby without involving the NCC or the wider conservation movement and contained little additional habitat protection except for a limited number of 'Super SSSIs'. In addition, the Bill made no overtures to embark upon the main cause of habitat loss. The Bill produced chaos amid the conservation lobby and a great number of amendments were later proposed. Part II of the 1981 Act, which deals with habitats, retained the central philosophy of the 1949 Act. The conservation of SSSIs remains seated in the conviction that the future of the countryside "lies in the natural feel for it possessed by those who live and work in it". The NCC has no means of prohibiting land use change. However, through a mixture of regulatory and financial incentives the 1981 Act gave the NCC a more robust standing to persuade landowners not to pursue land use changes that would harm nature conservation interests. The 1981 WCA also bolstered species protection, bringing bird protection laws in line with the 1979 EC Directives.<sup>48</sup>

The points of contention at the macro political level during the debate of the WCA Bill serve to illustrate the divergence of interests over land use and conservation. Yet, the real debate began when the conservation lobby sought increased protection of SSSIs via notification of potentially damaging operations (PDOs). The conservation lobby fought for the statutory requirement for prior notice to be submitted to all landowners and occupiers of all lands with deleterious changes for all SSSIs designated and not simply those specific sites agreed to by ministers. The land-owning and agricultural lobby were up in arms and reacted by tabling amendments which required the NCC to both notify and pay compensation where farming activities were thereby restricted. Thus began the decline of the NCC.

The final public SSSI controversy before the re-organisation of the NCC occurred in Scotland. John Cameron on the Glen Lochay Estate in Strathclyde

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<sup>48</sup> EC Council Directive 79/117/EEC on the Conservation of Wild Birds, 2 April 1979 (OJ L 103 (25/04/79), p. 1); as amended. EC Council Directive 85/337/EEC on the Assessment of the Effects of Certain Public and Private Projects on the Environment, 27 June 1985 (OJ L 175 (05/07/85), p. 40); EC Council Directive 92/43/EEC on the Conservation of Natural Habitats and of Wild Flora and Fauna, 21 May 1992 (OJ L 206 (22/07/92), p. 7).

submitted an application for a forestry grant with respect to 640 ha. of which only a portion was actually a designated SSSI. The application was widely criticised for reasons of nature conservation and destruction of scenic views. The Forestry Commission refused the grant on the grounds of nature conservation. Thus, requiring the NCC to bear the burden of the loss of profits over the entire tract. The NCC argued that they should only be responsible for the portion of the land covered by the SSSI and the conflict between John Cameron and the NCC ensued. In the end, the Land Tribunal awarded Cameron £500,000 in compensation for not continuing with his plans, which together with interest and expenses brought the figure to nearly £1m.

Following many years of turmoil, Nicholas Ridley, then Environment Minister made an unexpected announcement in 1989. Essentially stating that due to the inefficiency and insensitivity in the NCC the agency would be split into three separate agencies for England, Scotland and Wales. The high costs of management agreements and SSSI payments are thought to have provoked Ridley's inquiry and consequent decision to make Scotland responsible for its own nature conservation. Despite the fact that SSSIs were designated on the foundation of maintaining an ecological continuum for the UK, Scotland and Wales would now be responsible for conservation within their borders.<sup>49</sup>

Under the Natural Heritage (Scotland) Act 1991, staff of the former NCC merged with that of the CCS to form Scottish Natural Heritage (SNH). In 1991, under the Environmental Protection Act 1990 the Joint Nature Conservation Committee (JNCC) was organised to allay criticisms that the restructuring of the NCC had caused organisational fragmentation of conservation efforts in the UK

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<sup>49</sup> While generally positive about the plans for devolution news accounts reflected that Scotland and Wales remained wary of the government's reasoning.

(Gilig, 1996). The JNCC, with a relatively small budget. £5m in 1995 is jointly funded by the three individual agencies for England, Scotland and Wales.<sup>50</sup>

In the face of the long period of turmoil and numerous amendments since the WCA was enacted it remains the principle mechanism for the legislative protection of wildlife in Great Britain.<sup>51</sup> The WCA is also the means by which the Convention on the Conservation of European Wildlife and Natural Habitats (the 'Bern Convention') and the EU Directives on the Conservation of Wild Birds (79/409/EEC) and Natural Habitats and Wild Fauna and Flora (92/43/FFC) are applied in the UK.

#### **3.5.4.5.1 Management Agreements**

Strictly outside the scope of the 1981 WCA, but relevant to the safeguard of SSSIs, management agreements (MAs), provided for in the Countryside Act 1968, are usually used to provide compensation in relation to a Potentially Damaging Operations (PDO) notice.<sup>52</sup> They can also be used at any time to provide payment for positive maintenance or enhancement of the scientific interest. Moreover, compensation can be made for value lost as a result of the notification. In general MAs are one-off contracts tailored to specific circumstances and arrangements.

#### **3.5.4.6 Marine and Littoral Designations**

SSSIs can only extend to mean low water mark in England and Wales, and to low water spring tide in Scotland. Areas offshore and, for example, in estuaries are beyond the scope of the provisions of the Act. Both the NCC and the NGO conservation sector have criticised this loophole, and the NCC has called for powers to extend the seaward limits of SSSIs.

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<sup>50</sup> Cm 2807 (1995) *Department of the Environment: Annual Report 1995: The Government's Expenditure Plans 1995-96 to 1997-98*, London: HMSO.

<sup>51</sup> HMSO (1981). *The Wildlife and Countryside Act 1981*. Chapter 69, HMSO: London; The WCA does not extend to Northern Ireland, the Channel Islands or the Isle of Man.

<sup>52</sup> Countryside Act 1968, § 15; also known as a negative agreement.

### 3.5.5 Scotland: Policies & Anomalies Affecting Land Conservation

There is more about Scotland and the Scottish legal system than the fact that the prosecution of crime is, for example, a public function exercised by the Lord advocate through local prosecutors (Procurators Fiscal) to mark the differences from the rest of the UK.

Scotland contains vast areas of wild landscape and countryside. The majority of the UK's highest mountains are found within its borders, as are a majority of the country's islands. Its coast is over 10,000 km in length, and countless lochs and a fjord-like topography predominates much of the west. Yet, despite the grandeur of its landscape, and expectations to the contrary, Scotland has no national parks.<sup>53</sup> The rationale behind the resulting inaction was both practical and political. Key to the former was that, with the exception of the area near Loch Lomond, the pressures that were overwhelmingly apparent in the south were all but absent in the north (Ramsay Report, 1947; Cherry, 1975; Cullingworth and Nadin, 1994). Even so, the Secretary of State used the powers of the 1947 TCPA to issue national parks direction orders. Thus, requiring the affected local authorities to submit all planning applications for review in the designated areas, including: Ben Nevis/Glencoe, the Cairngorms, and Loch Lomond/Trossachs. Therefore, while Scotland did not have any statutorily designated national parks, it was under an administrative order requiring it to operate as if it did. This inherently negative approach survived until positive measures of the Countryside (Scotland) Act 1967 came into being.<sup>54</sup>

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<sup>53</sup> In 1945 the Ramsay Committee recommended that 5 national parks be established (Ramsay Report, 1945) *Report of the Scottish National Parks Survey Committee*. See also *National Parks in Scotland 1947*. This report was produced by a further committee chaired by Sir Douglas Ramsay. As of mid-1999, all indications are that Loch Lomond is about to become Scotland's first national park.

<sup>54</sup> Although there has been a long history of attempts to get a system of national parks established in Scotland, the government has continually rejected such plans. As recently as 1990, CCS (now SNH) pressed for designation of national parks. The 1990 report *The Mountain Areas of Scotland*, proposed that (4) area be so designated: the Cairngorms, Loch Lomond, Ben Nevis/Glencoe/Black Mount and Wester Ross. As of mid-1999, all indications are that Loch Lomond is about to become Scotland's first national park.



With the materialisation of the new Scottish Parliament in 1999, the impacts and divergence on laws applying to land are yet to be seen. However, given the historical pattern it can be anticipated, that Scotland will continue to interpret, develop and implement laws with a unique view. In January 1999, the first proposals were put to the new Scottish Parliament for early consideration. High on the list of priorities are land reform issues, including a broad legislative programme to sweep away the feudal system, leasehold casualties and other common law burdens. Other land and land ownership issues concern moves to establish national parks in Scotland; right to roam legislation; and, control of the land (e.g. Community ownership). Hence, the arena of environmental and land laws is expected to develop rapidly over the next few years. In such circumstances it is virtually impossible to state the law as of a particular date. Thus, the following is a brief assessment of current Scottish law treatments as they apply to the use and protection of land and its varied resources.

#### **3.5.5.1 Planning in Scotland**

Protection of the environment has from its inception been an important part of the planning process; yet, it has never been its principle concern (Reid, 1997). The general theory under which the planning system operates in Scotland is that decisions should be taken at the most local administrative level unless there are strong reasons for taking them at a higher level. The Scottish planning system has been reinforced by successive Secretaries of State and is subject to the Secretary's approval. Decisions at the local level must always take account of the framework provided at the regional level, together with national planning guidance (Reid, 1997; Cullingworth and Nadin, 1994). Effectively the planning system is one of discretionary development control that functions within a structure of *symptomatic* policy guidance.

Central government can influence the operation of the planning system in a number of ways, including: 1) through legislation; 2) dissemination of circulars; 3) through National Planning Guidelines (NPGs); and, 4) through advice in the form of Planning Advice Notes (PANs).

The 1977 report issued by the Scottish Development Department (SDD) stresses the broad scope of the planning process, stating that planning “was initially, and is still mainly, a means of controlling and guiding the use of land and the processes of change in the environment.” This declaration remains a sufficient statement of its purpose some 20 years on. Protection of the environment is but one aspect to be considered in determining the use of land and guiding the processes of change. Yet until the early 1990’s other environmental protection had a relatively limited impact in the arena of land use throughout the UK.

### 3.5.5.2 Natural Heritage (Scotland) Act 1991

Provisions of the Natural Heritage (Scotland) Bill were the subject of numerous proposed amendments prior to its eventual passage in 1991. As mentioned earlier in Chapter 3, the Act provided for the establishment of the SNH, and a new designation, for areas of “...outstanding value to the natural heritage of Scotland”, known as Natural Heritage Areas (NHAs).<sup>55</sup> The purpose of the NHA designation, as stressed by the Scottish Office, is not to provide a substitute for national parks, but rather an alternative appropriate to provide special protection for certain areas in Scotland.<sup>56</sup>

Despite beginning amidst disagreement between those representing Scottish landowners and those interested in enforcing a statutory review of Scotland’s SSSIs, to account for local community interests in decision making, the Act eventually passed.<sup>57</sup>

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<sup>55</sup> Natural Heritage (Scotland) Act 1991, Pt. I.

<sup>56</sup> Consultation Paper on *Natural Heritage Areas*, Scottish Office, (1991); and, *The Implementation of Natural Heritage Areas: Statement of Government Position Following Consultation*, Scottish Office (1992).

<sup>57</sup> *Scotsman* (1991) “Sites of Special Parliamentary Interest!” comments made by Lady Saltoun of Abernethy, and Liberal Democrats as expressed by Robert MacLennan. MacLennan expounds on the problems in the north of Scotland where large tracts of land are designated as SSSIs without regard for the local social and economic consequences.

The intention of NHAs is that they will be used throughout Scotland's diverse landscape to cover areas where there is both nature and landscape conservation interests as well as a need for integrated management. Examples include the Flow Country where there are areas of international conservation interest as well as lowland Scotland where considerable damage to the landscape has occurred over generations and a need for rejuvenation exists. This uncommon and unified approach towards landscape and nature conservation being taken in Scotland is in striking contrast to the long-standing separatist approach used in England.

### **3.5.6 Land Use & Environmental Protection**

With the advent of the 1990 Environmental Protection Act and the 1995 Environment Act, the importance of land use issues tied to environmental protection has been elevated. Present indications reflect a shift in the role and agenda of the planning process in this field. For example, in the context of proposals that raise conservation or environmental protection issues, PAN 51, *Planning and Environmental Protection §54*, suggests that the following considerations be regarded as material by the planning authority:

- (1) the sensitivity of the area as reflected in landscape, agricultural land and soil quality, nature conservation or archaeological designations;
- (2) the visual impact of the development;
- (3) the hours of operation proposed for the development and the consequences for neighbours;
- (4) the possibility that the release of smoke, fumes, gases, dust, steam, smell or noise might result in nuisance or loss of amenity.

While such new invocations are beginning to make headway between connecting the planning process and protection of the environment, there remains a tenuous connection to the actual conservation of private land other than through planning and development control. This is not a unique characteristic of Scotland; rather it is uniform throughout the UK.

As in the south, Scotland, in many respects has organised its laws, into distinct categories for the purposes of protecting landscapes, wildlife and heritage.

As noted above, the most important divergence has come through the Natural Heritage (Scotland) Act of 1991, which acted as a catalyst for change in the way Scotland addresses such issues. Yet, the most important law with respect to the conservation of wildlife and its habitat remains the Wildlife and Countryside Act 1981.<sup>58</sup> The Act passes much of the responsibility for the conservation of nature on to SNH. As its counter parts EN and CCW in the south, SNH plays a principle role in the designation and management of NNRs, the designation of SSSIs, some forms of habitat protection and licensing activities in Scotland.

### **3.5.7 Non-Statutory Designations**

There are numerous non-statutory designations across the UK. The following designations are only preliminarily identified as they are often used by local and regional land trusts and agencies to guide development and protect local land resources.

#### **3.5.7.1 County or regional Sites of Important Nature Conservation (SINCs)**

These sites are identified based on their flora and fauna which are of county or regional wildlife value, and are shown on local planning maps, to protect them from development which could destroy or adversely affect their nature conservation value. The selection is made by professional ecologists representing organisations such as County Councils, Wildlife Trusts, Farming and Wildlife Advisory Groups.

#### **3.5.7.2 Ancient woodland**

Ancient woodland is that which has had a continuous woodland cover since at least 1600 A.D. and has only been cleared for underwood or timber production. They are important as many form surviving fragments of primeval forests, the climax

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<sup>58</sup> The provisions of Scotland's Act do not differ in substance from that enacted for England and Wales. The 1981 WCA has been revised and amended several times. More substantive revisions are given analysis in section 3.5.3.4 of this Chapter.

vegetation of this country, and they have had a long time to acquire species and to form stable floral and faunal communities. Local Planning Departments retain maps of such sites.

### **3.5.7.3 Biogenetic reserves**

This is a Council of Europe project to list nature reserves containing typical, unique, rare or endangered ecosystems or species. Member states proposing areas for the Network agree to protect them and to maintain their natural values. Predating the Bern Convention, the Network does not have legal status.

### **3.5.8 Relative EC and International Obligations**

No longer can the use and conservation of resources linked to the environment be seen in only a national context. Such laws in the UK must be broadly viewed both as a member of the European Union and from an international perspective. The UK is party to several major treaties aimed at furthering the conservation of various natural resources which rely upon the integrity of the land.<sup>59</sup> Membership in the EU has resulted in a number of directives that are directly related to and have been incorporated into the planning system and other relevant national laws. The following assessment pertains only to those directives that may impact efforts to protect private land resources in the UK.

#### **3.5.8.1 Special Areas of Conservation (SACs)**

Created under the Council Directive on the Conservation of Natural Habitats and Wild Fauna and Flora (92/43/EEC) is intended to provide a common standard

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<sup>59</sup> For example, the Convention on the Conservation of European Wildlife and Natural Habitats (the Berne Convention 1979), which has been very influential in moulding EC law in this area. Also, the Convention on Biological Diversity signed at the Rio Summit in 1992, which has required the government to more directly address and coordinate its efforts, resulting in the *Biodiversity: The U.K. Action Plan, Cm.2428 (1994)*.

across the EU, and give a series of measures for nature conservation.<sup>60</sup> According to the Directive, member states agree to establish a series of protected sites selected for their importance as natural habitat types and as habitats of the species listed in Annexes I and II, for habitats and species of 'Community interest'. These sites, when designated, are to be called Special Areas of Conservation (SACs).

Measures under the Directive include:

- protection of the designated sites;
- conservation of features in the landscape which are important for wildlife;
- the protection of listed species from damage, destruction or over-exploitation and
- surveillance or monitoring of species and habitats.

The Directive is technically complex and, when designated, the SACs, along with the Special Protection Areas (SPAs) of the Birds Directive, will form a single pan-European 'Natura 2000' site series.

The Regulations enacted in 1994 are in part exercised through the existing provisions of Part I of the WCA; therefore any offences involving a European protected species of plant would be taken under current domestic legislation. References in these Regulations to a 'European protected species' of plant are to any of those species of plants whose natural range includes any area in Great Britain and are listed in Schedule 4 to the Regulations.

### **3.5.8.2 Special Protection Areas**

The UK is also bound by the European Union's Council Directive (79/409/EEC) on the Conservation of Wild Birds. Under the Directive, EU member states are required to take special measures to protect the habitat of certain rare or

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<sup>60</sup> Adopted by member states in May 1992. Implementation of the Directive in the UK was through the Conservation (Natural Habitats, etc.) Regulations 1994.



vulnerable birds and also regularly occurring migratory birds.<sup>61</sup> These measures include the designation of Special Protection Areas (SPAs).

### **3.5.8.3 Limestone Pavement Orders**

Unique among those directives aimed at the conservation of natural resources is the Limestone Pavement Orders (LPOs) which are designated priority habitats under the Conservation (Natural Habitats, etc.) Regulations 1994. LPOs are the responsibility of local authorities. As areas of considerable botanical and geological value special provision is made for the protection of areas of limestone pavement, ie. areas of limestone wholly or partly exposed on the surface of the ground and fissured by natural erosion.<sup>62</sup>

The WCA refers to 'the removal of the limestone or by its disturbance in any way' where the character or appearance of any such designated land would be adversely affected and if any person without reasonable excuse removes or disturbs limestone on or in any land designated by a limestone pavement order he shall be liable:

- on summary conviction, to a fine not exceeding the statutory maximum; or
- on conviction on indictment, to a fine.<sup>63</sup>

### **3.5.9 UK Land Trusts: Where do they fit into the framework?**

Historically, environmental conservation in the UK has long been pursued through public and private 'not for profit' sector alliances. Achievements of the voluntary sector have performed a notable role in developing conservation policy; guiding and effecting public opinion and political charge. Yet, at first review it may not be at all clear how or where UK land trusts fit into current legislation. The

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<sup>61</sup> Effective from 2 April 1979. Includes taking appropriate steps to avoid pollution or deterioration of the habitat and disturbance to the birds.

<sup>62</sup> WCA § 34(6).

<sup>63</sup> WCA § 34(4).

following section briefly explores the role and impact of the nations conservation, recreation and amenity organisations, coined as ‘CARTs’ on the existing structure (Dwyer and Hodge, 1996).

The origins of the ‘conservation movement’ in Britain are similar to that reflected in the US with the first conservation trust formed in the US one year before the founding of the National Trust in 1894.<sup>64</sup> Similarly too, as a political issue conservation was promoted by an elite corps of well educated and connected people. The first organisations were formed to pursue either specific policy changes (i.e., Royal Society for the Protection of Birds, RSPB) or to promote enjoyment of the countryside threatened by urban, industrial or agricultural development (i.e., The National Trust).

As reflected in part by the increase in legislation in the first half of the 20<sup>th</sup> century (See Table 3.2), these first organisations were instrumental in ‘pushing the envelope’ for conservation in this reactive period.

Following WWII was a period of redesigning government in various spheres of public welfare—conservation was not immune. Landholding interest groups, the emergence of new local land trusts, backed by the strength of the older and well-established organisations as the NT and RSPB influenced land use policies of this period. Most notably was the passage of the 1947 TCPA and the 1949 NPACA. These two pieces of legislation established both the legal frameworks to facilitate conservation of the countryside through development controls and to provide a series of “designations” to aid in such conservation objectives. These early legislative guidelines echoed the stated goals of the early conservation trusts.

But is the system and its allied government bodies adequate to protect the special character of areas of unique scenic architectural, historic, agricultural and/or economic interest against market forces? Clearly, the growth in sheer numbers of

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<sup>64</sup> The Trustee of Reservations (MA) is widely acknowledged as the ‘Grandfather’ of all land trusts.

organisations coupled with the land areas now protected by the growing band of local and regional land trusts indicates that it is not (Cooper and O'Donovan, 1998.)

Throughout the 1960s anxiety over an increasing pallet of environmental concerns began to surface. More and more the conservation of land was considered part of this debate—particularly in the realm of urban pollution and economic change (Dwyer and Hodge, 1996). This period also saw increasing real incomes and greater mobility which enabled more people to visit the countryside. This in turn led to mounting pressures on the countryside—a literal catch-22. This paved the way for the 1967 (Scotland) and the 1968 (England and Wales) Countryside Acts. Generally, these Acts broadened the remit of state conservation policy (Reid, 1997).

Despite a rather long history, it is since the mid 1970's that environmental conservation has been the most influential in the policy setting arena. Thus, with a heightened visibility and awareness more people across the UK have become involved with or directly impacted by the efforts of land trusts and the greater environmental movement. From a handful in the early 1900's, membership in non-profit voluntary conservation organisations has burgeoned in the UK. Recent reports estimate approximately 4% of the nation's population are members of conservation groups (National Trust, 1997; Low and Goyder, 1983). Public interest polls conducted since the early 1980's reflect a strong concern and particular support for landscape and wildlife conservation. (Worth, 1984; Wibblerly, 1987; and National Trust, 1997). These trends have led to a proliferation of non-profit conservation organisations that deal with a wide range of issues, see Chapter 7.

Thus, while their relationship may not appear transparent, it has frequently been as a result of the leadership and intervention of the nation's land trusts that the UK's conservation agenda has been advanced. Land trust across the country use a combination of the policy instruments mentioned above as well as deed covenants. In the UK, such a covenant acts as a legally binding undertaking on the use of land (Whitby, 1994). Covenants may be of two types, restrictive or positive. The former restricting the grantor to abstain from certain land uses or actions on it, the latter requiring particular actions to be taken (Chappelle, 1997). Restrictive covenants are

more likely to transfer to successive landowners, provided the grantee, who essentially monitors and acts as a ‘watch-dog’ to ensure compliance, still exists.

In many respects, covenants are similar to conservation easements used in the US and discussed later in this chapter. However, in the UK only the National Trust, NPAs, and county district councils have been legally empowered to act as a grantee of such covenants. Additionally, there remains common law issues that are unresolved by current legislation making covenants less durable than conservation easements and are therefore considered to be a ‘clumsy alternative’ to other policy instruments in the UK (Chappelle, 1997; Whitby, 1994).

The principle of volunteerism typifies much UK policy on both wildlife and landscape conservation. Generally, volunteerism is defined as the act of providing ones skills or time to another person or organisation without the expectation of direct reward and without any legal, biological or economic obligations to do so (Ellis and Noyes, 1990). In both the UK and the US, there has generally been a strong political rhetoric supportive of voluntary provision (President Bill Clinton, 1999). This has particularly grown in the 1980s and 1990s with the aim to cutback state provided services in many sectors including the environment and social services (Dwyer and Hodge, 1996). Similarly, in the US, volunteers have been seen as a cost saving alternative to government supported social programmes.<sup>65</sup> Social biases associated with reliance on volunteers and the effects of such on policies, philanthropy and volunteerism makes possible the so named “third sector”. In both the UK an the US, these organisations provide education, health care, human services, arts and culture, health care and religion to their constituent populations.

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<sup>65</sup> In context, volunteers are change agents in communities and systems, who will improve human life by increasing philanthropy and volunteerism.

### 3.5.10 UK Summary

As the above assessment of UK legislation aimed at the use and protection of land reveals, if measured by sheer mass, there is an abundance of statutory designations, and well-intentioned laws. Yet, if measured by effective distribution of power, availing to the more than 130 land conservation organisations across the UK the statutory ability and necessary legal tools to provide protection on private lands of local and regional, as well as national significance—one would be hard pressed to stitch together the current quagmire of laws with any degree of success to accomplish such endeavours.

While respective planning acts have played an important role in protecting the environmental quality of the nation's towns, cities and countryside by providing guidance on environmental issues related to land use, particularly through Green Belt policies—it remains that the primary concerns pertain to directing the uses and development of land.

The protection and enhancement of the environment has long been pursued through a mixture of public policy and private action in the UK. The legislation and policies examined provide the infrastructure and set forth the operational controls upon which various private and public conservation schemes and initiatives either flourish or flounder in the UK. If anything is at all clear from the above assessment of the applicable body of laws and regulations, it is that the policy boundary between private sector land conservation actions and public sector responsibilities is in Britain one which is rapidly blurred.

## 3.6 In the US

### 3.6.1 Legislative Framework Assessment

The United States is a republic which operates under a federalist system. The national government has specific, enumerated powers, and the fifty sovereign states retain substantial autonomy and authority over their respective citizens. Both national government and state government are divided into executive, legislative, and judicial branches. Unlike Britain, written constitutions, both federal and state form a system of separated powers, checks, and balances among the branches.<sup>66</sup>

Powers not delegated to the federal government in the U.S. Constitution, nor prohibited by it, are reserved to the states or to the people.<sup>67</sup> Nonetheless, federal government's authority to regulate interstate commerce makes it the predominant force in environmental regulation.<sup>68</sup> The states, under their general police powers to protect the public health, safety and welfare, also retain substantial independent authority to issue environmental protection laws applicable to their citizens and residents. Every state, generally or specifically, recognises the importance of protecting land in its various and particular forms unique to that state. As a result there are literally hundreds of volumes that could be written on the vast body of laws related to the protection of land and its constituent natural resources in the US. Hence, discussion here is limited to laws that affect the actions of land trusts in their efforts to protect private lands.

Potential conflicts between state and federal regulation in all areas, including environmental protection, are governed by the supremacy clause of the US

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<sup>66</sup> There is no written constitution for the UK. Several important statutes exist, such as the Magna Carta (1215) and the Bill of Rights (1689). Yet, none of them are any more than basic statutes, susceptible to amendment by Parliament at any time. In other countries, such as the US and Canada, special amending formulas exist which prevent unilateral amendments to the constitution. The situation in the UK may change, though, with the accession to the EU. Members of the EU must abide by European law and Europe has a written bill of rights.

<sup>67</sup> U.S. Const. Amend. X.

<sup>68</sup> U.S. Const. Art. I, sec. 8, cl. 3



Constitution.<sup>69</sup> The Constitution, federal laws, and international treaties are supreme to state or local law; state and local laws that contradict federal laws are thus pre-empted and can be declared unconstitutional by a federal court.

Although the Constitution sets forth the foundation for national and sub-national relationships in the US, many environmental statutes add detail to specific aspects of those relationships within the broader constitutional framework. For example, federal statutes might explicitly pre-empt, or explicitly waive any pre-emption of, state law.<sup>70</sup> Some federal environmental statutes create national minimum standards delegating primary implementation of federal programs to states that meet certain federal standards. States, however, are free to enact stricter regulations.<sup>71</sup> When a state is delegated federal authority, the Environmental Protection Authority (EPA) and the state will sign an agreement establishing their respective responsibilities and necessary procedures. Many federal environmental statutes also provide for grants, technical assistance and other support to assist states in furthering national policies or programs.<sup>72</sup> A U.S. citizen can thus be subject to both federal and state law on environmental issues.

The US Constitution as the "supreme law of the land" provides the basis for the US government, and guarantees the freedom and rights of all US citizens. No laws may contradict any of the Constitution's principles and no governmental authority in the US is exempt from complying with it. The federal courts have the sole authority to interpret the Constitution and to evaluate the federal constitutionality of federal or state laws.

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<sup>69</sup> U.S. Const. art. VI.

<sup>70</sup> For example; Toxic Substance Control Act (TSCA), 15 U.S.C. § 2617; Clean Water Act (CWA), 33 U.S.C. § 1370; Comprehensive Environmental Response, Compensation and Liability Act (CERCLA), 42 U.S.C. § 9614; and Resource Conservation and Recovery Act (RCRA), 42 U.S.C. § 6929.

<sup>71</sup> See, e.g., CWA, 33 U.S.C. sec. 1370; RCRA, 42 U.S.C. sec. 6929.

<sup>72</sup> See, e.g., TSCA, 15 U.S.C. sec. 2627; CWA, 33 U.S.C. sec. 1329 (h).

As with federal laws, international treaties entered into by the US are also considered the supreme, pursuant to the US Constitution. In the case of a conflict between a treaty and a federal statute, the one that is later in time or more specific will typically control. Treaties to which the United States is a party may be found in the US Treaties Service, the Statutes at Large, the Treaties and other International Acts Series issued by the State Department, as well as the United Nations Treaty Series. Federal statutes are often enacted to implement such treaties.

Federal administrative bodies issue a variety of agency rules and executive orders of a quasi-legislative character; valid federal regulations have the force of law and pre-empt state laws and rules. Congress must grant the authority to issue rules and regulations. The President also has broad powers to issue executive orders.<sup>73</sup> No person may be subject to any rule required to be published in the Federal Register and not so published.<sup>74</sup> All federal agencies must publish: descriptions of their organisational structure; general statements of agency functions; its rules of procedures, available forms and descriptions of all papers, final reports or examinations; and, all substantive rules or statements of general applicability adopted by the agency. Rules may be challenged in federal court. The federal courts have sole authority to review agency rules and actions to ensure their legality under federal statute.

Role of the courts; the United States is a common law country. Every state except Louisiana, which relies on the French civil code, has a legal system based on common law. Common law has no statutory basis; as in Britain judges establish common law by applying precedent to present cases. Although typically affected by statutory authority, broad areas of the law, most notably relating to property, contracts, and torts are traditionally part of the common law<sup>75</sup>. These areas of the

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<sup>73</sup> An executive order is a directive from the President to other officials in the executive branch.

<sup>74</sup> 5 U.S.C. § 552(a)(1); Proposed and final rules, executive orders, and other executive branch notices are published daily in the Federal Register.

<sup>75</sup> In the finest tradition of English common law (where tort law comes from), the law of torts was originally pure judge-made law. In both the UK and the US, however, there has been an increase in the number of laws which limit, clarify or strengthen tort law.

law are mostly within the jurisdiction of the states, and thus state courts are the primary source of common law. Federal common law is relatively narrow in scope, being limited mainly to clear federal issues that have not been addressed by a statute.

State constitutions are the highest law within the state and statutes must conform to the respective state's constitution. All state constitutions and legislation can be pre-empted by federal legislation or the federal Constitution. Municipal charters, ordinances, rules, and regulations applying only to local issues; can be typically pre-empted by either state or federal law.

The laws of the United States have a markedly shorter history than their British counterparts. This in part may explain the relative ease of working within the layered system. In the US, environmental and related land use law is a combination of federal and state statutes, federal and state agency rules and regulations, court decisions, procedural rules, and documentation requirements.

### **3.6.2 Environmental Laws and Links to Land Use**

Law is made and implemented primarily by administrative agencies, which act pursuant to a legislative mandate. Federal statutes dominate the field, but states often enact parallel requirements.<sup>76</sup> Courts also actively make environmental law. Courts may review agency performance or make law by deciding liability claims brought according to common law, such as tort actions and property damage lawsuits. The law also includes the documentary paraphernalia of government, such as plans executive and regulatory policy statements and directives, and findings and recommendations of government institutes and science advisory boards.

In general, environmental law consists of federal, state, and local statutes, regulations, and ordinances; court decisions; and reporting and notice requirements. In addition, outside the speciality of environmental law, other areas of law—such as

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<sup>76</sup> For example, most states have enacted state environmental protection acts (SEPA's) largely based on the federal act NEPA.

international treaties, administrative law, occupational health and safety laws, interstate commerce, food and drug laws, insurance, and real estate laws—affect environmental decisions.<sup>77</sup>

The federal Constitution makes no reference to environmental rights or responsibilities. In the National Environmental Policy Act of 1969 (NEPA), Congress recognised that "each person should enjoy a healthful environment and that each person has a responsibility to contribute to the preservation and enhancement of the environment," but this provision is not interpreted to provide for any enforceable rights or responsibilities.<sup>78</sup>

The world is not static, and these vast bodies of laws are continually changing. What is current law this year may be repealed the next; every attempt has been made to use current law as the primary authority herein.<sup>79</sup>

Four common types of environmental statutes include:

- statutes that address some tangible aspect of the environment;
- statutes that seek to promote environmentally sound business practices through standards and incentives;
- statutes governing information production and distribution, such as those requiring environmental impact statements or "right-to-know" laws; and
- statutes, such as land-use laws, that restrict the use of some aspect of the environment.

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<sup>77</sup> Clean Air Act, 42 USCA, 7401, et. seq.; Comprehensive Environmental Response, Compensation and Liability Act of 1980, 42 USCA 9601 et seq. [CERCLA or "Superfund Act"]; Federal Water Pollution Act as amended by the Clean Water Act of 1977, 33 USCA 1251 et seq.; Endangered Species Act, 16 USCA, 1531 et seq. National Environmental Policy Act, 42 USCA 4321, et. seq.[NEPA]; Implementing Regulations 40 CFR 1508.27 (1992); Toxic Substances Control Act, 15 USCA, 2601 et seq.; California Environmental Quality Assessment Act (California Health and Safety Code) 25570 et seq., (West 1995); New Jersey Environmental Cleanup Responsibility Rules Act , (New Jersey Admin. Code tit. 7, 7 (26 B)).

<sup>78</sup> 42 U.S.C. sec.4331(c).

<sup>79</sup> Sources of primary authority on laws include regulations and case law. Secondary sources include law reviews and treatises. As appropriate, particularly with regard to the protection of environmental resources, the U.S. Code, Code of Federal Regulations, Federal Register notices, legislative proposals, state laws, state regulations, local ordinances, and court decisions have been consulted.

Within the command-and-control framework, there are also other strategies:

- Market-based approaches create economic incentives to reduce pollution.
- Approaches based on ecological principles seek to minimise the impact of industrial production and human habitats on the ecosystem.
- Approaches that dematerialise the economy are accomplished by adjusting or reducing the use of raw materials at the beginning of a production process.
- Approaches requiring firms to disclose data about discharges and possible adverse health effects associated with the discharge.

Federal and state agencies implement legislative programs by making legally binding rules, enforcing these rules, and deciding disputes under the rules. The EPA is the leading federal agency in the area of environmental regulation. Most states also have environmental regulatory agencies.

Courts at all levels contribute to land use and environmental law by reviewing decisions and interpreting statutes and regulations, ruling on their constitutionality, and applying the law. Some basic principles guide courts in their interpretation of a statute or regulation. For example, the intent of the author at the time the statute was enacted may be considered. In addition, courts must decide whether the US Constitution or state constitution limits Congress's or the state legislature's authority to make laws when ruling on the constitutionality of statutes.

Procedural rules identify the required participants in a court case or regulatory proceeding, govern the presentation of evidence and argument, and control the manner and timing of decisions.<sup>80</sup> In the realm of land laws, many statutes go through great pains to detail procedures.

Some laws regulating land use contain requirements to provide certain types of information, such as reports to state agencies or the EPA about a variety of environmental impacts.

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<sup>80</sup> Statute, agency regulations, and the courts determine procedural rules.



The statutory authority and procedures described above assist in understanding the overall architecture of the vast body of laws and regulations affecting land use and its conservation in the US. The following sections will highlight key features of the land use regulatory system in the US and will reflect on the current strengths, weaknesses and possibilities for improving of the legal framework applicable to America's private lands.

### 3.6.3 Government Role

There is little question as to whether Congress has responded to the need for environmental protection and recognising the value of ecological continuity, (see *Tennessee Valley Authority v. Hill.*)<sup>81</sup> In fact, the federal government has long played an important role in preserving land through purchase and acquisition. (Hocker, 1982).<sup>82</sup> Yellowstone, the first US National Park was created in 1872 “as a public park or pleasure ground for enjoyment and benefit of the people”.<sup>83</sup>

The movement to acquire private lands to protect natural land resources has spanned more than a century with the creation of programs as the Land and Water Conservation Fund (LWCF) and the recently announced Land Legacy Initiative (LLI).<sup>84</sup> The number of national parks within federal government control has also increased throughout the twentieth century.<sup>85</sup>

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<sup>81</sup> 437 US 157, 178 (1978) quoting Report of the House Committee on Merchant Marine & Fisheries on H.R. 37, Rep. No. 93-412, 93<sup>rd</sup> Cong., 1<sup>st</sup> Session at 4,5 (1973).

<sup>82</sup> Between 1781 and 1867 the US government had purchased some 2 billion acres of land, including the state of Alaska.

<sup>83</sup> 16 U.S.C. § 21 (1994)

<sup>84</sup> The LWCF protects approximately 2.8 million acres of “nationally significant scenery, wildlife, wildlife habitat and recreational lands”. The “Land Legacy Initiative”, announced by President Clinton in January 1999 will provide \$1.03 billion to save America's natural treasures, and provide significant new resources to states and communities to protect local green spaces. *San Jose Mercury News*, “Clinton Boosts Open Space”, 12 January 1999.

<sup>85</sup> 16 U.S.C. § 1 (1994) ESA, 16 U.S.C. §§1531-44. The ESA has been lauded as the strongest land use law in the US (Chadwick, 1995).



Although the government does continue to be involved in matters of land preservation, the current trend has been to scale back purchasing land.<sup>86</sup> The cost of acquisition and maintenance has effectively become cost prohibitive as available funds decline (Korngold, 1984). In addition, government efforts alone cannot satisfy the conservation needs of the nation—particularly at the community level. One study found that “at least twenty-four percent ...of major terrestrial and wetland ecosystems are inadequately represented in land managed by federal agencies and Indian land (Farrier, 1995.).

Further evidence of the government’s changing role in the conservation of land is the creation of the National Park Foundation (NPF). NPF is a non-profit partner to the national park service and works “to further the conservation of natural, scenic, historic, scientific, educational, inspirational or recreational resources for future generations...” (National Park Foundation Act, 1994). NPF functions in a similar manner to the majority of the nation’s non-profit land trusts. The principle difference is that NPF actively seeks to provide a vehicle for park supporters to provide volunteer hours for monitoring, planning, research and managing national parks rather than on private lands.<sup>87</sup>

At first glance it would appear that the founding of NPF demonstrates government support for the national parks. Alas, the product is the handing over of government responsibility for sustained deliberation on the use and protection of land and natural resources by transferring decision-making onto private individuals and the private sector. This shift of responsibility from public to private sector further marks the dwindling government role in the preservation of land.

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<sup>86</sup> See for example National Park Reform Act (1995), H.R. 3055, 104<sup>th</sup> Cong., 1<sup>st</sup> Sess. (1995). This bill requires the Secretary of State to re-examine goals of the park services, determine areas that do not comply and present alternatives to managing these lands, including modification or termination; Boston Globe, “Clinton and Dole Meet, Seek Common Ground on Budget” Farrel, J.A., 21 March 1996, at p.21. Article describes Clinton’s position on no budget compromise due to lack of funding for environmental issues by the Republican House.

<sup>87</sup> National Park Foundation, “Parks in Jeopardy”, *Land & Water Law Review* document files. Reviewed, 16 August 1996.

### 3.6.4 Planning, Zoning and Environmental Regulation of Private Land

The US, as in the UK, does not have one, overarching environmental framework law. NEPA contains the closest thing to a national environmental policy.<sup>88</sup> This being the case, the federal government has little authority over land use planning or zoning. In a few instances, such as the Coastal Zone Management Act, the federal government has provided incentives for state and local governments to adopt development plans that meet specific criteria.<sup>89</sup> Other federal acts, most notably the Endangered Species Act (ESA), provides substantial restrictions on development of certain critical habitats. For the most part, however, land use and zoning decisions are typically made at the state or local level. In most instances, the states have delegated power to the county or local governments in this regard. A few states, for example, Oregon and Hawaii, have set statewide land use planning goals that include environmental protection and conservation of open space.<sup>90</sup>

In NEPA Congress declared that it is,

"...the continuing policy of the federal government, in cooperation with State and local governments, and other concerned public and private organisations, to use all practicable means and measures, including financial and technical assistance, in a manner calculated to foster and promote the general welfare, to create and maintain conditions under which man and nature can exist in productive harmony, and to fulfil the social, economic, and other requirements of present and future generations of Americans."<sup>91</sup>

Further more, the federal government has the continuing responsibility,

"...to use all practicable means, consistent with other national policy, to improve and coordinate Federal plans, functions, programs, and resources to the end that the Nation may: (1) fulfil the responsibilities of each generation as trustee of the environment for succeeding generations; (2) assure for all Americans safe, healthful, productive, and aesthetically and culturally pleasing surroundings; (3) attain the widest range of beneficial uses of the environment without degradation, risk to health or safety, or other undesirable

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<sup>88</sup> 42 U.S.C. §§ 4321-4370c

<sup>89</sup> See Section 10.1: Coastal Management and Land Use Restrictions.

<sup>90</sup> Or. Rev. Stat. §§ 195-97.

<sup>91</sup> 42 U.S.C. § 4331(a).

and unintended consequences; (4) preserve important historic, cultural and natural aspects of our national heritage and maintain, wherever possible, an environment which supports diversity and variety of individual choice; (5) achieve a balance between population and resource use which will permit high standards of living and a wide sharing of life's amenities; and (6) enhance the quality of renewable resources and approach the maximum attainable recycling of depletable resources."<sup>92</sup>

This national policy statement, however, does not directly influence the development or implementation of environmental and land use planning laws.

### **3.6.5 Zoning and the Comprehensive Plan**

In the US the most significant land use power that state legislatures delegate to local governments is the authority to adopt zoning laws or ordinances. Such ordinances empower municipalities to divide land within their jurisdiction into zones, or districts, and to prescribe the land uses and the intensity of development allowed within each district. This delegated authority is generally found within the provisions of municipal laws (city, town or village) and is frequently referred to as zoning and planning enabling acts.

Traditionally, enabling statutes across the US require that the provisions of zoning laws or ordinances must be in accordance with a "comprehensive plan". Comprehensive planning is society's insurance that the public welfare is served by land use regulation. In many states where a municipality has either not adopted a comprehensive plan, or kept it current, courts have acted to examine all land use policies and actions of the municipality, including the zoning law or ordinance itself, for evidence of the comprehensive plan to which zoning actions must conform.

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<sup>92</sup> 42 U.S.C. § 4331(b).

### 3.6.5.1 Substantive Limits

Several legal doctrines simultaneously act to limit the authority of local governments to enact and enforce land use regulations, such as:

- Substantive due process requires such regulations to serve a legitimate public purpose.
- Procedural due process requires administrative processes by which regulations are adopted and enforced be met.
- Equal protection guarantees of state or federal constitutions may not be violated. This ensures protection against improper discrimination by local land use regulations that seek to classify land uses by dividing land into districts and regulating it accordingly.
- Ultra vires, action beyond authority conferred by law. Land use regulations may exercise only those powers delegated to them by state legislatures and may be attacked as *ultra vires* if the action of the municipality is not undertaken pursuant to specific legislative authority. Thus, actions to protect, conserve or preserve land by a municipality must be pursuant to specific legislative authority.
- Takings, local land use regulations must not effect a *taking* of private property without just compensation in violation of the "takings" provisions as provided by the state and federal constitutions (Bialecki, 1990a,b).<sup>93</sup>
- The *Doctrine of vested rights* limits the authority of municipalities to impose new limiting regulations on existing investments in land, such as completed structures or projects under construction.
- Pre-emption, local land use regulations are not permitted to control matters where regulation has been pre-empted by the state legislature.
- First Amendment freedoms of expression and the exercise of religion may not be abridged by local regulations.

Planning law in the US, unlike in Britain, is not provided for at the national level. Rather, in most cases it is provided for to some degree at the state level,

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<sup>93</sup> In Britain, not having a Constitution, "takings" are addressed by the Planning and Compensation Act 1991, ch. 34. The long title to the Act gives a flavour for its contents: "An act to amend the law relating to Town and Country Planning; to extend the powers to acquire by agreement land which may be affected by carrying out public works; to amend the law relating to compulsory acquisition of land and to compensation where persons are displaced from land or the value of land or its enjoyment may be affected by public works; to provide, in the case of compensation payable in respect of things done in the exercise of statutory powers, for advance payments and payments in interest; and to repeal Part X of the Highways Act 1980."

implemented most often at the local level and occasionally at the regional level through a combination of planning ordinances and zoning regulations. Only a handful of states currently have legislation that adopts a statewide planning framework. The state of New Jersey, traditionally a "home rule state" embarked on such an effort in 1994, to develop a statewide planning framework, it has yet to come to fruition.

### 3.6.5.2 Limitations on Regulation

The primary limitation on government regulation over private property is the Fifth Amendment of the Constitution, which prohibits private property from "be[ing] taken for public use, without just compensation."<sup>94</sup> To acquire private property for any purpose, for example, for a park or for conservation, the government must condemn the property through its power of eminent domain and pay the fair market value to the property owner. In addition, federal or state government actions that interfere too much with the reasonable, investment-backed expectations of property owners, or that physically occupy any private property, are unconstitutional unless the government compensates the landowner. The courts have also ruled that "if a regulation goes too far it will be recognised as a *taking*. In recent years, the number of such "regulatory takings" claims, particularly with respect to environmental regulations, has increased sharply.<sup>95</sup> A current example from the US Supreme Court, *City of Monterey v. Del Monte Dunes at Monterey, Ltd., et al.*, began with attempts by the respondent, Del Monte Dunes, and its predecessor in interest to develop a parcel of land within the jurisdiction of the petitioner, the city of Monterey. The city, in a series of repeated rejections, denied proposals to develop the property, each time imposing more rigorous demands on the developers. Del Monte Dunes brought suit

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<sup>94</sup> U.S. Const. Amend. V.

<sup>95</sup> In the US, the Taking Doctrine stems from the federal constitutional prohibition on the government's taking property of any person without just compensation. The state has the inherent power to appropriate private property for the promotion of the general welfare of its citizens. See *Pennsylvania Coal Co. v. Mahon*, 260 U.S.393, (1922); *Agins v. Tiburon*, 447 U.S. 255, (1980); *Lucas v. South Carolina Coastal Commission*, 112 S. Ct. 2309 (1992); *Dolan v. City of Tigard*, 114 S. Ct.2886 (1994).

in the United States District Court for the Northern District of California, under Rev. Stat. §1979, 42 U. S. C. §1983. After protracted litigation, the case was submitted to the jury on Del Monte Dunes' theory that the city effected a regulatory taking or otherwise injured the property by unlawful acts, without paying compensation or providing an adequate post deprivation remedy for the loss. The jury found for Del Monte Dunes, and the US Supreme Court of Appeals on certiorari affirmed the judgement.<sup>96</sup>

Some states have also enacted legislation that allows property owners to sue government agencies for regulatory actions that devalue their property. For example, Texas has enacted a law that requires a government agency to either rescind a regulatory action or pay compensation to landowners where a court determines that the value of their property is reduced by 25 percent or more.<sup>97</sup> Similar legislation has been proposed, but not adopted on the federal level.

### **3.6.6 Policies and politics of conserving private lands**

Various legal instruments aim to protect, preserve, and defend the unique natural resources that provide meaning to the very fabric of the nation. Today there is little doubt that an orchestrated tapestry of protected lands will only be achieved through the artistic use of a whole battery of legal mechanisms and administrative procedures (Wright, 1999). Among the list of voluntary measures is one tool, which has now earned the position of being the most widely used land conservation tool across the nation—conservation easements (See Chapter 7). Table 3.3 reflects the general attributes of regulatory and voluntary approaches to land conservation.

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<sup>96</sup> *City of Monterey v. Del Monte Dunes at Monterey, Ltd., et al*, 95 F. 3d 1422.

<sup>97</sup> Texas Gov't Code §§ 2007.001 et seq.



Table 3.3 Voluntary v. Regulatory Approaches to Land Conservation

<b>Regulatory</b> (enforced through laws & regulations)	<b>Voluntary</b> (enabled through laws and policies)
Erratic – laws, policies, zoning regulations and political climates change.	Durable – creates a perpetual legal interest
Inflexible – uniform rules apply to all	Flexible – specifically designed to meet individual needs.
Incites suspicion, conflict, and resistance	Promotes land stewardship, cooperation and duty to community
Restricted	Boundless
Confines creativity	Inspires innovation
Deals with only particular land use practices	Takes in hand full range of land uses
Narrow application – only certain lands and uses can be regulated	Rife application – valid for diversity of landscapes
No reparation	Rewarding: meets landowners' economic and non-monetary needs.
Intent: to ensure that development meets specifications; to protect public health, safety and welfare.	Intent: to promote the conservation of land and encourage sustainable development.
General – administrative decision made in the "interest of the general public"	Specific – "common ground" of agreement identified

Adapted from: Gustanski, 1991; Wright, 1993.

The following sections are devoted to exploring the legal mechanics, relationship to private sector conservation goals, and the application of conservation easements in accordance with stated national, state and regional policies.

### 3.6.6.1 Introduction: Private Sector Conservation Legal Mechanics and Goals

Typically, there are many fractional interests in even a single parcel of land. Depending on the features, qualities and location of the land itself these interests vary, but generally include rights to produce commodities, graze livestock, extract minerals, dispose of waste materials, and of course develop it. Interests may arise from custom or tradition, as in the case of *zoning*, or they maybe negotiated between private parties, as in the case of management agreements or conservation easements. Interests may be specified for a defined period, open-ended, or they may run with the land in perpetuity.

The bundle of rights and responsibilities that comprise land ownership may remain intact, as when a landowner retains all partial interests, or they may be

allocated among multiple parties, both public and private. For example, a landowner may rent land to a farmer. The farmer then holds the rights to use the land for agricultural purposes for a defined period, while the land owners retains the underlying title and the right to use the land as he or she chooses in subsequent periods. The same landowner may sell, for example, the rights to lay power lines on the same parcel to the local power company, which then holds rights to run power through or over the land and maintain the portion of land as determined in the agreement with the landowner. Although these are quite straightforward examples, other interests in land are less well understood, but are becoming increasingly important in the conservation of land resources.

### 3.6.6.2 The Conservation Easement

Partial interests are the constituent elements of landownership, including rights to use and profit from the land. From an economic perspective, interests in land represent expectations about which land uses will be legally permissible over time, as well as expectations about the returns that those uses will generate. Partial interests in a particular tract of land can be held and traded separately, presenting opportunities for both private organisations and public agencies to influence resource use without incurring the political costs of regulation or the full financial costs of outright land acquisition.

The ways in which land is used depend on who holds what interests within the complex *bundle of rights* that constitutes land ownership.

“...[T]he bundle of rights analogy used by multitudes of property law professors across the nation works well in explaining the nature of this non-regulatory, voluntary conservation tool. Essentially the rights of landownership, or the proverbial “ownership bundle” is much like owning a bundle of sticks, each stick represents a different right that is attributable to landownership, i.e., development, forestry, mining, farming, recreation, etc. Rights typically removed from the land by a conservation easement include development and mining. Those rights that remain with the land are generally those seen as non-destructive and otherwise conducive to the protection of the resource itself, as well as particular uses of the land such as farming, forestry and recreation.” (Gustanski, 2000 *b*)

Simply put, a conservation easement is a legally binding agreement that typically restricts the development and future use of the land to ensure protection of its conservation values in perpetuity (Gustanski, 2000 *a*). The first US conservation easement, which permanently limited the development of land, was written in the late 1880s to protect the parkways in and around Boston designed by the renowned landscape architect, Frederick Law Olmsted, Sr.

### 3.6.6.3 The Uniform Conservation Easement Act

The Uniform Conservation Easement Act (UCEA) was approved in 1981 by the National Conference of Commissioners on Uniform State Laws (see Appendix 3-2).<sup>98</sup> Its purpose is to enable durable restrictions and affirmative obligations to be attached to real property to protect natural and historic resources (see Appendix 3-3). Section 170 of the Federal Income Tax Code allows deduction of the fair market value of any land donated to a conservation organisation (See Appendix 3-4).<sup>99</sup> The same provision also allows deductions for donations of *conservation easements* to land trusts and other public interest organisations (Small, 1999).

While the UCEA does not itself impose restrictions or affirmative duties, it does allow consenting parties to do so within an arrangement free from common law impediments, so long as the conditions of the UCEA are met.

The conditions of the UCEA are designed to assure that transactions serve defined protection purposes and that such interests are placed with a "holder" that is either a governmental body or a charitable organisation with an interest in the subject matter. Conservation easements may be created in the same manner as other

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<sup>98</sup> Uniform Laws Annotated, 1968 Master edition. (St. Paul, MN., West Publishing Company) 1998 pocket part 10.

<sup>99</sup> 26 U.S.C. sec. 170; Note: The easement provisions added to the Internal Revenue Code in 1976 occurred virtually without debate and without any notice whatsoever. A search of the legal literature before 1976 shows virtually nothing being written about conservation and preservation easements. The sole significant exception is Browne and Van Dorn, (1975), "Charitable Gifts of Partial Interests in Real Property for Conservation Purposes", 29 Tax Law 69, (Small, 1999).

easements in land. The UCEA also enables the parties to establish a right in a third party to enforce the terms of the transaction if the possessor of the right is also a governmental unit or charity.

State laws typically govern the creation and maintenance of easements. Table 3.4 identifies statutory references for states that have adopted the UCEA.

Table 3.4 States Adopting the Uniform Conservation Easement Act

State	Statutory Citation	Statutory Code Citation
Alabama	1997, Act no.715	Code 1975, 35-18-1 to 35-8-16
Alaska	1989, Ch. 73	AS 34.17.010 to 34.17.060
Arizona	1985, Ch. 171	A.R.S. 33-271 to 33-276
Delaware	70 Del. Laws, ch.552	7 Del. Code 6901 to 6905
D.C.	D.C. Laws 6-113 (1986)	D.C. Code 1981 45-2602 to 45-2605
Georgia	Acts 1992, p.2227	O.C.G.A. 44-10-1 to 44-10-8
Idaho	1988, Ch. 222	I.C. 55-2101 to 55 2109
Indiana	1984, H. 1074	West's A.I.C. 32-5-2.6-1 to 35-5-2.6-7
Kansas	1992, Ch. 302	K.S.A. 58-3810 to 58-3817
Kentucky	1988, Ch. 251	K.R.S 382.800 to 382.860
Maine	1985, Ch. 395	33 M.R.S.A. 476 to 479-B
Minnesota	1985, Ch. 232	M.S.A. 84C.01 to 84C.05
Mississippi	1986, Ch. 404	Code 1972, 89-19-1 to 89-19-15
Nevada	1983, Ch. 291	N.R.S. 111.390 to 111.4000
New Mexico	1991, Ch. 15	N.M.S.A.1978 47-12-1 to 47-12-6
So. Carolina	1991, Act No. 92	Code 1976 27-8-10 to 27-8-80
Texas	1983, Ch. 43	V.T.C.A. Natural Resources Code 183.001 to 183.005
Virginia	1988, Ch. 720, 891	Code 1950 10.1-1009 to 10.1-1016
Wisconsin	1981, Ch. 261	W.S.A. 700.40

(Source: Gustanski and Squires, 2000)

Other states have enacted conservation easement enabling legislation that reflects the intent of the UCEA; to enable "...private parties to enter into consensual arrangements with charitable organisations or government bodies to protect land and buildings without the encumbrances of certain potential common law problems"

(Breneman and Bates, 1984).<sup>100</sup> Yet due to individual idiosyncrasies, and the fact that many of the states shown in Table 3.5 enacted legislation prior to the 1981 Uniform Act, these states are considered to have enacted enabling statutes that do not conform in a majority of respects to the UCEA.

Table 3.5 States Adopting Non-UCEA Conservation Easement Enabling Legislation

State	Statutory Citation	Statutory Code Citation
Arkansas	Acts, 1983, no. 567	15-20-401 to 15-20-410
California	Stats.1979, Ch. 179	Civil Code 1982 815 to 816, Government Code 1983 51050 to 51065
Colorado	Laws, 1976, p. 750	Revised Statutes 1973 Article 30.5
Florida	Laws, 1976, Ch. 76-169	1988 Title 40 740.06
Hawaii	Laws, 1985, Ch. 149	Revised Statutes 198-1 to 198-6
Illinois	Laws, 1977, P.A. 80-584.	Compiled Statutes 1993 120/0.01 to 120/6
Iowa	Acts, 1970, Ch. 1069	West's A.I.C. 32-5-2.6 to 32-5-2.6-7
Louisiana	Acts, 1986, no. 217.	Revised Statutes 1991 1271 – 1276
Maryland		33 M.S.A. 476 to 479-B
Michigan	P.A.1980, no. 197.	Code 1988 2-118
Montana	Laws, 1969, Ch. 337.	Code 1995 76-6-101 to 76-6-211
Nebraska	Laws, 1981, L.B.173.	Revised Statutes 1990 76-2,211 to 76-2,218
New Jersey	Laws, 1979, ch.378.	Statutes 13:8B-1 to 18:8B-9
New York	Laws, 1983, ch.1020	McKinney's Consolidated Laws 1984 49-0101 to 49-0311
No. Carolina	Laws, 1979, ch.747.	Consolidated Statutes 1995 106-735 to 106-744, 121-34 to 121-42
Ohio		Page's Revised Code 1989 5301.67 to 5301.99
Oregon	Laws, 1983, Ch. 642	Revised Statutes 1994 271.710 to 271.795
Pennsylvania	Acts, 1988, no. 1988-149	Purdon's Statutes and Consolidated 1995 914.1 to 915
Rhode Island	Public Laws, 1976, ch.231	General Laws 1956 34-39-1 to 34-39-5
So. Dakota	S.L.1984, ch.280	Codified Laws 1992 1-19B-56 to 1-19B-60
Tennessee	Acts, 1981, ch.361.	Code 1992 11-15-101 to 11-15-108
Utah	Laws, 1985, ch.155.	Code 1994 57-18-1 to 57-18-7
Vermont	Laws, 1977, no. 221	Statutes 1984 chapter 34 821 to 823
W. Virginia	Laws, 1995, ch.190.	West's Revised Code 1991 20-12-1 to 20-12-8, 84.34.220 to 84.34.922

(Source: Gustanski and Squires, 2000)

<sup>100</sup> Uniform Conservation Easement Act: National Conference of Commissioners on Uniform State Laws, as in Land-Saving Actions, Breneman, R.L and Bates, S. M. eds. (1984) Island Press: Washington, DC, pp. 239, p. 112.

Aimed at limiting land use activities that might alter the use and nature of the land surface while keeping the land in private ownership, the act took advantage of federal tax provisions existing in 1981. The UCEA was intended to create an extremely effective land protection tool, one that could be specifically adapted to meet the particular circumstances of the land and the landowner. It was not designed to be comprehensive, however (Small, 1999).

Under common law a perpetual easement for conservation purposes would not be allowed. Consequently, in most states, conservation easements are only legal where a state statute has identified the process for creating and maintaining a conservation easement. There is considerable diversity among state statutes establishing conservation easements. There are, of course, discernible patterns too. Massachusetts's statute, for example, inspired a small cadre of other states, including Connecticut, Delaware, New Hampshire, and Rhode Island, to enact such legislation; consequently there is a great deal of consistency between the statutes of these states. Not surprisingly, the greatest degree of uniformity and consistency is found among the states that have adopted the UCEA (Mayo, 1999). Land trusts have been established nation-wide to help private landowners achieve permanent protection of lands that contain valuable wildlife habitat or that are of historical, agricultural, recreational, or scenic importance. Land trusts assist both private landowners and government agencies, either by facilitating the transfer of land to the public or by managing the land in accordance with the purpose of the charitable donation. A few states, such as Oregon, have extended similar concepts from land to water rights.<sup>101</sup>

As noted earlier in Chapter 3, there are some noticeable differences between the US and Britain in general attitudes and hence policies and legislative structure relating to agricultural lands. In many areas of the United States productive lands are perceived to be under continual threat as a result of sprawling urban and suburban development (Daniels and Bowers, 1997).<sup>102</sup> Across the nation,

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<sup>101</sup> Or. Rev. Stat sec. 271.715.

<sup>102</sup> The US loses about one million acres of farmland to non-farm development each year. Losses have been most dramatic in metropolitan counties and metro-adjacent counties.



Americans tend to place a high value on the open space and wildlife habitat that farms provide, and have rallied to protect farmland from Vermont to California (Lembeck, 1993; Wilchens, 1996; Krieger, 1999). As with the protection of natural, historic and open space lands, conservation easements are a tool that has shown promise in both slowing the rate of farmland conversion and as a supplement to countywide growth management efforts.<sup>103</sup>

The most successful farmland and open space programs in the US combine a number of legal tools that complement each other. Most include conservation easements (Daniels and Bowers, 1997). Approximately 51% of US land trusts include the protection of farmland in their land protection efforts (Gustanski et al, 1998). The Land Trust Alliance (LTA), in 1994, reported that more than 60 land trusts, including those concerned almost exclusively with farmland protection, named acquiring easements on farmland as a priority (Farmland Preservation Report, 1994). Several local and regional land trusts across the US hold farmland preservation as their primary goal, including: Marin Agricultural Land Trust (CA), Lancaster Farmland Trust (PA), Colorado Cattlemen's Land Trust, Montana Land Reliance, and the nation-wide American Farmland Trust.

While many land trusts rely on the donation of easements or bargain sales, sixteen states, mainly in the north-east, and a few dozen county and municipal governments have established programs to purchase agricultural conservation easements (PACE), see Table 3.6, p. 118.<sup>104</sup> Some have come to refer to such easements as "development rights", which in turn has sprung the acronym PDR (purchase of development rights). Though a conservation easement is not actually

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<sup>103</sup> Growth management is generally considered a state, regional, county or municipal government program to control the timing, location, type, and design of land development.

<sup>104</sup> A bargain sale occurs when a landowner sells an easement for less than the appraised value of the easement. The landowner in effect donates part of the easement value. PACE programs pay farmers to keep their land available for agriculture. Landowners sell an agricultural conservation easement to a qualified government agency or private conservation organization. Landowners retain full ownership and use of their land for agricultural purposes. PACE programs do not give government agencies the right to develop land. Development rights are essentially extinguished in exchange for compensation. PACE is also known as purchase of development rights in many states (PDR) and as agricultural preservation restriction (APR) in Massachusetts.

equivalent to a “development right”, both may be thought of as one stick from the bundle that contains those rights of development associated with landownership. In practice, PDR's are generally programs enacted at the state regional or local level that allow governments to acquire development rights to private property (Daniels and Bowers, 1997). To date PACE programs have received over \$800 million in public funds and preserved over 400,000 acres of farmland.<sup>105</sup> Federal grants to state and local governments for purchases of conservation easements began in 1996 when Congress appropriated \$35 million to make grants to state and local governments for the purchase of conservation easements.<sup>106</sup>

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<sup>105</sup> Statistics provided by the American Farmland Trust, March 1998 (unpublished data).

<sup>106</sup> Section 388 of the Federal Agriculture Improvement and Reform Act of 1996.

Table 3.6 States with PACE Programs & Enabling Legislation

State	Year Enacted & Statute	Short Title(s)
Arizona	Ariz. Rev. Stat. Ann. § 11-935.01. and Ariz. Rev. Stat. Ann. §§ 9-464 to -464.01	Open space land acquisition Open space conservation
California	1995; Cal. Pub. Res. Code §§ 10200 to 10277  Cal. Pub. Res. Code §§ 31150 to 31156	Agricultural Land Stewardship Program Act of 1995 Preservation of agricultural land (h)
Colorado*	1994; Colo. Rev. Stat. §§ 38-30.5-101 to -110	Conservation Easements
Connecticut	1978; Conn. Gen. Stat. §§. 22-26aa to -26jj Conn. Gen. Stat. sec. 7-131q	Agricultural lands, and: Agricultural Land Preservation Fund
Delaware	1991; Del. Code Ann. tit. 3, §§ 901 to 930	Delaware Agricultural Land Preservation Act
Kentucky	1994; Ky. Rev. Stat. Ann. §§. 262.900 to .920	Agricultural conservation easement
Maine	1987, and revised 1993; Me. Rev. Stat. Ann. tit. 5, §§ 6 to 6210	Land for Maine's Future
Maryland	1977; Md. Code Ann., Agric. §§ 2-501 to -516, and: Code Ann., State Fin. & Proc. § 5-408	Maryland Agricultural Land Preservation Foundation, and: Purchase of Agricultural Conservation Easements
Massachusetts	1977; M.G.L. - Chapter 184, Section 31	
Michigan	1994; Mich. Comp. Laws §§ 36101-36117	Farmland and Open Space Preservation
New Hampshire	1979, N.H. Rev. Stat. Ann. §§ 432.18 to -432.31a	Purchase of Agricultural Conservation Easement Trust fund
New Jersey	1983; N.J. Rev. Stat. §§ 4:1C-1 to 55	Agricultural Development and Farmland Preservation Act
New York*	N.Y. Gen. Mun. Law § 247 N.Y. State Fin. Law § 87 N.Y. State Fin. Law § 92-s  Pittsfield 1996 Southampton 1980 Southold 1986 Suffolk 1975	Acquisition of open spaces and areas Farmland protection trust fund Environmental protection fund  { County level Farmland Protection Programs implemented through various means, including municipal bonds and property tax increases }
North Carolina*	Forsyth 1984	Implemented at County level through budget reserve.
Pennsylvania	1988; 3 Pa. Cons. Stat. §§ 901 to 915, and; 3 Pa. Cons. Stat. §§ 1201 to 1208, Section 7.3	Agricultural Area Security Law Agricultural land conservation assistance grant program
Rhode Island	1981;	
Vermont	1987; Vt. Stat. Ann. tit. 6, §§ 31 to 33  Vt. Stat. Ann. tit. 15, §§ 301 to 325  Vt. Stat. Ann. tit. 10, §§ 6301 to 6309	Ag Land Dev. Rights Acquisition Program Vermont Housing and Conservation Trust Fund Act Acquisition of Interests in Land by Public Agencies
Virginia*	Virginia Beach 1995	County level program implemented through contributions from increase in property tax and cellular phone tax.
Washington*	1982; Wash. Rev. Code §§ 84.34.010 to -.922  King Co. 1979 San Juan Co. 1990	Open space, agricultural, timber lands—current use—conservation futures  { County level Farmland Protection Programs implemented through municipal bonds and real estate transfer tax }
West Virginia	1990; W. Va. Code §§ 8-24-72 to -78 (1990)	Farmland preservation programs
Wisconsin*	Town of Dunn 1996	Program funded by property tax increase

\* Denotes local or regional level PACE programs only.

Sources: *Farmland Preservation Report* (unpublished data, 1994) American Farmland Trust, Fact Sheet, March 1998; Gustanski and Squires, 2000.

Because conservation easements depend on variations in state enabling laws, how they are used varies from state to state and even within a state. Yet, the fundamental purpose of an agricultural conservation easement is to protect existing agricultural and open space uses. A conservation easement is, as numerous legal scholars have pointed out, a negative easement in gross, and cannot impose an affirmative obligation on the landowner.<sup>107</sup> For that reason, an easement can restrict an owner's use of the land; it cannot require the property to be actively farmed. Consequently, routine agricultural practices are permitted so long as they comply with local zoning regulations, and state and federal laws. Most agricultural conservation easements do not limit crops grown, livestock maintenance, or construction of agricultural structures, and frequently provide for the building of an additional house for persons involved in the farm operation. Such easements also often allow for part-time "rural enterprises" to encourage additional sources of on-farm income. Public access is not normally allowed, nor is the dumping of garbage or removal of soil.<sup>108</sup> With many publicly funded PACE programs, a soil conservation plan is required.<sup>109</sup> An easement may also be seen by a landowner as a tool to ensure that certain land use activities are or are not carried out. But special requests on restrictions should be carefully weighed against difficulties that may arise on long-term monitoring, the ability to enforce, and conservation goals. For example, a few land trusts have attempted to require organic farming methods on farmland protected by an easement. By placing such restrictions within an easement the land trusts have placed a heavy burden on themselves for monitoring and enforcement over time.

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<sup>107</sup> Effectively a negative easement tells a landowner what he or she cannot do with the land. An easement cannot require the landowner to raise certain crops as this that would impose what is referred to in legal parlance as an "affirmative obligation". In the UK a similar distinction exists between management agreements under the SSSI scheme and ESA programmes.

<sup>108</sup> In an easement donation, a landowner may allow public access to show that the easement provides a public benefit and hence the value of the easement is tax-deductible. However, public access is rarely required for an easement sale. Moreover, farmland is usually not accessible to the public, whether an easement is sold or donated.

#### 3.6.6.4 Conservation Easements: Pro's & Cons

Conservation easements though given life and power through the UCEA and a myriad of state enabling laws, are neither mandatory, nor a governmental regulatory tool.<sup>110</sup> Rather, easements are entirely voluntarily and are donated or sold by landowners at their discretion. Resulting restrictions on the land are arrived at jointly, a concerted effort between the landowner and the organisation or agency accepting the easement. This synergetic relationship fosters the development of a long-term vision for perpetual management of the land. Although, occasionally easements may be granted for a specified period, due to provisions of the IRS Code and most state enabling legislation this is not the usual course (Wright, 1993; Gustanski, 2000 a).<sup>111</sup> Table 3.3 earlier in the Chapter reflects the general differences between voluntary conservation easements and government mandated land conservation.

In essence, granting a conservation easement creates a legal partition of the ownership bundle. The recipient organisation retains the rights associated with development. In turn, the landowner continues to hold fee simple title to the property, with an understanding that uses must be in keeping with the terms of the easement. The organisation, in accepting the easement, assumes perpetual responsibility for ensuring that neither the grantor nor successors violate the terms set forth in the easement. Hence, the need for annual monitoring of easement protected lands. If the terms of the agreement have been breached, the easement holder is under obligation to take necessary action to assure that the landowners make required corrections. In some instances, such actions may be substantial, for example removing a home or other buildings constructed on protected lands. More common, however, are infractions that may for example require a landowner to cease certain farming operations specifically prohibited under the terms of the easement.

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<sup>109</sup> The purpose of a soil conservation plan is to promote good management of preserved land.

<sup>110</sup> Uniform Conservation Easement Act of 1981.

<sup>111</sup> Several State statutes do not have perpetuity requirements or language specifically enabling term easements.

Conservation easements have now been used for nearly 70 years, yet it is only in the past two decades that their application has become popular (Gustanski, 1997; Ohm, 1998). Thus, increasing the likelihood of growth in the number of easement challenges in to the future (Gustanski, 2000 *a*; Mayo, 1999).

Most land trusts believe that every conservation easement should be unique and specifically adapted to the needs of the individual landowner and the features of the land (See Chapter 7). However, their public counterparts more oft than not use a more standardised or “cookie cutter” approach to easement design. Regardless, all conservation easements meeting UCEA requirements, run with the land; binding all future landowners to the restrictions of the easement. Conservation easements derive their strength in part from their binding connection to title and genuine custodial commitments of landowners to the land. Unlike government issued policies and regulations on land use, easements have the distinction of redefining traditional models of land ownership (Wright, 1993). Some may argue, that the history of conservation easement use is not sufficiently long to determine what the long term effects may be—but if the increase in their use over the past several decades is any measure it seems only a positive judgement can be made.

The passage of the UCEA, was a monumental advance for conservation easements, the organisations that employ them, and landowners wanting to protect their cherished lands. Though most probably not its original intent, noted tax attorney Steve Small, deems the tax code as it applies to conservation easements as a “major land use planning tool” (Small, 1999). One thing is clear, that with the enactment of the UCEA, the granting of a conservation easement to a qualified organisation is assured the same treatment under Federal law as other charitable contributions, such as a cash donation to the United Way.

In general, the tax benefits to the landowner, generated by a conservation easement are determined by subtracting the value of the land after the easement from its value before granting the easement. Essentially the difference between these two values is the amount assigned to the charitable donation. The landowner continues to own the fee title to the land, to govern public access and in most cases to pay taxes on the land. Though legislation in some jurisdictions has been adopted to assure



easement protected lands are taxed in accordance with their restricted nature, this is by no means a universal treatment (Gustanski, 1997; Small, 1997; Mayo, 1999;). Land protected by a conservation easement may continue to be bought, sold, or conveyed by inheritance as usual.

### 3.6.6.5 The Success of Conservation Easements

Over the past twenty-something years, this single piece of legislation put into play in the Tax Reform Act of 1976 has played an instrumental role in both providing guidance to state enabling legislation and to launching easements into widespread use by explicitly recognising them as tax deductible donations.<sup>112</sup>

The UCEA and related state enabling laws have laid the legal foundations enabling land trusts, working with local, state and federal government agencies, to protect more than 4.7 million acres of land across the United States. Of those lands, nearly 1.4 million acres of private lands are now protected through conservation easements (Table 3.7).<sup>113</sup> The remaining 3.3 million acres have been protected using a variety of other methods as reflected in Figure 3.3.

Table 3.7 Growth in Acres Protected with Conservation Easements 1988-1998<sup>114</sup>

<b>Method of Protection</b>	<b>1988</b> (in acres)	<b>1990</b> (in acres)	<b>1994</b> (in acres)	<b>1998</b> (in acres)	<b>Increase 10</b> <b>year period</b> (%)
Fee Title Ownership by land trusts	300,000	440,000	535,000	828,000	176%
Conservation easements held by land trusts	290,000	450,000	740,000	1,385,000	377%

<sup>112</sup> Public Law 94-455, The Tax Reform Act of 1976, § 2124

<sup>113</sup> UCEA §1 *et seq.*; Title 26 USC § 170 (h); IRC § 170(h). The Land Trust Alliance, the 'umbrella' organisation for the more than 1,200 land trust across the nation, report in their 1998 survey that some 1,385,000 acres have been protected using conservation easements. Land Trust Census, 1998.

<sup>114</sup> Compiled using data obtained from Land Trust Surveys (1990 and 1995); and, Land Trust Census, 1998. Note: Due to inconsistencies in data collection over the period, data does not reflect the acreage of land, approximately 3.4 million acres, acquired by land trusts and transferred to government or other third parties.

The origins of conservation easements are in use by government agencies to protect scenic routes and wildlife habitat (Ohm, B. 1998).<sup>115</sup> Today, lands protected through the donation of conservation easements to land trusts across the nation outweighs those so protected by government agencies. Despite the efforts of countless planning commissions, and local and regional government agencies, people across the country have become decidedly frustrated and disillusioned by the failings of various government schemes to adequately protect cherished lands from sprawling development. This disappointment factor has almost certainly played a significant role in the phenomenal growth of land trusts over the past two decades (Gustanski, 2000 *a*; Hocker, 1998).

### 3.6.6.6 Conservation Easement Valuation: Pricing Easements

As an asset, the value of land before and after an easement is based on certain expectations about the stream of benefits that landownership will provide over time. Yet in the conveyance of a conservation easement it is the after easement, or restricted value, together with the tax treatment based on individual circumstances that the individual landowner considers in determining the 'value' (Small, 1997). Whether the landowner is donating or selling a conservation interest a conservation easement appraisal is required to determine its value (Warren, 1984).<sup>116</sup>

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<sup>115</sup> In 1951, the Wisconsin the state Highway Department purchased easements along the Great River Road. The National Park Service purchased scenic easements as early as the 1930s and 40s for lands adjacent to the Blue Ridge and Natchez Trace parkways. Among other early users of conservation easements were the U.S. Forest Service and the U.S. Fish and Wildlife Service who have used easements to protect scenic areas and habitat. (Ohm, B. D. (1998) *Historical Use of Conservation Easements Along Wisconsin's Great River Road (draft)*).

<sup>116</sup> U.S.C. § 170(h) (19 et al). "Qualified Conservation Contribution." The appraisal that determines the reduction in fair market value, i.e. the easement value, must meet strict standards set by the IRS:

The [appraisal] substantiation requirements fall into three categories. First, a donor must obtain a "qualified appraisal." Second, a "fully completed appraisal summary" must be attached to the donor's tax return. Third, the donor must maintain certain specified records concerning the gift.

A "qualified appraisal" must be done by a "qualified appraiser." A qualified appraiser must be "qualified to make appraisals of the type of property being valued" and cannot be a person whose relationship to the taxpayer or the donee organisation "would cause a reasonable person to question the independence of such an appraiser."

The value of a conservation easement is generally considered to be the difference between the “fair market value” (FMV) and the value of the land after the land is encumbered or “conservation easement value” (CEV) (Daniels, 1994; Gustanski, 1997). As there is no direct market for conservation easements, valuation of the conservation interest requires a combination of both market analysis and estimation through an appraisal process which must rely on a series of “before-and-after comparisons and determination of the “highest and best use” to extract the restricted value of the land (Hoffman, 1984).<sup>117</sup>

Determining these values are further complicated by the fact that future costs and benefits are unclear, tax situations are unique and complex, and social values generally rely on non-market factors. Non-the-less, estimates are possible—and are the foundation upon which easement values are generally based (Hoffman, 1984; Interagency Land Acquisition Conference, 1992). Three appraisal approaches are typically used today to approximate highest and best use: 1) comparable sales approach; 2) estimating replacement costs (less depreciation); and, 3) income approach (Diehl and Barrett, 1988).

Despite the existence of statutory and regulatory guidelines, a substantial degree of uncertainty surrounds the valuation of conservation easements, however,

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For example, the ... Regulation notes that an appraiser who is regularly used by the donee organization "and who does not perform a substantial number of appraisals for other person's" cannot be a qualified appraiser with respect to the property contributed.

A "qualified appraisal" must include, among other things, a description of the property, the method of valuation used to determine the fair market value of the property, certain information about the appraiser and his or her qualifications, and description of the fee arrangement between the donor and the appraiser. The "appraisal summary" must be on IRS Form 8283 and must include information identifying the donee, the appraiser, and the property. The summary must be signed by the appraiser and the donee organization, although the ... Regulation notes that the donee's signature "does not represent concurrence in the appraised value of the contributed property. Rather, it represents acknowledgment of receipt of the property and that the donee understand the information reporting requirements imposed by section 6050L" [which] required the donee to file an information return (Form 8282) with the Service if the donee sells or otherwise disposes of the subject donated property within two years after the gift.

<sup>117</sup> Four general criteria are generally used in the appraisal literature for determining highest and best use values: of all use that are physically possible, legally permissible and financially feasible, the highest and best use is that which affords the highest present value (Diehl and Barrett, 1988; Interagency Land Acquisition Conference, 1992).

the mechanics once understood are relatively simple (Hoffman, 1984). Much of the ambiguity stems from a lack of exactitude in determining the highest and best use, both before and after an easement is granted. In practise the comparable sales approach is most often used to determine the land's value prior to the easement being granted (*pers. comm*, Dr. Robert Barr 9/98).<sup>118</sup> The income approach is then used to estimate the value that the remaining use (typically agriculture or recreation) would have after the easement is granted. Definitions commonly used to interpret highest and best use are limited by implicit assumptions that a single use will remain the highest and best use for a particular piece of land in perpetuity. In fact, returns to alternative land uses may change over time—and highest and best use may itself change. This suggests that easements might be best appraised on a before-and-after comparison of the *PV* of the land under a feasible sequence of highest and best use scenarios over time (Daniels, 1994).<sup>119</sup>

Thus, consideration must be given to streams of expected net returns to alternative uses over time and then determine the sequence of *PV* as of the date of the appraisal (Barr, *pers. com*, 9/98). IRS regulations provide instructions to consider “not only the current use of the property but also an objective assessment of how immediate or remote the likelihood is that the property, absent the restriction, would in fact be developed.”<sup>120</sup> But this consideration appears to take the form of adjustments to a simple discount rate rather than explicit consideration of a stream of variable returns to alternative land use over time. The second involves a more general form of present value estimation, discounted cash flow analysis (Diehl and Barrett, 1988).

Using a typical urban—suburban fringe farmland scenario for a parcel both suitable for urban or suburban development and ideally situated for transition, the

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<sup>118</sup> Personal communication with Pennsylvania appraiser, Dr. Robert Barr, Agrarian Associates, Inc. (Sept. 1998)

<sup>119</sup> Although efforts to anticipate zoning changes quickly becomes complicated and uncertain, in Pennsylvania appraisers of conservation interests are required to estimate the likelihood of such zoning changes.

<sup>120</sup> 26 CFR 170A-14 (h).

following scenarios reflect different approaches to capitalisation of returns into present values. Scenario 1 uses simple capitalisation, based on current net returns and interest rates and compares conservation/agricultural use assuming that expected returns remain constant. Scenario 2 capitalises changing net returns to alternative single uses and compares conservation/agricultural uses recognising that expected urban returns change after the first year. Scenario 3 employs capitalisation of changing net returns to the optimal sequence of uses, if conversion takes place in the optimal period for conversion. Scenario 4 considers the value of the option of waiting for future information to become available regarding development plans on adjacent property.

Table 3.8 summarises estimates of easement values based on Scenarios 1 through 4.

### Assumptions:

- $R_{at}$  expected annual net returns to agricultural use (\$100/acre each year)
- $R_{ut}$  expected annual net returns to urban use (\$50/acre in year one, then \$150 per acre for each year thereafter)
- $i$  discount rate (5%/year, each year)
- $T$  duration of the easement (perpetual)
- $V_{P0}$  current per acre value of the land **prior to** conservation restrictions (below)
- $V_{A0}$  current per acre value of the land **after** encumbrance i.e., \$2,000/acre (below)
- $V_{e0}$  current per acre easement value =  $V_{B0} - V_{A0}$  (see below)
- $t^d$  optimal period to convert land use i.e., agriculture to developed use ( below)

### Summary of Results:

Method	$V_{P0}$	$V_{A0}$	$V_{e0}$	$t^d$
1	\$2,000	\$2,000	\$0	never
2	\$2,905	\$2,000	\$905	1 <sup>st</sup> year
3	\$2,952	\$2,000	\$952	2 <sup>nd</sup> year
4	\$3,429	\$2,000	\$1,429	2 <sup>nd</sup> year or not at all

Table 3.9 Calculating Conservation Easements Values – Alternative Methods

Scenario	$V_{P0}$	$V_{A0}$	$V_{e0}$	$t^d$
1	$\max \{R_{a0}, R_{u0}\} / i$ $= \max \{100, 50\} / 0.05$ $= \$2,000$	$R_{a0} / i$ $= 100 / 0.05$ $= \$2,000$	$\$2,905$ $- \$2,000$ $= \$905$	never
2	$\max \left\{ \sum_{t=1}^{\infty} R_{at} / (1+i)^t, \sum_{t=1}^{\infty} R_{ut} / (1+i)^t \right\}$ $= \max \left\{ \sum_{t=1}^{\infty} 100 / 1.05^t, 50 / 1.05 + \sum_{t=2}^{\infty} 150 / 1.05^t \right\}$ $= \max \{2000, 48 + 2857\}$ $= \$2,905$	$\sum_{t=1}^{\infty} R_{at} / (1+i)^t$ $= \sum_{t=1}^{\infty} 100 / 1.05^t$ $= 100 / 0.05$ $= \$2,000$	$\$2,905$ $- \$2,000$ $= \$905$	Year 1
3	$\sum_{t=1}^{\infty} \max \{R_{at}, R_{ut}\} / (1+i)^t$ $= \max \{R_{a1}, R_{u1}\} / 1.05 + \sum_{t=2}^{\infty} \max \{R_{a1}, R_{ut}\} / 1.05^t$ $= \max \{100, 50\} / 1.05 + \sum_{t=2}^{\infty} \max \{100, 150\} / 1.05^t$ $= \$95 + \$2,857$ $= \$2,952$	$\sum_{t=1}^{\infty} R_{at} / (1+i)^t$ $= \sum_{t=1}^{\infty} 100 / 1.05^t$ $= 100 / 0.05$ $= \$2,000$	$\$2,952$ $- \$2,000$ $= \$952$	Year 2
4	$R_{a1} / (1+i) + 0.5 \left( \sum_{t=2}^{\infty} \max \{R_{at}, R_{ut}^H\} / (1+i)^t \right)$ $+ 0.5 \left( \sum_{t=2}^{\infty} \max \{R_{a1}, R_{ut}^L\} / (1+i)^t \right)$ $= 100 / 1.05 + 0.5 \left( \sum_{t=2}^{\infty} \max \{100, 250\} / 1.05^t \right)$ $= \$95 + \$2,381 + \$952$ $= \$3,429$	$\sum_{t=1}^{\infty} R_{at} / (1+i)^t$ $= \sum_{t=1}^{\infty} 100 / 1.05^t$ $= 100 / 0.05$ $= \$2,000$	$\$3,429$ $- \$2,000$ $= \$1,429$	Year 2 or never

As can be seen from Scenario 1 it is costly to disregard information about the future. Scenario 1 reflects a *FMV* equivalent to the restricted agricultural value, resulting in a per acre *CEV* of \$0. In Scenario 2, the *FMV* of the land is \$2,905 per acre, making it optimal to convert to urban use straight away. The present value (*PV*) of a conservation easement would be \$2,90 - \$2,000 = \$905 per acre. Scenario 3 reflects the optimal sequence of uses. *FMV* is \$2,952 per acre and the optimal period to convert use to urban uses is in year two. The *PV* of the conservation restriction is \$22,952 - \$ 2,000 = \$592. In Scenario 4 with first year returns of \$100 per acre from agriculture and equal probabilities of development or continued agricultural use, the *PV* of this option is \$3, 429 per acre. Thus the *FMV* is \$3,429



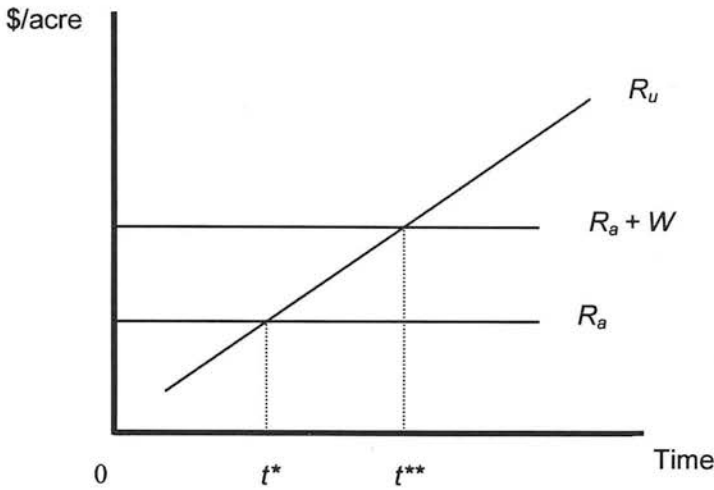
per acre and the optimal conversion would occur in the second year if the neighbouring development is approved or not at all if proposal is denied. The *PV* of a conservation easement permanently restricting urban use is  $\$3,429 - \$2,000 = \$1,429$  per acre.

In summary, each successive scenario values a conservation easement on the land more highly, since each incorporates a progressively more accurate recognition of the optimal sequence of returns. As can be seen in Scenario 1 simple capitalisation is clearly inadequate when expected net returns are changing over time. Scenario 2 recognises this potential impact, but is limited to a comparison of alternative single uses of the land. Scenario 3 recognises that it may not be optimal to develop the land immediately. Scenario 4 recognises the additional value of waiting before making a decision on converting the land use. Each additional factor incorporated adds to the present value today of the land before conservation restrictions are imposed ( $V_{p0}$ ), and therefore adds to the present value today of the conservation easement itself ( $V_{e0}$ ).

Each successive method also changes the optimal time for converting the land to urban use. The first scenario suggests that it is never optimal, since it disregards information about changing returns to urban use in the future. The second suggests that conversion should take place in the first year, since it requires an immediate choice between two alternative single uses. The third scenario recognises that the optimal stream of returns includes agricultural uses in the first year, and conversion should take place in year two. Finally, the fourth scenario incorporates the option of waiting to hear whether the proposed development on the adjacent property has been approved; if so, development of the land should take place in year two; if not, the land should remain in agricultural use.

The value of the option of waiting for new information before making a decision to convert the land is illustrated in Figure 3.3. If returns to agricultural use are constant while returns to urban use are increasing, the option value of waiting until  $t^{**}$  to decide whether or not to convert the (rather than converting at  $t^*$ ) is shown on the vertical axis. The implication of this result is that farmland may be converted for development too soon if this option value is not recognised.

Figure 3.3 Optimal time for land conversion



$R_a$  = expected annual returns to agricultural use

$R_u$  = expected annual returns to urban use

$W$  = implicit option value of waiting

In determining whether or not a conservation easement should be acquired land trusts should assess both the market and non-market values of holding each particular easement, based on the stream of non-market or social benefits generated by the land proposed. Overall the appraisal of conservation easements is a challenging undertaking, particularly in areas of the country where there are few (or no) comparable sales of encumbered lands. Although, this situation is gradually changing as the popularity of conservation easement use continues to grow, there remains vast areas of the nation that have not yet come to terms with conservation easements (*per. comm.* Professor Tom Daniels, 9/98; Stephen J. Small, 10/98)<sup>121</sup>. The durability of conservation easements have now stood the test of several legal

<sup>121</sup> Personal communication with Professor Tom Daniels, State University of New York-Albany, former director of Lancaster County Pennsylvania's Agricultural Preserve Board (Sept.1998), and; Stephen J. Small, Esq., US tax attorney specialising in assisting landowners to protect land and drafter of original Uniform Conservation Easement Enabling legislation.

challenges—barring any substantial revisions to tax laws—conservation easements appear to be here for the long term.<sup>122</sup>

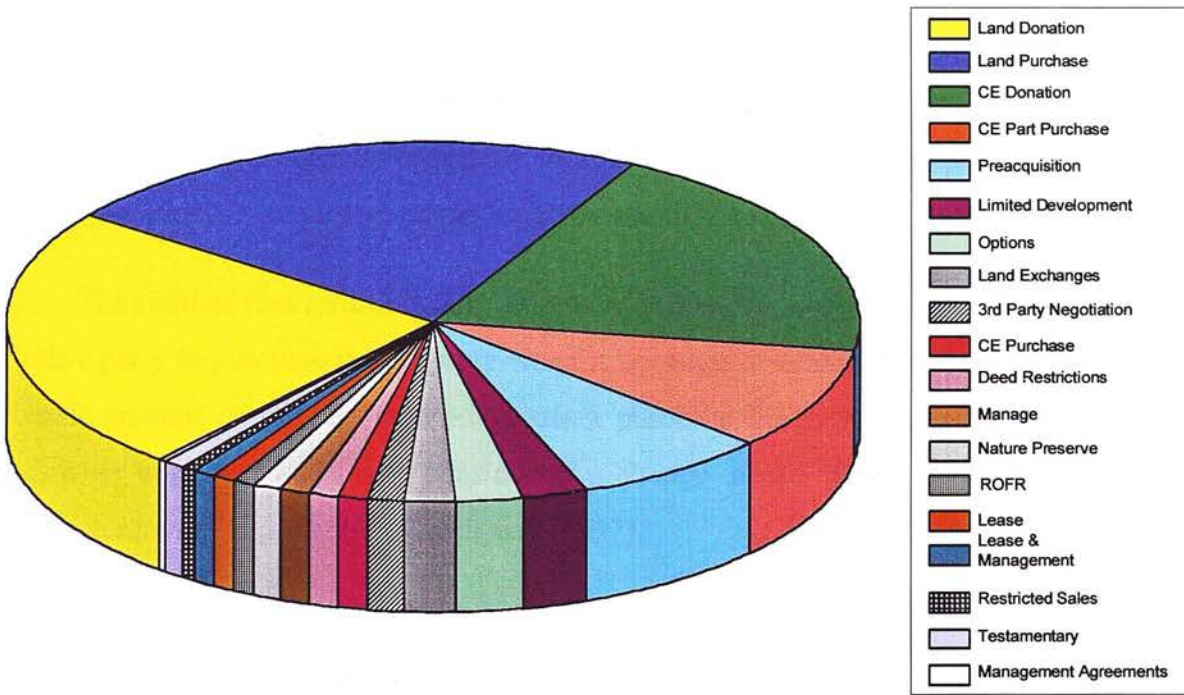
### 3.6.7 Other Land Conservation Tools

Land trusts across the US use a host of other tools to assist them in their land conservation efforts, some of which are legally binding (e.g. deed restrictions, management agreements, and leases). Others such as testamentary bequest and options rely on landowners to follow through with particular actions, though do not legally bind them to do so (Figure 3.4). Several instruments used in the US mirror those used in the UK (see Sections 3.6.7.1-3.6.7.4). Yet, the variety of tools and their creative applications in the US far out weigh the more basic tools used by UK land trusts. Such tools include management agreements, leases, designations and “rights of first refusal” (Bromley, 1996). Each of these require a commitment from a landowner, but do not permanently restrict the deed to the property. Unlike the conservation easement, these methods do not convey permanent interest in the areas that need protection. Chapter 7 will further examine the use of conservation tools by land trusts in both the US and the UK.

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<sup>122</sup> See for example: *Gardner v. New Jersey Pinelands Commission*, 593 A.2d 251 (N. J. 1991); *Cook v. Pennsylvania Dept. of Agriculture*, 646 A.2d 598, (Pa. Commw. 1994); *Woods v. Maciey*, 148 A.2d 544 (1959).

Figure 3.4 Conservation Tools and Methods Used by US Land Trusts



(Gustanski and Squires, 2000)

### 3.6.7.1 Management Agreements

Management agreements are contracts with landowners that obligate the landowner to manage the property in a mutually agreeable manner for a fixed period of time. As written contracts they are legally binding, though do not transfer with title from one landowner to the next (Bromley, 1996; Gustanski, 1997).

### 3.6.7.2 Leases

Leases describe rental agreements. Under a lease, a rent is paid and temporary possession of property is taken to control its use. Under a lease, an organisation can have exclusive rights of access to the property for a specific period of time, thus controlling visitation. Leases are considered legal documents and can be recorded by the County Clerk, making them a part of the legal deed. Recorded agreements, leases, and such will appear in a title search, but do not ensure perpetual conservation (Gustanski, 1997).

### **3.6.7.3 Rights of First Refusal**

A right of first refusal (ROFR) is a landowner's written promise to offer an organisation or other interested party the first opportunity to buy her land should she decide to sell it. This can be especially worthwhile when the landowner agrees to manage the property to protect its natural values until she disposes of it.

The right of first refusal is only an option. It does not obligate the organisation or other party to purchase the property when it becomes available. Consequently, for a small amount of money, land trusts often purchase the right to know when a landowner is going to sell or is considering a change in use of the property that is inconsistent with its protection (Gustanski, 1997).

### **3.6.7.4 Life Estates and Bequests**

A life estate is an ownership interest in real property for the duration of the life of any designated person or persons. It can provide a lifetime residence for an individual who otherwise has turned over the property to be a preserve, restricted by a conservation easement or possibly environmental education purposes. Bequeathing property is leaving property by a will, stating how the land is to be conveyed as determined by its owner upon her death.

### **3.6.7.5 Designation by Public Agencies**

Most lands held by public agencies in the US are used for recreation, forestry, and agriculture. Agencies with jurisdiction over these lands can "designate" or set aside sections for specific purposes through their own administrative processes. Many land trusts have also developed a system of designations, often referred to as registries.

Unlike in Britain, most designations are created administratively, and have no force of law, although they can provide significant protection to a site. Sites designated as natural areas are usually withdrawn from uses that would conflict with natural area protection, thus strengthening that protection. Withdrawal can be

exercised not only by the administrating agency, but also by legislative or executive mandate.

### **3.6.8 US Summary**

The forgoing investigation strongly reflects some of the essential differences between US and UK legal and policy infrastructure to protect private lands and enhance ecological continuity. Most notably is the definitive structure of US tax laws that provides landowners with attractive income and inheritance tax benefits. Although the UK's system of SSSI's does provide compensation based on the reduction of value or income based on the designation, it does not provide the perpetual assurance guaranteed through conservation easements. Nor is a SSSI designation voluntary.

Considerable attention was given to conservation easements as they have increasingly been used by landowners across the US in helping them to achieve land protection goals, thereby permanently altering traditional notions of land tenure by partitioning the "bundle" of rights in perpetuity. The provisions in the Tax Reform Act of 1976, and Tax Treatment Extension Act of 1980, have led the way for the use and success of conservation easements. The estate tax savings from such charitable donations encourage transfers of real estate to philanthropic and public uses. In addition, they have worked to save many hundreds of thousands of acres from inheritance tax break-ups, accelerated conversion, sub-division, and development.

Conservation easements have the capacity to give individuals and their communities control to achieve their land conservation objectives in the long-term.



### 3.7 Conclusion

As can be discerned from the forgoing analysis of applicable laws, regulations and policies designed to protect a diversity of private land resources governments across the US and UK have provided support at various levels. In the US, state and federal legislatures have provided for conservation easements, transfer of development rights, agricultural security areas, conservation districts, zoning in the interests of protecting agricultural, historical and open space lands and direct state and local agencies to act in ways that protect land resources. In the UK, various policy endeavours including the Town and Country Planning Acts, Countryside Acts and the Wildlife Countryside Acts are similarly constructed with regional authority plans following suit. Additionally, on both sides of the Atlantic, various regulations require environmental review of actions that may affect habitat, farm and forest land, wetlands and open space. In the US virtually every state has enacted nuisance and preferential tax laws designed to protect farmers from lawsuits and to lessen the tax burdens of farm, forest and open space lands.

Due to the common law origins of both British and US and legal systems, the laws governing land uses, and the local procedures that apply to them, are a blend of case and statutory law. Though there is a great deal of diversity and divergence even across the 50 states. For example, in the State of New York, in recent years, the statutory law has been amplified significantly; many needed definitions have been added, much of the prior case law codified, and many of the statutory gaps filled. Yet, other states still struggle to get uniform enabling laws passed, e.g. Pennsylvania, Oklahoma, South Dakota, and Montana.

The difficulty in both the US and UK with the laws enacted to date, however, are that they are generally fragmented and scattered throughout the statutes, with little or no discernible connection among them. This shotgun approach has resulted largely because land use laws are drafted by separate committees at different points in time to accomplish separate purposes. Thus, while there is a host of various laws relating to the use and regulation of land they frequently fail to connect with one another; to become integrated with the objectives they seek to accomplish and to

establish efficient procedures regulating the use of land. The result is a series of incremental piecemeal regulations, whose actual use varies.

Though it is difficult to make sweeping generalisations, it does appear that for a majority of the states the problem with land conservation at various levels, is not that state and federal legislatures have failed to provide the necessary power-tools required to protect the land. The problem is largely that, as crafted, these provisions do not create a clear program enabling municipalities to realise constitutional objectives of protecting land.

There may be only one certainty for the future for private lands in Britain and America and that is that there will be further changes to the laws governing the use and protection of this vital resource. Irrespective of which political party is at the helm land and its use remain a popular political subject, and given its fundamental power, there is little reason to expect this to change. However, the way in which each nation and its respective sub-parts move forth to modify existing laws and policies will ultimately depend on the political and landscape vision that is adopted. If muddling through incrementalism rooted in the status quo is acceptable, then the respective current policies only need to be attuned in the disorganised way they have been thus far. If, however, the vision is of a landscape that is sustainable in the long-term—then only progressive reforms will do.

### **3.7.1 Lessons learned**

Each nation may find it useful to take a page from each other's book. For example, the most significant reform at the national level in Britain, would be the introduction of conservation easement legislation. As will be seen in Chapter 7, such legislation would be sufficiently welcomed by the nation's land trusts. The introduction of conservation easement enabling laws would provide an effective tool that would significantly enhance the ability of the nation's more than 130 land conservation organisations, and put their protected land on par with those of the National Trust. In addition, the introduction of such enabling laws would provide a

more secure future for both a resource base of protected lands and the ecological continuity on which diverse aspects of all systems (human and natural) depend.

With the introduction of sound legislation, as that of the National Trust Acts, granting uniform powers to all conservation organisations in the UK, the country as a whole would benefit from increased security provided by such law. Alternatively, enacting laws that enable permanent conservation of private land by extinguishing long held common law impediments, would accomplish a number of goals in the UK. Principal benefits include: 1) eliminate the perceived need to purchase lands in fee; 2) significantly reduce land and maintenance expenditures of the nation's land conservation trusts; 3) enable the permanent protection of more land by small and less well funded organisations; 4) provide landowners with the security of maintaining ownership of their land for future generations; 5) provide various tax or charitable contribution breaks to landowners so protecting their land; 6) facilitate stability in the nation's countryside and urban centres; 7) enhance the overall ability of the nation's conservation trusts; and 8) reduce landowner anxiety over the perpetual nature of conservation interests donated. Chapter 7 provides a critical assessment of the potential for conservation easement-type legislation in the UK from the perspective of those land trusts involved in Phase III interviews.

In the United States, of course, the lesson best learned is one of a national statutory planning framework. Neither this concept nor its proposition is new to the US. Over the past several decades various attempts along these lines have been made. Most recently the American Planning Association (APA) worked on developing national planning guidelines, though this effort appears to be bogged down with many of the same dilemmas that have plagued earlier efforts. Although not insurmountable, due to the enormity and geographic diversity of a nation the size of the US, it is perhaps more realistic to envision across the board a system built upon a statutory foundation at the state level.

Naturally the most radical option for both the UK and the US would be reform of the entire system of land use and development controls as currently defined by a host of diverse and divergent laws. Australia presents an interesting new legislative model in its Environment Protection and Biodiversity Conservation Act,

wherein all policies touching on the array of development, sustainability, biodiversity and other environmental concerns have been enveloped into a single piece of legislation.<sup>123</sup>

The connection, we as human beings have to the places we inhabit are on one level created by public policies that are shaped by law. As Chapter 3 exemplifies, the purpose of the array of legal instruments is to protect, preserve and defend the unique natural resources that provide meaning to the national fabric of both Britain and America and play an unequivocal role in shaping the patterns by which we see. Today there is little doubt that an orchestrated tapestry of protected lands will only be achieved through the artistic use of a whole battery of legal mechanisms and administrative procedures.

The following chapter, Chapter 4, describes the triangulated methodology used to compose the three diverse data sets. The triangulated approach centers on eliciting both reliable qualitative and quantitative information that addresses public opinion, using focus groups and mail surveys in Phases I and II. In Phase III, expert interviews are employed to create the data set used to evaluate associated processes, tools and techniques used by land trusts in the UK and US.

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<sup>123</sup> *Environment Protection and Biodiversity Conservation Bill 1998*, Short title: A Bill for an Act relating to the protection of the environment and the conservation of biodiversity, and for related purposes.

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**CHAPTER 4**

**METHODOLOGY**

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## 4.1 Prologue

Chapter 2 put forth the conceptual physics of the ILCDS model, which necessarily invokes an alternative land conservation paradigm. Requisite to the ethics-economics-policy paradigm is the incorporation of the views and values of people who are most directly affected by changes to land use and the landscape of their communities.<sup>1</sup> Doing so will lead to the development of land conservation incentives and techniques that are more likely to succeed in promoting the conservation of land resources, and in ensuring a more sustainable future (Thorpe, et al., 1996).

By their very nature, communities involve a wide range of people and organisations, from landowners and farmers who may own and manage vast tracts of land, through resource industries as agriculture, forestry, and mining, to people who live in urban centres and suburban neighbourhoods. Communities themselves interact both within and outside their own loosely defined boundaries.

Our most profound relationships with the natural world are not with an abstraction called "environment" but with the rich textures, endlessly diverse and very particular places in which we live. The evolution of the communities in which we work, live and raise our children, are the cultural landscapes that have been shaped by the laws, policies and regulations that have been enacted over time to protect, preserve and defend the unique natural resources that provide meaning to the very fabric of these uniquely different yet surprisingly similar nations.

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<sup>1</sup> Note: throughout this thesis the term "community" or "communities" is frequently used. In this context, the term is used to refer not just to the place in which people live, but to the people themselves. For a group of individuals to truly be a community, they must interact with each other, share a sense of a common future, if not a common past, and work together to help meet each other's needs and promote the common welfare.



To more comprehensively assess and address the nature of these attitudes and values, three methods of data collection were employed to obtain and develop both descriptive and inferential data sets. Qualitative data are used both to verify hypotheses and enrich the quantitative data obtained from the Phase II mail survey.

## 4.2 Introduction

This Chapter will focus on the methods used to construct data sets used. The triangulated approach centres on eliciting both reliable qualitative and quantitative information that addresses public opinion and values as well as the associated processes, tools and techniques used by land trusts in the US and Britain. Throughout the thesis discussion refers to the use of both *qualitative* and *quantitative* data, often referred to as triangulation (Caracelli and Green 1993; Patton, 1990, and; Trochim, 1989).<sup>2</sup> The two are not polar opposites; the differences exist along a continuum commonly framed in terms of the amount of control or manipulation present. Each technique has its own set of strong and weak points. In the following section I will expand on the logic behind this approach.

Campbell (1956) was the first to apply the term "triangulation" to research methodology (Breitmayer, 1993). "Triangulation combines independent yet complementary research methods to:

- enhance the description of a process or processes under study
- identify a chronology of events
- provide evidence for internal validity estimates
- serve as a corroborating or validating process for study findings. Thus, an expanded understanding and contextual representation of the studies phenomena result". (Hinds and Young, 1987, p. 195).

Methodological triangulation can be classified as simultaneous or sequential. "Simultaneous triangulation is the use of the qualitative and quantitative methods at

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<sup>2</sup> The term triangulation is often used to refer to ways qualitative researchers draw on different types and sources of data to gain a deeper and clearer understanding to make sure that their insights are valid. This research extends the term to include not only different types and sources of data, but also by using both qualitative and quantitative investigations. Taylor and Bogdan (1984) refer to the use of this approach to guard against researcher's bias.

the same time. In this case, there is limited interaction between the two datasets during the data collection, but the findings complement one another at the end of the study. Sequential triangulation is used if the results of one method are essential for planning the next method. The qualitative method is completed before the quantitative method is implemented or vice versa". (Morse, 1991, p. 120).

Mitchell (1986) suggests that triangulation offers flexibility and an in-depth approach that single method designs cannot provide. Several social science researchers have identified the benefits of triangulation. Mady (1982) discusses using exploratory interviews and/or observations to improve the sampling framework. Data collection using observation and exploratory interviews can provide information about the receptivity and frames of reference of program participants prior to the construction of quantitative survey instruments. As a result, better instruments are created as well as improved methods of instrument administration.

Duffy (1987), cites nine benefits associated with Triangulation:

1. The conceptual framework, which provides the theoretical base of the study, can be developed in whole or in part from qualitative methods.
2. In areas where methods produce information overlap, certain quantitative results can be verified by results obtained through qualitative methods.
3. Qualitative data gained from interviews and/or observations can be used as the basis for selecting survey items to be used in instrument construction.
4. External validation of empirically generated constructs can be obtained by comparison with interview and/or observation data: where discrepancies exist, additional probing can be done to determine whether the mismatch was because of a weakness in the instrument or to misinterpretation by the individuals taking the test.
5. Case studies can be used to illustrate statistically derived models.
6. Clarification of ambiguous and provocative replies to individual questionnaires can be observed by re-examining field notes.
7. Quantitative data can provide information about program stakeholders who were overlooked initially.

8. The use of a survey instrument that collects data from all program stakeholders in the study may serve to correct the qualitative research problem of collecting data only from an elite group within the system being studied.
9. Using quantitative assessment can correct for the "holistic fallacy"; (the perception by the researcher that all aspects of a given situation are congruent, when in fact only those persons interviewed by the researcher may have held that particular view). Also, the use of quantitative instruments can verify observations collected during informal field observations. (p. 132).

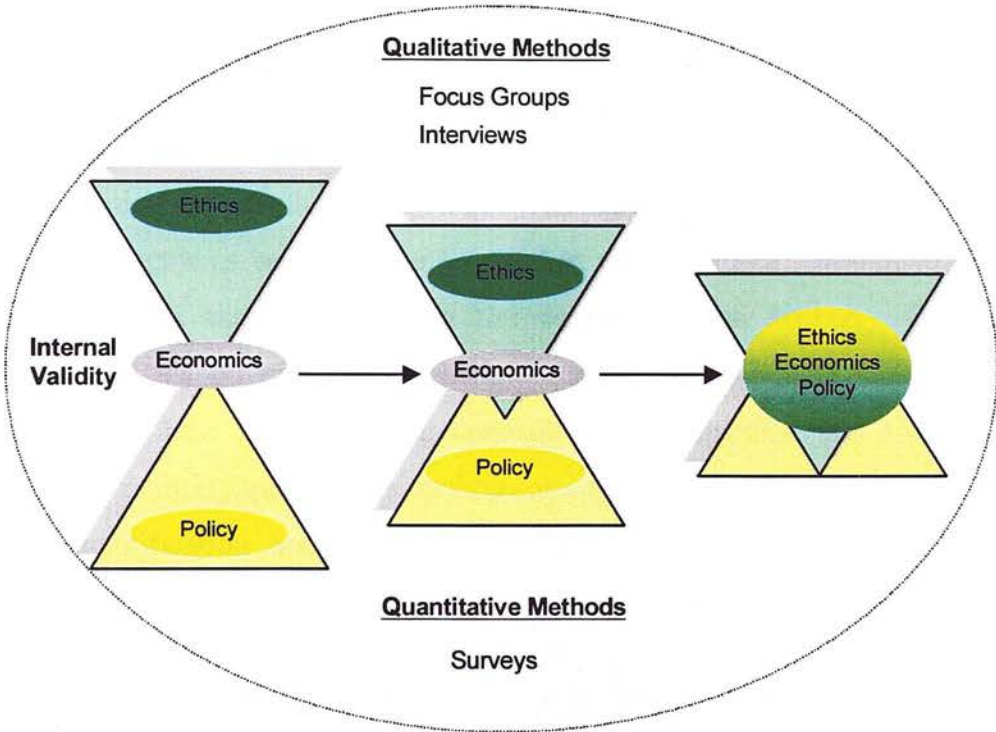
#### **4.2.1 Strengthening Validity: Merging Qualitative & Quantitative Data**

A merger of qualitative and quantitative methodologies as shown in Figure 4.1 demonstrates strengthened internal validity of the research design. In figurative terms, the triangle is known as the strongest geometric shape (Blackwell, 1984 and 1998; Fox, 1998). Using the philosophy represented in Figure 4.1 the research methodology applied achieves the primary goals of enhancing reliability and strengthening validity, thus, enabling high quality evaluations and enhancing scientific knowledge.<sup>3</sup>

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<sup>3</sup> 'Internal validity, the degree to which findings correctly map the phenomenon in question; external validity, the degree to which findings can be generalised to other settings similar to the one in which the study occurred; reliability, the extent to which findings can be replicated, or reproduced, by another inquirer; and objectivity, the extent to which findings are free from bias.' (Denzin and Lincoln, 1994, p. 100)

Figure 4.1 Triangulation and the Ethics-Economics-Policy Paradigm: Strengthening Internal Validity



When evaluating the complex nature of the interactions involved in the phenomena under study, it is essential to include multiple perspectives in order to reflect the richness of these complexities. Additionally, due to the fluid nature of human behaviour rigorous attention must be directed towards threats to internal validity. The structure of both the research and the conceptual ILCDS model emanating from it works to discover these causal relationships by inciting a broader view of reality, using a variety of approaches. Some academicians claim that the heated debates between the bi-polar quantitative and qualitative methodological encampments are passé. Yet, it appears that the literature continues to contain many works by those willing to accept one epistemological perspective to the exclusion of others. The work herein and its precipitate ILCDS model marks a significant change in direction from previous decision aiding models that have been traditionally used by land trusts in the conservation of land resources.

From the perspective of the alternative ethics-economics-policy paradigm, it is time that realisation of the complex nature of the context in which we aspire to

conduct our research is noted. (Bateson, 1978).<sup>4</sup> Human phenomenon cannot be completely controlled or isolated in a sterile environment. Quantitative research designs including measurement, prediction and causal inference do not always fit in isolation with the world of social science where perceptions, feelings, values, and participation are frequently the variables we are attempting to measure.

Omission of qualitative methods has led those involved in the land conservation sector as well as those engaged in social science research to overlook many phenomena that occur within the context of the setting. Quantitative measurement rests on qualitative assumptions about which constructs are worth measuring and how constructs are conceptualised (Shaddish and Cook, 1991). Similarly, by omitting quantitative methods causal relationships between variables as well as quantification and analysis of those variables to determine statistical probabilities and certainty of a particular outcome will be flagrantly absent.

Although qualitative research demands greater self-discipline, time and judgement than does quantitative research, (Lincoln and Denzin, 1994; Krueger, 1998), it is essential to the proper associations and development of a truly integrated decision-support structure as that proposed by the conceptual ILCDS model. While many consider statistical procedures of quantitative research easier and faster for dissertation research, it cannot adequately address or uncover the depth of information found in thoughts and words (Krueger, 1998).

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<sup>4</sup> Context is "...a spatial and temporal background which affects all thinking and a selective interest or bias which conditions the subject matter of thinking." (Dewey, 1960, p.90)



The inherent differences between quantitative and qualitative research methods were used to construct a more comprehensive research design. Table 4.1 combines the perspectives to illustrate the benefits of multiple methods in the analyses of human phenomenon and interaction within the land conservation context.

**Table 4.1 Benefits of Combining Qualitative and Quantitative Methods**

- While the quantitative design strives to control for bias so that facts can be understood in an objective way, the qualitative approach strives to understand the perspective of the stakeholders, looking to firsthand experience to provide meaningful data.
- The accumulation of facts and causes of behaviour are addressed by quantitative methodology as the qualitative methodology addresses concerns with the changing and dynamic nature of reality.
- Quantitative research designs strive to identify and isolate specific variables within the context (seeking correlation, relationships, causality) of the study as the qualitative design focuses on a holistic view of what is being studied (via policy reviews, focus groups, interviews, observations and case histories).
- Both quantitative and qualitative research designs seek reliable and valid results. Data that are consistent or stable as indicated by the ability to replicate findings is of major concern in the quantitative arena while validity of qualitative findings are paramount so that data are representative of a complete picture of constructs under investigation.
- By combining methods, the advantages of each complements the other making a stronger research design that results in more valid and reliable findings. The inadequacies of individual methods are minimised and more threats to internal validity are realised and addressed.

Adapted from Creswell, 1994.

### 4.3 Methods and the Research Cycle

The goal here is to devise the appropriate data set to enable the analysis of various paradigm components and popular attitudes towards land use and conservation. In doing so, an ethnographic approach is employed in Phase I. Semi-structured focus groups were conducted using an open-ended question format; thus enabling participants to explain their beliefs and values in their own words. From



this information the Phase II survey questionnaire was constructed to identify and test how widely the focus group findings apply across diverse groups in both American and British society. Finally, Phase III interviews with land conservation professionals across the UK and US were employed as a vehicle to both examine the experiences of land trusts and to evaluate the validity and usefulness of an integrated decision-support tool, as the conceptual ILCDS model.

As will be explored in detail in Chapters 5, 6 and 7, the results of the three stages suggest that while there are some defined differences between respondents in the UK and those in the US, there are some striking similarities. The information represents the heretofore undocumented “big picture” as to beliefs, logic and values embedded in mainstream American and British land use and conservation thinking.

The following section identifies and discusses the various stages of data collection and methods employed.

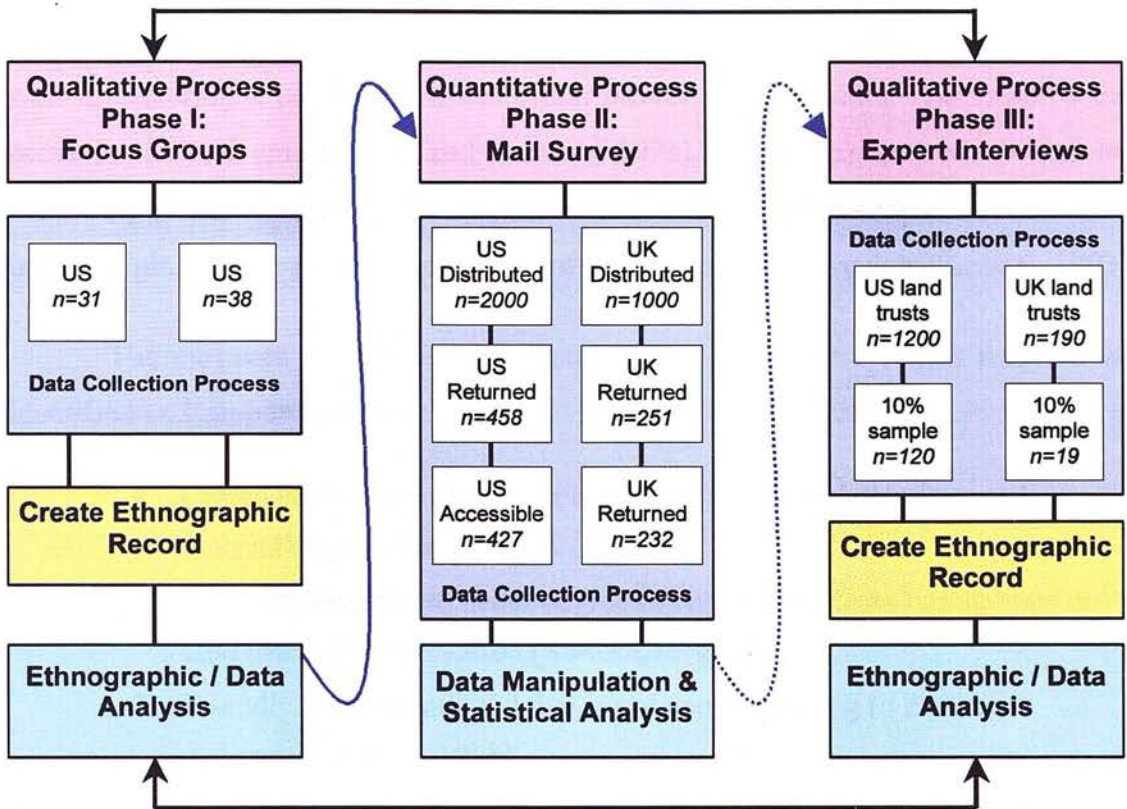
## **4.4 Phase I: Focus Groups**

### **4.4.1 Introduction**

The value that ‘environments’ such as open, natural, agricultural or historical lands possess has many different components, all of which will most likely be held differently by different people and groups in society. Valuation mechanisms frequently divide the various components into three principle groups: *utilitarian*, *user* and *intrinsic* depending on the function they perform (Pearce, 1993; Turner et al., 1994). However, it is not generally so simple as allocating all components of ‘environmental value’ to groups based on their function, as the groups often overlap or in efforts to be all encompassing, are inadequate. The efforts of this research, its related studies and the subject Phase I focus groups, Phase II surveys and Phase III interviews view in a more comprehensive way the direct and indirect functions of the utilitarian, user and intrinsic components in the realm of private land conservation in the US and the UK. Conducting Phase I focus groups were the first step in this direction. Phase I focus groups and Phase III interviews used an iterative

ethnographic process to collect data, create retrievable records and analyse data obtained as reflected in Figure 4.2.

Figure 4.2 Iterative Ethnography Process: Focus Group & Interview Research Cycle



To identify key issues and specific objectives regarding land conservation, a series of 12 semi-structured focus groups from the UK (6) and US (6) was conducted. Before launching Phase I focus groups, one pilot focus group was conducted in Edinburgh to evaluate ordering and refine questions covered. While it would have perhaps proved beneficial to conduct a second pilot group in the US, the timing and associated expenses of doing so deemed it impractical. The discussion guidelines were designed to elicit information as to the realm of land and conservation issues at the forefront of concern in the general populace (see Figure 4.3). Information obtained from the sessions was subsequently analysed using The Ethnograph.

Chapter 5 will examine the process used in more detail. The results were then used to facilitate and refine the Phase II mail survey (O'Brien, 1993).

Focus groups have been used extensively as an aid to questionnaire development (Desvousges and Frey, 1989). A focus group, as a qualitative research technique, takes advantage of group dynamics to produce new and additional data as well as fostering a permissive climate that probes into the social relationships that occur in the real world (Frey and Fontana, 1993). Focus group methodology has increasingly been recognised for its value in both the collection of qualitative data for its own right or to be used in the context of deriving quantitative data (Knodel, 1993).

The purposes for conducting 'focus groups' as Phase I of this research are identified and supported below:

1. Complexity of the issue(s) at hand and individual behaviour and motivations (Wolcott, 1994).
2. Desire to learn more about degree of consensus across populations on land use and conservation (Stewart, 1998).
3. Friendly research method that is not condescending to the target audience (Stewart, 1998).
4. Reduces distance between researcher and the 'social context' (Denzin and Lincoln, 1994; Kreuger, 1998).
5. Creative environment, which may lead to new discoveries (Hammersley, 1990; Denzin and Lincoln, 1994)
6. Provides fertile testing ground for hypotheses and analytic suggestions (Creswell, 1994).
7. Enhances objectivity, reliability and validity (Becker, 1990; Denzin and Lincoln, 1994).

Table 4.2 Focus Group Locations<sup>5</sup>

Urban sessions held:	Rural Sessions held:
Edinburgh (UK)	East Fortune (UK)
Dundee (UK)	Tayport (UK)
Newcastle (UK)	Durham (UK)
St. Paul, MN (USA)	Lake Elmo, MN (USA)
Greater Philadelphia, PA (USA)	Centerville, PA (USA)
San Jose, CA (USA)	Scots Valley, CA (USA)

#### 4.4.2 Sample Selection – Group design

When there is interest in comparing views of people with differing backgrounds or attitudes toward the topic of discussion, the usual approach is to hold separate discussions, each group being homogenous within itself but differing in terms of a particular characteristic specified within the selection criteria (Knodel, 1993; Krueger, 1998). Holding separate sessions with homogeneous but contrasting groups is believed to produce information in greater depth than would be the case with heterogeneous groups (Knodel, 1993).

Within a topic as multifaceted as ‘public attitudes on land use and conservation’ there are almost certain to be contrasting views and/or experiences concerning the issues under investigation. Two break characteristics defining homogeneous subsets into urban/suburban and rural were identified for purposes of this study. Thus, for each the US and UK, three geographic locations were identified and two focus groups conducted, one rural and one urban/suburban. Groups consisted of 5 to 7 persons selected to represent general median characteristics of the larger population.

<sup>5</sup> The researcher moderated focus groups held in Edinburgh, Dundee, Newcastle, East Fortune, Durham, Tayport, San Jose, and Scots Valley, CA. Focus groups in St. Paul and Lake Elmo, MN, Philadelphia, and Centerville, PA were conducted by colleague and trained moderator, Barbara Warren.

Control characteristics, those attributes common to all groups, were identified as gender, age mix and median socio-economic profiles. Using these variable criteria, all groups shared some set of common characteristics.

In determining the number of sessions, considerations both practical and substantive were taken into account. On the practical side budget and time constraints were the primary limiting factors. On the substantive side, the number of sessions depends on complexity of the design as determined by the number of break characteristics. The variables identified defined a minimum of twelve separate focus groups.

Although much effort was given to attempting a geographic spread of urban/suburban and rural focus group couplets, ultimate site selection was largely a function of willing collegial assistance in organising groups according to prescribed break and control characteristics.

#### **4.4.3 Process**

The focus groups followed a semi-structured format and centred on the questions presented in the discussion guidelines found in Figure 4.3.

Figure 4.3. Phase I – Focus Group Discussion Guidelines

**PHASE 1—Focus Group Discussion Guidelines**

**Public Attitudes Toward Land & Conservation in the US & the UK**

**Topic 1: Role as an Individual**

1. To what extent do you feel a personal responsibility to ensure that certain features of the land are protected for future generations?
2. What lands or landscapes do you feel are most important to protect?
3. Is there anything you feel you could do to help provide solutions? (or) Do you feel that there is not a lot that can be done?

**Topic 2: Land Use Concerns & Issues**

4. What do you consider to be the 3 most significant land use concerns?
  - a) On the local level?
  - b) On the state or regional level?
  - c) On the national level?
  - d) On the international level?
5. In your own experience, what do you feel the 3 greatest threats to the countryside or open space are?
6. Where do you get the majority of your information or views on such issues?

**Topic 3: Quality of Life**

7. How do these factors or issues affect the quality of your life?
8. How do these factors or issues affect the quality of life for the community as a whole?

**Topic 4: Role of Various Players**

9. What do you feel government (at any level) could be doing to more adequately address such land use issues?
10. To what extent is there a role for voluntary/non-profit conservation organisations in helping to address such issues?
11. To what extent is there a role in the current educational system for developing a greater appreciation of land use issues?



#### **4.4.4 Issues**

The above issues were presented in the form of questions in order to provide a core set of textual data from each group session. Free-flowing conversation and discussion unique to each focus group was allowed to take place. Discussions comprised issues of specific importance or relevance to the group participants.

Issues presented to focus group participants for discussion were identified through a thorough literature review, personal professional and collegial experience in the land conservation sector together with information from the pilot focus group session. In addition, those issues identified as having been omitted from the conventional paradigm were included.

Because this approach inherently involves conducting a number of sessions, it is possible to assess the reliability of the data by comparing statements within and perhaps more importantly in this case, across sessions. The advantage in reliability assessment is an important difference between this and other qualitative research strategies. Although some variation in views and vantages is expected from session to session, an important role of a focus group study is often the determination of cultural expectations (Knodel, 1993).

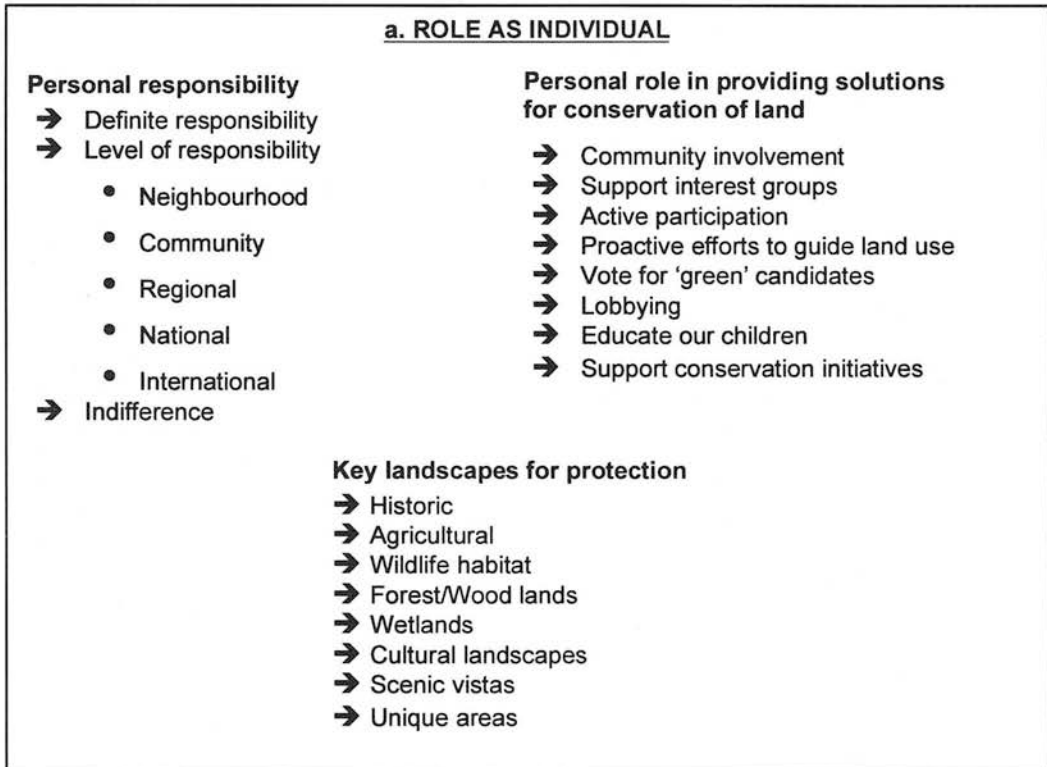
The extent to which consensus is found within and between groups about their expectations can indicate the reliability of the information collected (Denzin and Lincoln, 1994). The fact that focus group design often imposes some variation in key characteristics, (e.g. rural and suburban/urban residence and socio-economic status) permits confidence that views which are consistently found across groups represents cultural consensus (Robson, 1993).

#### **4.4.5 Data Management, Preparation and Analysis**

Audiocassette recordings taken during each focus group session were later transcribed into Microsoft Word 6.0 text documents. In addition, extensive hand written notes taken during each session were used where necessary to supplement the audio recordings. The database structure adopted enabled flexibility and

accessibility of data for subsequent analysis. Textual data was examined for accuracy by visual review and cross checks against written notes. Following transcription of all focus group session data and accuracy checks, the raw data text files were transformed for use by for *The Ethnograph*.<sup>6</sup> Textual information from each focus group was then numbered line by line; lines were later assigned codes relating to the following classifications and sub-classifications (Figure 4.4 a-d).

Figure 4.4 (a-d) Focus Group Data Classifications



<sup>6</sup> The Ethnograph v4.0: A Program for the Analysis of Text Based Data, (1994) John V. Seidel.

## **b. CONCERNS, ISSUES & THREATS**

### **Local**

- Traffic
- Air pollution
- Urban/suburban sprawl
- Diminished natural environment
- Health/Safety
- Loss of community spirit
- Rural character
- Destruction of sense of place

### **Information dissemination**

- Newspaper
- Television
- Radio
- Interest group information
- Friends, family & colleagues
- Popular periodicals/magazines
- Professional publications
- Academic journals
- Government publications
- Work
- Children

### **Regional**

- Traffic/congestion
- Water pollution
- Air pollution
- Diminished health
- Less open space
- Destruction of character
- Sprawling development
- Shopping malls
- Unplanned/poorly planned growth
- Loss of habitat
- Loss of historic lands
- Loss of farm land
- Farming practices
- Depletion of Wetlands
- Better quality of life
- Diminished quality of life
- Less open space
- Over developed

### **National**

- Traffic/congestion
- Water pollution
- Air pollution
- Diminished health
- Better quality of life
- Diminished quality of life
- Farming practices/sustainability
- Less open space/over developed
- Destruction of rural character
- Sprawling development
- Shopping malls
- Unplanned/poorly planned growth
- Loss of habitat
- Loss of historic lands
- Loss of farm land
- Population
- Exploitation of natural resources
- Nuclear Energy production
- Waste disposal

### **International**

- Deforestation
- Destruction of rainforests
- Over population
- Depletion of agricultural land base
- Nuclear power generation
- Mismanaged land resources
- Traffic/transportation
- Hazardous waste disposal
- Exploitation of natural resources
- Farming practices/sustainability
- Destruction of wildlife habitat
- Depletion of Wetlands
- Diminished health
- Better quality of life
- Diminished quality of life
- Future generations
- Sprawling development
- Lost opportunities
  - Potential cures
  - Economic gain
  - Scientific advancement
- Poor land use planning
- Air pollution
- Water pollution
- Waste disposal

### c. QUALITY OF LIFE FACTORS

#### **Impacts – personal**

- Traffic
- Health & Safety
- Increased taxes
- Less open space
- Access to natural areas
- Road congestion & travel time
- Diminished quality of life
- Less locally grown foods

#### **Impacts – community / region wide**

- Traffic
- Increase in health problems
- Safety
- Environment destruction
- Loss of habitat for wildlife
- Less open space
- Access to natural areas
- Road congestion & travel time
- Sprawling development
- Destruction of community
- Increased taxes
- Diminished quality of life
- Less locally grown foods
- Destruction of town core
- Increases in cost of living

### d. ROLE OF VARIOUS PLAYERS

#### **Government**

- Better land use planning
- Growth/development controls
- Protection
- Recycling
- Education
- Fund conservation initiatives

#### **Voluntary/non-profit**

- Education
- Protection
- Planning
- Lobbying
- Community involvement
- Watch-dog

#### **Educational system**

- Primary/elementary schools
  - Integrate into environment curriculum
  - Active at home discussion
  - Visits to local nature preserve
  - Interactive guest talks
- Secondary schools
  - Encourage interaction with environment
  - Extension of elementary education
- Adult
  - Improved opportunities for adult education
  - Community participation
- University/college
  - Continual upgrade/expansion of research
  - Participatory opportunities
  - Involvement with conservation groups

These classification headings comprise the issues discussed within the focus groups; the sub-headings comprise those issues that were raised by group participants themselves.<sup>7</sup> Identifying and assigning codes was key to both extraction of data and its subsequent analysis. The application and concord of codes used were

<sup>7</sup> Patton ([1990] pp. 390- 398) distinguishes between those initial analytical categories created by the evaluator ("sensitizing concept"), and those developed and articulated by the interviewees ("indigenous concepts"). The above classification therefore comprises both types.

consequently audited through recurrent review of data in its original context. This process serves both to ensure that distortion does not occur, and then by re-examining the same data within its class to check for consonance with classification heading.

## **4.5 Phase II: Mail Survey**

### **4.5.1 Introduction**

As in the Phase I focus groups, the Phase II survey, *Public Attitudes Towards Land & Conservation* was administered in Britain and the US in June and August 1996 respectively. The survey (Appendix 4-1) was developed using information derived from focus groups, together with information distilled from experience, literature reviews and other informal interviews with appropriate officials and organisations.

### **4.5.2 Sample Selection**

The survey was sent to a simple stratified random sampling of people aged 18 or over, with an equal distribution by gender, geographical location and socio-economic profiles in each country. This criterion was given to respective firms in the US and Britain who generated random address, zip/post code labels for the survey.<sup>8</sup> In total 3,000 surveys were mailed 1,000 in the UK and 2,000 in the US. Due to the sample size, expenses involved and the triangulated nature of the research method, it was agreed that follow-up techniques to enhance the survey return ratio may produce negligible effects at best. Therefore, no follow-up techniques were employed. The survey yielded an accessible sample response rate of 25.21% for the UK and 22.46% for the US. Results of the survey are addressed in Chapter 6.

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<sup>8</sup> Address lists were produced by Business Lists UK, 4 Gillbent Road, Cheadle Hulme, Cheshire SK8 6NB; Donnelly & Co., Lancaster, PA

### 4.5.3 Process

The cross-sectional Phase II mail survey developed using information from Phase I focus groups, experience and research was structured using a combination of closed and open ended questions and selection from predetermined lists format.

The purpose of the Phase II survey was two-fold. Firstly, it served to test how widely the Phase I Focus Group findings apply across diverse groups in both American and British society. Secondly, it was used to explore a range of land conservation issues linked to the three dimensions of the ethics-economics-policy paradigm. In particular the survey was designed to identify attitudes, key issues, values and preferences toward conservation objectives across the general population.

To evaluate reliability and quality of the Phase II survey, *Public Attitudes Towards Land & Conservation*, a sample of 59 people participated in the pilot.<sup>9</sup> Reviews and piloting ensured clarity and bolstered validity.

The survey was divided into four main parts. The first tends to key issues raised in the Phase II focus group discussions. Questions in this section of the survey addressed attitudes towards the following:

- a. Issues of greatest concern,
- b. Issues most affected by personally,
- c. Issues most serious for society,
- d. Level of knowledge about issues, and issues respondent would like most to see changed.

In progressing logically, the survey next focused on issues of greatest concern relating to land use and issues of conservation as perceived by those who participated in the focus groups sessions.

The second part of the survey sought to obtain an accurate representation of opinions on a focused range of topics relative to land use and conservation. Questions ranged from issues that discussed loss of open space and willingness to

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<sup>9</sup> The pilot population included 24 persons from the UK and 38 from the United States between 21 June and 1 July 1996.



pay (WTP) for improving open space via tax increases, to the role of non-profit organisations in land protection and willingness to contribute to such organisations, to explorations on education and “who” should pay for improving the environment. Two principal mechanisms were used. One being direct closed-ended questions employing Yes-No, multiple choice, ranking and checklist mechanisms. The second mechanic used is short specific answer type open-ended questions. This mechanism allows a participant the opportunity to expand on answers provided in a previous section, while reducing problems that may arise with narrative type open questions.

Ranking questions presented respondents with a variety of additive and differential scale type questions. The questions in this section of the survey were largely developed using actual statements derived from focus groups and predominantly used either ranking response scales:

Strongly agree	1
Agree	2
Neither	3
Disagree	4
Strongly Disagree	5

or provided a list of choices that required order ranking by the respondent, as in Question 11 (see also Appendix 4-1):

**11. Rank the THREE (1-3) you feel are the greatest threat to natural and open space in your area?**

*One (1) being the greatest threat.*

- Industrial Smoke & fumes
- Pollution of water
- Farming practices
- Urban & suburban sprawl
- Housing development
- Detachment from the land
- Litter/Waste disposal
- Highways, freeways & other road building
- Commercial & industrial development
- Poor land planning/resource management
- Greed/Attitudes
- People moving to rural areas/accessibility
- Something else (WRITE IN) \_\_\_\_\_

The final section of the survey collects typical participant socio-economic information for use in analyses.

#### **4.5.4 Data Management, Preparation and Analysis**

Returned questionnaires were assessed and screened for completeness and validity. Seventy-two invalid surveys were returned in total. For the United States (24) were returned incomplete, (4) returned marked as deceased and (16) were returned with no forwarding address. By comparison, in the UK (14) were returned incomplete, (4) returned and marked as deceased, and (10) with no forwarding address.

Valid surveys were initially sorted by ZIP/post code information, numbered and archived for data entry. Once all surveys were archived, a standardised data base structure was developed using Microsoft Excel version 5.0. Surveys were then coded by hand for all variables and data was entered. The 'code book' developed appears in Appendix 5-2.

To assure a high level of data entry accuracy a 10% random sample spot check was conducted for both the UK and US data sets. Once the Excel databases for each the UK and US were completed and assessed for accuracy, the data sets were transformed for use by SPSS.<sup>10</sup> Where appropriate qualitative information was converted into scaled variables. Statistical inferential inquiries into various attributes of the sample populations (i.e. frequency counts, mean, chi-square, *t* tests, and correlations) were then conducted using SPSS, the results of which are discussed in Chapter 6.

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<sup>10</sup> SPSS (Statistical Package for the Social Sciences) version 6.0.

## 4.6 Phase III: Expert Interviews

### 4.6.1 Introduction

Experts can, and often do, play an important role in environmental-decision making. An understanding of this role, however, must be firmly based in the milieu in which decisions are made. Moreover, a review of the role of expertise in decision-making in the land trust sector is enhanced when it is viewed across the entire policy spectrum and not just at a given point. The purpose here, in part, is to clarify various aspects associated with land conservation organisations in the UK and US. Specific attention was given to considering how land trusts measure their success, the decision processes employed, land conservation tools used, perceptions about public attitudes toward land conservation, and how the proposed ILCDS model was received and uses envisioned.

From the Phase III expert interview process several generalisations can be made about the land trust sector and the decision-making process employed (see Chapter 2). This is taken on board to emend the disparity that often occurs at the research level. Some researchers assume that environmental decision-makers operate within a “rational man” context. In this context, the decision-maker dispassionately – and with unlimited time, resources and access to information – weighs alternative options to find the technical solution that best optimises public welfare. In reality and particularly at the land trust level, however, this context seldom exists (*pers. comm.* Dennis Collins, (8/8/96)). These organisations often operate on tight time-frames, with restrictions on resources and information (*pers. comm.* Jean Hocker, (19/8/96)). In addition, they are frequently buffeted by special interest seeking bureaucratic imperatives and forces whose vision extends no further than the next election cycle. Jean Hocker, (1996) noted that “... there is a general presumption that the politics of land protection is somehow different than traditional politics, which has much to do with the pursuit of power, privilege, and special interests. It is assumed that conservation laws are what they seem that the legislators who enact those laws and the bureaucrats who implement them are earnestly struggling to protect public interests.” Too often, however, such regulations are designed to serve narrow political and economic interests, not the public interest.

The impacts of land use controls, and in particular conservation easement legislation have major economic consequences at both the state and federal level—and for individual landowners. The political forces to pursue objectives other than the conservation of land, for example; rent-seeking by various private and agency interests; lack of science-based data; administrative problems of communication and coordination; lack of technical and financial resources; inertia; and program complexity can all interact and result in inadequate incentives for conservation policies to attain their purported goals (Adler, 1994; Batie, 1998).

By failing to account for these factors, researchers often run into the risk of becoming irrelevant in the eyes of those whom they are trying to assist. Rossenbaum (1998) relates this message precisely, stating, “Rational analysis, carried on in an ignorance of political reality, may well end up so divorced from social reality as to be little use to anyone.”

By-and-large, land trusts are keenly aware of the constraints they are under and are cognisant of the fact that technical solutions to problems in the policy-development process are only a part of problem solving. By recognising this, enforcing it through the interview process and broadening the scope of research efforts, this work takes a first step toward building a necessary bridge between the culture of the academic community and the very different culture of the decision-making at the land trust level.

With the forgoing in mind, the following provides the methodological discussion on the role of Phase III Expert Interviews.

#### **4.6.2 Sample Selection**

Developing a pertinent sampling frame relied ostensibly on judicious use of cluster sampling at appropriate stages. Using this structure enabled tailoring of scale to geographic regions and available resources. This sampling technique allowed the UK and US land trust populations to be divided into groups, or clusters based on

their geographic location, from which a representative sample of organisations was then selected.

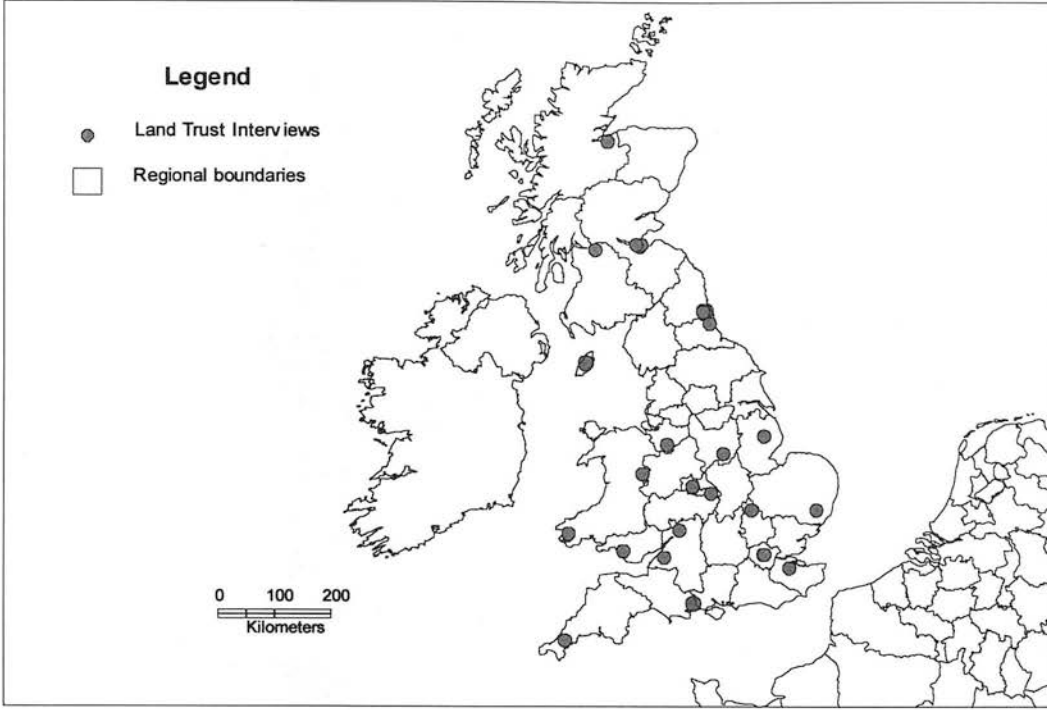
This technique worked well given the size and dispersion of organisations, combined with the expense and effort of travel involved. Cluster sampling is typically used when a random sample would produce a list of subjects so widely scattered that surveying them would prove to be far too expensive, as in the case at hand (Robson, 1993). The minimum sample population for each country of 10% was drawn from those organisations known to exist, resulting in 120 interviews in the US and 19 in the UK.<sup>11</sup>

Figures 4.5 and 4.6 represents the distribution of interviews conducted across the UK and US respectively. Appendices 7.1 and 7.2 comprise detailed lists of organisations from which representatives were interviewed.

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<sup>11</sup> 1994 National Land Trust Survey, Land Trust Alliance, Washington, DC. The number of UK land trusts was arrived at through a variety of information obtained from organisations, telephone books, personal contacts, and internet searches. In addition, Dwyer and Hodge (1996) provide a fairly comprehensive account on UK conservation trusts from which various contact sources were added. It is estimated that approximately 175- 190 local, regional, statewide, and national land trusts of varying dimensions exist in the UK.

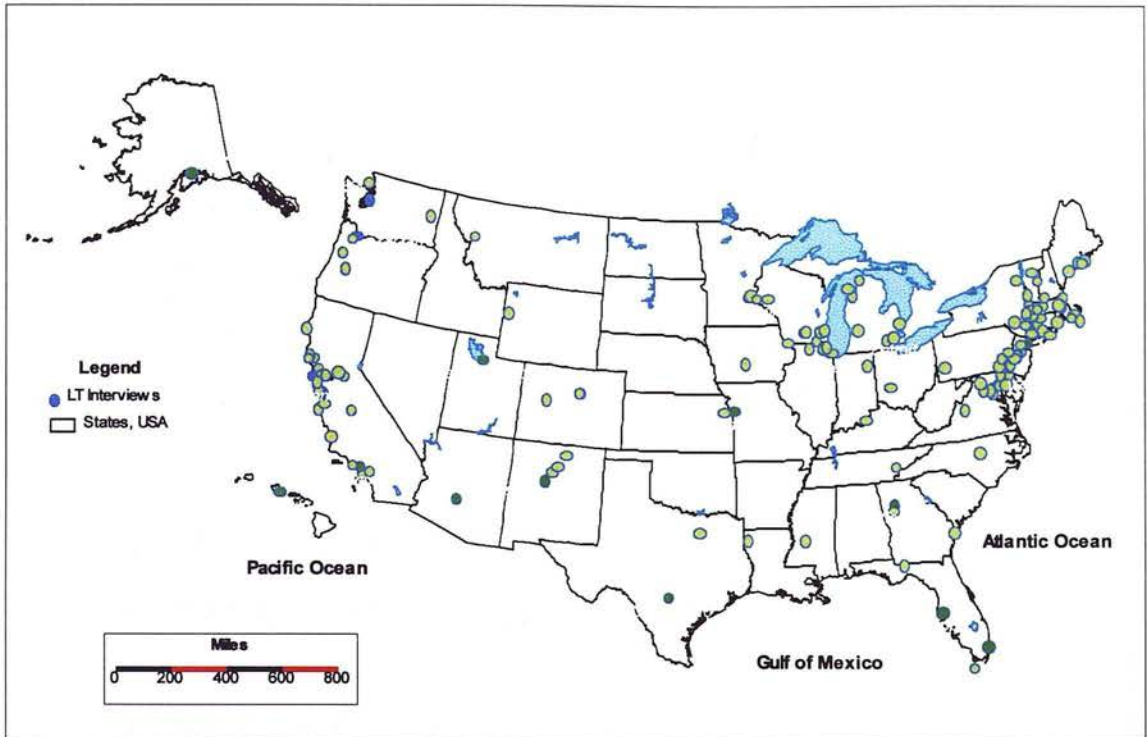
Figure 4.5 Phase III: Interview distribution for the UK<sup>12</sup>



<sup>12</sup> Postcode data files for location of either organisation headquarters or interview location were entered into Excel 97-formatted worksheet files. Using MIDAS (Manchester Information Data sets and Associated Services) utility (1991 and 1998) and Postzon utility (1995) postcode lists were run to generate OS grid co-ordinates for England and Wales. Due to inconsistencies existing between postcode year data sets and postcode distribution used by the two utilities, both were required to obtain the highest percentage of matches and level of reliability. The UK Borders, EDINA utility was used to provide OS grid co-ordinates for postcodes in Scotland. Once easting and northing co-ordinates were obtained for all regions, the data files generated were amalgamated, cleaned and again formatted into Excel 97 worksheets. The new data sets were then geocoded and points plotted by integrating files into MapInfo Pro, 4.0 (1985-1995), MapInfo Corporation, Troy, New York 12180.



Figure 4.6 Phase III: Interview distribution for the US<sup>13</sup>



#### 4.6.3 Process

The interview process yields a wealth of detailed information, which presents several advantages for obtaining information pertinent to the land trust setting. Principal among these, are: the nature of the information sought is not easily quantified; complexities of real world experiences are not oversimplified; relationships among variables do not favour statistical interpretation; and an understanding of the “big picture” is facilitated. The interview technique adopted here is best characterised as a standardised open-ended approach.

The standardised open-ended approach is particularly useful in keeping interactions focused, while allowing individual perspectives and experiences to emerge. Within the given framework this method is ideal and was selected for the following reasons:

<sup>13</sup> Zip code data files for location of either organisation headquarters or interview location were entered into Excel 97 formatted files. Geocoding and plotting of points were accomplished by integrating files with BusinessMAP Pro 1.1 (1995 - 1997), Environmental Systems Research Institute, Inc., Redlands, CA.

- flexibility
- interviews are focused so time is used efficiently
- exact instrument used is available for others interpreting work
- variation is minimised
- credibility is enhanced
- reduced need for interviewer judgements
- eases data analysis, and
- standardisation of structure helps reviewer to remain focused.

More than 150 professionals from 139 organisations across the US and Britain were interviewed to further explore five general areas:

- “measurement” of organisational success
- land conservation tools used
- attitudes expressed by general public (specific to given regions)
- use of decision-support process or ranking procedures, and
- usefulness of proposed model.

Ninety-six of the 120 interviews for the United States, or 80%, were conducted between July and October 1996, and the 24 interviews remaining were completed between November 1997 and June 1998. Similarly for the UK, fifteen out of 19 interviews (78%) were conducted between July and August 1997. Remaining interviews were completed in December 1997.

The Phase III interview process for both the US and Britain began by sending a letter of introduction together with an abstract about the aims of the research. Seven to 10 days later telephone calls were made to answer any questions and determine availability for a face-to-face interview. By-and-large land trust personnel were extremely co-operative and appreciated the importance of the subject research.

Given the vast physical territory covered and limited time frame, it was imperative to both organise the interview agenda and maintain rigor in keeping to a schedule. On average three (3) interviews were conducted each day during those months dedicated to the interviewing process. The steady schedule often required

more than 600 miles of driving each day to reach individual interview sites. Interviewees generally shared an interest in both the approach and direction of the research. The level of intrigue occasionally led to expansive discussions, which in the interest of maintaining a degree of flexibility, made for some intriguing challenges to maintaining a schedule at all.

Bearing in mind the importance of the uniform application of interviewing principles in providing a consistent measure, face-to-face interviews were conducted using the open-ended pre-set questions (Figure 4.7). Across the interview population, the standardised question set was consistently presented.

Open-ended questions were selected in that they provide flexibility, encourage co-operation and rapport, and allow for a truer assessment of what the participant actually believes. Additionally, open-ended situations can elicit unexpected responses, which may enrich the understanding of relationships and hypotheses (Cohen and Manion, 1989).

**Question Set:**

1. How is the “success” of your organisation measured?
2. What are the principal land protection tools, techniques or mechanisms used by your land trust?
3. What are the most prevalent attitudes or perceptions about land conservation efforts that one might encounter in your area?
4. Does your land trust use any decision making tool, ranking device or other criteria to assist with making decisions in land protection efforts?
5. Would a tool, as the ILCDS model outlined be useful to your organisation in guiding long term land protection efforts?
6. In what ways do you see such a tool being used to benefit your land protection work?

Times of interviews ranged from 55 minutes to 2 hours and 20 minutes.

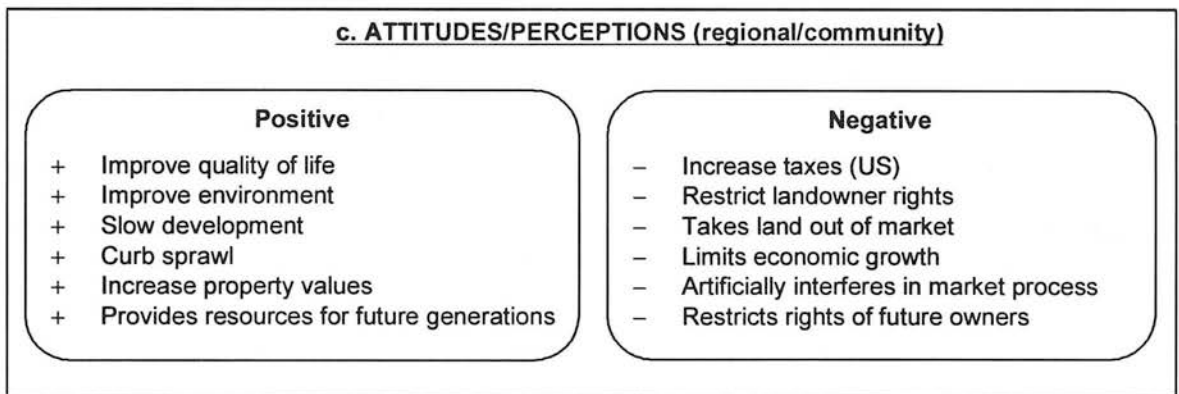
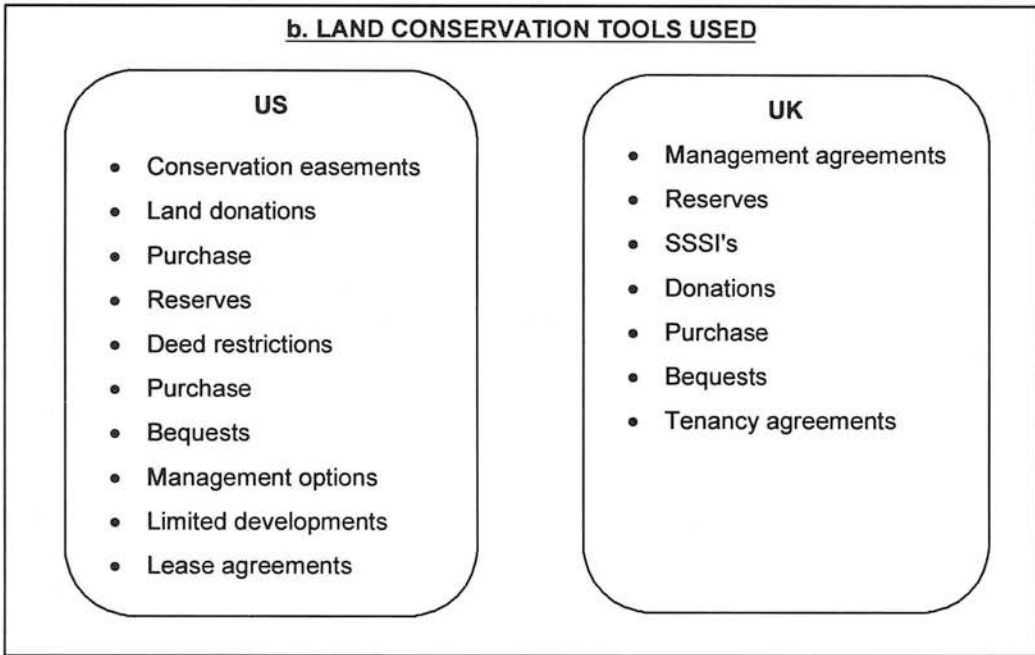
**4.6.4 Management of Data, Analysis and Interpretation**

Audiocassette recordings taken during each focus group session were later transcribed into Microsoft Word 6.0 formatted text file documents. In addition, extensive hand written notes taken during each session were used where necessary to supplement the audio recordings. The database structure adopted enabled flexibility and accessibility of data for subsequent analysis. Textual data was examined for accuracy by visual review and cross checks against written notes. Following transcription of all focus group session data and accuracy checks, the raw data text files were transformed for use by for *The Ethnograph*.<sup>14</sup> Textual information from each focus group was then numbered line by line; lines were later assigned codes relating to the classifications presented in Figures 4.8 a-e.

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<sup>14</sup> The Ethnograph v4.0: A Program for the Analysis of Text Based Data, (1994) John V. Seidel.

Figures 4.8 a-e Data Classifications - Expert Interviews



**d. USE OF DECISION-SUPPORT OR RANKING TOOLS**

**No**

- Operate opportunistically
- Have considered using
- In process
- Perhaps, in the future

**Yes**

- Required by law
- To justify protection
- To rank & determine value
- Operate strategically

**e. USE & USEFULNESS OF PROPOSED ILCDS TOOL**

- Facilitate decisions between competing parcels
- Garner public support
- Help to leverage funding from community
- Leverage political support
- Grounding to indicate community support
- Helpful if used in cooperation with other tools (ranking, ecological, etc.)
- Extremely helpful
- Timely
- Potentially very useful if easy to use
- May restrict "seat of the pants" decisions

## **4.7 Conclusion**

This Chapter described the three stages of the research methodology employed. In Chapters 5, 6 and 7, both qualitative and quantitative analysis of data developed using the this triangulated approach will be presented with a view towards assessing, comparing and measuring various paradigm components. The analysis will focus on determining the implications of findings on attitudes toward land use, responsibility, decision-support processes, conservation sector tools, willingness to contribute or pay for conservation of land resources, policies, etc. on the structure of the ILCDS model.



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**CHAPTER 5**

**PHASE I Focus Groups:**

**Attitudes Towards Land Use and Conservation in the US & UK**

**Analysis & Results**

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**Focus Groups: Attitudes Towards Land Use and Conservation in the US & UK**

**Analysis & Results**

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**5.1 Prologue: Focus Groups**

Human ideas, experiences, values, and intentions are not objective things like molecules and atoms (Wals, 1990; Frey and Fontana, 1993; Biodiversity Project, 1998).<sup>1</sup> Nevertheless, from conversation analysis, to context analysis, to ethnomethodology, as in the natural sciences, social scientists increasingly strive to use objective methods that allow for control, predictability, and the ability to generalise (Have, 1986, 1991; Dervin, 1996).<sup>2</sup> The scientific method has long been claimed to be a value-free tool of inquiry, allowing many social scientists to create dichotomies between themselves, their methods, and their research. This separation is a dangerous one, for it gives scientists a false authority of truth.

The motivation for employing qualitative research methods in Phase I of the research, as opposed to quantitative research, comes from the fact that the places we live, work and recreate are manifestations both of natural and human interaction coupled with the observation that, if there is one thing which distinguishes humans from the natural world, it is our ability to talk! Qualitative research methods are designed to help researchers understand people and the social and cultural contexts within which they live. Kaplan and Maxwell (1994) argue that the goal of

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<sup>1</sup> Values which may be present include: Personal (values held by one person but not necessarily others); Societal (those recognised by an entire society or at least by the leading members or spokespersons of the society); and, Professional Values (values held by a particular professional group).

<sup>2</sup> Conversation analysis - relies on the description and explication of the skills that ordinary speakers use and rely on in participating in intelligible, socially organised interaction. (Have, 1986, 1991).

Context analysis - is conceptualised, usually implicitly, as a kind of container in which the phenomenon resides and takes into account other factors such as structure, culture, person, situation, behaviour, and so on. (Dervin, B., 1996).

Ethnomethodology - studies in a procedural fashion the social order as it is constituted in and through the socially organised conduct of the society's members.

understanding a phenomenon from the point of view of the participants and its particular social and institutional context is largely lost when textual data are quantified.

Knowledge and human interests are inextricably interwoven. The idea that there is a world that can be totally analysed predicted, quantified and controlled—the world of positivistic science—is alarming. Unless we reflect on the ends to be served by science, we risk that prediction and control and their associated methods might exclude other ends such as: improved understanding among people, release of human potential and formation of a sustainable relationship with our surroundings.

Values are the fundamental beliefs held by individuals that form the basis for views, attitudes, and behaviour. Understanding these values and how they impact the formation of attitudes is key to focusing institutional efforts of land trusts, particularly those operating within narrowly defined local or regional parameters.

Therefore, Phase I of this research began by attempting to uncover the values behind perceptions held by both American's and Briton's on land use and conservation. Four principle value groups emerged from the pilot group and were used to organise future focus groups as well as acting as primary topical headings for subsequent focus group discussions; 1) role of individual; 2) land use issues and concerns; 3) quality of life; and 4) role of various players, e.g. government, voluntary organisations and respective education systems.

While making generalisations can be decidedly subjective within the above are vested notions of responsibility, freedom, love of nature and quality of life goals which can not be quantifiably measured. This being the case, how do we determine to what extent the goals and objectives are realised? Many researchers have tried to structure content matter and the way it is presented to using hierarchical levels of universal goals and objectives (Knodel, 1993; Morgan, 1993, 1997; McDonald and Agar, 1995). Experts assess and determine what knowledge, and skills are essential; design a program or system that consists of measurable/quantifiable and objectives; implement the program; test; and modify the program as necessary within the predefined parameters.

This widely used positivistic approach often results in the ignoring of ideas, experiences and mini-theories, as well as community specific attitudes, values and experiences.<sup>3</sup> Local communities are not viewed as capable to determine the make-up of their own environment, or to set their own goals and objectives that are compatible with the state and/or region they live in. Often the result has been the alienation of various groups within the community and disempowerment of people and organisations who have been denied a role in evaluating and shaping the future of their own communities and “sense of place”. Across the US and Britain, voluntary land conservation organisations and their diverse achievements have long bucked in the face of the positivistic approach (*pers. comm.*, William Sellers, 7/96; Dr. Simon Lyster, 8/97).

Is there a way of doing research that is compatible with the position taken here? One research approach that provides some answers has elements of action research and phenomenology. The traditions of action research and phenomenology use—although not exclusively—qualitative research methods such as field research, descriptive research, and ethnography in which the researcher takes the role of observer/participant and interpreter (Gergen and Gergen, 1986; Polkinghorne, 1988; Denzin and Lincoln, 1994; Kincheloe and McLaren, 1994). Research here is more than a data collecting activity in that it actively seeks to understand as well as to improve the community through simultaneous action and reflection with all parties involved (Wals, 1990).

A researcher has the moral obligation to work for and with the participants in his/her study. One of the underlying principles of this research is that it should have a pedagogical end in the sense that the participants, as reflected both by the general populace and the larger land trust community, somehow benefit from the research. Thus, the position taken is that research should not just be an attempt to learn about people and their views on the topic of land use and conservation, but to come to know with them the reality which challenges them. This is a key element of the

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<sup>3</sup> Positivism is the belief that "scientific naturalism" is the foundation of knowledge and truth. Leszek Kolakowski wrote "Positivism is a normative attitude, regulating how we are to use such terms as 'knowledge', 'science', 'cognition', and 'information'. Positivism rejects the theories of theology and metaphysics because they don't have proof that they are true.

ethics—economics—policy paradigm, and subsequently the ILCDS model (Chapter 2).

This chapter explores the results of Phase I focus groups conducted in the UK and US. Focus groups enable researchers to identify the language used by individuals and to generate research hypothesis, by allowing participants to use their own words to give lengthy, insightful responses to questions (Desvousges, 1984). The purpose of conducting focus groups as the first phase of this research was to enable a more comprehensive view of the direct and indirect functions of the general populace in their views, attitudes and perceptions towards the protection of land in the UK and US.

Various methods including focus groups, personal interviews, telephone, and mail surveys have been used by researchers to collect data related to organisations and the regions in which they operate (Hammersley, 1990; Denzin and Lincoln, 1994; Stewart, 1998). To attain an awareness of the words and concerns of the general populace in both the UK and US, it was decided that the measure of veracity must be obtained through at least episodic discussions that enabled both good participative role relationships and allowed the researcher to actively disconfirm or reorient observations, and revise any assertions to account for observations (Stewart, 1998). Unlike telephone or personal interviews, focus groups enable exchange and interaction between participants. Thus, it was concluded that the best vehicle for obtaining both culture specific attitudes and concerns, and insights into the vocabulary used by people outside academia and land related fields would be through use of focus groups (Morgan, 1988; Morse, 1994).

The goal being, to analyse the components and causes of popular attitudes towards land use and conservation. In doing so, an anthropological approach is engaged using focus groups with open-ended questions, enabling interviewees to explain their beliefs and values in their own words. Information derived from Phase I focus groups enabled Phase II mail survey construction using terms and references with which people identify. As will be discussed in Chapter 6, the Phase II mail survey was used to further explore and test how widely the focus group findings apply across a diverse stratified sample of the UK and US population.

The emphasis in research is no longer on finding causality, generating generalizable results and predicting the future with statistical accuracy. Instead the emphasis is on documenting and describing human experience and intentions, using diagnostic instruments, one's own observations and those of the larger population; interpreting these with participants; relating the results with the foundations, goals and objectives; and discussing ways to adjust current private sector land conservation tools, techniques and practices as a result of newly obtained insights (Denzin and Lincoln, 1994; Morgan and Pitelka, 1998).

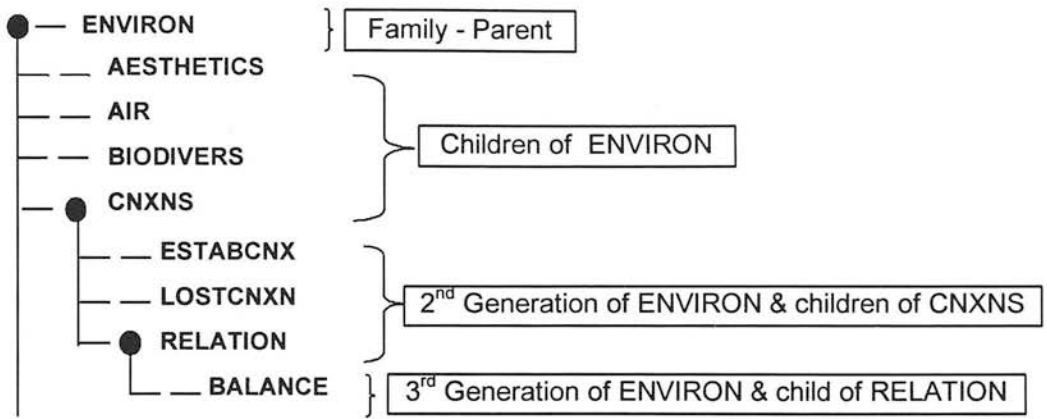
## **5.2 Results**

### **5.2.1 Background - Public Attitudes Toward Land & Conservation**

The results summarised in the following sections is ordered around the four general themes explored during the twelve focus group sessions: 1) role as an individual; 2) land use issues and concerns; 3) quality of life; and 4) role of various players. These four principle themes unveiled a number of common issues and issue subsets. Predominant issues and concerns and their subsets were revealed through ethnographic analysis using The Ethnograph<sup>®</sup> as detailed in Chapter 4. The following discussion provides an assessment of the “family tree” of related issues identified by UK and US focus group participants, (Siedel, 1998). The purpose of using a family tree structure is to organise code words into hierarchical groupings. The family tree for these issues are stratified into “families” (hierarchical groups), “parents” or primary codes (assigned by the researcher) as well as “children” or subset codes (those issues that were raised by group participants themselves). Figure 5.1 shows the family—parent—child relationship between various generations for a portion of the code word ENVIRON. Appendix 5-1 contains the complete family trees for the US and UK focus group project files.



Figure 5.1 Family tree – parent–child relationship for a section of code word ENVIRON



The family tree is created through the process of coding data files and evaluating coded text for relationships that exist. Particular facets of the issues raised and discussed across focus groups is revealed through the pattern of “nesting” and “overlapping” that occurs when text files are analysed and codes assigned. There are no limits to the number of families, family members or generations within a family (Seidel, 1998).

The codebook containing all code words used within a given project, is created in The Ethnograph<sup>®</sup> during the process of coding. Thereafter definitions were added to assigned code words. The code book contains information about each code word, including 1) name of code word; 2) parent code word (if one has been assigned); 3) whether or not the code defines text within the project; and 4) dates and code words or codebook was altered or modified (Appendix 5-2).

Upon completion of coding text files, the code search process was activated. This process scans all data, across selected files, to enable analysis and data interpretation. Segment, frequency and summary searches were conducted to facilitate an in-depth analysis of focus group text files.<sup>4</sup> A compilation of summary

<sup>4</sup> Segment search – displays text defined by a particular code word together with related cross-referencing information.

Frequency search – displays numerical counts of coded segments for selected project files and calculates relative frequency percentages for code words across selected files.

information, derived from these three processes related to land use issues and concerns, is shown in Section 5.4.1, Tables 5.4 and 5.5. Frequency and summary search runs can be found in Appendix 5-3.

### **5.2.2 Focus Group Characteristics**

As discussed in Chapter 4 on methodology, a total of twelve focus groups were conducted in three regional locations for both the US and the UK, between March 1996 and June 1996. The twelve focus groups on ‘Public Attitudes Towards Land Use & Conservation’ were conducted, and have been assigned focus group labels based on the region in which members of the respective groups resided. Table 5.1 below details key aspects for all focus group sessions.

In most locations, participants were recruited by business acquaintances, academic and professional colleagues, and friends, from municipalities within the general predefined geographical region. Those assisting with recruiting focus group participants were provided criteria for desired age, gender, socio-economic, and residential association mix. As can be seen in Table 5.1, most focus groups have representatives from a range of surrounding municipalities. For detailed discussion on methods used to gather data for Phases I, II, and III of the research reported herein, see Chapter 4.

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Summary search – creates output lists identifying the line and numbers of co-ordinates of segments together with other information on segment size for selected project files.

Table 5.1 Focus group regions, session dates and participant communities

Focus Group Label	Date	Duration (minutes)	Moderator <sup>5</sup>	Represented Communities
Urban Northeast Region (UK)	2/6/96	165 min	JAG	Newcastle, Durham, Sutherland, Heaton
Rural Northeast Region (UK)	19/3/96	130 min	JAG	Hexham, Crook, Rothbury, Chester-le-street
Urban Edinburgh Region (UK)	13/5/96	110 min	JAG	Edinburgh (Morningside, Merchiston, Grange)
Rural Edinburgh Region (UK)	9/5/96	125 min	JAG	Haddington, East Fortune, Drem, Athelstaneford
Urban Dundee Region (UK)	27/4/96	140 min	JAG	Dundee, Broughty Ferry
Rural Dundee Region (UK)	9/3/96	100 min	JAG	Tayport, Leuchars, Pitlessie, nr Cupar Angus
Urban Twin Cities Region (MN)	28/4/96	135 min	BW	St. Paul, Minneapolis, No. St. Paul, Arden Hills, Little Canada, West St. Paul
Rural Twin Cities Region (MN)	25/4/96	150 min	BW	Forest Lake, Houlton (WI), North Branch, Cambridge
Urban Lancaster Region (PA)	22/5/96	175 min	BW	Lancaster, Millersville
Rural Lancaster Region (PA)	5/6/96	120 min	BW	Mt. Wolf, Thomasville, Wrightsville
Urban San Jose Region (CA)	30/4/96	75 min	JAG	San Jose, Cupertino
Rural San Jose Region (CA)	6/5/96	135 min	JAG	Aptos, Scotts Valley, Moon Bay

In each location, complementary urban—rural focus group sessions were conducted to ensure a more balanced view was obtained from each region. While the twelve focus groups conducted attempted to have good geographic coverage of the UK and US, under representation for certain populations did occur. Specifically, minority groups for both the UK and US are not well represented by participant groups. In part, this may be related to the geographic locations in which we were able to both host and amass willing participants for both urban-suburban and rural groups. The whole of this research effort being a lone undertaking the researcher relied extensively on colleagues, to apply to the criteria provided when assisting with identification of focus group sites and participants. Had this research effort been

<sup>5</sup> Except where otherwise impossible due to scheduled dates and vast geographical distances between focus group sites, focus group sessions were conducted by the researcher. JAG refers to the researcher; BW refers to Barbara Warren a trained moderator/facilitator and general manager of 4Ever Land Conservation Associates.

funded, there would have been both additional financial resources and researchers involved. Ultimately, such resources would have enhanced the ability for a larger and more diverse set of focus groups to be undertaken in both the UK and the US. However, as reported in Chapter 7, findings from the larger and more geographically diverse data set developed through Phase II mail survey are closely aligned with focus group findings. The composition of each focus group represented a mix of genders, ages, education levels, parents and non-parents, the break characteristics being nation and place (rural—urban) in which participants reside. Table 5.2 outlines important demographic characteristics for focus group participants.

Table 5.2 Phase I — Focus Group Characteristics

	US			UK		
	All US	Urban-Suburb	Rural	All UK	Urban-Suburb	Rural
<b>Total participants</b>	31	16	15	39	19	20
<b>Gender</b>						
Male	18	9	9	18	8	10
Female	13	7	6	20	10	10
<b>Ethnic Origin</b>						
Cauc./European	24	12	12	37	18	19
Black	2	1	1	0	0	0
Hispanic	1	1	0	0	0	0
Asian	1	1	0	2	1	1
Other	3	1	2	0	0	0
<b>Age</b>						
17 - 24	0	0	0	4	4	0
24 - 34	7	5	2	11	3	9
34 - 44	12	5	7	13	5	8
44 - 64	9	4	5	7	5	2
64+	3	2	1	3	2	1
Median		37.5	45		41	35
Average		46.56	46.26		42.05	38.15
<b>Married</b>						
Yes	19	11	8	21	9	12
No	12	5	7	18	10	8
<b>Time in area (years)</b>						
Median		27	29		11	13.5
Average		21.13	25.69		14.9	18.88
<b>Children</b>						
Yes	20	11	9	18	12	6
No	11	4	6	21	7	14
<b>Occupation</b>						
Professional	2	1	1	5	4	1
Wh. Collar (upper)	9	6	3	9	5	4
Wh. Collar (lower)	3	2	1	2	1	1
Skilled B-C	13	6	7	10	5	5
Unskilled B-C	4	1	3	3	0	3
Part-time	0	0	0	3	0	3
Student	2	1	1	9	5	4
Unemployed	0	0	0	4	2	2
Retired	2	1	1	3	2	1

A basic discussion questionnaire was developed with feed back from supervisors, the pilot focus group and general assistance from Dr. Kruger (*pers. comm.*, Feb. 1996). The outline of inquiry, following the pilot focus group session and refinement of the questionnaire remained consistent across all groups (see Chapter 4, Figure 4.3).

### 5.2.3 Generalities

Across focus groups, many see the conservation of land tied to agricultural and natural lands and the proximity of wildlife to where they live. However, those living in rural areas expressed a more fluid connection of how development has affected the community and the environment in their area than did those focus group participants who live in post-sprawl urban-suburban communities. Focus group participants from the Twin Cities metropolitan region (MN), urban Lancaster (PA), and Edinburgh (UK) had a fuller sense of the importance of natural habitat in their communities and regional locations. As reflected in the comments expressed in Figure 5.2, these participants often cited

Figure 5.2 *On development and community impacts*

*Edinburgh used to be a lovely city to drive into, but they keep on building further into the greenbelt. It seems like they just remove the signs so that no one remembers that this was supposed to be the green belt. [female, 34, Rural Edinburgh Region (UK); lines 1307—1313.]*

*I think that if we did a better job of using our cities and the brown sites then there would not be such a push to go further and further out into the countryside. The amount of development into the greenbelts and on green sites in the last few years has been phenomenal. [male, 35, Urban NE Region (UK); lines 3646-3653.]*

*I would like to see wild river areas protected from housing developments to leave the natural beauty. [male, 55, Twin Cities Urban (MN); lines 2981 – 2984].*

*I think that each area of the country has something that makes up its essence and makes it unique.... we have our working landscape - the rolling hills and the forest areas that go along with the scenic farmlands and I think it is important that we ought to try and protect that. [male, 44, Urban Lancaster Region (PA); lines 209—219].*

special places in their area such as protecting the natural and scenic countryside of



Lancaster’s farmland, or the rivers and lakes of Minnesota (Figure 5.3), or Britain’s greenbelt areas (Figure 5.4).



Figure 5.3 Loon Lake (MN)



Figure 5.4 Agricultural land & open space of Edinburgh’s Greenbelt

## 5.3 Responsibility

### 5.3.1 Role as an individual

When asked to what extent participants felt a personal responsibility to ensure that certain features of the land are protected for future generations responses resounded with notions about personal levels of responsibility—from simply recycling to involvement with various organisations or community efforts. In general, this sense of responsibility was expressed in terms of behaviour, through personal actions taken; attitudes, by recognising the efforts of others; and, intentions, by reflecting on what should be done or attitudes that should be adopted towards the use of land and natural resources (Figure 5.5). For several focus group participants “responsibility” extended to their children and providing them with a foundation of environmental awareness. While both urban-suburban and rural focus group participants expressed individual roles of responsibility, it was interesting to find that participants from predominantly urban or suburban areas were the most likely to place a high degree of importance on personal and local level collective efforts.

Figure 5.5 *On responsibility:*

*It all really does come down to a couple of real basic things. Maintaining personal responsibility which is of a moral nature and when you see what the right thing to do is, do it. Life is really pretty simple. You see what's before you and what needs to be done, you should do it... and when it doesn't seem right, it probably isn't and those are really pretty easy rules for all of us to live by. [male, 36, Rural San Jose Region (CA): lines 5200-5210].*

*Also exposing, like younger kids to the outdoors just so they will have a desire to preserve it. I took my 8-year-old cousin fishing. I think he'll be a good conservationist. [male, 26, Urban San Jose Region (CA); lines 1284—1288].*

*I do feel that I have a very strong personal responsibility for the countryside in my own sphere if you like, not driving a car or whatever. Recycling - not using packaging and stuff like that. [female, 36, Urban NE (UK); lines 2750—2756].*

*We are a democratic country, it really it is up to every one of us to be involved in protecting our environment. I personally am a member of Friends of the Earth.... [male, 73, Urban Edinburgh Region (UK); lines 60—65 ].*

*Too often at public hearings, on a local level, we aren't engaging young people, and we should, because it's their community and although they don't pay taxes yet or vote, it's their future we're really talking about, and certainly the future of the land. [male, 43, Twin Cities Rural Region (MN); lines 1994—2002].*

In both the US and Britain and across the urban—rural focus group sessions, this question often evoked notions of the ability to “make a difference”. Often these statements were connected to reflections on the government or political process, or comments on society as a whole. Generally, such sentiments were labelled as “apathy” by group participants in both the US and UK (Figure 5.6). Apathy as it relates to issues of responsibility, whether personal or government, is a recurring theme.

Figure 5.6 *On apathy:*

*I think living in Scotland, you tend to think of land care as government's responsibility... you don't feel that you have an awful lot of responsibility because the government doesn't let you know what is going on. [female, 55, Urban Dundee Region (UK); lines 1567—1574].*

*We've seen our rural community change from a true farming community to a bedroom community, and at times as an individual, you feel like your hands are tied as to how to stop this situation or at least slow it up. [male, 48, Rural Twin cities Region (MN); lines 112—117].*

*Really, you are almost without power, which is actually rather frightening...we do try. [female, 54, Urban Edinburgh Region (UK); lines 115—123].*

*The biggest negative affect on making progress has been the apathy. The feeling of frustration that I get with the apathy of many people in York County about trying to do something about this problem. I think it's ignorance and it's a lack of information. [female, 62, Rural Lancaster Region (PA); lines 6346—6352].*

*So many of us just sit back and let whatever happens happen. they don't even get out to vote- and if they do, they just vote at a general election. [male, 36, San Jose Region Urban (CA); lines 491—494].*

## 5.4 Concerns

### 5.4.1 The Countryside: significant land use issues and concerns

In that the use of focus groups and resultant data is not simply a data gathering technique where data collected are analysed for their specific content such as all text relating to a particular theme, i.e. land trusts, it has not been used or reported in such a way thus far. However, to quantitatively evaluate those issues at the forefront of consciousness in the UK and US general populace, the code frequency function is used to generate an appropriate list of land use issues and concerns. Tables 5.4 and 5.5 reflect the frequency formulations, frequency counts and line counts for the issues most frequently raised relative to land use issues and conservation concerns discussed by UK and US focus group participants. Based on line count and frequency analysis, a preliminary determination was made as to issues ranking among the most important land use issues, concerns and threats as perceived

by focus group participants (Figure 5.7). Further evaluation of the processes in the data which can only be identified by several readings of the entire manuscript-set by tracing an individual's text in the context of other group member's text was then carried out and a final determination was made on the sixteen (16) principal concepts or issues raised across all focus group sessions. Combining line count analysis and text nesting analysis techniques, Table 5.3 reveals sixteen predominant issues later used as a visual "Issue Set" that accompanied the Phase II mail survey (Appendix 4-1).

Table 5.3 Line Count Analysis for Primary Issues Raised in UK & US Focus Groups

ISSUE	Rank	No. Text/Lines UK Combined	Rank	No. Text/Lines US Combined
Traffic / Transportation	1	917	6	370
Urban / Suburban Sprawl	2	857	1	805
Land Conservation	3	845	2	759
Pollution (air, land, water)	4	451	3	628
Mismanagement of Land Resources/Poor Planning	5	442	4	467
Farming methods & Sustainability	6	431	7	367
Exploitation of Natural Resources	7	410	11	199
Waste & Hazardous Waste Disposal	8	373	14	123
Forests & Deforestation	9	316	8	305
Population	10	213	5	385
Nuclear Energy/Industry	11	155	13	144
Recycling	12	155	15	118
Destruction of Habitat	13	151	10	251
Water Quality	14	83	12	196
Preservation of Historic Areas	15	79	16	30
Wetlands	16	68	9	256

Perhaps the most striking difference can not be seen through examination of frequency statistics, but is found within the interpretation and explanation of various issues as perceived by focus group participants and reflected in text box figures throughout this chapter. Details such as this get lost in actual coding and analysis process, which is in part why ethnographic analysis should not rely solely on the statistical calculations and interpretations (Weaver and Atkinson, 1994; Fielding and Lee, 1995; Stanley and Temple, 1995; Coffey and Atkinson, 1996).

Table 5.4 Frequency and Line Count Segment Analysis of UK Focus Groups

Concern/Issue/Problem	Freq. Count		Freq. Across		Line Count	
	Rural	Urban	Rural	Urban	Rural	Urban
Agricultural practices	21	14	0.60	0.40	219	103
Soil erosion	2	1	0.67	0.33	14	6
Development	22	20	0.52	0.48	232	177
Sprawl	9	8	0.53	0.47	76	70
Destruction	16	11	0.59	0.41	136	96
Over development	1	0	1.00	0.00	3	0
Greed	5	4	0.56	0.44	33	34
Forestry/deforestation	2	1	0.67	0.33	19	5
Forestland	8	9	0.47	0.53	97	85
Timber	0	1	0.00	1.00	0	6
Forest Clear-cutting	0	10	0.00	1.00	0	19
Rainforest	5	3	0.63	0.38	64	14
Industry	6	11	0.35	0.65	49	78
Pollution	10	16	0.38	0.62	150	81
Air	4	2	0.67	0.33	86	7
Water	6	1	0.86	0.14	68	15
Land Conservation	3	7	0.30	0.70	3	7
Preservation	8	3	0.73	0.27	43	23
Open space	6	7	0.54	0.46	40	84
Wetlands	3	1	0.75	0.25	27	7
Rivers & lakes	1	3	0.25	0.75	10	24
Scenic	4	2	0.67	0.33	31	13
Recreation	5	15	0.25	0.75	25	112
Historic	1	1	0.50	0.50	3	10
Forestland	8	9	0.47	0.53	97	85
Agricultural land	17	10	0.63	0.37	121	81
Wildlife habitat	5	7	0.42	0.58	23	50
Wildlife	3	6	0.33	0.67	18	60
Nature	5	3	0.63	0.38	36	44
Manage land & natural resources	13	6	0.68	0.32	128	83
Exploit	4	1	0.80	0.20	36	8
Recycle	6	16	0.27	0.73	33	122
Nuclear energy	2	4	0.33	0.67	14	14
Planning	5	4	0.44	0.56	87	32
Better Planning	2	0	1.00	0.00	19	0
Lack of Planning	4	0	1.00	0.00	37	0
Population	10	6	0.63	0.38	69	47
Density	2	2	0.50	0.50	12	13
Health	5	4	0.56	0.44	39	33
Sustainable	8	4	0.67	0.33	57	32
Transportation	18	38	0.32	0.68	206	292
Automobile	14	13	0.52	0.48	106	79
Congestion	1	5	0.17	0.83	9	32
Travel time	1	4	0.20	0.80	3	44
Urban/derelict lands/brown sites	15	13	0.54	0.46	113	150
Waste / hazardous	2	6	0.25	0.75	23	58
Waste disposal	3	0	1.00	0.00	28	0



Table 5.5 Frequency and Line Count Segment Analysis of US Focus Groups

Concern/Issue/Problem	Freq. Count		Freq. Across		Line Count	
	Rural	Urban	Rural	Urban	Rural	Urban
Agricultural practices	10	17	0.37	0.63	106	118
Soil erosion	6	9	0.40	0.60	38	54
Development	26	18	0.59	0.41	215	157
Sprawl	19	7	0.73	0.27	181	66
Destruction	13	6	0.68	0.32	63	37
Over development	0	4	0.00	1.00	0	42
Greed	8	10	0.44	0.56	46	58
Forestry/deforestation	1	0	1.00	0.00	10	0
Forestland	11	13	0.46	0.54	41	59
Timber	1	5	0.17	0.83	56	36
Forest Clear-cutting	6	5	0.55	0.45	38	48
Rainforest	1	4	0.20	0.80	5	12
Industry	8	11	0.42	0.58	166	128
Pollution	12	15	0.44	0.56	209	82
Air	7	5	0.58	0.42	27	16
Water	19	10	0.66	0.34	130	66
Land Conservation	3	4	0.43	0.57	8	27
Preservation	15	17	0.47	0.53	94	126
Open space	8	7	0.53	0.47	17	42
Wetlands	7	8	0.47	0.53	56	43
Rivers & lakes	8	7	0.53	0.47	107	50
Scenic	2	4	0.33	0.67	6	18
Recreation	5	8	0.38	0.62	36	59
Historic	3	6	0.33	0.67	7	23
Forestland	11	13	0.46	0.54	41	59
Agricultural land	25	27	0.48	0.52	162	151
Wildlife habitat	5	9	0.36	0.64	69	42
Wildlife	13	11	0.54	0.46	76	64
Nature	12	5	0.71	0.29	95	55
Prairie	1	2	0.33	0.67	9	9
Manage land & natural resources	7	8	0.47	0.53	17	42
Exploit	0	3	0.00	1.00	0	22
Recycle	9	12	0.43	0.57	44	74
Planning	6	9	0.40	0.60	43	84
Better Planning	7	3	0.70	0.30	124	22
Lack of Planning	12	2	0.86	0.14	56	23
Population	18	18	0.50	0.50	116	165
Density	1	8	0.11	0.89	5	65
Health	4	2	0.67	0.33	18	16
Sustainable	5	1	0.83	0.17	49	2
Transportation	3	6	0.33	0.67	10	46
Automobile	3	1	0.75	0.25	24	5
Congestion	1	3	0.25	0.75	1	11
Travel time	4	0	1.00	0.00	26	0
Urban/derelict lands/brown sites	9	6	0.60	0.40	77	38
Waste / hazardous	2	2	0.50	0.50	13	21
Waste disposal	12	0	1.00	0	89	0



Figure 5.7 *On greatest concerns and threats to the countryside:*

*In Britain, our agricultural policies [lines, 577—578]... The motor car I would say is another one... Private transport instead of public transport. The volume and access to places. [male, 73, Urban Edinburgh Region (UK); lines 586—589].*

*I lived in the south of England and we were really aware of the destruction of land by the road systems in our part of the country. [lines 1623—1627]. My greatest concern is transport, we really have got to get our transport organised. [female, 72, Urban Dundee Region (UK); 1932—1933].*

*Transportation, if you look at the amount of roads, new roads and the swelling traffic that fills them and there are more and more cars purchased every year, this is I think at least a great part of the whole land use problem or rather sprawling pattern of land use that seems to have overcome this country in the last 10 to 15 years. [male, 35, NE Urban Region (UK); lines 3629—3637].*

*I think loss of land to development is number one, the second one would be pollution of land and the third I would say would be the loss of the soil. [male, 64, Urban Lancaster Region (PA); lines 636—639].*

*Damage to topsoil is another big concern related to agricultural practices. [male, 36, Urban San Jose Region (CA); lines 1665—1667].*

*Sustainability. It's got to be sustainable. [male, 45, Rural San Jose Region (CA); lines 2809—2010].*

*Development whether it be residential or industrial... [female, 36, Rural Lancaster Region (PA); lines 6009—6010].*

*The whole social attitude and the notion of the 'American Dream' will mean the house in suburbia continues to destroy land in the rural areas. Sprawl. [female, 40, Rural Lancaster Region (PA); lines 6132—6134].*

*Certainly, my top one would be sustainability and local employment. [male, 31, Rural Dundee Region (UK); lines 1321—1324].*

*I'm actually quite concerned about the growth in housing particularly on the outskirts of cities like Edinburgh and it seems to me that the developers keep pushing for it. [male, 26, Rural NE (UK); lines 3061—3065].*

## 5.5 Quality of Life

### 5.5.1 Affects on quality of life

When asked how issues and concerns raised in relation to questions on land use affected the quality their life and that of their immediate community the most prevalent and immediate responses by participants across both the US and UK were reflections on impacts they perceived as negative (Figure 5.8). Although rare, there was an occasional remark on the positive side of development and growth relative to “quality of life”.

Figure 5.8 *On quality of life:*

*My quality of life has been medically affected because I used to work in a foundry office and I used to be a driving instructor I now have asthma. [female, 55, Urban Dundee Region (UK); lines 2178—2181].*

*I think it very definitely affects people's mental and emotional well being. Everywhere you turn its malls and shopping centres and roads and the television - I just think, it's emotionally and mentally unhealthy and that we will see more problems down the road. Also, returning to what I said earlier ... people need to feel a connection with the earth and natural lands. [female, 31, Urban Lancaster Region (PA); lines 860—870].*

*Our quality of life has increased in some ways, well we have more but there is a trade-off for that. [male, 36, Urban Edinburgh Region (UK); lines 1003—1005].*

*You know you do feel better if you are in a very attractive environment. I am beginning to feel that in the villages round about Edinburgh you can see they are losing their very attractive and special qualities. An awful lot of satellite housing development, new houses that really jar with the old ones in little villages like Pencaitland you come in and you are driving through a brand new housing estate and it hits you and it does not link with the little cemetery and the wee church there. [female, 54, Urban Edinburgh Region (UK); lines 1020—1034].*

*I think for me on a local level I don't think it's affected my life because I haven't really thought about it - I think we're on the tip of the iceberg. [female, 42, Rural Dundee Region (UK); lines 1720—1724].*

*Surely, quality of life also is a sense of being able to pass something on to your children. It's a sense of knowing that you're not wasting the resources, but we are. [male, 25, Rural NE (UK); lines 3011—3015].*

*I think that the quality of life has really gone down hill with regards to the pressures of population and the individuals that have come into our community. [male, 48, Rural Twin Cities Region MN); lines 1234—1238].*

## 5.5.2 The Urban Rural Divide

In both the US and the UK there were focus group participants who ultimately chose to live where they did as a result of their quest for tranquillity, privacy, space, love of nature, and freedom to move out side the congested urban centre (Figure 5.9). These issues together with space for children to play safely are highly valued. Participants from rural communities were willing to make the trade-offs of increased transportation costs and drive time to and from work and shops for more privacy and space.

Words typically used by focus group participants to express lower density developments occurring some distance from a major urban centre include, privacy, natural, and open space. Contrast these to the euphemisms frequently used by professionals dealing with various attributes of land use as “bedroom communities”, “exurbs” and “sprawl”. Often these participants acknowledged they may be part of the “sprawl” issue and made justifications based on their particular values.

Figure 5.9 *On rural or exurban living:*

*Some people are happy to live in the country and some people are happy to live in the city with cement and stone, it's just up to the individual...personally I prefer fields and fresh air. [male, 41, Rural Dundee Region (UK); lines 2206—2210].*

*I think of my own community growing up, walking down the street, seeing the same people everyday, and knowing them. [male, 52, Rural Twin Cities Region (MN); lines 350—353].*

*When I was a kid, I remember walking down the street and saying "Hello!" to everybody because we knew them all. [female, 49, Rural San Jose Region (CA); lines 3435—3438].*

*It is very easy to find out who people are and where they live and how to contact them. It's much harder in a city. Whereas here because you're in a small rural community and know who people are it's much easier to make your voice heard and go to the right places to find out about things. But I personally couldn't go back to live in a big city after having lived here. [female, 37, Rural Dundee Region (UK); lines 1782—1792].*

*I grew up in the countryside and when I go back there to visit, I think it is great. But as far as my experience when I was growing up and as a young adult living in the countryside in some ways I felt trapped. The access to the outside world seemed so impossible. [male, 26, Urban NE Region (UK); lines 3756—3762].*

*I remember from elementary school having the opportunity to play outside and run around the neighbourhood, we lived on the edge of the rural—suburban side. We were let loose for the summer and ran miles around through the woods and we weren't confined inside so I have an appreciation from that. [female, 31, Urban Lancaster Region (PA); lines 52—56].*



The notion of sprawl contained mixed emotions, and while no participant attempted to define it, one California male participant in discussion sprawl said “...it sort of creeps up on an area, I can’t really define it, but you know it when you see it...one day there’s a FOR SALE sign on a nearby farm and the next it’s a pile of houses.” (Figures 5.10 and 5.11).



Figure 5.10 “FOR SALE...Future Development Potential”. A familiar sight in the exurbs of Minnesota’s Twin Cities metropolitan region...and across the Atlantic.



Figure 5.11 New housing development on former farm fields near Cupar, Fife.

Similarly, in both the US and UK there were focus group participants who clearly choose to live closer to the city. For these respondents' values held highest, include being close to urban conveniences, the diversity and opportunities of cities, together with consideration given to the need to "preserve farmland and open space" beyond their own backyards. The words these participant's used to describe urban/suburban communities include; "knowing your neighbours", "access", "convenient", and "variety" (Figure 5.12).

Figure 5.12 *On urban-suburban living:*

*We love the outdoors so much that we would love to live in a rural area but then I think we're being selfish by eating up land, so we sacrifice that. [lines 3559—3564]. On the one hand, I believe in having children grow up with plenty of open spaces. You know if you teach children to hunt and camp or enjoy the outdoors they appreciate it more but if you're living in an inner city it's hard to have that connection with the land and nature, so we're either living in it and spoiling it or we're not in touch with it at all. [female, 30, Urban Twin Cities Region (MN); lines 3571—5580].*

*I wouldn't want to be in the situation where I didn't have access to all the things that a city provides because they are part of my life and I have grown up in the city so I want to have access to the city conveniences. I feel I would be isolated [in a rural community]. [female, 36, Urban NE Region (UK); lines 3790—3796].*

*I grew up in the middle of Los Angeles, super suburbia. For me the wilderness was probably the Santa Monica Pier. [male, 26, Urban San Jose Region (CA); lines 2614—2617].*

*If I had stayed in Coventry, I would have felt much more wary – both that children might be run over by a car but also about their safety in other ways. [female, 37, Rural Dundee Region (UK); lines 2218—2222].*

When the term suburban development is used by itself without reference to sprawl, the most common parallel made across focus groups in the US, is a negative one of "cookie-cutter" subdivisions. This particular phenomenon was also referenced specifically in two UK sessions. Participants in the Rural Dundee and Urban Edinburgh Region focus groups linked such development to expressions of "not traditional", or housing styles which "don't fit in" with existing building styles or character. Overall, while suburban development offers hope to escape congestion, many believe it can come at a high cost—loss of uniqueness and individuality.

### 5.5.3 Freedom

Notions of “freedom,” not surprisingly, were described in slightly different ways in the US and UK. In Britain, freedom often related both to access to the countryside, “right to roam” as well as to issues of privacy (Figure 5.13).

Figure 5.13 *On freedom and related issues:*

<p><b>In the UK</b></p> <p><i>I was brought up in the country in Scotland in the 20s and 30s as a little boy... I can remember the terrific freedom we had and I feel sorry for the children today especially in cities of course but also the country. The car, is the main thing. I use to cycle with my friends to Ayr sixteen miles and back and you would hardly pass more than one car on the road. You could go two abreast and you could go out all day from the age of 9, 10 and my mother never knew where we were and couldn't care. [male, 73, Urban Edinburgh Region (UK); lines 521—537].</i></p> <p><i>Without access there is this sense of detachment that you get by having no trespassing notices all over, or by having stretches of river—where if you are rich enough you can walk down along it—but if you aren't that's it - you have got no access to it so that creates detachment, like a barrier to basic freedom. [male, 26, Urban NE (UK) 3472—3479].</i></p> <p><b>In the US</b></p> <p><i>I would rather the inconvenience so I can live where I live and have the freedom and fresh air. [male, 48, Rural Twin Cities Region (MN); lines 1271—1273].</i></p> <p><i>It's not just New York or Chicago, any major city those people are confined...without a lot of freedom in many ways. [male, 69, Rural Lancaster Region (PA); lines 6469—6971].</i></p>
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The most obvious departure on the use and interpretation of “freedom” can be seen in its use in the US context, where freedom is more strongly bound to ideas of individuality and choices made in relation to where people live and work (Figure 5.13).



#### 5.5.4 “Sprawl”

Discussion of issues related to sprawling patterns of land use prevailed across all focus group boundaries.

Since the sprawl of development was most often defined by focus group participants as either “uncontrolled”, “unplanned” or “decentralised” development, the apparent and universal antidote envisioned by participants is “better planning”. This was particularly so in the US focus groups, though the concept of better land use planning was raised spontaneously across all focus group sessions. Generally, participants believe it is the responsibility of a number of groups, from developer/builders to planning commissions and elected government officials to implement and use better planning to combat the negative impacts of sprawl.

While focus group participants across the UK and US are quick to realise some of the consequences of sprawl, they are somewhat reluctant to believe that it can be avoided. Attitudes about sprawl are grounded in both notions of increased affluence in both countries and the general belief that it is a natural phenomenon, as irrepressible as the rising of the sun with each new day. As expressed by one female participant from Minnesota’s Twin cities metropolitan region, *“If it is within their means people will always seek to spread out, to be free from the every day hustle and bustle of the big city and have more space...”*. Increasingly this concept of the ‘American Dream’, and a home in ‘the country’ is spreading across the UK.

Across the groups, participants see sprawl occurring in their communities or regionally, and most express a desire to avoid the negative impacts (Figure 5.14). However, several participants viewed sprawl as a function of economic growth and progress; providing choice and fostering personal freedom. While there is a sense that getting “involved”, going to community planning hearings and voicing opinions and oppositions may help change the course of a particular proposed development, most feel that this may only prolong the inevitable, and *“in the end the developer comes out on top”*.

Figure 5.14 *On sprawl:*

*I think there's a sense of community that's lost as this whole sprawl mechanism as it eats away at the rural land. [male, 52, Rural Twin Cities Region (MN); lines 358—361].*

*Within Edinburgh, we have gone one step onward there now with another development. Hermiston Gate is right on the by-pass and the new Sainsbury's and all that out at Straiton Junction, that was in the greenbelt area... so all the time they are pushing further out to get the bigger developments in. [female, 54, Urban Edinburgh Region (UK); lines 797—803].*

*I've kind of seen how this goes. When I was growing up, I grew up in the fringes of the City of St. Paul here and that closed in around everybody. Then when I got married I moved out to outlying areas, and now that's increasingly being developed and I can see what's going to happen next. My son has now moved out 40 to 50 miles from where we're at... I guess this group here is mostly rural, and we've grown up there and I think we're kind of selfish because we all think we're entitled to our own area and what's happening now is that everybody wants their own little private area. How many little areas are there going to be left? [male, 52, Rural Twin Cities Region (MN); lines 1349—1368].*

*We've become so dependent on the automobile that I think that most of the development is being planned around the use of an automobile. No one is out there walking. And everything from going to the shopping centre, to church or to whatever you have to jump in your car. and I realise it's going to spread out but it seems that, that in and of itself has it's own implications on fossil fuel consumption and quality of air and many of those things. The sprawl or unplanned development there is just so many components of it that undermine that sense of community there used to be. [male, 48, Rural Twin Cities Region (MN); lines 1439—1454].*

Discussions on planning and related issues “better planning” and “lack of planning” were inexorably tied to debates on sprawl across focus groups. “Better planning” and “lack of planning” had two distinctly different interpretations across focus groups. Better planning tends to mean, “*using the land most efficiently*”, by building houses closer together for example (e.g. cluster developments), to protect open space (Figure 5.15). Yet, while focus group participants, particularly in the US, acknowledged that such efforts constitute “better planning”, it is not, necessarily what these participants want for themselves.

Figure 5.15 *On planning, lack of planning and better planning:*

*I think that if we did a better job of using our cities and the brown sites then there would not be such a push to go further and further out into the countryside. The amount of development into the greenbelts and on green sites in the last few years has been phenomenal. [male, 35, Newcastle-Durham Urban region; lines 3649—3654].*

*We are allowing our inner cities to empty out into the suburbs and if we actually made our inner cities a beautiful place to live which I'm certain is possible it would save the countryside round the cities. [female, 72, Urban Dundee Region (UK); lines 1935—1942].*

*Basically unhappy people build negative landscapes and use the land in negative ways and if people felt good about themselves and feel a sense responsibility to the community and not just themselves - not just their own personal property. We would start to improve the way we use our land and that is all kind of social issues it's not direct land use policies, I guess. At the local level, I think we definitely have to keep enforcing principalities to zone land and take some responsibility for the public health and welfare through land use planning. [female, 56, Urban Lancaster Region (PA); lines 901—918].*

In the groups, where participants moved naturally into discussions of what might constitute planning with a “vision” or better planning, debate focussed largely on providing greater access and opportunities for open space and recreation close to home (Figure 5.16).

Figure 5.16 *On recreation opportunities:*

*I use land to recreate. If I can't recreate, I'm not happy and if I'm not happy, what use is all of it? If I have to drive far away to recreate, to find some open land, then it's not worth the time to get out there, in which case you're just going to work, eating and sleeping. [male, 32, Urban San Jose Region (CA); lines 2077—2084].*

*Recreation and open space in the countryside are very, very important to me. [female, 55, Urban Dundee Region (UK); lines 1677—1678].*

*I think that a balance is important as a population. We need recreation. We need to be able to travel around the countryside and see different places and the wildlife habitat. [female, 72, Urban Dundee Region (UK); 1766—1770].*

### 5.5.5 Love of Nature

“Love of nature”, essentially an appreciation of nature, and its diverse attributes; while there were certainly points of convergence in this general arena there were as many points of divergence—more so than in any other classification. Different and sometimes conflicting opinions as to the protection of land as an act of nature conservation were fundamentally split along two primary lines—national attachment and that of urban-suburban/rural. Some of these differences are echoed in the legal—policy infrastructure as established in Chapter 3. In general, while recognising many of the perceived and often real problems associated with farming practices, Americans are much more apt to view the preservation of farmland as a subset of the overall land conservation agenda, ranking the loss of farmland frequently at the top of participant concerns. Whereas their UK counterparts often viewed agriculture and related policies as quite separate functions, and more or less not relevant to them if they were not landowners (Figure 5.17). Agriculture and its related policies, while discussed occasionally with disdain in both the US and UK focus groups sessions, realised a decidedly more cynical treatment by UK focus group participants; hence, discussion related to farmland preservation received less attention across UK focus groups. This split between UK and US on attitudes towards farming and farmland may be the most significant category issue dividing UK and US participants and policies. Yet, Phase II survey respondents (Chapter 6) tend to support increased efforts to protect farmland in the UK.

Figure 5.17 *On farmland... a UK perspective:*

*We really need to get wildlife back onto our farms it doesn't matter who the landowner is. [female, 72, Urban Dundee Region (UK); lines 1814—1816].*

*There is too much agricultural land, too many fields used for grain for animal feed... In the U.S. 90% of the wheat is used for animal feed so we can eat the animals. We have the land to feed the UK three or four times over, we actually produce a lot of food. [male, 32, Rural Dundee Region (UK); lines 1337—1346].*

*I think agricultural practices have destroyed land in terms of like hedgerow disruption, changing the utility of the land, and planting different crops which aren't even suitable for that land. [male, 26, Urban NE Region (UK); lines 3404—3408].*

*When you are driving about in the countryside in Scotland, there really are so very few natural areas. You've got hillsides that have been cleared of trees for sheep and farming, and in some ways, agriculture has destroyed the natural systems. [female, 37, Urban Dundee Region (UK); lines 1669—1673].*



In the US, farmland protection was much more likely to be seen as a valuable and important feature of land conservation overall (Figure 5.18). The preservation of farmland in the US was likely to be viewed in tandem with issues of protecting 1) agricultural communities, 2) economic viability and, 3) nature conservation objectives.

Figure 5.18 *On farmland... a US perspective:*

*I see it as coming from two angles. One is I believe the need to do something to permanently protect land, farmland and natural land. [female, 62, Rural Lancaster Region (PA); lines 5897—5901].*

*That's the problem with the balance. It's not just wild lands but part of the balance is farmland too. [male, 36, Rural San Jose Region (CA); lines 3085—3087.*

*Nation-wide we need areas where humans habitation and recreation doesn't impact the natural community and then down to the local human level we do need neighbourhood parks and we need farm lands for food production, it is all small pieces of a bigger picture. [female, 31, Urban Lancaster Region (PA); lines 138—144].*

Evaluating the same issue by the urban-suburban/rural focus group divide presents similar recognisable breaks in the discussion. However, at the heart of the discussion is not the evil or the merits of agriculture, rather the separation lies with the widespread coverage given to the loss of productive farmland to urban and suburban sprawl and associated changes in rural communities caused by the influx of former urban and suburban populations, as seen in textual comments presented throughout this chapter (Figure 5.19).



Figure 5.19 Scotland's agricultural landscape, Fife.

While there was general acknowledgement of the importance of farmland in the UK, and despite the nations longstanding agricultural prominence, focus group participants in the US were much more likely to view agriculture and its associated landscapes as part of their own regional and national identity. Interestingly, only the Urban Edinburgh group ever raised discussion as to the UK and agricultural policies in light of its relationship within the European Union (EU). At that, the discussion covered about three lines of text, with only vague reference to Common Agricultural Policy (CAP) reform.

The issue of changes to the social fabric of communities was particularly important to those who have witnessed conversion of farmlands and open space in their own communities (Figure 5.20). Many participants across focus groups, but particularly in Minnesota and California reflected on the communities they grew up in and the changes that have occurred during their own lifetime. These images tended to strike familiar chords with other group members as participants shared their experiences (Figure 5.21).



Figure 5.20 The changing face of Scotland's agricultural landscape, Fife near Tayport.



Figure 5.21 *On development...changing communities and the face of the landscape:*

*There is the scenario they [developers] use to con us into believing that the development is useful to society. Society has to develop and can never stop change and it is really how much change, what changes are good for the environment and for society. [female, 53, Urban Edinburgh Region (UK); lines 125—131].*

*What I've found over the years that I've been living in a rural community, is that there's been a lot of change, and not necessarily for the better. [male, 48 Rural Twin Cities Region (MN); lines 108—112].*

*Sprawling patterns of land use. It used to be that through the planning process cities were essentially contained, and there wasn't even a thought of building into the green belts. Now it seems that who ever has the most money wins the development debate. Houses and out of town shopping areas are springing up all over the places – places where they just shouldn't even be built. Farmland and recreational lands at the outskirts of the urban areas seems be under greater and greater threat. The proportion of built environment as opposed to the natural environment, naturally left or whatever the technical term is seems totally out of line with population statistics and growth. [female, 35, Urban NE Region (UK); lines 3185—3204].*

*Ours is just a small community, where we used to know everybody. Now you have people from the cities coming out and moving in and they have different ideas they are used to having nice clean roads and air that doesn't smell of animal manure. The agendas been changed. [male, 52, Rural Twin Cities Region (MN); lines 1732—1737].*

*An example would be over in San Jose in that area, when I was a kid it was all orchards. We used to go over there and buy apricots, cherries and everything else by the crates. Well, they built the cities up, all the houses went out farther and all the farmland; there is not even farmland over there any more. [male, 37, Urban San Jose Region (CA); lines 3230—3238].*

Of particular interest were discussions on the “losses of” and the “need to retain” both “natural lands” and “open space” (Figure 5.22). Although strength of concern and feelings vary from group to group, some participants are motivated to protect habitat for birds and wildlife for the sake of the species themselves, while others place their values in human appreciation. Urban-suburban focus group participants in both the UK and the US spent considerably longer discussing these issues and to some extent were more able to articulate their sense of “loss”, possibly due to the fact that this experience is one they had encountered.

Figure 5.22 *On natural lands:*

*Sometimes I don't know if I really appreciate everything around me until I get out in Mother nature on the beautiful lakes and into the forests, going through like some of these State parks and such. Sometimes in our hectic lives we don't get a chance to get out there and enjoy it all the time but only then do I really appreciate what we have here and hopefully we can preserve it for future generations. [male, 58, Urban Twin cities Region (MN); lines 3620—3631].*

*On a more personal level, I know that having natural land to experience on a daily basis is just essential to my sanity. [female, 56, Urban Lancaster Region (PA); lines 834—837].*

*I think also we need to look at wildlife areas—the natural habitats, if you destroy these areas species will disappear and it's also a part of a whole system if you start taking bits out then the whole thing starts to break down. [female, 37, Urban Dundee Region (UK); 1694—1700].*

*I think maintaining the proper balance and certainly respecting the balance of the natural environment is necessary. [male, 35, Urban Northeast Region (UK); lines 2924—2927].*

*The happiest I've ever been.... was in a landscape where it was as natural as possible with like I said people, only two other people with which I could have a good conversation and outside that there was nothing but time and space and that didn't involve any material things apart from one guitar. I didn't feel unhappy for one second of those 9 months. [male, 25, Rural NE (UK); lines 3530—3539].*

The distinction between natural land and open space, while never explicitly made in any of the focus groups appeared to be universally understood at some level within the group specific context. Generally, open space was discussed in connection with recreational or scenic areas that humans enjoy, whilst natural lands drew stronger associations to wildlife and habitat (Figure 5.23).

The strongest sentiments relative to natural lands, open space and human appreciation were expressed by participants who could most easily cite examples of places in their communities that have either already undergone conversion or are currently under consideration for development. Participants in those areas, such as the Twin cities metropolitan region, and the greater Edinburgh region, strongly supported protecting natural lands and open space from development for their own enjoyment and for the sake of the sake of their children—and their future. The look

to the future with concern and see value in preserving these areas because “it feels right”.

Figure 5.23 *On open space:*

*I really enjoy seeing as many as eight deer coming to our back yard because there is open space in our area. We live in a condo at the edge of the city and I enjoy seeing the wildlife that comes out that space, it brings me joy. [female, 65, Urban Twin Cities Region (MN); lines: 3585–3590].*

*And now all the houses go from there [referring to San Jose] down towards Gilroy and everything which used to be open spaces is now being used for farmland. It wasn't the best farmland, but the best farmland now has houses on it. So they are now taking up what used to be grazing land for farms and pushing the grazing land further out into the areas that used to just be open wild lands. [male, 37, Rural San Jose Region (CA); lines 3239–3249].*

*I have gone to the hills during the week and I never pass another soul. It is amazing that we have a city here of half a million and within about a quarter of an hour we can get away from everybody. It is very important for us to be able to do. To get out it is not exactly a wilderness but it is getting near it. It is good for your soul if you live near the city. [male, 73, Urban Edinburgh Region (UK); lines 251–260].*

Many across the UK and US focus groups express this ‘value’ in something other than absolute terms, calling for a “balance” between protecting the land and providing for human needs (e.g. housing, food, etc.). Participants who are less environmentally motivated tend to exhibit some ambivalence, but in general believe that the needs of people should come first.

## **5.6 Role of Various Players**

### **5.6.1 Government Role**

Focus group participants in both the UK and US were not overly optimistic about the roles played by their respective governments to date in the arena of land conservation. While participants in the Urban Twin Cities Region focus group expressed the greatest level of confidence in the role of government and the related political and policy infrastructure, many participants across the UK and California groups saw “the system” as being the primary culprit to blame for the current state of sprawl patterns of land use.

Participants were, however, quite definite about the role they perceived the respective local, regional and national governments should be playing in the land use, and environmental arena (Figure 5.22). From providing incentives, to disincentives for particular land use or conservation activities, to restructuring the planning permit process, to limiting road development and Urban Growth Boundaries, participants explored a comprehensive range of activities they believed various levels of government should be undertaking.

Within discussions on government and the role of government, participants frequently became involved in debates on land tenure and the role of conservation organisations and local interests. In particular, many participants revealed a lack of “trust” in existing governments and the structure of the political system in advancing land use planning to address issues of sprawl and related consumptive patterns of land use. Other issues repeatedly raised across focus groups include notions of involving or “engaging the public”, “looking to the future” and being “proactive” in their stance on issues raised within the focus groups.

Figure 5.22 *On the role of government and addressing land use & conservation issues:*

*The government should be concerned with the future, not just the here and now.* [female, 65, Urban Twin Cities Region (MN); lines 3979—3982].

*An example would be creation of urban growth boundaries, pro-active creation of urban growth boundaries, farmland preservation incentives, and natural land preservation. You'd get the same density of people on a given acreage... but a much better quality of life because you preserve more open space for both nature and human use.* [male, Phil, Urban Lancaster Region (PA); lines 922—926].

*This is the challenge of government... engage the public.* [male, 48, Rural Twin Cities Region (MN); line 1677].

*The present government has been very much in favour of laissez faire so far as the environment is concerned. I think we want a government with more of a grip on the situation so that they can actually do something about it.* [male, 36, Urban Edinburgh Region (UK); lines 1319—1325].

*I think the transport policies need drastic improvement.* [female, Urban Dundee Region (UK); lines 2262—2263].

*I think that this is a role that the Government should take [referring to planning] and they need someone with forward thinking, someone who is a bit visionary, with ideas that actually lead somewhere.* [female, 36, Urban NE (UK); lines 3976—3980].

*If Government could take a view of sustainable developments and sustainable management of land, that would be great.* [male, 24, Rural NE (UK); lines 3615—3618].

### 5.6.2 Role of the Voluntary Sector

Focus group participants found a great deal of promise in the voluntary sector. In both the UK and the US, group participants vested both trust and a significant range of responsibilities with such organisations as the wildlife trusts, Friends of the Earth, and The National Trust in the UK, and The Nature Conservancy, Ducks Unlimited, and local land trusts in the US.

While many participants avowed verbal support for voluntary or non-profit environmental conservation organisations, very few had actually ever joined a land trust or similar group, participated in actual conservation activities, or volunteered with such organisations. Focus groups with active environmentally motivated participants tended to have a more positive view on the range of activities that such



organisations may undertake. Many participants, unfamiliar with land trusts, aligned such organisations with some of the more extremist environmental organisations that have made headlines around the world, such as Earth First, and Greenpeace. In general, the extremist position was not one that was favoured by either UK focus group participants or those in the US. Participants in both the UK and US said there would be limits on what extent they would personally go to in support of an organisation or its cause, “...*I wouldn't chain myself to a tree to protect an owl*”.

Those participants who have been involved with local or community environmental efforts described their involvement as both personally rewarding “*it makes me feel good*”, “*I feel good about what I am going*”, and frustrating “*the apathy of people is the most frustrating part [of being involved]*”, “*there are so many people who just don't care, or think that what we are doing will matter*”. In the Urban NE (UK) focus group, one male participant described being personally involved as “*making it all feel so much more real*”.

Two roles that were universal across focus group sessions in both the UK and US were that of “education” and “keeping the government in check”. Participants generally viewed dissemination of information and educating the general public about various issues as one of the most important roles for conservation organisations. Across focus groups there was debate on the level of trust in information generated both by government and corporate bodies, whereas land trusts and other non-profit conservation groups were discussed as “*putting out impartial and informed views*”, as being “*trusted*”, and “*giving people information they need to make informed decisions*”. Though most groups always kept in mind the need to make certain these groups did not go “*to the extreme*”. Oddly enough, this is a concern voiced by many land conservation organisations themselves as will be seen in Chapter 7.

Other roles for voluntary land conservation organisations discussed by focus group participants include direct action in the way of making trails, research, interacting with schools and actual land protection (Figure 5.23). One participant in Minnesota's Urban Twin Cities focus group made connections between voluntary



conservation organisations, protecting the land and actual costs; questioning the extent that an ordinary citizen might go to, to see such things preserved:

*“I just wonder if the average person is willing to make a financial sacrifice in order to preserve the pristine landscapes or pitch in on community land affairs or by higher taxes? Because all those things come with a price. Is it one dollar, ten dollars, one-hundred dollars? If everyone pitched in like through their tax deduction or something, it would reserve a huge pot of money to make sure some of these special areas were protected.”* [male, 62, lines 3864—3876].

This again returned group members to discussions of what the government should or could be doing, including options for year end tax donations.

Figure 5.23 *On the role of non-profit land conservation organisations:*

*There's a big role for these organisations to play. Educational especially, like the Scottish Wildlife Trust is doing more in the way of education.... I can only see their role getting bigger.* [male, 41, Urban Dundee Region (UK); lines 2499—2506].

*I think there are many roles, like in helping to progress new thinking, helping to get ideas out to the public, and education.* [female, 33, Rural Edinburgh Region (UK); 728—731].

*I think that there is a role for the non-profit volunteer organisations to work more closely with educators and the students. I think that could be very beneficial.* [female, 62, Lancaster Region, Rural (PA); lines 6683—6688]

*I think that people tend to trust perhaps the non-profit organisations more than government.* [female, 56, Urban Lancaster Region (PA); lines 1029—1030].

*Research. They can get the scientists and interested people together to try to figure out solutions to the problems.* [male, 39, Urban San Jose Region (CA): 2482—2484].

### 5.6.3 Role of the Education System

Focus group participants from California (US) to Dundee (UK-Scotland) had no shortage of thoughts on the role or importance of the role of current education systems in facilitating the development of a greater appreciation of land use issues (Figure 5.24). Interestingly, nearly all focus group participants embedded discussion on the issue of education in past terms—reflecting on their own childhood

experiences. While most acknowledged that there has been substantial improvement in the area of environmental education, since their own childhood, they still saw room for improving or adding to current core curriculum.

The debate on education revolved predominantly around ‘formal’ education, and specifically in relation to that at the primary school level. In several groups, participants expressed general satisfaction with the efforts at primary school, yet disappointment with the content offered at high school or secondary school level. In the Rural Dundee and Edinburgh groups, and Urban Edinburgh group participants actually considered what forms of educational opportunities existed for adults in the way of either “adult education courses” or through organisations such as the wildlife trusts. Education was also frequently cited as one of the roles for the voluntary land conservation organisations to play in bringing about both awareness and change in the way people think about land and land use issues.

Figure 5.24 *On the role of the education system:*

*It's most effective to teach children at an early age and develop attitudes and habits of doing things and ways of thinking, particularly with fewer and fewer children growing up in a natural environment... the schools have to organise field trips and lessons, ways to try and instil a connection between the child and the natural environment, where their food comes from, the importance of trees, the importance of food and water and the fish and to themselves. And these lessons are important because they stick with them forever. [female, 56, Urban Lancaster Region (PA); lines 1066—1083].*

*Going back to my generation, I don't think that anything was ever discussed about the environment. We just did dumb things like draining your automobile oil on the ground, we didn't think about it getting into the water - you weren't educated, were not taught about the environment in school - you just went ahead and did whatever and you didn't realise what affect on the environment it could have. It is important to be aware so we don't continue in our past ignorant ways. [male, 58, Urban Twin Cities Region (MN); lines 4110—4120].*

*I know a lot of the primary schools are trying to build awareness within the school grounds and are doing things like planting trees breaking up the big tarmac playgrounds and making outdoor classrooms and getting the children involved at a very early age. Like our nursery school, where they have planted potatoes and vegetables and I think it has got to start right then, because I think our generation, is the last generation that actually seen our parents planting seeds which we were then going to eat. [female, 49, Urban Edinburgh Region (UK); lines 1479—1492]*

*People tend to focus on formal education in schools but there is a lot to be done in adult education as well. [female, 37, Urban Dundee Region (UK); lines 2676—2679].*

*I think education is invaluable. We really need to focus on getting the information out to those in society who can make a difference and to make and impact on decision-makers. I try to do my bit but I am not sure if that's enough and everybody has got to do their bit as well. [female, 34, Urban NE Region (UK); lines 3038—3045].*

*I think with education there is a massive opportunity there [in the education system], as children are so receptive to so many of your opinions and ideas. [female, 34, Rural Edinburgh Region (UK); lines 864—867].*

*I think that there should be a environmental issues component to the curriculum and that land use issues should be are really the central focus of this problem that's where education I feel fall short. [male, 22, Rural NE (UK); lines 3949—3952].*

*I wonder if environmental education needs to be less taught as a kind of science and more taught as part of something like philosophy and religion and a lot of other things that cut to the core of the aesthetic importance of saving land. I think sometimes it gets pushed into the science area where a lot of people link it with other aspects of science that they may or may not like and I think it's a much more broad than just science it needs to be part of a philosophy. [female, 62, Lancaster Region, Rural (PA); lines 6700—6713].*

## 5.7 Conclusions

In the foregoing discussion based on focus group analyses, the surface of the alternative ethics-economics-policy paradigm has been scratched. Results of Phase I focus groups analysis suggests that while there are some defined differences in views and attitudes expressed between focus group participants in the UK and those in the US, there are underlying similarities in the values in which such views and attitudes are cast. The information derived from the preceding evaluation represents the heretofore-undocumented “big picture” as to the beliefs, attitudes and values embedded in mainstream American and British thinking on issues of land conservation.

The focus group analysis presents, both the researcher and those involved in the protection of land resources with both challenges and direction. Increasingly, the challenges are being faced by communities in both the US and Britain. First, how do we define ‘unplanned’ or misdirected growth? Secondly, how do we identify and deal with destructive land use patterns and the threats they present to the quality of life in our communities? Both are queries of intrigue and were resoundingly poignant across focus group discussions. While in themselves they raise questions as to how communities can and should plan for present and future land use, they also verge on pointing us in the right direction. The underlying directives stemming from the twelve focus group sessions can be summed up by four underlying principles; 1) start with local values and frame issues in a relevant geographical context; 2) protect open spaces for community recreation and environmental health; 3) future generations - consider impacts of current decisions on future generations; and, 4) education.

Generalised in this way, the lessons taken from the Phase I focus groups provides assistance to both the researcher in developing the ethics-economics-policy paradigm as well as assisting land trusts in building local and regional based conservation efforts that take into account the concerns, values, attitudes and knowledge of the broader community.

Chapter 6 will both examine the results from the Phase II mail survey ‘Public Attitudes Towards Land Use and Conservation’ constructed using information

derived from the responses provided by Phase I focus group participants, and test the findings across a larger cross-section of the US and UK population.

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**CHAPTER 6**

**PHASE II SURVEY:  
Public Attitudes Towards Land & Conservation  
Analysis & Results**

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## CHAPTER 6

### Phase II Survey: Public Attitudes Towards Land & Conservation Analysis & Results

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#### 6.1 Prologue

As reflected by the Phase I focus groups, in Chapter 5 and throughout the applicable literature, Americans and British alike have become increasingly concerned with land use and conservation issues (Thorpe, et al.,1996; County Commissioners Association of Pennsylvania, 1998; Chester County Planning Commission (1998). The focus groups presented some important concepts and concerns on the use and conservation of land within the general populace of the UK and US. Increased ‘concern’ over what is often described as an “uncontrolled” or “sprawling” pattern of development has been the focus of much debate, an increasing amount of research and the nexus in the expansion of organisations established to “guide growth”, “preserve agricultural and natural heritage” and “ensure a more sustainable future”—land trusts (Land Trust Alliance, 1995). But to what extent do the issues and concerns raised, and positions taken by the focus group participants actually reflect a broader consensus?

The purpose of Chapter 6 is to review key results from the Phase II mail survey results, examine the relationship between focus group findings and reveal direction for the Phase III expert interviews. The survey was divided into three main parts (Appendix 4-1). The first tends to key issues raised in focus group discussions and collective policy divisions. Questions in this section addressed the following: a) level of knowledge about issues, b) issues most affected by personally, or most serious for society, c) issues of greatest concern, and d) issues respondent would like most to see changed. In progressing logically, the second section of the survey focused on issues of greatest collective concern relating to land use and issues of conservation as perceived by those who participated in the Phase I focus group sessions. Here the objective was to obtain an accurate representation of opinions on a focused range of topics relative to land use and conservation. Two principal mechanisms were used. One being direct closed-ended questions employing simple Yes-No, multiple choice,

ranking and checklists (Robson, 1993; Fink and Kosekoff, 1998). The second mechanism used is short specific answer type open-ended questions, to reduce problems that may arise with a narrative type open questions, while allowing the participant the opportunity to expand on the answers provided in previous sections of particular questions (Mitchell and Carson, 1989; Robson, 1993; Fink and Kosekoff, 1998). The third section of the survey collected typical participant socio-economic information for use in analyses (Creswell, 1994; Cohen and Manion, 1994).

As discussed in Chapter 4, Methodology, the survey was sent to a simple stratified random sampling of people aged 18 or over, with an equal distribution by gender, geographical location and socio-economic profiles in each country (Mitchell and Carson, 1989; Denzin and Lincoln, 1998). This Chapter will draw on survey results to quantitatively describe, using both univariate and multivariate analysis techniques, respondent characteristics, respondents' attitudes towards and preferences for land protection, perceptions of land and open space protection priorities and reaction to public and non-profit sector land conservation measures. The last section of the chapter provides a brief exploration on estimates of average willingness to support land conservation efforts in the respondents respective communities, based on respondents' stated willingness to tax increases and contributions to non-profit land conservation organisations.

## **6.2 Introduction: Sample Characteristics**

Of the total 3,000 questionnaires sent to prospective respondents, 176 were returned due to invalid addresses or deceased addressees.<sup>1</sup> In total for the UK, 251 questionnaires were returned, of which 232 were complete. Thus, a response rate of 25.21% is calculated for the accessible sample. By comparison, a total of 458 questionnaires were returned for the US, of which 427 were complete and used for this analysis, a response rate of 22.46% of the accessible sample. As explained in Chapter 4 Methodology, due to the associated expenses and enormity of this single person research effort, it was decided that a one time mail shot to a relatively large stratified

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<sup>1</sup> Questionnaires returned for the US 96; UK 80.

distribution of the larger population would achieve sufficient results from which to draw representative conclusions. The representativeness of responses was assessed in two ways. First, socio-economic characteristics of respondents were compared against that of the focus group respondents as well as those of the population from which they were drawn (U.S. Census Bureau, 1990 and 1996; Office for National Statistics, 1996; Scottish Office, 1996 and 1998; Welsh Office, 1996).

Table 6.1 summarises selected characteristics of respondents. Respondent characteristics are compared to characteristics of focus group participants and against those of the respective UK and US populations. Due to various factors, predominantly centred on issues of sensitivity and increasing the likelihood of completed questionnaires; respondents were not asked to reveal details of income. Rather respondents were asked information pertaining to level of education, employment status, and type of work or nature of profession in order to achieve an understanding of characteristic socio-economic trends. For both the US and UK samples, respondents seemed to have more years of education than the general population. Those with less than a secondary/high school education appeared to be under-represented among respondents and those with graduate degrees for the US survey population over-represented. See Table 6.1 and Figure 6.3.<sup>2</sup> The Phase II survey findings indicate that residents of the UK, on average, had lived in their respective locations for 21.17 years, while their US counterparts an average of 24.04 years.

The sample strata effectively identified urban—suburban and rural populations for both the UK and the US. In the UK 78.4% of respondents reported living in the urban stratum compared to 85.4% of US respondents.<sup>3</sup> Similarly, for the UK 21.6% of respondents reported living in the rural stratum, compared to 14.5% of US respondents.

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<sup>2</sup> The terminological and system disparities between the US and UK for the education sector made absolute direct comparison difficult, as necessary potential resulting discrepancies are noted.

<sup>3</sup> For ease of comparison, variables from the survey were collapsed into two main classifications, urban—suburban and rural. The urban—suburban stratum includes those respondents who identified themselves as living in a city, suburb or large town. The rural stratum includes those respondents who identified themselves as living in the country – on farm, in the country – not on farm, in village or borough, or in small town.

Table 6.1. Selected Characteristics of Survey Respondents

Characteristics	Survey		Focus Groups		Census		
	UK	US	UK	US	UK <sup>4</sup>	US <sup>5</sup>	
<b>Sex (%)</b>							
Male	58.6%	57.8%	46.7%	58.1%	49.0%	48.8%	
Female	41.4%	42.2%	52.3%	41.9%	51.0%	51.2%	
<b>Age Distribution (by % of applicable population)</b>							
18 – 24	6.9%	3.0%	10.3%	0.0%	10.9%	16.8%	
25 – 34	15.1%	13.6%	30.8%	22.6%	20.2%	18.7%	
35 – 44	21.1%	23.9%	33.3%	38.7%	18.6%	20.9%	
45 – 64	29.3%	38.4%	17.9%	29.0%	29.9%	25.9%	
65+	27.6%	21.1%	7.7%	9.7%	20.4%	17.6%	
<b>Mean Age</b>						36.4 yrs	
<b>Education<sup>6</sup> (%)</b>							
No Formal	0.0%	0.4%	0.0%	0.0%	1.6%	0.6%	
Primary	3.4%	1.6%	10.3%	6.5%	12.3%	7.4%	
Secondary	29.3%	19.9%	33.3%	19.4%	34.1%	33.8%	
Trade/Vocational/Other Non-degree Qualification	21.6%	18.5%	23.0%	25.6%	18.6%	17.3%	
University/College	38.4%	35.8%	20.5%	29.0%	25.9%	33.1%	
Postgraduate/Professional	7.3%	23.7%	12.8%	19.4%	7.5%	7.8%	
<b>Reside in:</b>							
<b>Rural</b>	Country – farm	1.3%	2.3%	2.5%	3.2%	11.1%	24.8%
	Country – not farm	2.6%		5.1%	9.7%		
	Village / Borough	17.7%	3.3%	17.9%	12.9%		
		<b>21.6%</b>	<b>14.5%</b>	<b>25.5%</b>	<b>25.8%</b>		
<b>Urban - Suburban</b>	Small Town	30.6%	20.1%	23.1%	16.1%	89.9%	75.2%
	Large Town	14.2%		15.4%	6.5%		
	Suburb	n/a	20.4%	35.9%	22.6%		
	City	33.6%	32.8%		29.0%		
	Other	0.0%	0.2%		0.0%		
		<b>78.4%</b>	<b>85.4%</b>	<b>74.4%</b>	<b>74.2%</b>		
<b>Time in area (mean)</b>	21.17 years	24.04 years					

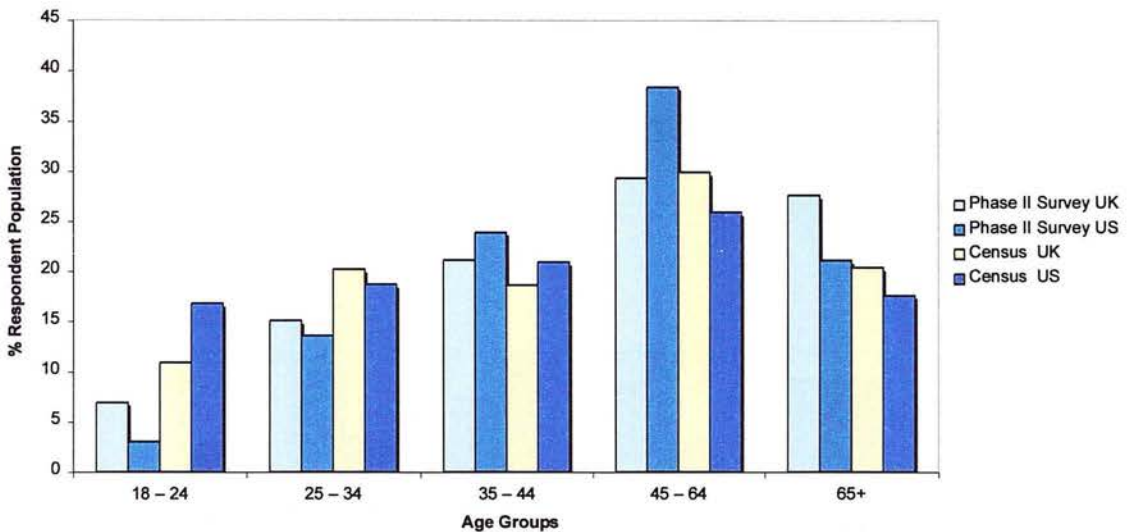
<sup>4</sup> Primary sources for data used to compile this table include Office for National Statistics, Cross-sectional Population Statistics for 1996, ONS Crown Copyright, 1996; Population and Vital Statistics for the UK, Government Statistical Service, 1996; US Population Census, 1990; US Bureau of the Census, Middle Series Projections for 1996-2000 by age and sex; Current Population survey, March 1996, US Census Bureau, 1996

<sup>5</sup> Day and Curry, March 1996 Current Population Survey; Note: US Census estimates are calculated and rounded figures and therefore totals may not add precisely to population counts. For more details about this table, see "Sources and Methods" produced by the US Bureau of the Census; Resident Population Estimates of the United States by Age and Sex: April 1, 1990 to July 1, 1999, estimates updates monthly, United States Census Bureau.

<sup>6</sup> Sources of education statistics for the UK include: Government Statistics Office; US sources include: United States Census Bureau, March 1996 Current Population Survey (with adjustments for representative age groups).

Figure 6.1 compares the age distribution of both UK and US survey respondents to that of the census statistics for respective nations by percent of population. As can be seen, the survey reflects a significantly higher proportion of persons in the age group 45-64 than does the adjusted national figures for representative populations.<sup>7</sup> Although the age group 65+ appears under represented by the focus group sample, over representation in the survey population may compensate for any misrepresentation found within the focus group population, with the percentage of survey respondents for both the UK and US slightly higher than adjusted population for this group. Underrepresented in the survey sample are those in the age group 18-24 for both the UK and the US.

Figure 6.1 Comparison of age distribution for UK and US Phase II survey respondents.



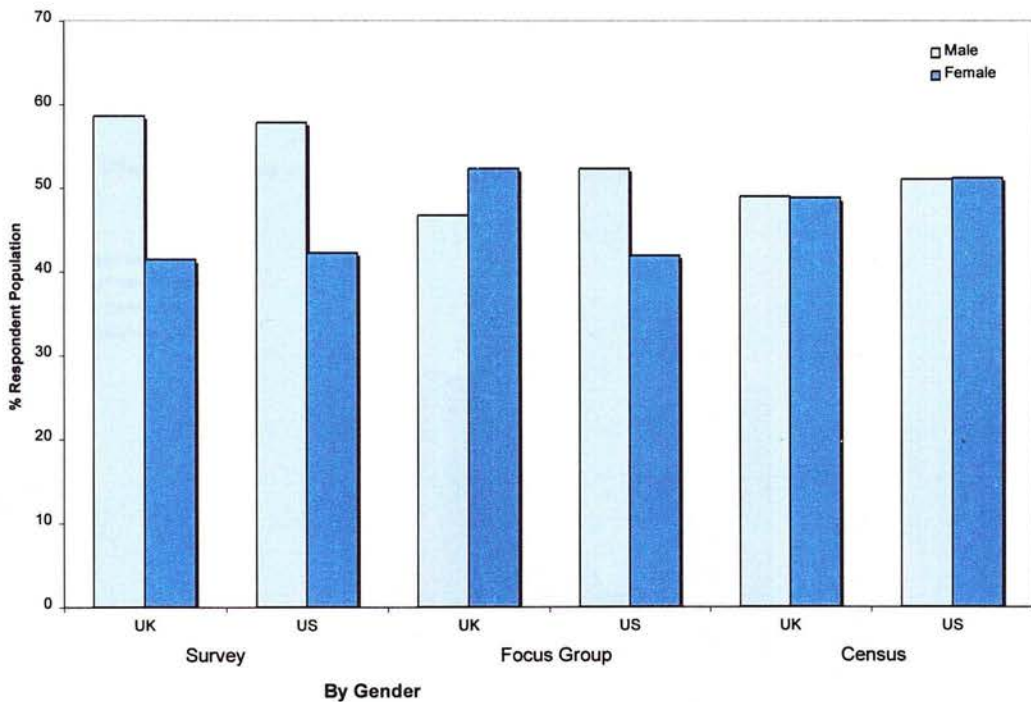
As Figure 6.2 indicates, a similar response pattern occurs for both UK and US respondents, when sex of respondents is compared to national figures for respective countries. While the survey was distributed in the UK and US to an equal number of males and females, the accessible sample for both countries contains a disproportionate number of males relative to females based on respective census counts (U.S. Census Bureau, 1990, 1996; Office for National Statistics, 1996). This

<sup>7</sup> In order to standardise statistics, population percentages represented for the US and UK were adjusted to include only persons aged 18 years or over.



disparity between the accessible sample and population presents a problem only if males and females responded differently to the survey. An assessment of response patterns compared selected characteristics of respondents across each country against those of the full sample. Response rates across the UK and US were not significantly different at a level of significance of  $\alpha=0.01$ . However, response rates across urban-suburban and rural strata, and gender, varied with response rates significant at a level of  $\alpha=0.05$  for the UK and a rate of  $\alpha=0.01$  for the US. In both the UK and US, males were significantly more likely than females to respond—the response rate among males in the UK and US was 58.6% and 57.8 % respectively, compared to 41.4% for UK females and 42.2% for US females. Respondents in the rural stratum for the UK were more likely to return the questionnaire than their urban counterparts at 52.2% versus a return rate of 47.8% percent for the urban stratum.<sup>8</sup> However, the scenario is reversed for the US, with the urban stratum response rate of 65.1% versus 34.6% for the rural stratum.

Figure 6.2 Comparison of Survey Response Rate by Gender to Census and Focus Groups

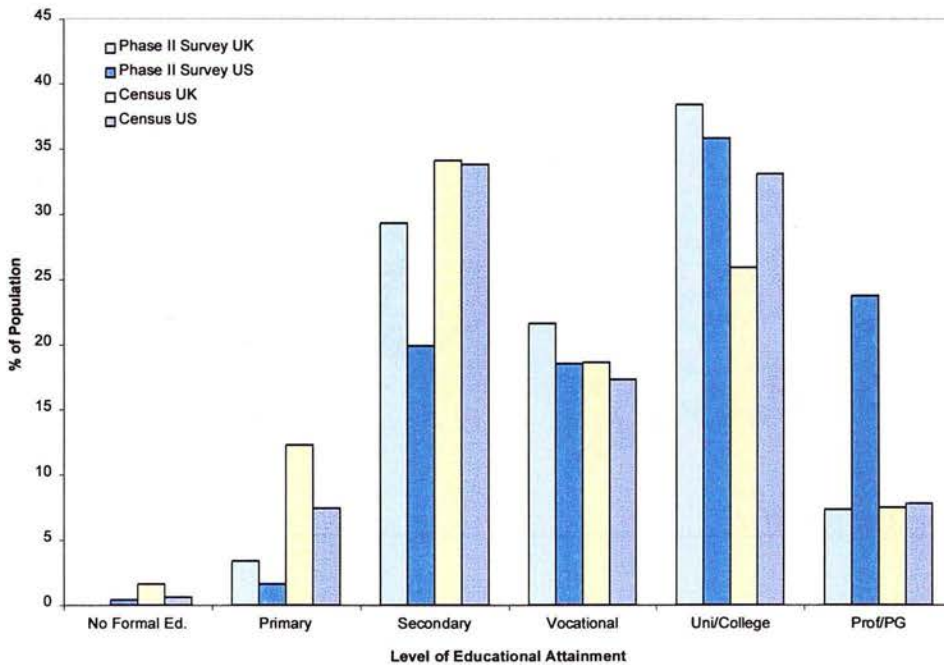


<sup>8</sup> The three tests were based on a  $\chi^2$  test of the difference between proportions (Freund, 1962, pp. 330).



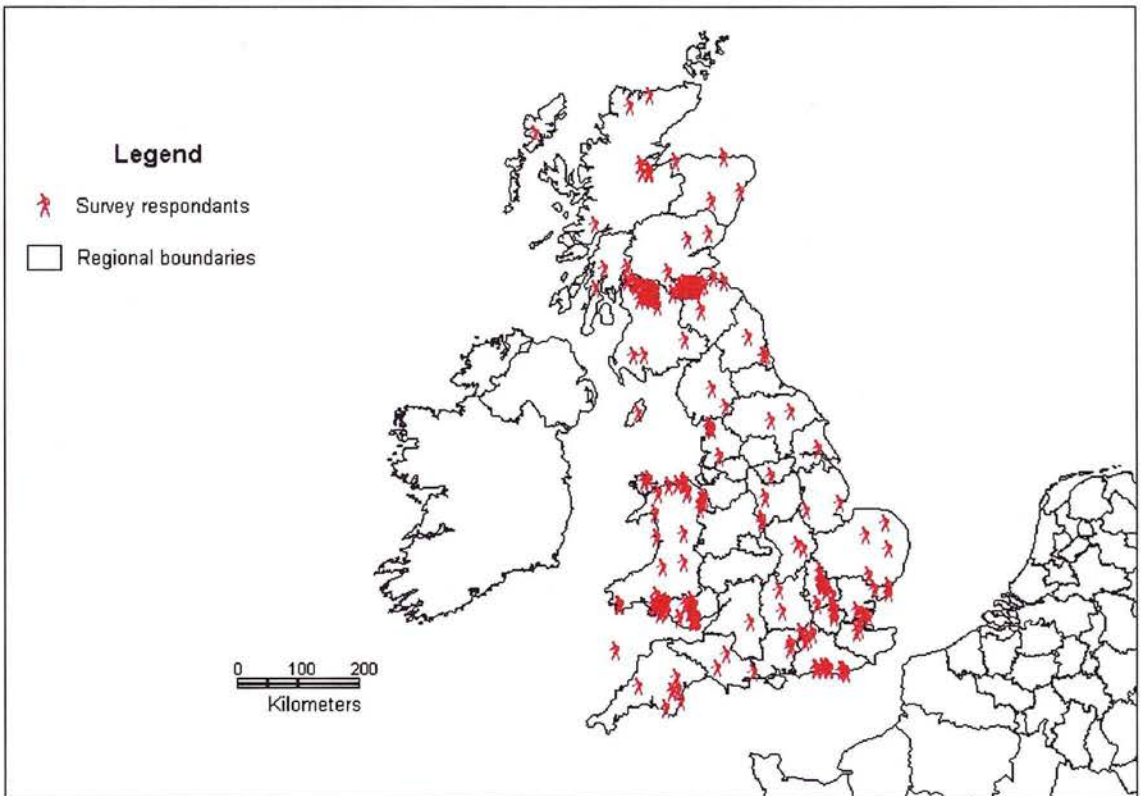
While survey respondents tend to represent a good spread across the educational attainment spectrum, the respondent population for both the UK and the US appear to have more years of education than is reflected by respective national populations (US Census Bureau, 1990 and 1996; Office for National Statistics, 1996). Slightly under represented in the survey population are those with no formal education, particularly for the UK with zero respondents in this category. Those attaining a maximum of either a primary level or secondary level education are also under represented by the survey population with an UK response rate of 3.4% for primary level and 29.3% for secondary level attainment versus national attainment of 12.3% and 34.1% respectively. For the US the respondent population reflects a primary level attainment of 1.6% compared to 7.4% nationally, and a 19.9% secondary level attainment compared to the national rate of 33.8%. The area most over represented by the respondent population is that of US survey respondents with graduate level or professional degrees (i.e. law, medical, dentistry, business, etc), with a response rate of 23.7% compared to the national rate of 7.8%. The UK sample population, however, tends to reflect a more representative distribution for those attaining professional or graduate level degrees with 7.3% of the survey population in this classification compared to 7.5% nationally.

Figure 6.3 Phase II Survey respondents' level of education to national.



Figures 6.4 and 6.5 reflect the geographic distribution of survey respondents for the UK and the US respectively. A visual analysis reflects some observable regional patterns for survey respondents. For example, in the UK, four principal regional clusters of survey respondents can be observed. Perhaps not surprisingly, the largest respondent cluster is found in Scotland in a band that extends from Glasgow in the west to Edinburgh in the East. In Wales, there are two predominant clusters, one to the south grouped between the regions that include Swansea and Cardiff, and across the northern border. In England the greatest concentration of respondents are in a clustered range from the coastal region near Brighton, to the northernmost area of Bedfordshire, and east to Essex and Kent. The most predominant similarity between each of these areas is that they can all be characterised as having generally high population concentrations, and as having experienced urban and suburban expansion in recent decades.

Figure 6.4 Response Distribution for UK Phase III: 'Public Attitude Towards Land & Conservation Survey'



In the US three predominant concentrations of survey respondents can be found. The largest cluster of respondents come from along the mid-Atlantic coast from about Pennsylvania across New Jersey, and north toward New York, Connecticut and Rhode Island. The second largest group of respondents, by geographic location, is from the state of California and are principally grouped around the metropolitan regions that include San Francisco and Los Angeles. The third largest respondent population comes from the Great Lakes region, as can be seen in Figure 6.5, concentrations are most dense in metropolitan areas that border Lake Michigan and Lake Erie. Other significant respondent groups can be found in the states of Colorado, Florida, Minnesota, North Carolina, Oregon, South Carolina, Washington and Wisconsin. Similar to the UK regions with higher comparative concentrations of respondents, these areas can be generally characterised as areas that have undergone both rapid urbanisation and suburbanization. In the US, since the 1960's areas such as the Baltimore-Washington corridor along the eastern shore have grown farther and faster than roads, sewers and other infrastructure to accommodate it could be built (Katz, 1998). In 1998 the Sierra Club issued a special report ranking thirty US metropolitan regions considered to be most threatened by "sprawl". The report identified a number of areas across the US closely aligned with those regions having higher respondent concentrations for the Phase II survey. For example, the "Granddaddy of Sprawl," Los Angeles came in at the top of the list with San Diego in second, and Washington, D.C. in third place. The Twin Cities of Minneapolis—St. Paul, ranked eighth, and Chicago ranked tenth among metropolitan areas with populations exceeding 1 million. For cities classified as medium by the report (populations between 500,000 and 1 million) in top ranks were Orlando, FL and Austin, TX. Mc Allen, TX, Raleigh, NC and Pensacola, FL came in the first three slots for urban areas with populations between 200,000 and 500,000 (Sierra Club, 1998).



Figure 6.5 Response Distribution for US Phase III: 'Public Attitudes Towards Land & Conservation Survey'

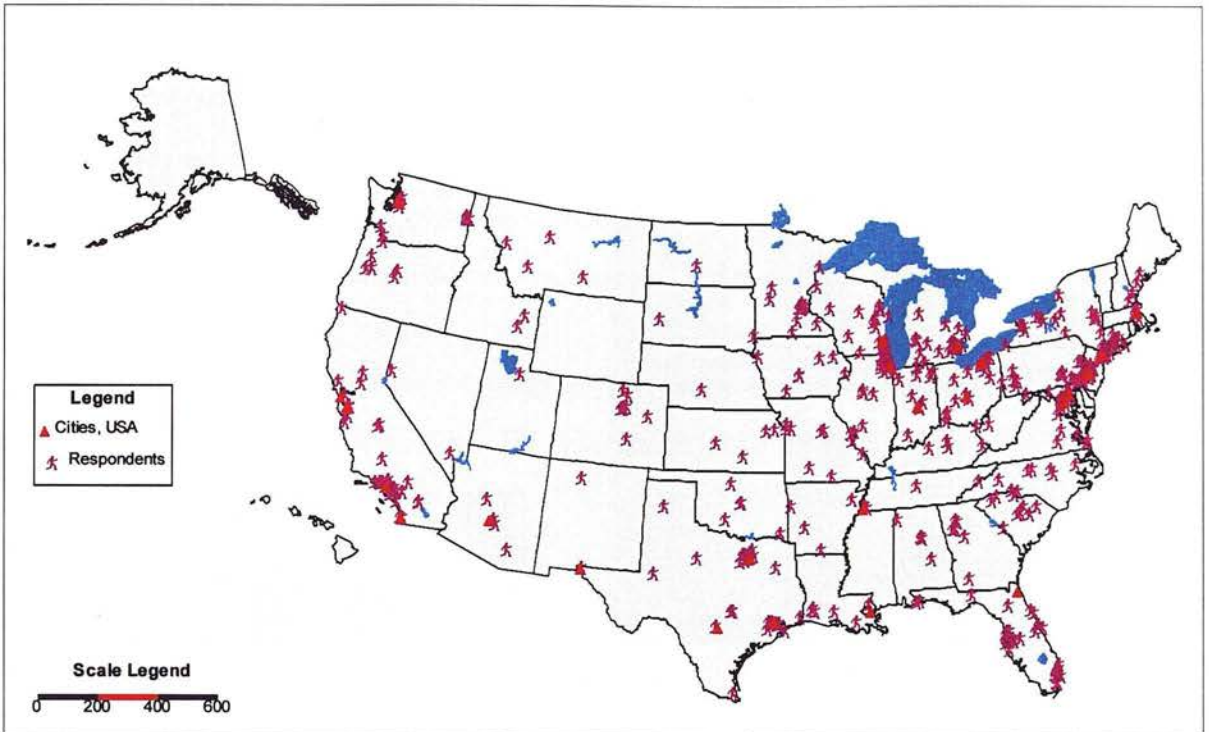
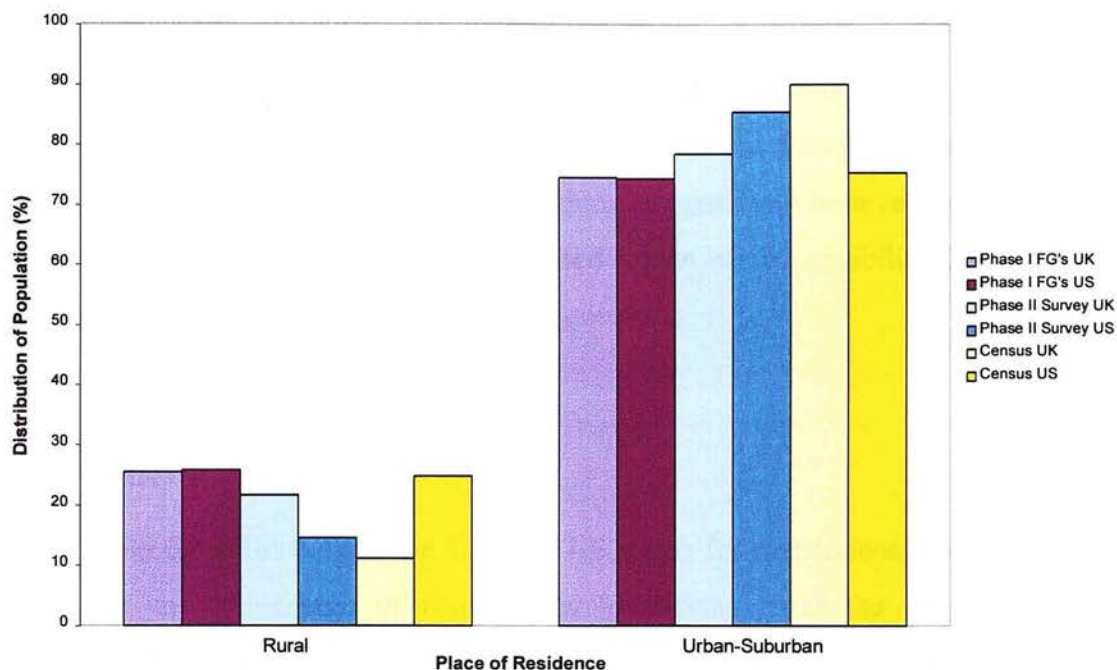


Figure 6.6 reflects variables (city, suburban, large town, small town, village/borough, country-not farm and country on farm) collapsed into two principal classifications, urban-suburban and rural, to facilitate comparison. In the UK 78.4% of respondents described living in the urban-suburban stratum compared to 89.9% nationally. For the US, 85.4% of respondents reported living in the urban-suburban stratum versus census figures of 75.2%. Also shown for comparison are Phase I focus group participant characteristics which reflect an urban-suburban / rural population split of 74.4% and 25.5% for the UK and 74.2% and 25.8% for the US.

Figure 6.6 Respondent distribution by area of residence urban-suburban / rural Population Comparison



### 6.3 Land and Conservation Issues: attitudes and concerns

The first section of the questionnaire addressed respondents' knowledge, perceptions, and concerns held with regard to sixteen land use and conservation issues identified as a result of Phase I focus groups and presented in an 'issues set' which accompanied the Phase II mail survey (Appendix 4-1).

Table 6.2 identifies the issues most frequently mentioned across Phase I focus groups and used as an 'Issue Set' in the first section of the Phase II survey.

Table 6.2 Phase II mail survey Issue Set

1. Traffic / transportation	2. Urban sprawl/development in open space & rural areas
3. Farming methods & sustainability	4. Hazardous waste disposal/landfills
5. Land conservation	6. Destruction of wildlife habitat
7. Nuclear energy	8. Exploitation of natural resources
9. Forests & deforestation	10. Mismanagement of land resources/poor land use planning
11. Preservation of historic sites / areas	12. Pollution (air, land, water)
13. Wetlands	14. Water Quality
15. Recycling	16. Population

Questioning initially addressed respondents knowledge on the sixteen issues presented, moving logically to questions that addressed respondents opinions on the impact of these issues on them personally and society as a whole. The sequence of questions moved then to an exploration of the level of concern respondents personally felt in relation to the issues presented. This section of the survey concluded with an investigation into reactions on what, if anything, respondents believed could be done in relation to issues presented, and addressed issues of responsibility in relation to actions on issues identified by individual respondents.

### **6.3.1 Society level concerns**

Table 6.3 reflects both the UK and US mean for respondents on the level of seriousness and percentage of respondents identifying particular issues as “very serious” or “quite serious”. The question asked “Which of these issues, do you think are most serious for society as a whole?” The mean is based on a 4 point preference scale, where 1 = “very serious”, 2 = “quite serious”, 3 = “not very serious”, and 4 = “not at all serious”. The average rating for level of seriousness across issues for the UK is 1.631 and 1.671 for the US, with a total average for both countries of 1.651. The differences between UK and US estimates on the level of seriousness for Issues 3, 4, 6, 9 14 and 15 were not large enough to be statistically different at a level of significance of  $\alpha=0.05$ . “Seriousness” for issues 2, 7, 8, and 16 were statistically equal, but significantly less than ratings arrived at for the above mentioned issues.



Table 6.3 Respondent rankings of issues and level of “seriousness” for society.

Issue No. & Description	UK			US		
	Mean	(%)	Rank	Mean	(%)	Rank
1) Traffic / transportation	1.40	97.8	2	1.64	87.1	6
2) Urban sprawl / development in open space & rural areas	1.71	85.4	11	1.77	78.0	13
3) Farming methods & sustainability	1.79	79.7	14	1.75	76.1	14
4) Hazardous waste disposal/landfills	1.37	94.4	4	1.40	93.0	3
5) Land conservation	1.75	88.2	6	1.67	87.3	5
6) Destruction of wildlife habitat	1.72	86.2	9	1.75	84.1	9
7) Nuclear energy	1.51	88.8	5	1.66	84.3	8
8) Exploitation of natural resources	1.50	84.9	12	1.65	83.8	11
9) Forests & deforestation	1.67	86.3	8	1.62	87.6	4
10) Mismanagement of land resources poor land use planning	1.59	81.9	13	1.66	83.8	10
11) Preservation of historic sites/areas	2.25	56.4	15	2.34	54.3	16
12) Pollution (air, land, water)	1.18	98.7	1	1.28	96.7	1
13) Wetlands	2.09	55.6	16	1.96	70.8	15
14) Water Quality	1.32	94.8	3	1.29	96.5	2
15) Recycling	1.70	85.4	10	1.66	86.0	7
16) Population	1.56	87.1	7	1.65	81.5	12

Interestingly, for both the UK and the US, the issue most frequently identified by respondents concerning land and conservation was Issue (12) pollution (air, land, and water). Nearly 99% of UK respondents and 97% of US respondents reported pollution as either “serious” or “very serious” relative to other issues. Respondents diverge at this point and constituent ranks on the 16 issues do not again merge until the ninth position where 86.2% of UK and 84.1% of US respondents reported destruction of wildlife habitat – Issue (6) as either “very serious” or “serious” for society. Respective means are also very similar at 1.71 for the UK and 1.75 for the US, reflecting a strong relationship between UK and US respondents in attitudes towards the destruction of wildlife habitat. Again, parallel ranks are found in the fourteenth position where 79.7% of respondents from the UK reported Issue (3) farming methods and sustainability as either “very serious” or “serious” compared to 76.1% of US respondents, reflecting respective means of 1.79 and 1.75.

With regard to differences between respondent samples, UK respondents tend to identify Issues (1) traffic/transportation, (2) urban sprawl, (7) nuclear energy and (16) population, as more serious for society than did their US counterparts. On the reverse, US respondents tend towards giving greater weight to Issues (4) hazardous waste disposals/landfills, (5) land conservation and (8) exploitation of natural resources. As to Issues (9) forests and deforestation, (13) wetlands, (10) mismanagement of land resources, (14) water quality and (15) recycling, while by rank it might appear that US respondents placed greater weight on the level of “seriousness” on these issues, when examined by mean response, however, the actual differences are negligible.

### **6.3.2 Personal Views on Concern**

In reflecting on personal levels of concern, respondents again used the issue set to identify their personal level of concern for each of the 16 issues. As shown in Table 6.4, some interesting similarities are noted for the UK and US respondent populations. In particular, a general level of consistency across the respondent samples can be seen when compared to findings shown in Table 6.4. Most notable is that rank positions for the top three issues are identical to that placed by respondent rankings for level of seriousness discussed in the previous section. Similarly, the bottom three issue ranks are identified in almost the precise order for sample populations. For the ten issues to the centre of the distribution, a similar degree of consistency is represented with the exception of a few noteworthy shifts. In particular, attention is drawn first to the UK where shifts in overall rank positions are upward, reflecting a general increase in the level of respondent concern on a personal level. An upward rank shift occurs for Issues (6) habitat destruction and (9) forests and deforestation, when compared to respondent rankings for ‘society as a whole’. Yet, on average means actually increased across all but one issue for the US [Issue (6) destruction of wildlife habitat] and the UK [Issue (12) pollution]]. Thus, while it may appear that respondents’ give greater importance to Issues (6) and (9) when considering them on a personal versus society level, most issues are in fact given slightly less weight when considered from a personal view—possibly indicating that respondents do not view their own situations

or experiences as grave as that of the larger populace. Differences between stated level of concern on issues (2) and (5) were not large enough to be statistically different at a level of  $\alpha=0.05$  significance.

Table 6.4 Phase II survey level of personal concern

Issue No. & Description	UK			US		
	Mean	(%)	Rank	Mean	(%)	Rank
1) Traffic / transportation	1.599	90.9	2	1.923	7.14	9
2) Urban sprawl / development in open space & rural areas	1.845	75.4	12	1.899	65.8	13
3) Farming methods & sustainability	2.159	58.2	14	2.461	53.4	15
4) Hazardous waste disposal/landfills	1.547	88.7	4	1.418	85.7	3
5) Land conservation	1.983	79.3	10	2.169	78.5	5
6) Destruction of wildlife habitat	1.750	80.6	5	1.422	78.9	4
7) Nuclear energy	1.737	79.7	9	1.859	67.2	12
8) Exploitation of natural resources	1.655	77.6	11	1.970	72.6	8
9) Forests & deforestation	1.750	80.6	6	1.979	78.3	6
10) Mismanagement of land resources poor land use planning	1.802	72.0	13	2.194	70.2	10
11) Preservation of historic sites / areas	2.233	57.4	15	1.644	46.6	16
12) Pollution (air, land, water)	1.310	95.7	1	1.869	93.9	1
13) Wetlands	2.233	48.7	16	1.843	59.2	14
14) Water Quality	1.418	89.2	3	1.974	92.0	2
15) Recycling	1.879	80.6	7	1.890	77.5	7
16) Population	1.780	79.8	8	1.836	69.0	11

Dropping within the ranks for the UK are Issues (2) urban sprawl, (5) land conservation and (7) nuclear energy. From the perspective of US respondents a similar pattern is seen to emerge, with increased means and downward rank shifts for Issues (1) traffic/transportation, (3) farming methods and sustainability, (7) nuclear energy, (9) forests and deforestation, and (10) mismanagement of land resources. Again, as with UK respondents, it appears that while US respondents still tend to report a high personal level of concern, it is slightly less overall when compared to that for society as a whole. This can be seen through a simple comparison of averaged means for all issues at a society versus personal level. For the UK, the ratio is 1.63:1.792 and in the US, a ratio of 1.671:1.896 is found, with an average ratio across the whole of the sample population of 1.65: 1.844. A more in-depth analysis from a

larger sample may reveal particular characteristics between individual (personal) versus collective (society) level concerns, this finding however, does establish an important link to the ethics portion of the ethics-economics-policy paradigm.

Finally, it is important to note that there are particular issues which experience a rise within the ranks for US respondents when personal concern is viewed against that for society. These Issues include the (6) destruction of wildlife habitat, (8) exploitation of natural resources, (13) wetlands, and (16) population. However, these rank shifts are marginalized by the overall increase in means, except for the cases previously mentioned for the UK (Issue 12) and for the US (Issue 6).

Given the chance to improve any one Issue respondents in both the UK and US overwhelmingly selected Issue (12) pollution with 27.2% of UK and 24.4% of US respondents identifying this as the issue they would elect to improve—consistent with both personal and society level perceptions. Other issues within the top five identified for the UK are urban sprawl (18.1%), hazardous waste disposal/landfills (9.1%); destruction of wildlife habitat (8.2%) and population (7.8%). Similarly for the US are population (14.5%); urban sprawl (8.0%); hazardous waste disposal/landfills (6.8%); and, farming methods and sustainability (6.6%).

#### **6.4 Evaluating land use, conservation, options and players**

In the second part of the survey, questions nine through sixteen, the objective was to assess a more focused range of topics pertaining to land use and conservation, and to evaluate the accuracy of information obtained through the Phase I focus groups. As noted earlier, two principal mechanisms were used, direct close-ended questions and short specific answer type open-ended questions. Much of this part of the survey used actual statements taken from the Phase I focus group sessions, where survey respondents were asked to indicate their level of agreement using a preference scale to indicate the extent to which they agreed or disagreed with a particular statement. In doing so, quantitative support is provided to facilitate the evaluation of earlier Phase I focus group findings, enable and enrich comparisons across the two countries and assess a level of willingness to support various land conservation measures.

### 6.4.1 Changes to land use

The section of the survey asked respondents whether they thought land uses in their respective areas had changed much in recent years, providing as examples, the number of people living there, number of houses, economy of the area, decrease in open space or farms, etc. Following on this line of questioning, for those respondents that indicated at least some change, respondents were then asked to provide their opinions as to whether this change has been a good thing for the area. Again, respondents used a scale in which to rank both the level of change, and whether this change had been a “good thing” or a “bad thing” for the area. Table 6.5 reflects respondent views on the level of “change” and extent to which respondents feel land use changes have been good or bad for their respective areas.

Table 6.5 Opinions on land use changes

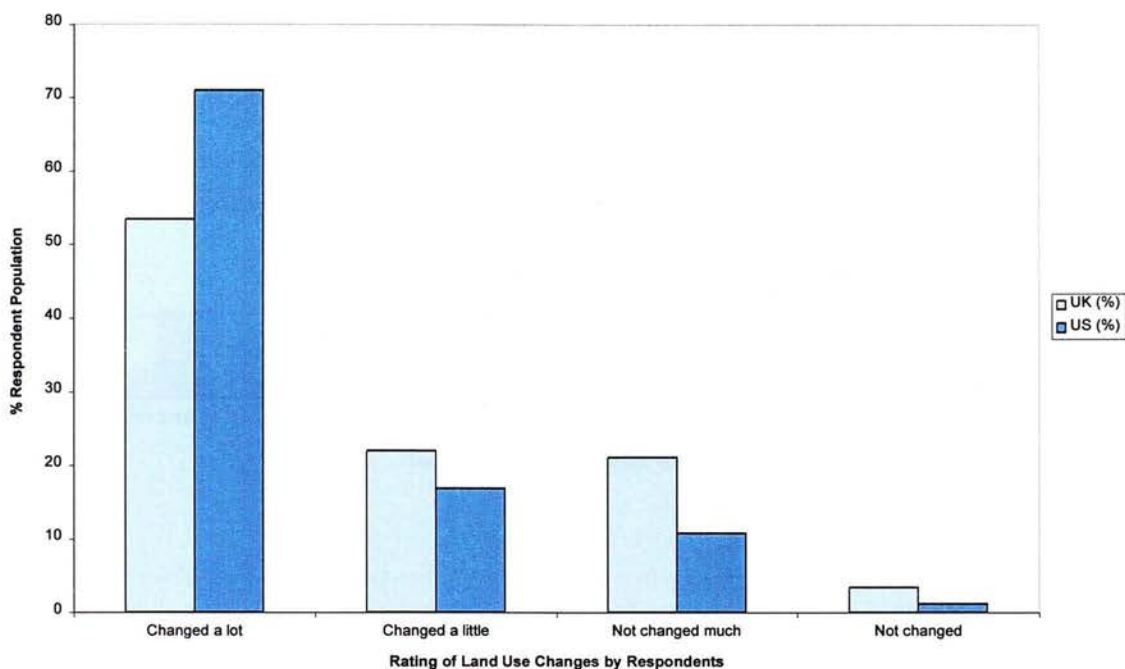
Value Label	UK		US	
	Frequency	(%)	Frequency	(%)
Land use Change for area:				
Changed a lot	124	53.4	303	71.0
Changed a little	51	22.0	72	16.9
Not changed much	49	21.1	46	10.8
Not changed	8	3.4	5	1.2
Effect of land use changes on area:				
Very good	4	1.7	22	5.2
Fairly good	27	11.6	74	17.3
Neither good nor bad	58	25.0	109	25.5
Fairly bad	61	26.3	131	30.7
Very bad	34	14.7	50	11.7
No answer as directed in question	48	20.7	41	9.6

Notes to table: a) The level of change scale is the average of a four point scale where 1 = "changed a lot," 2 = "changed a little," 3 = "not changed much," and, 4 = "not changed." The mean rating for level of change in the UK was 1.74, and 1.417 for the US; b) The level of good/bad for the area was determined using a five point preference scale where 1 = "very good," 2 = "fairly good," 3 = "neither good nor bad," 4 = "fairly bad," and 5 = "very bad." The mean rating for the UK is 2.784 and for the US, 2.977.

Both UK and US respondents overwhelmingly acknowledge changes to land use in their respective areas, with over 75% of UK respondents reporting the area had either “changed a lot” or “changed a little” compared to nearly 88% of US respondents. Among those changes most frequently cited were home building,

shopping centre construction and road building, with a strong association to decreases in farmland. Figure 6.7 reflects respondent sample views on the extent of changes to land use in their area for UK and US.

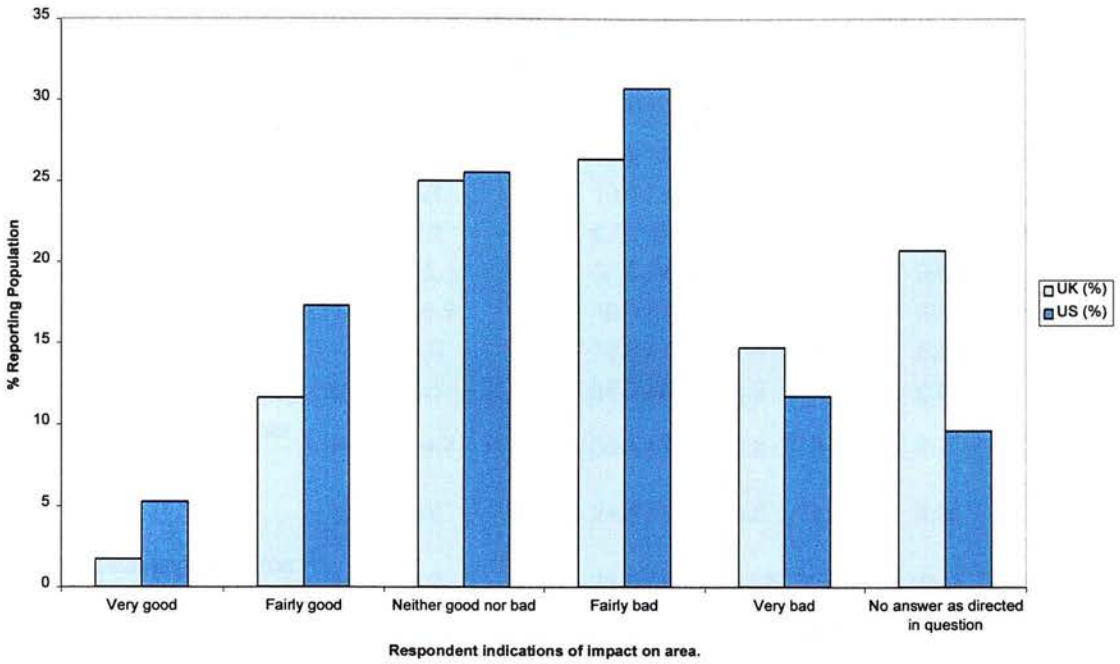
Figure 6.7 Respondent ratings on extent of land use changes



When asked if the changes they noted in land use were a good thing for the area in general, some 41% of UK respondents reported that they felt it was either “very bad” or “fairly bad” for the area, compared to a slight majority of US respondents at 51.4%. For both the UK and the US, mean averages tend to indicate that respondents lean more towards a central position than is represented by the sum of the two variables “very good” or “fairly good”. Figure 6.8 shows the extent to which respondents felt changes in land use were either good or bad for their respective areas.



Figure 6.8 Respondent ratings on effects of land use changes



### 6.4.2 On Natural Lands and Open Space

When asked to consider the causes of land use change and rank three factors from 1 to 3 that respondents considered to be the greatest threats to natural and open space lands from a list of twelve predefined variables, some variation between respondent samples for the UK and US can be seen using a composite indicator. In the UK, for example, respondents were far more likely to identify housing development (40%) as the greatest threat to natural and open space lands, followed by road building (38.4%) in its various forms, greed (38.3%), urban sprawl (38%) and poor land use planning (31%). Respondents in America, however, saw the “greed” factor (42.3%) as the primary threat to natural and open space lands, followed by urban sprawl (41.4%), poor land use planning (37.7%), housing development (24.8%), and litter/waste disposal (24.2%). Table 6.6 shows individual rankings for each variable, its position for each of places one through three, together with its cumulative percent and composite indicator rank based on UK and US respondent rankings.

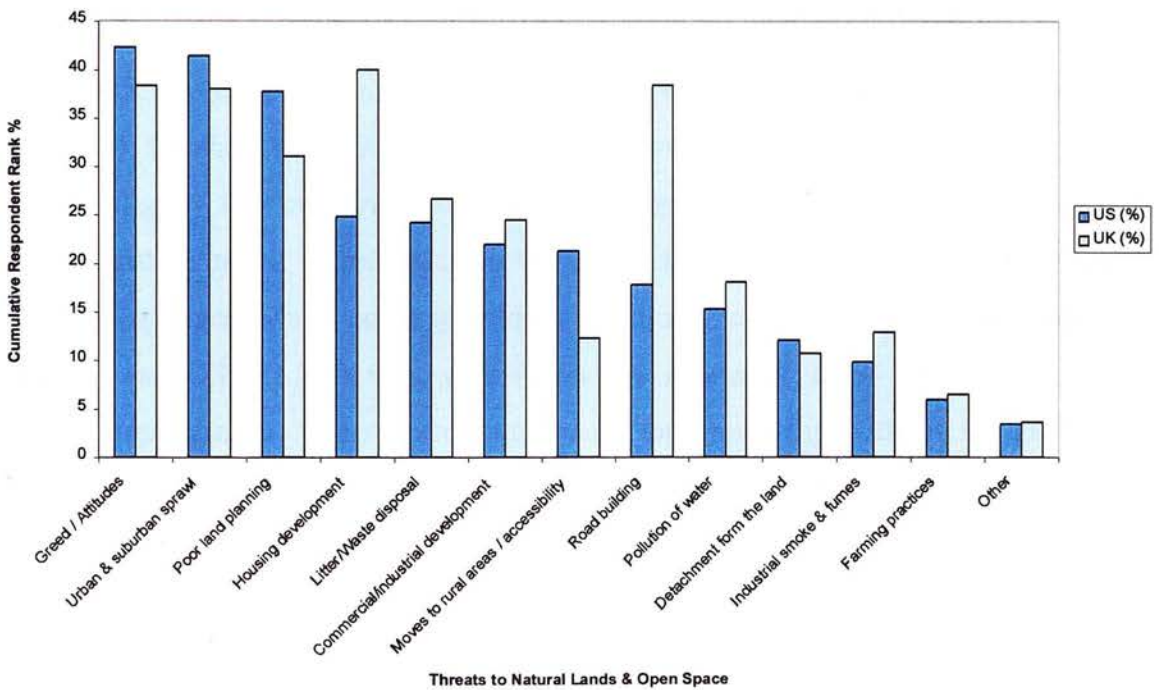
Table 6.6 Respondent rankings for greatest threats to natural lands and open space

Threat Variable	UK (%)				US (%)			
	1st	2nd	3rd	Cum (%) / Rank	1 <sup>st</sup>	2nd	3rd	Cum (%) / Rank
Industrial smoke & fumes	3.4	3.9	5.6	12.9 / 9	3.0	3.3	3.5	9.8 / 11
Pollution of water	6.5	4.7	6.9	18.1 / 8	8.2	11.2	5.9	15.3 / 9
Farming practices	2.6	2.2	1.7	6.5 / 12	1.9	1.9	2.1	5.9 / 12
Urban & suburban sprawl	16.4	15.1	6.5	38.0 / 4	19.2	12.4	9.8	41.4 / 2
Housing development	17.2	15.9	6.9	40.0 / 1	13.1	11.9	9.8	24.8 / 4
Detachment form the land	1.7	3.0	6.0	10.7 / 11	1.6	4.9	5.6	12.1 / 10
Litter/Waste disposal	6.0	9.1	11.6	26.7 / 6	5.9	8.7	9.6	24.2 / 5
Highways, freeways & other road building	9.9	14.7	13.8	38.4 / 2	1.2	8.9	7.7	17.8 / 8
Commercial/Industrial development	4.3	9.9	10.3	24.5 / 7	5.6	6.8	9.6	22.0 / 6
Poor land planning/resource management	10.3	8.2	12.5	31.0 / 5	13.6	12.9	11.2	37.7 / 3
Greed / Attitudes	16.8	9.9	11.6	38.3 / 3	22.2	8.2	11.9	42.3 / 1
People moving to rural areas / accessibility	2.6	2.2	3.9	12.3 / 10	4.4	6.8	10.1	21.3 / 7
Other	1.8	0.9	0.9	3.6 / 13	1.2	0.5	1.7	3.4 / 13

Note: Results based on 227 complete responses for UK and 422 for the US to Question number 11.

Figure 6.9 shows the cumulative percent rankings for UK and US respondents for each of the twelve variables found in Table 6.6.

Figure 6.9 Threats to natural lands and open space



Respondents were then asked to rate their level of agreement with various statements distilled from the Phase I focus group sessions. The statements selected reflect both majority and minority views held by focus group participants. The purpose in eliciting level of agreement information for both majority and minority viewpoints is to evaluate the extent to which these views are held across a larger population. The mean is based on a 5 point scale of agreement, where 1 = “strongly agree”, 2 = “agree”, 3 = “neither”, 4 = “disagree”, and 5 = “strongly disagree”.

In general, a high degree of statistical similarity can be seen between the two respondent populations. For example, in response to the statement “Everyone should have access to recreational areas”, 87.1% of the UK sample either strongly agreed or agreed, compared to 81.7% of US respondents, reflecting respective means of 1.922 and 2.021 for the sample. Yet, there are also some notable differences, which reflect general variations in attitudes of the larger population, specifically with regard to agriculture as noted in Chapters 3, 4 and 7. Respondents clearly articulate the differences in views held through their responses to the statement, “Modern farming methods damage the rural environment”. Nearly a majority (48.7%) of UK respondents either “strongly agree” or “agree”, yet only (17.6%) of US respondents indicated any level of agreement with this statement. Despite the general level of concern over environmental damage caused by farming, 85% of UK respondents believed that policies protecting farmland from development should be stronger, compared to 71.2% of US respondents. Respective reported means of 1.845 and 2.059 for the UK and US provide further support. The degree of attention and public funds devoted to farmland preservation across the US over the past decade or so, may in part explain slightly less concern reported by US respondents. Of particular interest is a similar pattern noted in reference to the belief that policies protecting open space could be stronger, which again is held by a majority of respondents in both the UK (88.4%) and US (71.2%) that, with respective means of 1.754 and 2.152 for the sample populations. The reported agreement for improving policies for protecting farmland and open space are positively correlated for both UK and US distributions. The correlation is significant at the  $\alpha=0.05$  level. This high degree of correlation implies that both British and American respondents view open space and productive lands as proxies in the provision of various environmental amenities.

Table 6.7 provides a format for comparative analysis on level of agreement across UK and US sample populations as well as a foundation from which additional interpretations can be extrapolated.

Table 6.7 Respondent agreement with statements on regional open space<sup>9</sup>

Statement	Level of Agreement (%)			
	UK		US	
	SA/A	Mean	SA/A	Mean
<b>- Preserving Open Space -</b>				
To protect open space and natural areas we will have to limit the number of visitors	25.4	3.237	26.7	3.276
Too much is already done to protect open space	1.7	4.017	4.7	3.936
The government should pay more in incentives to owners of land to protect open space lands	51.7	2.741	40.5	2.918
Much can be learned about protecting open space lands by looking to other countries.	57.3	2.405	41.6	2.681
Policies protecting open space could be stronger	88.4	1.754	71.2	2.152
<b>- Responsibility -</b>				
Industry should be responsible for the clean-up of industrial eyesores in rural areas.	96.1	1.332	92.3	1.560
Farmers and other owners of land should look after rural lands	82.7	1.996	66.7	2.304
Everyone should look after open space.	96.1	1.453	86.5	1.841
<b>- Access -</b>				
More facilities are needed for recreational visitors to rural open spaces.	55.6	2.629	40.5	2.862
Unrestricted public access imposes a burden on farmers and other owners of land.	47.9	2.763	57.9	2.410
Everyone should have access to recreational areas	87.1	1.922	81.7	2.021
<b>- Farmland &amp; Farming -</b>				
Modern farming methods damage the rural environment.	48.7	2.552	17.6	3.290
Policies protecting farmland from development should be stronger.	85.7	1.845	71.2	2.059
<b>- Protecting Other Lands -</b>				
Lands providing habitat for rare or endangered species are the most important lands to protect.	72.9	2.030	54.4	2.501
More emphasis should be placed on protecting historical landscapes.	63.0	2.323	57.1	2.415
Lands protected through government payment schemes should allow public access.	65.5	2.259	46.4	2.665
More areas should be set aside as National Parks so that they are protected from development	89.2	1.724	70.7	2.105

<sup>9</sup> Note to table: SA = "strongly agree" and A = "agree".



### 6.4.3 On willingness and who should pay

The extent to which respondents exhibited a willingness to pay for various land conservation measures in their areas were assessed on two levels within the survey. Question 13 does not ask respondents to assign a monetary value to stated willingness. Rather, respondents were presented with a yes/no option, and depending on individual responses were asked to move either to the next question or to the second part of the question wherein respondents are asked to reveal the extent to which they would be willing to pay more in property or local taxes for land conservation efforts in their communities. In the UK 58.6% of the respondent population reported a willingness to pay more in taxes in order to create new or improve existing parks, trails or open space corridors for public use in their area, compared to 51.4% of US respondents. The reported average mean WTP in the form of tax increases for such amenities in the UK was 4.85% and 5.18% in the US. Those indicating a willingness to pay more in taxes were more likely to identify themselves as living in either a city or a small town in the UK (65.69%), accounting for approximately two-thirds of all “yes” responses in the UK. A similar pattern is seen in the US with over three-quarters (76.45%) of all “yes” responses coming from those who identify themselves as living in either cities, suburbs or small towns. When the male to female ratio is equalised to reflect survey population, both the UK and the US, male and female respondents are equally likely to respond favourably towards paying more in taxes. Male respondents were slightly more likely to provide a “no” response as opposed to females who are slightly more likely to provide a “don’t know” response.

Had the Phase II survey elicited information pertaining to respondents’ actual level of local property or council tax paid on an annual basis, an estimation of mean willingness to pay (WTP) could have been calculated using a probit model based on responses provided. The typical probit logit model assumes WTP is normally distributed and estimates the probability of a “yes” response as a function of a set of explanatory variables. Previous research in the US suggests that variables such as population growth rates, and proportion of land in agricultural production may affect support for land conservation (Lembeck, 1991; Kline and Wilchens, 1994). Coefficient estimates from the probit model represent the effect of the explanatory

variables on the probability of a “yes” response rather than on the variable of interest, WTP. Most appropriate perhaps would have been a probit model, which directly estimates the mean and standard deviation of the normal distribution of WTP (Cameron and James, 1987).

Tables 6.8 and 6.9 together with Figures 6.10 and 6.11 reflect UK and US respondent willingness to pay increased taxes by gender and where respondents reside.

Table 6.8 UK Willingness to pay more in taxes to create or improve public open space

Gender	Residence	Pay more in taxes			
		Yes (%)	No (%)	Don't know (%)	No response (%)
<b>Male</b>	Country – farm	0.0	0.0	0.4	0.0
	Country – not farm	1.3	0.4	0.0	0.0
	Village/borough	5.6	2.6	1.8	0.0
	Small town	9.5	5.2	2.6	0.0
	Large town	3.9	1.7	2.2	0.0
	City	13.2	4.7	2.2	0.2
<b>Female</b>	Country – farm	0.0	0.0	0.0	0.2
	Country – not farm	0.9	0.0	0.0	0.0
	Village/borough	4.3	2.6	0.4	0.0
	Small town	7.3	3.9	2.2	0.0
	Large town	3.0	1.3	2.2	0.0
	City	8.6	3.0	1.7	0.0
<b>Table total</b>		58.6	25.4	15.6	0.4

Figure 6.10 Willingness to Pay by Gender and where respondents reside (UK)

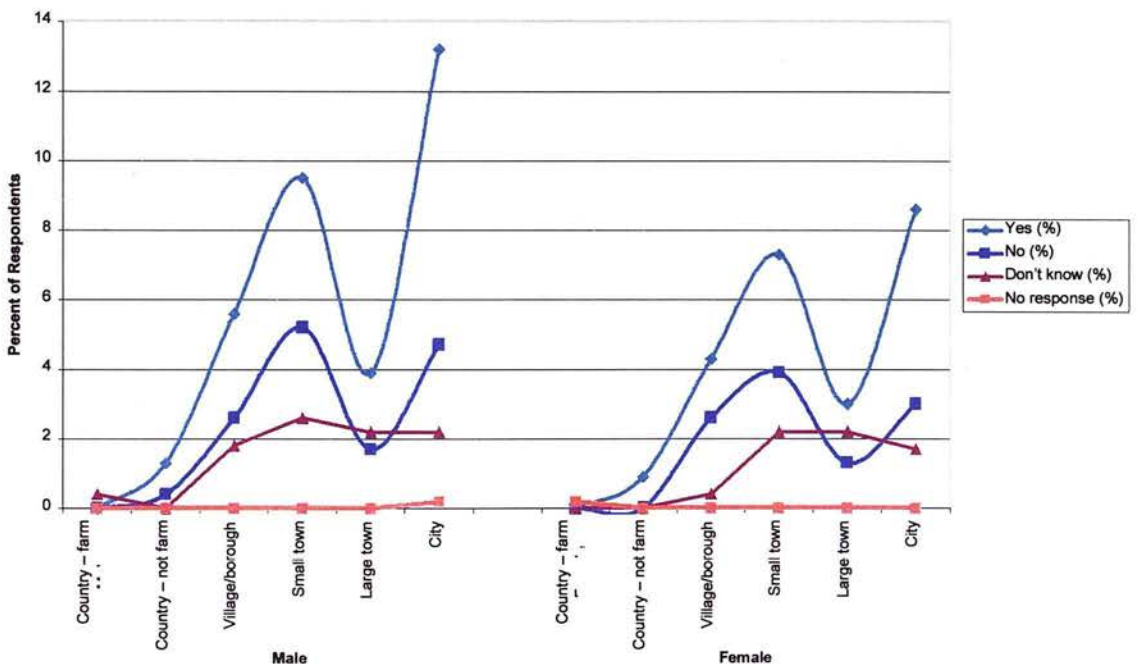




Table 6.9 US Willingness to pay more in taxes to create or improve public open space

Gender	Residence	Pay more in taxes			
		Yes (%)	No (%)	Don't know (%)	No response (%)
<b>Male</b>	Country – farm	0.2	0.5	0.2	0.0
	Country – not farm	2.6	1.6	1.2	0.0
	Village/borough	0.5	0.2	0.5	0.0
	Small town	6.3	3.8	1.6	0.2
	Large town	3.3	2.6	1.2	0.0
	Suburb	7.0	3.1	2.3	0.0
	City	10.1	5.4	3.1	0.2
<b>Female</b>	Country – farm	0.2	0.7	0.5	0.0
	Country – not farm	1.6	0.9	0.9	0.0
	Village/borough	0.9	0.7	0.5	0.0
	Small town	4.0	1.6	2.3	0.2
	Large town	2.6	1.2	1.2	0.0
	Suburb	4.2	1.4	2.3	0.0
	City	7.7	3.1	2.8	0.2
<b>Table total</b>		51.4	27.0	20.7	0.8

Figure 6.11 Willingness to Pay by Gender and where respondents reside (US)

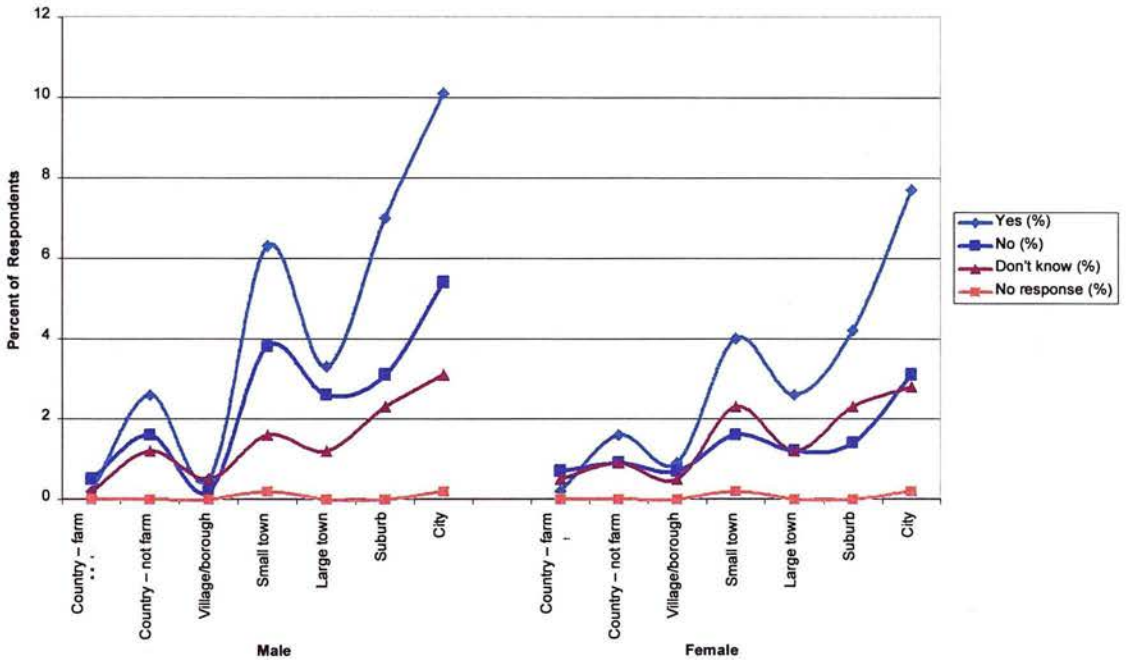
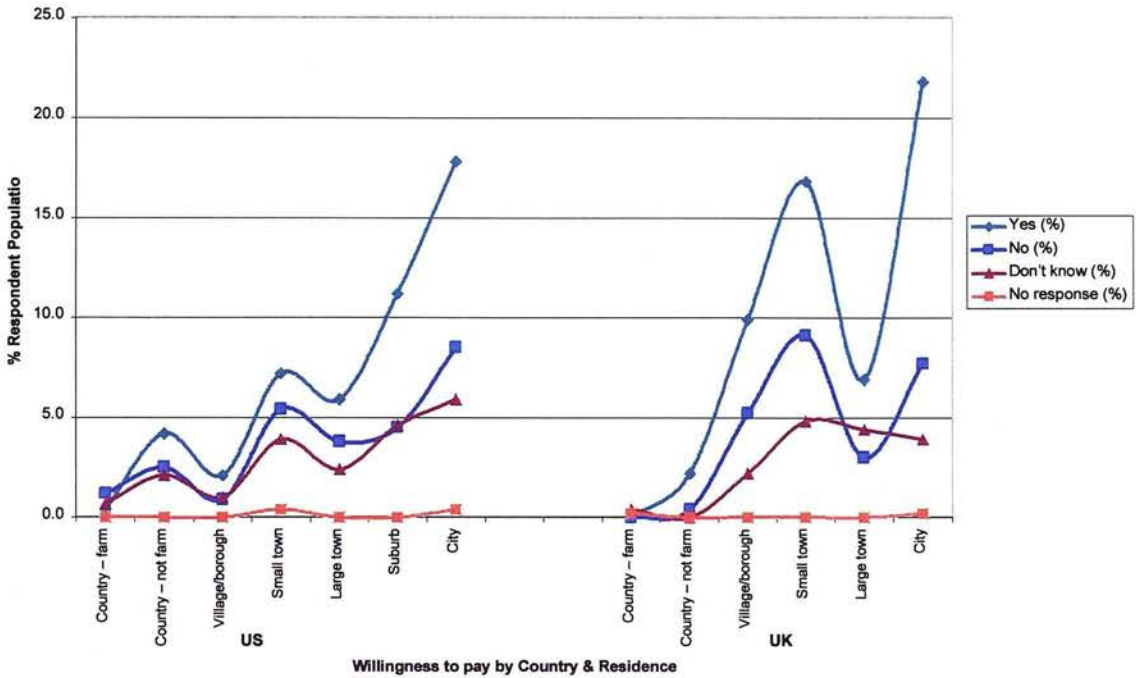


Figure 6.12 represents overall respondent willingness to pay increased taxes to create new or improve existing parks, trails, or other public open space. As noted earlier the greatest level of support comes from those living in cities, suburbs, and small towns.

Figure 6.12 Respondent willingness to pay – UK & US by where respondents reside



Although the respondent populations do not precisely represent those of the subject national populations in terms of age, education or gender, in alternative models not reported here and as found by Sorenson (1996) these variables had no significant effect on the level of willingness to pay. Thus, representative respondent samples do not appear to strongly bias estimated results.

Several previous studies from the US have found that age and the number of years a respondent had lived in a rural area to be significant determinants of support specifically for farmland protection (Bergstrom, et al 1985; Beasley, 1986; Kline and Wilchens, 1996a; Habb and McConnell, 1998). While there does appear to be a strong correlation between length of time respondents lived in an area and the likelihood of willingness to pay higher taxes for the improvement or creation of public open space,

little correlation exists between living in a rural area and WTP for conservation efforts for the subject respondent samples. Perhaps a larger sample would have provided more conclusive evidence in this regard.

#### **6.4.4 Public spending and preferences for conservation**

Preferences, as measured by level of agreement, for public spending and actions to protect land and the environment, provide open space, and recreational access compared favourably with other selected public services. The survey presented respondents with eleven statements taken from Phase I focus group sessions and asked respondents, on a five point scale, to what extent they agreed or disagreed, 1 = “strongly agree”, 2 = “agree”, 3 = “neither”, 4 = “disagree”, and 5 = “strongly disagree”. The statements selected enveloped thoughts and views frequently mentioned by focus group participants. Statements included, among other things, opinions on such notions as, paying higher taxes to protect land, preventing industry from damaging the environment despite associated costs, ability to afford land and environmental protection, and whether the government should spend less on other things to help finance the cost of environmental protection.

Table 6.10 reflects the level of agreement with statements about land use and conservation issues across the UK and US sample population.

Table 6.10 Level of agreement with statements on land use and conservation issues<sup>10</sup>.

Statement	Level of Agreement (%)			
	UK		US	
	SA/A	Mean	SA/A	Mean
We should find the money to protect important lands by being prepared to pay higher taxes.	41.8	2.849	41.9	3.007
Industry should be prevented from causing damage to land and the environment even if this leads to higher prices.	86.2	1.875	79.6	2.119
It is up to all of us s individuals to help protect the land by changing our behaviour and attitudes towards this resource.	96.1	1.496	97.0	1.459
We should find the money to protect the environment by being prepared to pay more for products that are environmentally and ecologically friendly.	65.1	2.345	70.3	2.340
New jobs should be created even if this sometimes causes damage to land and the environment.	15.5	3.526	11.9	3.700
Nothing should be spent on protecting the land or the environment because we can not afford it.	3.0	4.241	4.2	4.173
Individuals should pay to have recreational access to natural and open space areas in order to protect it.	33.2	3.164	68.6	2.326
Companies that seriously harm the land or the environment should be shut down.	78.9	1.935	66.5	2.251
The government could do a lot more than it does at the moment to protect important lands.	89.2	1.728	76.1	2.077
The protection of land for future generations would be better off in the hands of a non-government organisation.	57.3	2.375	41.0	2.714
The government should find the money to protect the environment by spending less on other things.	72.4	2.073	71.7	2.117

In both the UK and the US, standardised survey populations reflect some interesting similarities across genders. For example, in both countries male respondents were slightly more likely to agree that higher taxes should be paid to protect important lands, and males were also nearly two and a half times more likely to either “strongly agree” or “agree” that new jobs should be created, even if doing so damages the land or environment. Female respondents in both the UK and US were slightly more likely than their male counterparts to support the protection of land for future generations by non-governmental organisations, a position that had the majority

<sup>10</sup> Note to table: SA = “strongly agree” and A = “agree”.

vote across both populations. However, there are a few incidences where national boundaries appear to divide genders. In the UK for example, males were more like to agree that industries that seriously harm the environment should be shut down, however, in the US females were more likely to agree with this statement. Male UK respondents and US female respondents again were more likely to “agree” or “strongly agree” on recreational access fees to protect the environment. Statements on which both male and female survey respondents expressed equal levels of agreement, within a statistical margin of  $\alpha=0.05$  for both the UK and US, include paying more for environmentally friendly products and government spending less on other things in order to find the money to protect the environment.

Table 6.11 indicates UK and US respondent responses on nine major categories of government spending and those which respective governments should (Yes) or should not (No) spend less on in order to find the money to protect the environment.

Table 6.11 Preferences for public spending

Area of Government spending	UK (%)		US (%)	
	Yes	No	Yes	No
Defence	52.2	21.6	40.1	35.3
Health care	0.9	72.8	10.3	64.9
Social Services	11.2	62.5	30.2	45.0
Law enforcement	9.9	63.8	9.5	65.3
Aid to 3 <sup>rd</sup> world	44.0	29.7	58.3	16.9
Aid to industry	47.8	25.9	59.0	16.4
Aid to farmers	28.9	45.3	28.8	46.1
Transportation	23.7	50.0	26.0	48.5
Education	2.6	71.1	6.8	67.8

Note: Table is based on those UK and US respondents that either “strongly agreed” or “agreed” with the statement in question 21k, equivalent to (73.7%) or 171 UK respondents and (75.5%) or 322 US respondents. Some variations as to total number of respondents for each category exist due to the occasional occurrence where a respondent did not tick any selection.

As can be seen in both in Table 6.11 the pattern of agreement on which public services should or should not receive spending cuts to enable greater spending on the environment are similar for both UK and US respondent populations.

Some expected and unexpected patterns pertaining to gender across the two nations become apparent when evaluating the response series on the nine areas of public spending. Perhaps most notable is the similarity in gender agreement on responses, weighted and unweighted, for public expenditures on aid to farmers. Unweighted responses for males reflect a yes:no ratio of 19.4:24.6% for the UK and 19.0:24.4% for the US, with similar respective yes:no ratios for females, 9.5:20.7% (UK) and 9.8:21.8% (US). Both weighted and unweighted responses reflect males are significantly more likely than females to believe government should spend less on aid to farmers. Other areas that reflect statistically similar views of respondents on public expenditures include law enforcement, transportation and education.

## **6.5 Non-Profit Sector Land Conservation**

### **6.5.1 Attitudes on land conservation and the non-profit sector**

Several questions within this section of the survey asked respondents about their views in relation to the work carried out by non-profit/voluntary land conservation organisations—land trusts. Question 19, for example, asked respondents to identify from a list of traditional ‘institutions’ (i.e. government agencies, local and municipal authorities, scientific bodies, non-profit organisations, industry, media, etc.) that which they trusted the most and that which they trusted the least. A majority of UK (67.2%) and US (57.8%) respondents selected non-profit environmental-conservation organisations as the most trusted institution for delivery of information on land use and conservation issues. Scientific bodies were the next most highly rated by UK (12.5%) and US (19.0%) respondents. Lower on the list were various government agencies, local and municipal governments. UK respondents had a relatively higher level of trust rating for the group identified as “media”, with (7.3%) of respondents identifying media as most trusted, compared to (0.9%) of US respondents.



Table 6.12 illustrates the magnitude of perceptions and values held by the respondent population on the level of “trust” by institution type associated with the delivery of land use and conservation information.

Table 6.12 Level of “Trust ” by Institution Type

Institutional Framework	UK (%)		US (%)	
	Most	Least	Most	Least
Non-profit environmental & conservation organisations	67.2	0.4	57.8	1.6
Scientific	12.5	1.7	19.0	1.4
Government agencies (DoE, DNR, etc.)	3.4	28.0	10.1	12.4
Friends	2.2	6.0	4.7	11.9
Industry	0.4	34.5	4.4	31.1
Local or municipal authorities	3.0	14.2	2.6	11.7
Media (newspaper/Television/radio, etc.)	7.3	4.3	0.9	8.0
Advertisements	0.4	9.9	0.5	20.8
Other	3.0	0.4	0.9	0.7

Using the same institutional variables respondents were also asked to rank the least trusted. The results clearly established industry as the least trusted by UK (34.5%) and US (31.1%) respondents in the delivery of information on land use and conservation issues. Other institutions respondents were likely to mistrust were government agencies in the UK (28%) with slightly less mistrust among respondents in the US (12.4%); local or municipal authorities (14.2%) for the UK and in the US (11.7%); and advertisements (9.9%) for UK and (20.8%) for the US. Interestingly, in the US the New York Times/CBS poll first taken the last year of the Kennedy administration, indicated 63 % of the US said they trusted the federal government to “do the right thing”; as of March 1997 it was down to 15%. This decline has been erratic but steady for over three decades (Ruckelshaus, 1997).<sup>11</sup> Friends, oddly enough, fell towards the low end of those most trusted and high end of least trusted scales. Respondents in the US were nearly twice as likely to distrust information from

<sup>11</sup> Remarks by William D. Ruckelshaus , Chairman, Institute for Environment and Natural Resources, University of Wyoming, May 1, 1997.

friends. Yet, focus group respondents frequently cited becoming familiar with issues through discussions with friends and colleagues.

Based upon respondent responses for both the UK and the US, it would appear that government, in most regards, is not meeting public demands for the protection of various landscapes, including parks, farmland and open space. This finding is well substantiated by recent findings in the US (Bucks County OSTF, 1996; Lummis, 1997; Kates, 1998; Anderson and Leal, 1998). Respondent populations in both Britain and America offer a negative evaluation of the efforts of respective governments in the way of both physical protection of lands, and policies to these ends.

### **6.5.2 Willingness to support non-profit sector land conservation estimates**

The respondent populations for the US and UK, as noted in Section 6.3.4, indicate a general willingness to pay for increased land protection in their own geographic areas through increased local property taxes. Further support of willingness to pay, is reflected in respondent willingness to support the work of non-profit conservation organisations through annual contributions. Table 6.13 shows respondent responses at contribution levels frequently used by land trusts and other environmental groups involved in the protection and conservation of land. The pattern of responses for both respondent populations is generally consistent with reasoned, economic choices. Economic theory suggests that respondents stated willingness to pay is proportionally related to related costs, hence the proportion of respondents willing to support non-profit sector conservation work decreases as the membership or contribution level increases. This relationship is one of the "burden-of-proof" tests proposed by a panel of experts convened to evaluate the CV method (Arrow et al., 1993). The proportion of responses in the UK respondent population fell from a high of 37.9% at the £10 annual contribution level to 6.0% at the annual contribution level of £100. Similarly in the US, although not as dramatic, the percent of respondents peaked at the annual contribution level of \$15 annually at 19.7% and decreased to 12.9% at the annual contribution level of \$100. A minority of UK respondents indicated no willingness to support voluntary/non-profit sector land conservation organisations at 37 respondents or 15.9% of the survey population. For the respondent

population reporting a willingness to support non-profit sector land conservation organisations, an average mean WTP through annual contributions of £27.90 was determined for the UK, compared to \$44.82 for US respondents. While the US had slightly higher over all percentage of respondents indicating an annual contribution willingness of \$0, representing 83 respondents or 19.4% of the respondent population, for those responding positively, the average level of contribution for the US was slightly higher. However, using a current exchange rate of \$1.61 USD = £1 GBP, the average mean WTP annual contributions to private sector land trusts are remarkably similar with \$44.91 for the UK compared to \$44.82 for the US. A chi-square test rejected the null hypothesis that there was no relationship between annual contribution level and the proportion of 'yes' responses at a significance level of  $\alpha=0.05$ .

Tables 6.13 and 6.13 together with figures 6.14 and 6.14 reflect UK and US respondent WTS non-profit conservation organisations. Response proportions in the respective tables and figures represent raw, unweighted data. Weighted results, however, do not differ significantly.

Table 6.13 UK Respondent willingness to support non-profit conservation organisations

Annual Contribution Level (in GBP)	UK	
	Frequency	(%)
Non-response	5	2.2
£0	37	15.9
£10	88	37.9
£25	37	15.9
£35	13	5.6
£50	20	8.6
£100	14	6.0
Other	18	7.8

Figure 6.13 UK Respondent willingness to support by level of support

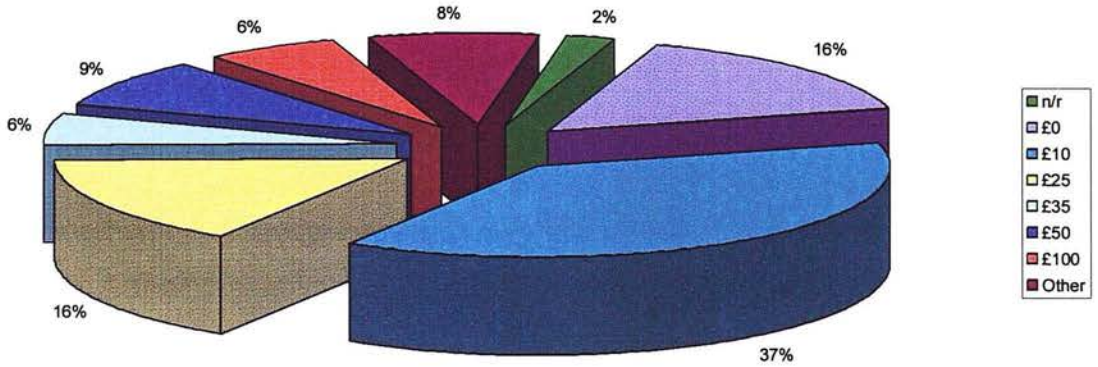
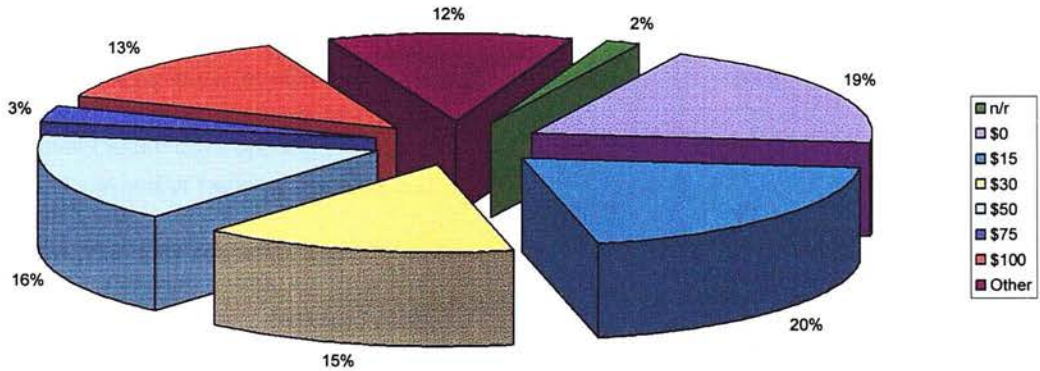


Table 6.14 US Respondent willingness to support non-profit conservation organisations

Annual Contribution Level (in USD)	US (%)	
	Frequency	Percent
Non-response	7	1.6
\$0	83	19.4
\$15	84	19.7
\$30	65	15.2
\$50	69	16.2
\$75	14	3.3
\$100	55	12.9
Other	50	11.7

Figure 6.14 US Respondent willingness to support by level of support



### 6.5.3 Respondent views on roles for non-profit sector

Not only are British and American respondents supportive of non-profit or voluntary sector conservation efforts, but most indicate a willingness to contribute to such organisations in order to facilitate the conservation of land in their community and carry out a variety of other supporting roles, as shown in Table 6.15. In the UK 74.6% of respondents believe that non-profit conservation organisations could play a bigger role in protecting land and other natural resources, compared to 73.7% of US respondents.

Of the 47.8% of UK and 61.8% of US respondents who have contributed to conservation or other environmental organisations 34.1% of UK and 41.1% of US respondents reported that they believe groups they have supported have made progress towards protecting land and the environment that has had a positive effect on their area. A further 56.9% of UK and 61.1% of US respondents feel the work carried out by such conservation organisations is important to their quality of life, and 62.9% (UK) and 63.7% (US) report that they will continue to support the work of these groups into the future.



Table 6.15 reflects responses to the statements shown by those respondents that indicated a belief in a greater role for non-profit conservation groups.

Table 6.15 UK and US respondent views on roles for non-profit sector<sup>12</sup>

Role	UK (%)	US (%)
Owning & maintaining lands for public use	44.8	37.2
Holding partial interests or legal restrictions on lands to prevent future development	44.4	34.9
Helping with local and/or regional planning and conservation issues.	60.3	62.1
Helping with community education and information on land and conservation issues	59.9	63.5
Promoting sound land use and environmentally friendly development	50.9	54.8
Promoting farming methods that are environmentally friendly	48.7	49.9
Helping to develop long term plans and regulations for land use	46.1	55.3
Education through schools	60.8	60.4
Monitoring and enforcing land use and environmental regulations	37.9	37.9
Assessment and survey of land and other natural resources	32.3	33.5
Inventory and recording of plants, animals, geologic and historic conditions, and other resource features	48.7	43.1
Creating trails, greenbelts, parks and other recreational areas for public use	53.4	52.2
Publishing information on conservation for the public	54.7	56.0
Conducting research on new ways to protect land resources	50.4	48.0
Other	4.7	5.2

As with other areas explored through the survey, there appears to be a high level of agreement on the variety of roles UK and US respondents believe non-profit conservation organisations should be playing concerning land and natural resource protection. The five roles most strongly supported by respondents include, assisting with local and regional planning and conservation issues; education through schools; assisting with community education and information on land and conservation; publishing information for public dissemination; and, creating trails, greenbelts, parks

<sup>12</sup> Note: Based on 173 respondents (UK ) and 315 respondents (US). 0 = no, 1 = yes; thus mean is equivalent to corresponding percent.



and other recreational areas for public use. Interesting, are the different views held with regard to owning and maintaining lands and holding partial interests or legal restrictions on lands to prevent further development. In the UK, some 44% of respondents supported the ownership or holding of conservation restrictions, compared to nearly 35% of US respondents. While in the US 55.3% of respondents support conservation organisations being involved in the development of long-term plans and regulations for land use, compared to 46.1% of UK respondents.

In the UK, membership in conservation or other environmental organisations is represented by mean of 48.7%, compared to 50.6% for the US. These averages do not take into account double counting for those respondents indicating membership in more than one such organisation. Within the UK respondent sample, the highest percentage of membership was exhibited for the National Trust (13.8%), WWF (9.9%) and Royal Society for the Protection of Birds (7.3%). In the US, the top three organisations represented within the respondent sample include membership in Sportsman's clubs (11.9%), the National Wildlife Federation (11.5%) and The Nature Conservancy (8.9%).

Table 6.16 summarises membership in various conservation/environmental organisations as reported by UK and US respondents.

Table 6.16 UK and US Respondent conservation organisation membership

Organisations by Country	Frequency	Percent
<b>UK</b>		
National Trust	32	13.8
Other similar organisation	32	13.8
WWF	23	9.9
RSPB	17	7.3
Greenpeace	12	5.2
National Heritage Trust	9	3.9
Friends of the Earth	9	3.9
Local, regional woodland/wildlife trust	6	2.6
Ramblers Association	3	1.3
John Muir Trust	2	.9
Earth Watch	1	.4
British Field Sports Society	1	.4
<b>US</b>		
State, local Sportsman's Club	51	11.9
National Wildlife Federation	49	11.5
TNC	38	8.9
WWF	27	6.3
Audubon Society	26	6.1
Sierra Club	22	5.2
Greenpeace	19	4.4
Local regional land trust	19	4.4
Other similar organisation	14	3.3
Environmental Defence Fund	7	1.6
Earth Watch	5	1.2
Friends of the Earth	2	.5
AFT	2	.5

The final questions pertained largely to respondent views on whether or not children, as well as the general public, receive adequate information and education concerning land conservation issues. Generally, respondents in both the UK (54.3%) and the US (57.1%) felt that children received “too little” in the way of education specifically on land conservation issues. Similarly, 58.6% of UK respondents felt there was “too little” environmental information available to the general public, compared to 59.5% of US respondents. Respondents who believed there was too little information about the environment were invited to write in what they would like to see done to provide wider availability of information. Suggestions included an array of

ideas, those most frequently repeated included such things as: “more television specials or TV series dedicated to conservation issues”, “more coverage in newspaper”, “more school projects dedicated to land and conservation”, “more television and radio adverts”, “increased government funding”, and “more information that is easily understood.”

## 6.6 Conclusions

Survey findings for both the UK and the US are closely correlated to findings of the Phase I focus groups. Respondents revealed many similarities, confirm noted differences and clearly denote strong public support for non-profit sector land conservation measures including establishing and improving parks, and protecting open space and natural lands, particularly for public access. This support appears to transcend traditional partitions of age, gender and level of education. General findings conclusively support those of the focus groups in most regards. Specifically, respondents in the UK and the US:

- believe government is doing an inadequate job of creating parks and open space and should reduce spending in other areas to more adequately provide for protection of land and other environmental resources;
- identify protecting natural and agricultural lands as key priorities for action;
- regard non-profit conservation organisations as more trustworthy than their government counterparts in association with the delivery of services associated with protection of land and the environment;
- strongly support improvement of governmental policies with regard to the conservation of land, and;
- are supportive of land conservation efforts, particularly within their own regions, and they substantiate their willingness to pay for it.

In the next chapter, Chapter 7, the backdrop is provided for understanding non-profit land trusts in the UK and US, through an exploration, analysis and presentation of results from Phase III expert interviews. Here land trust professionals dealing with a diversity of land use, conservation and management processes reveal insights on specific issues pertaining to the conservation and management of land resources, and

reflect on the need for a more integrated approach to land conservation decision-making at the land trust level.

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**CHAPTER 7**

**PHASE III INTERVIEWS WITH US AND UK LAND TRUSTS:**

**Opinions from the Experts**

**Analysis & Results**

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## CHAPTER 7

### Interviews with US and UK Land Trusts: Opinions from the Experts Analysis & Results

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*"Each generation has its own rendezvous with the land, for despite our fee, titles and claims of ownership, we are all but brief tenants on this planet. By choice, or by default, we will carve out a land legacy for our heirs. We can misuse the land and diminish the usefulness of resources, or we can create a world in which physical affluence and affluence of the spirit go hand-in-hand."*

- Stewart Udall, "The Quiet Crisis" (1963)

#### 7.1 Prologue

Chapter 4 set forth the methodology and reasoning behind the use of expert interviews as the third phase of this research. The purpose of this chapter is to both provide a brief background for understanding land trusts (Section 7.2) and to explore, analyse and present the results of the expert interviews conducted in the US and Britain (sections 7.3—7.6). As with textual data from Phase I focus groups, presented in Chapter 5, The Ethnograph<sup>©</sup> is used to aid the analysis of textual data resulting from the in-depth expert interviews. However, as will be seen in the following analysis, the ethnographic analysis is constructed in a slightly different manner one that is more conducive to analysing one-on-one interviews.<sup>1</sup>

Several options were available for collecting data related to land trusts and the communities or regions in which they operate. Two options were to send out a questionnaire to either a sample population of land trusts or to base this phase of the research on published materials. An alternative to these was some form of interview, structured or open-ended (Robson, 1993; Denzin and Lincoln, 1994; and Kock, McQueen, and Corner, 1997). As little research has been conducted in relation to land trust organisations, and much of what has been written on their achievements is out of date before it is even published, it was concluded that reliance on secondary

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<sup>1</sup> While the ethnographic analysis is slightly modified to fit the particular circumstances of the interview process, all ethnographies have one thing in common: they aim at experiencing and describing 'places' that already exist, events that have occurred and/or memories that belong to someone other than the researcher.



sources would prove inadequate and most probably would not provide suitable data for the questions pertinent to this research. Thus, documentary data would be one, and most probably the best source of useful information. The use of a questionnaire was ruled out for three principal reasons. First, a survey type questionnaire would not have allowed for discussion and clarification on the subject research, nor would it adequately address the relative questions. Second, questionnaires can become easily misplaced and quickly fall to the bottom of the pile on the long list of things to do of busy land trust professionals or be passed on to secretaries or other staff for completion. Thus, increasing the probability that reminder notices and follow-up calls would be needed or that information supplied may have been summarily provided by anyone with the time to complete the questionnaire. Third, a personal in-depth interview approach allowed for frank, open responses, revealing information that may have otherwise been missed using a mail survey approach.

With regard to UK interviews, many of the reasons remained the same with the additional likelihood that; one could expect a level of distrust of a questionnaire sent to them by a researcher whom they are unfamiliar (Shaffir, 1991). Therefore, in order to obtain clear and candid answers, a certain level of trust needed to be established which could only be accomplished by talking to people (Denzin and Lincoln, 1994; Hammersley and Atkinson, 1995). Additionally, interviews with UK land trust professionals, with which the researcher was less familiar, frequently provided additional references to colleagues in other parts of the country who might both hold different views and be interested in participating in this research (Denzin, 1994). Finally, in that the interviewer and interviewees shared common professional backgrounds the likelihood of compliance bias is substantially reduced because interviewees were thoroughly familiar with the content matter and had no obligation to “increase their status” by providing answers they believe to be either correct or to satisfy the interviewer (Bishop, Truchfarber and Oldendick, 1989; Ostrander, 1993). Therefore, it became clear early on that conducting interviews was the most appropriate means of collecting both background data about individual land trusts, their histories, tools used, public perceptions, decision-making processes employed as well as specific views pertaining to the proposed ILCDS model. While the general set of questions remained constant across all 139 interviews (19 in the UK

and 120 in US), the complexity and exploratory nature of the research, called for a reflexive approach—this could occur with open-ended interviews (Hammersley and Atkinson, 1995). The advantage of reflexivity in this phase of the research project is that it allowed for refocusing, and the making of changes as interviews progressed. By using a reflexive method, answers to questions could influence the direction of later lines of enquiry in the interview process.<sup>2</sup>

An understanding of the role of experts in the context of environmental decision-making, must be grounded in the surroundings in which decisions are made. Experts form an “elite” group within the land trust sector (Marshall and Rossman, 1989).<sup>3</sup> Those experts participating in the interview process were either executive directors, directors of land conservation programmes or those with the greatest knowledge on the organisation, its efforts, policies, past histories and future plans (Marshall and Rossman, 1989). As discussed in Chapter 4, organisations selected for participation relied on the use of cluster sampling in various geographic regions of each country (Mitchell and Carson, 1989; Robson, 1993). Participants themselves were selected based on their expertise relevant to the research at hand (Ostrander, 1993; Thomas, 1993; Hammersley and Aktinson, 1995). Due to positions they hold in their respective organisations and regions, as well as the greater conservation community, these participants were in a position to contribute valuable information. In addition, many interviewees were able to provide an overall view of their organisation and its relationship to other organisations at a local, regional and national scale.

In order to illustrate how expert judgements on the issues and uncertainties raised can be formalised, participants were first asked the series of six (6) questions

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<sup>2</sup> The process of thinking is raised to a second level, so that one is not simply thinking about something but thinking about that thinking, not simply self-conscious but conscious of that self-consciousness. This capacity is said to be characteristically human and to be that which enables the development of complex symbolic systems about symbol systems and also the possibility of laughing at one's self. This latter is due to the possibility of exchange between the self which perceives and that which reflects, to Aristotle (among many examples) the divinity within man. *Encyclopaedia of World Problems and Human Potential* 4<sup>th</sup> edition, (1995) Union of International Associations, New Providence: Sauer Verlag; pp. 3000.

<sup>3</sup> Elites are considered to be the influential, the prominent, and the well-informed people in an organisation or community (Marshall and Rossman, 1989).

presented in Chapter 4 (Figure 4.5). Responses to this series of questions are discussed at length in subsequent sections of this chapter. Often interviewee's began by refining and clarifying questions as they were presented. Developing a well-posed question requires much clarification in order to be sure of getting the answer to the question one thinks was asked. Standard methods were then used to elicit distributions on a range of thoughts pertaining to five principal areas of concern: 1) how land trusts "measure" their success; 2) the decision processes employed across the UK and US land trust spectrum in moving forward with land conservation projects; 3) primary land conservation tools used; 4) perceptions about public attitudes towards the organisation and its work; and, 5) how the proposed ILCDS model was received and potential uses envisioned.

The point of this exercise is to both summarise the state of knowledge and beliefs, and not to achieve a false consensus on the possibilities for the conceptual ILCDS model. Masking disagreement or different perspectives will help neither the organisations, their experts, policymakers nor the researcher in the end (Morgan and Keith, 1995).

The nature of open-ended questions 'opens' the door on the number of possible outcomes for any particular question. Analysis of the range and types of responses given for questions five and six made combining the assessments into one summary distribution appropriate. For others, it was more suitable to summarise but not combine the assessments, but to reflect on different "schools of thought" on an issue, and stating the attached reasons for the differences. This Chapter will illustrate and analyse predominant patterns of organisational behaviour and "schools of thought" across the body of experts interviewed in the UK and US. Making these connections and understanding why the judgements are what they are, is essential, and should take place early on (Morgan and Keith, 1995).

## 7.2 Introduction

Based on the nature of the subject research and its dimensions interviews were detailed, and used a relatively complex interview protocol compared to many expert elicitation studies (Hudlicka, 1997; Morgan and Pitelka, 1998). The interview protocol involved the following six parts; 1) Introductions, researcher background and an explanation of what the researcher was trying to accomplish; 2) general discussion in which experts were asked to critique the three page abstract, mailed to them in advance, and discuss their thoughts on the issue being addressed; 3) discussion on what factors and processes are most important in attitude formation towards efforts of the land trust; 4) discussion on factors experts believed should be considered in designing a “holistic” integrated decision making model that encompasses social/community values, economics and the policy structure; 5) discussion on what factors and processes are most important in determining the responses of their own organisation with regard to decision-making on lands proposed for protection, and; 6) discussion on how experts felt the specific research program and the proposed integrated decision-making model might enhance or detract from current decision-making processes used by their organisations.

While individual interviews occasionally varied, each followed the format of ethnographic interviews (Spradley, 1979). Every interview was recorded with audiotape and then transcribed as discussed in Chapter 4.<sup>4</sup> Each transcription was reviewed several times, coded and reviewed again at least once late in the study to insure accuracy and allow the researcher to re-experience the interview process from a more developed perspective (Weaver and Atkinson, 1995; Coffey, Holbrook and Atkinson, 1996).<sup>5</sup> After all interviews were reviewed and coded, project files were edited to remove both identifiers, and extraneous, repetitive and unclear sections (American Statistical Association, 1995; Clogg and Sobel, 1995). The resulting

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<sup>4</sup> The factor relationship between “tape time” and “transcription time” was 1 hour:10.5 hours. Thus, with 173 hours and 45 minutes of taped interviews, transcription time alone is estimated at 1,824 hours and 22 minutes for the 139 interviews conducted.

<sup>5</sup> Code words are attached to distinct sections of textual data. The purpose of the software is twofold. First, it facilitates the attachment of these codes to the strings of data. Second, it allows the retrieval of all instances in the data that share a code. Such code-and-retrieve approaches are exemplified in programs such as The Ethnograph, one of the most widely used of all the applications. (Coffey, Holbrook and Atkinson, 1996)

vignettes served as primary data. Published and unpublished documents were also obtained before, during and after interviews. These served as only as supplementary data because they were easy to access for immediate follow-up for purposes of data clarification. In addition, printed documents compensated for limited access to data sources afforded by interviews with experts (Borg, 1989).

When key points were emphasised by participants during interviews that were also available in published form, supporting documentation was reviewed to insure accurate interpretations. Data collection thus included searching for published passages to illustrate specific points highlighted during interviews. The segments used in the following analysis are those obtained through experiences and insights gained from personal interviews and are given emphasis where appropriate by information derived from published materials provided by respective land trusts.

Project files, codebooks and family trees were developed for the vignettes to facilitate data analysis and can be found in Appendix 7-1. Working notes were added to assist in guiding ongoing data collection and the analysis process. These notes became more systematic as increasing numbers of vignettes were collected and analysed. After all interviews were complete, the working notes were refined into a catalogue of important themes cross-referenced to the codebook database. This system was used to analyse the relationships between recurring issues discussed by different participants from different cities, regions and nations.<sup>6</sup> The final product of this process was a model relating the associations and interaction between community and organisational goals, the structures of place, and the technical characteristics of land, land use and conservation. Details provided by interviewees from their expert perspectives provided the basis for "grounded theory" on key

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<sup>6</sup> With the publication of books such as *Silent Spring* (Carson, 1962) we have become ever more concerned with the relationships between things. For example, public interest groups are no longer content to evaluate agricultural systems merely in terms of economics and production, but are increasingly looking towards measures of ecological health, environmental ethics, and equity. Today there is an ever-growing array of organisations voicing their disquiet on issues such as the effect that agricultural practices are having on the environment, or conflicting land uses. We also have farmers who publicly question whether they are farming 'sustainably'... and challenge science to define the land management practices that need to be implemented to be 'sustainable'. However, one only has to consider simple questions - sustain what? how? for whom? over what time period? - to appreciate that sustainability can never be precisely defined. And as we grapple with those challenges and what they mean, we appear to need new ways of looking at the world and integrating management and research.



factors in the land trust decision-making environment (Marshall and Rossman, 1989). These factors in turn were used to frame aspects of the ILCDS model presented in Chapter 2.

This approach explicitly recognises that land and the management of other natural resources in the age of ‘sustainability’ is not characterised so much by problems for which an answer must be found, but rather issues which need to be resolved and will inevitably require one or more of the parties to change their views (Bawden *et al.*, 1984). As communities and land uses change, the juxtaposition of urban and rural activities has become a battleground over diverse issues and community impacts imposed by these changing land uses (Abdalla and Kelsey, 1996). For example, less than two decades ago, the Amish and Mennonite farmers working the rolling fertile fields of Lancaster County, Pennsylvania were at least confident in the knowledge that they were dealing with what everyone knew was largely a pastoral system. Today, whether these productive lands should be regarded as a rural—agricultural, tourism, conservation, or suburban systems, or some combination of all these, is increasingly problematic and contentious.

In response to the interaction of these issues and the impacts decisions made today may have on the future, we are beginning to see the increased use of ‘multi-stakeholder’ processes that facilitate the wide involvement of people in problem-solving and decision-making processes with respect to issues that may involve or impact on them. Such an approach is advocated through the conceptual ILCDS model (Chapter 2) by recognising that land use and/or its conservation is increasingly characterised by apparently conflicting social perspectives, and emphasises processes to provide those involved with a better understanding of other points of view. It also appreciates that decisions related to sound land use will be dependent on the coordinated actions of many, who in turn must act within the confines of a wider regulatory framework imposed by the community at large.

The Phase III interviews proved the ideal vehicle to both examine the experiences of land trusts and to evaluate the validity and usefulness of an integrated decision-support tool, such as the proposed ILCDS model.



### 7.3 An Overview: The Role of Land Trusts in the UK and US

*"Never doubt that a small group of thoughtful, committed citizens can change the world; indeed, it's the only thing that ever has."*  
Margaret Mead, anthropologist

The cultural value of landscape, and the economic impact of land conservation and general environmental improvement, are matters of concern to a widening audience in the US and Britain (Lembeck, Willits and Crider 1991; American Farmland Trust, 1995; Kline and Wilchens, 1996). As Chapter 3 reveals, legislation and programs have been enacted to protect a diversity of land resources, at every level, across the UK and US. At the heart of many of these efforts are land trusts that either facilitate the protection of lands through these devices or supplement public agency efforts.

Land trusts, as explained in earlier chapters, are predominantly non-profit local, regional or statewide organisations that work with private landowners to protect their land for conservation, recreation, and other public benefit.<sup>7</sup> They work to conserve land that is important to the communities and regions in which they operate by undertaking or assisting direct land transactions. Typically, these organisations act to acquire land, conservation easements, management agreements or other interests in real property to facilitate public benefit from the land. (UCEA, 1981; Brenneman and Bates, 1984; Hodge, Castle and Dwyer, 1993; Wright, 1993; Land Trust Alliance, 1995; Gustanski, 1997, 2000 a).

Lands acquired or otherwise protected by land trusts may include, but are not exclusively limited to: scenic vistas, urban parks, gardens, greenways and wildlife corridors, open space, wetlands and groundwater recharge zones, farmland, cultural and historic lands, habitat, and river corridors (Endicott, 1993; Land Trust Alliance, 1995; Wildlife Trusts Partnership, 1996). The photograph sequence below (Figures

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<sup>7</sup> In the US land trusts are predominantly charitable, non-profit organisations; business entities as described in IRC § 501(c)(3) and that is exempt from taxation under section 501(a) of the internal revenue code. A similar status applies to the majority of the nation's land trusts in the UK who are generally incorporated as Registered Charities under the Act of 1993 (c.10), which consolidated the Charitable Trustees Incorporation Act 1872, Charities Act 1960 and Part I of Charities Act 1992.

7.1 through 7.4) gives preview to land trust protected lands across the UK and US on which a variety of conservation tools have been used.



Figure 7.1 Gray's Reservation, Sudbury, MA. Fifty-five acres of land donated to Sudbury Valley Trustees (SVT) in 1976 as a sanctuary for birds and wildlife. *"The land is almost entirely surrounded by residential development, its preservation as open space is, therefore, particularly valuable."* pers. comm., Steve Johnson, Executive Director, (10/97).

Figure 7.2 Coed Maesmelin and the Vale of Neath, 41.5 (16.8 ha) acres acquired and protected by the Woodland Trust. Coed Maesmelin rises from 100m to about 220m along its upper boundary. It is the last unaltered block of semi natural ancient woodland on the 3-mile Mynydd Drumau ridge, providing an 'island' of semi natural habitat surrounded by conifer plantations and agricultural land.

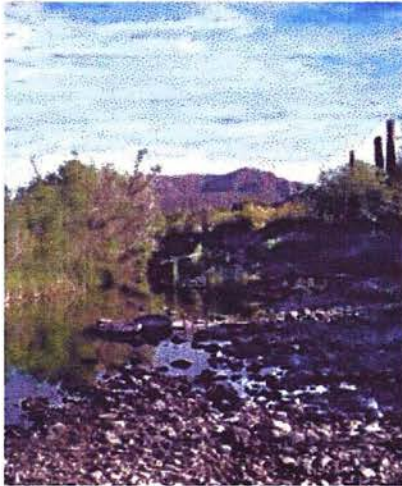


Figure 7.3 Cave Creek and Burnstein Preserves; cooperation between landowners wishing to develop the land and the Desert Foothills Land Trust hoping to preserve an important site. The outcome, a 'limited' or 'green' development consisting of three home sites of 13.5 acres each, with strict building envelopes and a perpetual conservation easement on 16.4 acres. The 100 foot cave that forms the centerpiece of this preserve has provided shelter for ancient residents for over 13,000 years as evidenced by grinding holes, petroglyphs and irrigation canals. It's unique character and history has given name to the adjoining creek and the town of Cave Creek, Arizona.



Figure 7.4 Warwickshire Land Trust's Leam Valley LNR; 107 acres (43.3 ha) open access reserve includes woodland, grassland, marsh and ponds along a 3 kilometre length of the north bank of the River Leam. The area is particularly valuable for birds, butterflies and dragonflies. The reserve is protected through a term Management Agreement between the Trust and Warwick District Council.



From the American Rivers Conservancy (ARC) in Coloma, CA whose mission is to “...*protect and enhance natural habitats where biodiversity can flourish; and to promote, through environmental education, a broad ethic of stewardship, assuring healthy ecosystems now and for future generations*”; to the Urban Wildlife Trust (UWT) in Birmingham, England whose mission is “...*to ensure the diversity and richness of wildlife in the urban area, and to help people understand, protect and celebrate their environment,*” each land trust has its own mission statement, specific to its setting and region, though there is a common intent among land trusts—the protection of land and its resources.<sup>8</sup>

As reported in Chapter 2, in mid 1998, more than 1,200 land trusts were operating in the US, providing protection for some 4.7 million acres of land across the country (Table 7.1).<sup>9</sup> Although fewer in number, with a network of 46 Wildlife Trusts (with 52 urban groups), 40 Groundwork Trusts, and an estimated 160 independent conservation organisations performing works of land conservation

<sup>8</sup> UWT underwent a name change in 1998, interviews were conducted in 1997. The new name of the organisation is Wildlife Trust for Birmingham and the Blackcountry. For purposes here, UWT has been used to accurately reflect the name of the organisation at the date data was collected.

<sup>9</sup> LTA Land Trust Census, 1998.

Note: As stated early on in Chapter 1, the subject research focuses predominantly on the work of local, regional and statewide organisations. A precise division is somewhat more difficult to make in the UK, with most readily available statistics for organisations working across the whole of the UK typically not broken out by nation-affiliation. Yet, to exclude this information would be an oversight and give a distorted picture of land trust efforts in the UK. Therefore, to the extent possible and where appropriate as in Tables 7.2 through 7.4, presentation of the information attempts to separate statistical interpretations to the extent possible. Table 7.2 speaks specifically to the more than 1,200 local, regional and statewide organisations operating in the US. Table 7.3 gives a general breakdown for national organisations in the US, and Table 7.4 combines summary statistics for both national and local/regional organisations in the UK.

across Britain's landscape, their works are no less spectacular with an estimated 1.4 million acres of protected land across the nation, Table 7.3 (RSPB, 1995; Wildlife Trust Partnership, 1996; Dwyer and Hodge, 1996; National Trust, 1997).

Table 7.1 Land protected by state & method by U.S. land trusts (rev. 9/98)<sup>10</sup>

STATE	No. Land Trusts	Total Acres	ACREAGE BREAKDOWN			1995 Protected Other Methods
			Owned	Easement	Transfer to Govt. Agency	
AL	3	31,472	5,472	0	26,000	2,385
AK	4	1,312	395	917	0	0
AZ	10	3,339	280	857	2,202	0
AK	2	1,666	1,581	85	0	0
CA	119	536,922	235,571	78,099	223,252	59,813
CO	29	95,593	6,124	79,783	9,686	10,105
CT	113	54,094	38,694	12,946	2,454	2,973
DE	4	33,883	20,537	1,527	11,819	10,571
FL	29	56,839	9,899	17,071	29,869	9,110
GA	23	7,646	1,457	6,189	0	10
HI	4	7	2	5	0	0
ID	8	23,042	778	8,315	13,949	100
IL	31	43,834	8,309	3,498	31,577	7,645
IN	6	3,461	3,247	209	5	16
IA	5	39,825	5,392	3,445	30,988	21,379
KS	2	219	0	219	0	0
KY	9	2,997	1,296	12	1,689	8,298
LA	1	15,555	651	14,604	300	0
ME	80	82,038	19,218	59,141	3,679	52,202
MD	41	93,114	6,938	79,342	6,834	2,177
MA	137	150,515	91,259	35,811	23,445	15,635
MI	38	46,929	30,338	10,648	5,943	334
MN	2	8,450	1,250	4,855	2,345	0
MS	1	2,973	1,098	1,875	0	0
MO	9	6,438	6,426	12	0	0
MT	9	296,840	261	258,416	38,163	0
NE	3	16,846	15,146	1,700	0	0
NV	4	4,843	0	118	4,725	94,111
NH	32	127,662	48,215	65,659	13,868	820,032
NJ	34	90,403	24,765	4,800	60,838	1,453
NM	7	28,986	873	28,113	0	12,317
NY	68	345,034	49,855	190,924	104,255	34,933
NC	22	37,741	6,259	26,564	4,918	23,302
ND	1	4,834	4,154	0	680	0
OH	27	10,732	7,374	2,885	473	677
OK	1	0	0	0	0	0
OR	17	11,711	386	2,654	8,671	204
PA	75	348,239	54,014	59,774	234,451	80,614
PR	1	2,131	1,176	0	415	0
RI	29	12,544	8,795	3,519	230	483
SC	14	29,747	4,978	22,071	2,700	256
SD	1	9,062	0	7,760	1,302	0
TN	13	23,637	6,932	1,797	14,908	9,896
TX	20	11,531	3,244	3,823	4,464	1,275
UT	4	22,805	19,787	3,000	18	467,972
VT	26	193,061	41,647	138,769	12,645	8,668
VI	1	50	50	0	0	0
VA	16	132,953	11,368	118,402	3,183	0
WA	29	27,230	10,219	11,949	5,062	4,298
WV	9	364	289	75	0	0
WI	43	15,117	9,560	5,141	416	400
WY	2	37,752	1,467	7,585	28,700	0
TOTAL	1,213	3,183,570	827,566	1,384,883	971,121	1,763,644

<sup>10</sup> Land Trust Survey, 1995; Land Trust Census, 1998. Note: 1998 census conducted by LTA, unlike previous surveys, does not include land protected through other methods (deed restrictions, acquisition of mineral rights or negotiating acquisition for other organisations or agencies). According to LTA, some 1.5 million additional acres are protected using such tools. Also, these figures do not reflect land protection efforts of national organisations.

Table 7.2 Land protected by US based national land trust organisations

Organisation	Founding	Members	Protected Lands (1998)* (acres)
National Audubon Society	1905	1,000,000+	600,000
Appalachian Trail Conference	1925	23,500	2,160 (miles) <sup>11</sup>
The Nature Conservancy	1951	900,000	10,500,000+ <sup>12</sup>
Trust for Public Land	1972	n/a	1,000,000+
American Farmland Trust	1980	30,000	127,000
The Wildlife Land Trust <sup>13</sup>	(1954)1992	4,100,000	46,391
<b>TOTAL</b>		<b>6,053,500</b>	<b>12,273,391</b>

Table 7.3 Land protected by UK based national land trust organisations<sup>14</sup>

Organisation	Founding	Members	Protected Lands (1998)*	
			(acres)	(hectares)
RSPB	1892	1,000,000	240,000	97,126
National Trust	1895	2,500,000	673,740	272,659
Wildlife Trusts (collectively) <sup>15</sup>	1912	320,000	148,260	60,000
National Trust for Scotland	1931	230,000	185,000	77,000
Groundwork Trusts <sup>16</sup>	1981	n/a		
John Muir Trust	1983	6,000	44,500	18,000
Independent trusts	1895—1995	45,000	125,000 <sup>17</sup>	50,586
<b>TOTAL</b>		<b>4,101,000</b>	<b>1,416,500</b>	<b>575,371</b>

\* Due to inconsistent reporting techniques used by various land trusts "Protected Lands" may be those owned, leased or otherwise managed through various long term management agreements between landowners and the land trust.

<sup>11</sup> The Appalachian Trail is a continuous marked footpath that goes from Katahdin in Maine to Springer Mountain in Georgia, a distance of about 2160 miles. (Newsletter and various brochure obtained from ATC, Summer 1997).

<sup>12</sup> TNC also has major international projects. The acreage reflected here is for US based projects only.

<sup>13</sup> WLT is a subsidiary organisation of the Humane Society of the United States. It officially formed in 1992, though its parent organisation is considerably older.

<sup>14</sup> Every effort was made to use comparable figures in compiling Table 7.3, the years for which data was most readily available for the various UK sources was 1996 and 1998. Thus, Table 7.4 is compiled using data from these base years unless otherwise specified.

<sup>15</sup> The national office of the Wildlife Trust estimates that approximately 68% of lands (by area) protected by the Wildlife Trusts in the UK are owned; the remainder of the area is managed under agreement / lease. Interview with Dr. Simon Lyster, Director General, Wildlife Trusts (4/7/97).

<sup>16</sup> Note: n/a the Groundwork Trusts are not membership based as are most land trusts and fall into the quasi-private sector receiving funding both from corporate partnerships and government grants. In addition, the Groundwork Trusts have a general corporate philosophy against the actual ownership of land.

<sup>17</sup> Dwyer, J. and Hodge, I. (1996) *Countryside in Trust: Land Management by Conservation, Recreation and Amenity Organisations*, Chichester: Wiley, pp. 56.



### 7.3.1 Land Trusts—past and present

Since the mid-1980's more than 650 land trusts have been formed across the United States. Their present vogue and influence conceals a remarkably long chronicle. In the mid 1800's "village improvement societies" formed in New England to "*improve the quality of life and the environment*" (Gustanski and Squires, 2000). These small non-profit organisations were the fore-runners of today's land trust movement (Trustees of Reservations, 1997). The "Grandfather" of all land trusts, The Trustees of Reservations, in Massachusetts, was formed in 1891. Four years later, in 1895, the National Trust was founded to protect properties throughout England, Wales and Northern Ireland. While not a precise mirror image, the history of Britain's current land trusts is much the same as that experienced in the US. The first organisations, Commons Preservation Society (1865) and the Society for the protection of Ancient Buildings (1877), formed in the mid 19th century as a result of a burst in population growth, and mass building of new housing. The principal impetus being the desire to guard against repercussions of adventitious and impenitent development. Although organisations in the UK such as the National Trust, and RSPB date from the late 1800's, the majority of the country's more than 200 land trusts have formed in the last two decades (Jenkins and James, 1994). Whether in 1891 or 1991, in the US or Britain, land trusts have largely formed in response to two predominant factors, rapid growth in population, and the development of land.<sup>18</sup>

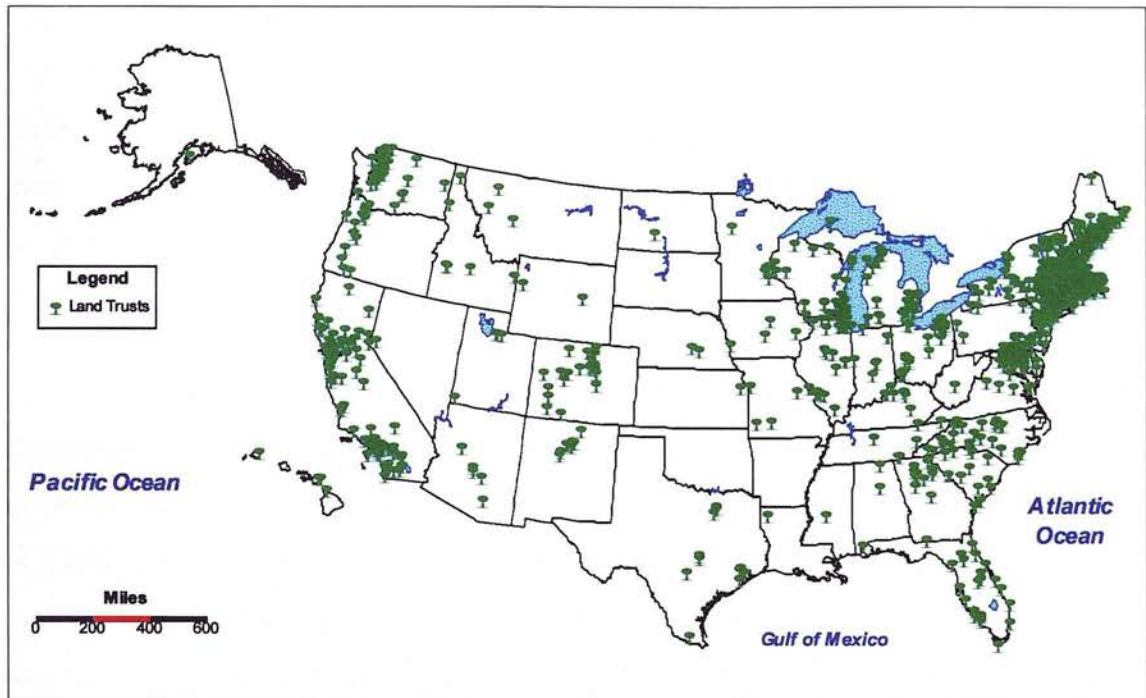
Halfway through the 20th century, just over 50 land trusts existed in the US, predominantly in the New England states. Fifteen years later in 1965, the number of land trusts had grown to 132, with a geographic spread that now included some two dozen states. At that time, nearly all organisations were located in the north-east and mid- Atlantic states (Gustanski and Squires, 2000). By 1980, the number of such organisations had expanded four-fold. The explosive development trends of the 1980's across the US spurred conservation efforts throughout the country. As of

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<sup>18</sup> This Boston-based organisation began in response to land development spurred by a growth in US population from 38 million to 76 million between 1870 and 1900. Newsletters and information pack supplied by The Trustees of Reservations, September 1997.

1998, more than 1,200 land trusts existed, with support from more than one-million members across the country, Figure 7.5 (Land Trust Alliance, 1998).<sup>19</sup>

Figure 7.5 Distribution of land trusts in the US (1995)



In both the UK and the US land trust organisations can be more or less stratified into three principal groups. First there are those that have a national or even international scope for their efforts, such organisations include the likes of The Nature Conservancy (TNC) in the US or The National Trust (NT) in the UK. Second there are those that operate on a regional basis, including such organisations at the 46 Wildlife Trusts operating throughout the UK, or the Minnesota Land Trust (MNLТ) whose geographic boundaries are defined by that of the state. Third, are those organisations that originate as a result of community or localised efforts, such as The Oxford Preservation Trust (ТОPT) in the UK, or the Wissahickon Valley Watershed Association (WVAW) near Philadelphia, Pennsylvania. As stated elsewhere, the predominant focus of this research pertains to those organisations that fall into the

<sup>19</sup> Gustanski, J.A. (2000 b). Zip code data files of US based organisations (1996-98) compiled from information obtained from organisations themselves, the Land Trust Alliance and other and miscellaneous sources were entered into Excel formatted files. Geocoding and plotting of points were accomplished by integrating files with BusinessMAP Pro 1.1 (1995 -1997), Environmental Systems Research Institute, Inc., Redlands, CA.

second and third categories, yet where appropriate information or contextual reference is made to organisations within the first classification.

In Britain, the third sector of land trusts actually contains some of the nation's oldest organisations, such as the Selbourne Society (1883) and the Dartmoor Preservation Association (1885) (Lowe and Goyder, 1983). Despite these early histories and a second period of organisational expansion in the inter-war years, the growth phenomenon in the number of smaller, local and regional land trusts has occurred over the past two decades in Britain (Dwyer and Hodge, 1996). More recent additions include organisations such as the Shetland Amenity Trust (1983).

The origins of what is now known collectively as the Wildlife Trusts is grounded in dissatisfaction of a group of naturalists with the lack of attention given to nature reserves, by the National Trust. Between the years of 1895 and 1910, the NT had acquired some thirteen sites for the conservation of nature (Jenkins and James, 1994). Yet, this group of naturalists concerned over both the random acquisition pattern of the NT's reserves, the slow growth in the number of preserves, and their condition formed the Society for the Promotion of Nature Reserves (SPNR) in 1912. Early on the sole purpose of SPNR was not to own or manage land itself, rather the organisation endeavoured to identify areas for focusing conservation efforts based on a methodical system of identifying areas with species of flora and fauna endangered of extinction (Sheail, 1976).

In reality, during the first 30 years of SPNR's little progress was achieved and the relationship with the NT became increasingly strained. Not only did the NT largely ignore recommendations of SPNR, but rejected custody of some potential reserves. SPNR became increasingly critical of the NT, even the RSPB discussed the poor state of the NT's reserves. Clearly, while the Act of 1907 specified the general purposes of the National Trust as "...promoting the permanent protection for the benefit of the nation of land and tenements... and as regards lands for the preservation (so far as is practicable) of their natural aspect features and animal and plant life", the organisation itself focused on historic and amenity conservation.

Following WWI SPNR's role grew and in 1942 a Nature Reserves Committee was established under the auspices of SPNR. The Committee operating under a system of regional sub-committees was largely based on existing organisations (Sheail, 1976). Their purpose was to identify species in danger of extinction together with a listing of sites proposed for conservation. Having accomplished this task in 1945 and publishing a list of 55 sites, many of these local groups lost momentum and became inactive. In 1954, having found only three of the 24 sub-committees still active the SPNR agreed to disband the sub-committees.

The three sub-committees that had retained their impetus effective formed the foundation for what has evolved into the current collective of wildlife trusts. The first to form were the Norfolk Naturalists Trust (1926), the West Wales Naturalists Trust (1937), the Yorkshire Naturalists Trust (1946), and the Lincolnshire County Trust (1948) (Lowe and Goyder, 1983). Thirty-nine of the wildlife trusts were formed between 1955 and 1970 when nature conservation first came to the forefront of national and international attention (Lowe and Goyder, 1983; Dwyer and Hodge, 1996). The remaining wildlife trusts, including Cleveland (1979), The Wildlife Trust (1980), Montgomeryshire (1982), and London (1983), have formed since the late 1970's.<sup>20</sup> As of 1998, the Wildlife Trust Partnership, the umbrella organisation for UK wildlife trusts indicated the total number of organisations included some 46 wildlife organisations and 52 urban groups (Wildlife Trust Partnership, 1998).

Without the existence of an single umbrella organisation as the US based Land Trust Alliance (LTA) in the UK efforts to determine accurate numbers of land trusts, their growth, conservation activities and age distribution was challenging and beyond the scope of this research. While most organisations have developed a range of informational brochures and newsletters, Dwyer and Hodge (1996) provide the most detailed and recent account of collective land trust characteristics and activities for the UK. Dwyer and Hodge, report the mean age of the nation's land trusts at 16 years, countering it as somewhat misleading due to being heavily skewed. The reported median age of 9 years and a modal age of only 2.5 years more accurately

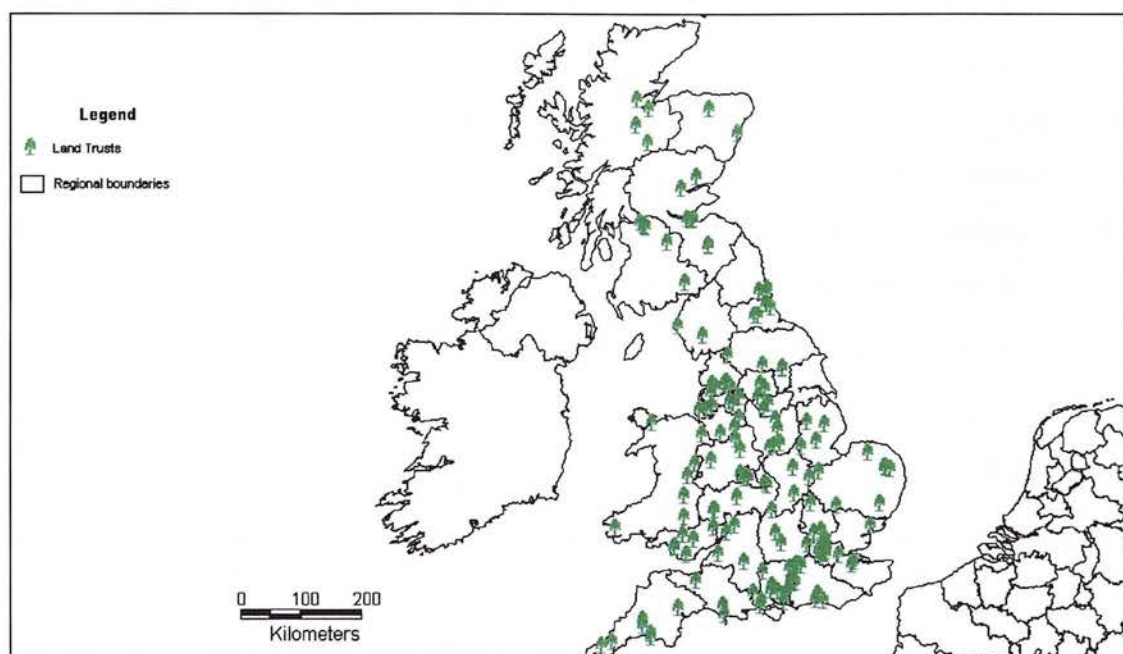
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<sup>20</sup> The Wildlife Trust, formerly known as the Wildlife Trust for Bristol, Bath & Avon, currently covers the regions including Bath, Northeast Somerset, North Somerset and South Gloucestershire.



reflects the state of Britain's land trust community through the mid-1990's. Figure 7.6 reflects the geographic distribution of UK land trusts as of mid-1998.

Figure 7.6 Distribution of land trusts in the UK (1996)



At the 1995 National Land Trust Rally, LTA president Jean Hocker remarked in her opening address that the growth of the land trust movement (in the US) was unsurpassed by any other sector of the larger “environmental movement” umbrella.<sup>21</sup> In the period between 1990 and 1994 alone, local and regional land trusts in the U.S. increased by 23.3%, this is approximately one new land trust per week over this four-year period.<sup>22</sup>

Since their early beginnings, local and regional land trusts in the US have protected over 4.7 million acres of land—some 300,000 acres more than the total land and water area of the District of Columbia, and the states of Connecticut and Rhode Island combined.<sup>23</sup> Though the concentration of land trusts remains strongest

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<sup>21</sup> From notes taken during the opening speech, 1995 National Land Trust Rally, Monterey, CA.

<sup>22</sup> Land Trust Survey, 1995.

<sup>23</sup> Total area was calculated using information from the US Bureau of the Census, Statistical Abstract of the United States (11th ed.) Washington, DC, 1991. Total area includes dry land and land temporarily covered by water, as well as water areas within a states boundaries (i.e., inland, coastal and Great Lakes waters). Total area cited includes; 1) District of Columbia is 68 sq. miles (43,520 acres); 2) Connecticut is 5,544 sq. miles (3,548,160 acres), and; Rhode Island 1,231 sq. miles (787,840 acres).

in New England, boasting more than a third of the nation's land trusts, recent years have seen rapid growth in both sheer numbers and activity in other areas of the country (Table 7.4). In the period between 1994 and 1998, the Southwest, for example, saw the most rapid growth, with the number of land trusts increasing by more than 37% and an increase of protected lands of nearly 61% in the period. The South, Southwest, West Coast and Rocky Mountain states have all shown impressive growth and strengthened land trust activity since 1988. The 1998 National Land Trust Census reported that there are at least 1,213 land trusts in America. This represents an increase of 470 organisations since 1988. The growth trend that began at the end of the 1980's set the pace for the next 10 years when more than 63% of the nation's land trusts formed (Gustanski and Squires, 2000).<sup>24</sup>

Table 7.4 Growth in US land trusts by region (1988 - 1998)<sup>25</sup>

Region	Base-Year 1988 <sup>26</sup>	1990	Increase (%)	1994	Increase (%)	1998	Change +/- (%)	10 year Growth (%)
Rocky Mts.	20	28	40.0	42	50.0	52	23.8	160.0
Southwest	15	19	26.6	27	42.1	37	37.0	146.0
South	65	74	13.8	114	54.0	142	24.5	118.0
West Coast	83	119	43.4	173	45.4	173	0.0	108.0
Mid-Atlantic	117	154	31.6	202	31.2	222	10.0	89.7
Great Lakes	84	97	15.5	116	19.6	145	25.0	72.6
New England	336	374	11.3	395	5.6	417	5.7	24.1
Plains	21	23	9.5	26	13.0	23	-11.5	9.5

<sup>24</sup> Land Trust Surveys (1991 and 1995), and; Land Trust Census, 1998 ; and, Gustanski, J.A. Land Trust Interviews 1996-98.

<sup>25</sup> Compiled using information obtained from Land Trust Surveys (1990 and 1995); Land Trust Census, 1998, and; documentation obtained as a result of Phase III Expert Interviews 1996-98. States comprising the named regions are as follows: South (AL, AR, FL, GA, KY, LA, MS, NC, SC, TN, VA, WV); Rocky Mts. (CO, ID, MT, UT, WY); West Coast ( AK, CA, HI, NV, OR, WA); Southwest (AZ, NM, OK, TX); Mid-Atlantic (DE, DC, MD, NJ, NY, PA) Great Lakes (IL, IN, MI, OH, WI); Plains (IA, KS, MN, MO, ND, NE, SD); New England (CT, MA, ME, NH, RI, VT).

<sup>26</sup> 1988 is established as the base-year in that this is the first year the Land Trust Alliance actually disseminated surveys to known land trusts across the United States.



### 7.3.2 Growth in Acreage Protected

Through 1998, land trusts in America have helped to protect an area larger than the District of Columbia and the states of Connecticut and Rhode Island combined: a total of 4.7 million acres of land (see Table 7.2). This is an increase of 2 million acres or approximately a 135% since 1988.<sup>27</sup> Protected acreage includes:

Land owned by land trusts:	828,000 acres
Conservation easements held by land trusts:	1,385,000 acres
Land acquired and transferred to 3rd parties:	2,487,000 acres

Although the conservation easement has taken the lead in the US as the most widely used conservation tool among the nations land trusts, the Land Trust Alliance reports that an additional 1,764,000 acres have been protected through other methods (Gustanski and Squires, 2000). Among these are deed restrictions, acquisition of mineral rights, pre-acquisition by other organisations or government agencies and limited developments. Between 1990 and 1994, the South had both the greatest proportional growth in the number of land trusts and the greatest percentage increase in acreage protected: approximately 190,000 acres or more than a doubling of land trust-protected acreage in the region. Other regions with impressive growth were the West Coast with 170,000 acres (a 42% increase) and the Mid-Atlantic with an additional 160,000 acres (a 37% increase).<sup>28</sup>

As reflected overwhelmingly by experts in the UK, during Phase III expert interviews, land trusts largely prefer ownership to other forms of agreements that can be terminated at will. The national office of the Wildlife Trusts estimates some 60.7% of all lands (by area) protected by the 46 wildlife trusts are owned, the remaining 39.3% are protected under either management agreements or through lease (*pers. comm.* Dr. Simon Lyster, Wildlife Trusts (4/7/97). Yet, interviews with land trust professionals across the UK revealed a favourable position towards a perpetual conservation option that does not require ownership, if such an alternative were available, see Section 7.4. Frequently, interviewees ruminated on the exorbitant

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<sup>27</sup> Land Trust Census, 1998.

<sup>28</sup> Gustanski, J.A. Phase III Expert Interviews 1996-98, and; Land Trust Surveys (1990 and 1995); and, Land Trust Census, 1998.

costs associated with landownership and preserve management, and were keen to know more about some of the conservation options being used in the US to alleviate such burdens and enable organisations to protect vast areas of land at a fraction of the cost. As Chapter 3 highlights, only the National Trust has been granted specific powers through the 1907 Act of Parliament, and subsequent amendments, enabling the Trust to enter into binding restrictive covenants which operate in much the same way as their American cousin the conservation easement. The National Trust Act bestowed inalienable rights to hold land and removed many of the common law impediments requiring ownership of lands appurtenant or adjacent to restricted land, see Chapter 3, section 3.5.4.1.

### 7.3.3 Type of Land Protected

Land trusts protect a diversity of land resources (Figures 7.7 – 7.10). Through the Phase III interviews and documentary information collected from organisations interviewed, analysis revealed that wildlife habitat ranked as the number one resource land trusts in both the UK (84.2%) and US (76.6%) devote attention to. By comparison, the 1994 Land Trust Survey conducted across a sample of 824 US land trusts also ranked wildlife habitat protection as a primary goal of some 80% of land trusts respondents. Yet, the 1998 National Land Trust Census indicates only 38% of survey respondents "primarily or very involved" in the protection of wildlife habitat.<sup>29</sup> Tables 7.5 and 7.6 identifies those land resources principally targeted for protection by land trusts included within the Phase III representative research sample. Ranking second among both UK and US land trusts is the protection of forest or woodland resources, with approximately (68.4%) of the UK land trusts emphasising the protection of woodlands, compared to (70.5%) in the US. Perhaps due to differences in the respective landscapes as well as variations in cultural views, other leading efforts among UK and US land trusts diverge at this

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<sup>29</sup> Land Trust Survey, 1995; and, Land Trust Census, 1998. The Land Trust alliance acknowledges inconsistencies in question and reporting techniques used across these two reporting period and could not verify which percentage they believed to be more accurate. Personal communication and correspondence with Ms. Martha Nudel, Land Trust Alliance, Washington, DC (January 1999).

point. For example, while US land trusts tend towards emphasising the protection of open space (69.5%), UK land trusts tend to place significantly less importance on this as a principle function with only (10.5%) of the sample identifying open space or greenbelt conservation as a primary goal, possibly due to the long history of greenbelt laws in the UK. A similar scenario can be seen in comparing the prominence placed on the protection of productive lands, where (51%) of US land trusts from the sample consider this a “primary” and “important” function of their organisation, compared to (21%) the UK. Yet, there is general consistency on the weight given to protecting and enhancing ecosystems and biodiversity with (55.2%) of US organisations in the sample including this in their primary efforts, compared to (52.6%) of UK land trusts. Given that there are landscapes particular to each country which land trusts include within their conservation objectives, Tables 7.5 and 7.6 reflect this uniqueness in slight variations in labels applied, where appropriate.

Table 7.5 Land resources protected by U.S. land trusts interviewed

Wildlife habitat	76.6%	Greenways	50.3%	Hillsides	33.8%
Forests	70.5%	Recreation/Access	49.0%	Lakes	32.9%
Open space	69.5%	Floodplains	49.0%	Urban land	28.9%
Watersheds	64.3%	Historic/Cultural	46.2%	Islands	28.9%
Wetlands	60.4%	River Corridors	35.3%	Prairies	27.6%
Scenic views/roads	55.7%	Coastlines	35.2%	Archaeological sites	25.7%
Ecosystems/Biodiversity	55.2%	Ranch Land	34.3%	Community Gardens	22.9%
Farms	51.0%	Mountains	34.3%	Deserts	15.8%

Table 7.6 Land resources protected by U.K. land trusts interviewed

Wildlife habitat	84.2%	Coastlines	31.5%	Reclaimed/Derelict	15.8%
Forests	68.4%	Canal/River Corridors	26.3%	Geological	15.8%
Recreation/Access	63.2%	Heath/moor land	21.0%	Lakes/Lochs	15.8%
Wetlands/peat bogs	52.6%	Watersheds	21.0%	Open space/Greenbelt	10.5%
Ecosystems/Biodiversity	52.6%	Farms	21.0%	Islands	10.5%
Historic/Cultural	42.1%	Community Gardens	21.0%	Scenic views/roads	5.2%
Urban land	42.1%	Mountains	15.8%		
Chalk lands/meadows	36.8%	Archaeological sites	15.8%		

Source for Tables 7.5 and 7.6: Phase III Expert Interviews (1996-98) and information packs received from land trusts interviewed.

Though land trusts in both the UK and the US are principally concerned with direct land protection initiatives, they do undertake many other related efforts as

well. Some (63.2%) of UK land trusts reported maintaining land for public access and/or recreational purposes, as did (49%) of US organisations, and for both the UK and the US some (85%) of land trusts interviewed said they conduct public education and outreach activities. Another relatively new branch of involvement for organisations in both countries is in the planning process. While approximately (53%) of UK land trusts interviewed said they were either “directly” involved or “consulted by local planning commissions” on various planning applications, another (31.5%) have either planners on staff or have developed their own consultancies. This compares to US land trusts interviewed, of which (60%) now undertake land use planning activities. From detailed analysis provided through on site visits and the interview process, it is clear that no two land trusts are mirror images. Each organisation experiences their own evolution, adapting both the protection of particular land resources and the services they provide, unique to their location. While some may participate in the development of land policies, others may play an active role in providing urban populations with gardening opportunities, and still others may take part in affordable housing initiatives (Matthei, 1993).



Figure 7.7 Spectacular desert sunset over the Sonoran Desert. Land protected by MSLT, AZ. *“It’s not just the mountains that need to be saved. It’s our history, our wildlife, our spectacular deserts, and the cultural and economic benefits that they bring to our community.”*



Figure 7.8 Cotterill Clough, Ringway, Manchester. A Cheshire Wildlife Trust nature reserve 7ha (17 acres). A steep wooded valley with associated ground-flora such as ramsons, bluebells, dog's mercury, yellow archangel and pendulous sedge

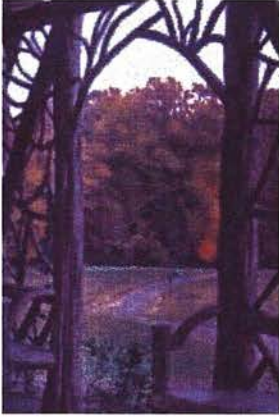


Figure 7.9 View through a rustic vine gazebo at Poets' Walk Romantic Landscape Park. Washington Irving, author of *Rip Van Winkle*, found inspiration among the rolling fields and quiet woodlands of this rustic landscape during the 19th century. The visual integrity of this land is now protected by conservation easements on the surrounding 800 acres acquired by the Scenic Hudson Land Trust, Inc. Breathtaking, unparalleled vistas of the Hudson River, the Kingston-Rhinecliff Bridge and the Catskill Mountains can be seen from this 120-acre park.

Photo Credit: Tom Ligamari (courtesy Scenic Hudson Land Trust, Inc.)

Figure 7.10 Educational activities Gibraltar Point National Nature Reserve. An area of 1,062 acres (430 ha) comprising sandy and muddy seashores, sand-dunes, saltmarshes and freshwater habitats extending for a distance of about 3 miles along the Lincolnshire coast, from near Skegness to the entrance of the Wash. The Reserve is managed by the Lincolnshire Trust for Nature Conservation under a lease from Lincolnshire County Council and East Lindsey District Council.



Using an ethnographic approach, the remaining sections of this chapter (7.4—7.7) examine the results of the Phase III interviews conducted between July 1996 and June 1998. Appendices 7-2 and 7-3 contain a complete list for organisations from which interviewees were drawn.

## 7.4 On Measuring Success

In reflecting on organisational success, most conservation professionals examined how their respective organisations evaluated “success” from an internal perspective (i.e. “did we meet established goals”, “have we made an impact”, and “are we financially sound”). Indirectly each of these more introspective queries reach beyond the organisation itself, extending into many different facets of community interaction.

Although not uniformly true, small local or regional land trusts in the UK tended to have larger budgets for land projects and acquisition than equivalent groups in the US. While some interviewees made the connection between the size of their annual budget and success of the organisation, the relationship in view of acres and services provided appeared to be in large part a factor of larger government contributions both in the form of grants and funds from sources such as the National Lottery. This factor in part may be circumstantial in that there is no tool providing both perpetual protection for land resources that does not require fee title ownership of the land in the UK; thus requiring larger budgets of individual organisations in order to accomplish their land conservation goals.

Despite often significant differences in size, age, geographical location and nature of lands protected by organisations across the two nations the predominant indicators of success tended to include three principle areas of concern; 1) land conservation programme; 2) education and community out reach; and, 3) financial stability, which also included aspects of membership and fundraising. Another stand out factor, particularly in the US, which many organisations acknowledged as important especially early in their organisation’s history, is the “buck and acres” measure.<sup>30</sup> Though, most organisations appear to move away from this measure once the organisation is established and has several sound protection projects completed. Thorough review of textual data reveals that the greatest variation is not

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<sup>30</sup> The common phrase “bucks and acres” is generally used in reference to the costs associated with the number of acres protected. Often it is used as a measure when comparing conservation lands protected by non-profit organisations and those of public agencies.



by country as one might expect, rather the variation appears connected to the age and security of the organisation within its respective community.

More than half of all interviewees admitted that their organisation had not seriously considered the “success” of their organisation or its achievements (Figure 7.11). Often interviewees made comments in relation to organisational evaluation, noting for example where one interviewee stated that “*we probably do not take the time to evaluate our actions until there is a major crisis*”. Such “major crises” generally were attributed or reduced to either finances or personal/political philosophical fissures. Among the most frequently cited events that eventually brought about review of the organisation were, unsuccessful fund raising campaigns, stagnant or dropping membership contributions, board staff relations, inability to pay or hire professional staff or experts to carry out the land trust’s programme, or chasms between particular factions on the board.

Figure 7.11 *On measuring organisational success:*

*I would say that the success of the Iowa Natural Heritage Foundation is measured by, well at least internally is measured by the annual goals we set for the organisation in three areas, the first the being number of acres protected. The second being financial support and the third being awareness or education. We do get external feedback on a relatively regular basis from the outside in terms of how people feel as to the organisation and the increased awareness about land conservation issues. [CASE\_50\_18/9/96 (IA, US), lines 4476—4490]*

*Since 1966 we have received approximately 100,000 acres of donated easements and are consistently still receiving donations. I think that is probably the greatest statement of our success, and that we still exist. [CASE\_08\_20/8/96 (VA, US); lines 634—639]*

*Historically the SCFOSF probably has measured its success really in terms of the number of deals done, the quality of those deals and the land put under easement on a regular basis. A second factor of success would be consideration of where protected lands are actually located. Most protected land happens to be where there is the most tension from development perspective. Thirdly, I think by virtue of the fact that as the non-partisan voice of protection we have gained a high profile with key people is quite important to our long term success. Finally our fiscal profile would be at least some measure as to amount raised and funding sources. I think this shows a certain level of respect for the organisation. Publicity media relations are quite strong, this is quite important to our success. [CASE\_77\_28/8/96 (CA, US); lines 7077—7099].*

*We tend to measure our success by whether we have made an impact on wildlife in Kent. This is a bit more difficult than simply playing the numbers game, but we do that as well. I think of KWLTL with 3 main focuses; acquisition (in the form of nature reserves), education and politics. [CASE\_02\_24/5/97 (England, UK) lines 188—196].*

*I am not certain if we have ever asked ourselves that question, it is a good one - obviously one we should ask ourselves. Essentially our success is probably three sided and founded on: education, financial viability and membership. [CASE\_03\_25/7/97 (England, UK); lines 335—342].*

*I think the success of UWLT can be measured in two distinctly different ways. The first would be the success of the Organisation, we are financially solvent, have professionally trained staff and we are seen and viewed by others in the community as professionals. The other would be the success of UWLT's work, including education and conservation. [CASE\_06\_26/7/97 (England, UK); lines 820—831].*

## 7.5 On Land Preservation Tools & Techniques Used

The clearest distinction between the use of various conservation tools between the US and UK, particularly for those considered to be “direct”, are largely grounded in what has been provided via statutory law or through various policies. Effectively, enabling laws and policies either give liberty to or restrict the conservation options available to land trusts. Across the interview sample land trusts in the US place a greater reliance on the use of land donations, bargain purchases and conservation easements in order to minimise annual budgets yet maximise land conservation services.<sup>31</sup> While a few US land trusts laud accolades to the virtues of outright ownership of land, an overwhelming majority preferred the use of conservation easements, whether purchased outright, in part, or donated to the burdens of land ownership. In the UK, similar tones regarding stewardship duties and financial burdens of owning land were frequently expressed, yet most also acknowledged that ownership was the only sure measure for perpetual land protection available to most UK land trusts (Figure 7.12).

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<sup>31</sup> A “bargain sale” also referred to as a “bargain purchase” is defined as the sale of a property, generally to a tax exempt non-profit organisation, for less than the fair market value (FMV) (Gustanski, 1997)

Figure 7.12 *On land preservation tools & techniques in the UK:*

*Conservation techniques or tools would specifically include: nature reserves of which we hold 67 (2% of Kent in nature reserves with 1.5 million visitors per year), 60% of the reserves are owned 40% with a management or lease agreement. Lands for actual acquisition are more tightly targeted. My thinking on reserves has fluctuated and changed over the last few years. Although nature reserves are not the only answer, they are incredibly useful, they are tangible, they bring credibility to the organisation and they are an educational resource. [CASE\_02\_24/5/97 (England, UK); lines 219—234].*

*To date UWT has not taken on ownership of any land. We are just coming around to this idea and it actually may happen in next couple of years. Two-thirds of lands surveyed are actually public lands, so we try to have influence over their stewardship and get landowners to manage their land properly. We are also considering land holding partnerships. We are in the process of a strategic study to help us determine the costs and liabilities. [CASE\_06\_26/7/97 (England, UK); lines 857—875].*

*Nature reserves are probably the primary tool. When possible we like to own reserves and own 16 outright, one is partially owned and one is leased from Plant Life, you've undoubtedly heard of them? So mostly we like to have complete control over the land and management plans are intended for all sites. [CASE\_09\_8/7/97 (IOM, UK); lines 14201514—1523].*

*Freehold land tenure is much the preferred option. Management agreements are also pursued. Of the 18 reserves 11 are freehold with the purchase of a 12th being actively sought. Further land protection in Powys is being sought through development with partners of a wildlife sites system for inclusion in the Local Plan and through development of a pilot Local Record Centre which it is envisaged will greatly enhance targeting of support mechanisms such as the proposed new Agri-Environment Scheme for Wales (due spring '98). About 30% of the conservation effort is directed towards this at present, though this represents a large recent swing towards this type of strategic conservation approach. It is all relatively new for mid-Wales. [CASE17\_20/1/98 (Wales, UK); lines 3008—3028].*

In assessing the range of conservation tools discussed across interviews, it quickly became apparent that a greater diversity of alternatives was available to, and being used by, US organisations. Not only is there a more diverse range of options, but the options available appear to allow for a unique and often entrepreneurial approach to be taken to the protection of land (Figure 7.13). In many instances land trusts in the US were taking full advantage of the range of tools, mixing and matching a cocktail of conservation tools and techniques to structure large and often complex conservation projects to serve the individual needs of landowners seeking protection of their land.

Figure 7.13 *On Land Preservation Tools & Techniques in the US:*

*JHLT has protected about 9,000 acres of land in and around Jackson Hole primarily through donations of conservation easements. In some rare cases, the JHLT does purchase land; we do our best to acquire critical parcels of land that are threatened by development when there seems to be no other option for their protection. [CASE\_115\_16/1/98 (WY, US); lines 786—795].*

*As far as land conservation tools... well to date we've only really used conservation easements and management agreements but we are in the process of negotiation of a property in fee. The property I feel will go the route of pre-acquisition in that the Board is not really interested or comfortable with land ownership. Additionally, we are thinking of a conservation buyer's list and a registry programme. I also think that options will be a tool we will utilise in the future. [CASE\_55\_10/1/96 (WI, US); lines 5069—5081].*

*The principal land protection tools used by CLC are first and foremost conservation easements that are primarily... about 99% donated. Occasionally CLC works in partnership with other groups (i.e., Scenic Hudson). Also, we have an easement trade lands programme which helps to generate revenue. CLC also helped to establish the 1st PDR (purchase of development rights) programme in the Hudson River Valley. Lastly, CLC occasionally will purchase lands to preserve them. Purchasing land is expensive and usually the last alternative sought, currently we have 400 acres of preserve lands purchased. Conservation easements, as far as we are concerned, are the best option. The land stays on the tax rolls and in private ownership. [CASE\_02\_7/8/96 (NY, US); lines 106—124].*

*First and foremost, we use purchase direct acquisition of lands and only use conservation easements when we are transferring the land to a government agency. I feel that not enough organisations are using fee simple purchase of lands. The other area that we get involved with is pre-acquisition of lands. [CASE\_11\_12/8/96 (DE, US); lines 939—946].*

*Principal conservation tools used by the BC include first conservation easements, most of which provide for some level of development and most conservation easements are either bought via bargain sale or purchased outright. Second would be limited development plans with the increase in land values there is more and more involvement with limited development plans as well as for intergenerational transfers of land. The third area would probably be the cooperative arrangements with the State and County Agricultural Land Preservation Programme. Fourth would be land donations which unless they are clearly defined we don't get too involved with them. [CASE\_17\_20/8/96 (PA, US); lines 1337—1354].*

Where time or a particular line of questioning allowed during the course of UK expert interviews, the concept of conservation easements as used by US land trusts was raised and discussed. Following a brief discussion of the mechanics of conservation easements with 41.2% of the sample interviewed, interviewees were



asked if such an instrument would be of benefit to their organisation. The following excerpts reflect the general impression as to the applicability of conservation easements, particularly by the local and regional body of land trusts in the UK (Figure 7.14).

Figure 7.14 *On the use of ‘conservation easements’ by UK land trusts:*

*Conservation easements sound like they would provide a great alternative to the need to own land which is the most secure way of ensuring land is protected in perpetuity in the UK at the moment...would also be a good incentive for landowners. [CASE\_07\_10/7/97 (Wales, UK); notes 1009—1049].*

*[Upon concluding interview, discussion took place regarding conservation easements. Interviewee had read about this type of “program” in Canada and America].... I am not sure as to implications for changes to UK laws, though I think that conservation easements sound a viable alternative for UK conservation organisations, in that it would help stretch our capabilities to protect land and manage better those lands we own without feeling pressurised into raising funds to buy more land. [CASE\_14\_23/7/97 (England; UK); notes 2599—2653].*

*I’m quite interested in the workings of conservation easements, though I am sure there would have to be some changes to the laws to make them legal. I am not sure about status of tax law and what would need to be done...or how to modify it. Though, I have to say that I think the concept could work well in Scotland as well as in other parts of the UK, but as with anything new would take some time learning the ins and outs. Sure sounds like it would relieve much of the budget burdens most organisations face though. [CASE\_05\_4/7/97 (Scotland, UK); notes 599—614].*

## 7.6 On Public Perceptions & Attitudes

*We are caught in an inescapable network of mutuality, tied in a single garment of destiny. Whatever affects one directly, affects all indirectly.*

- Martin Luther King

In light of Dr. King’s now legendary words spoken some 30 years ago, and countless others who have expressed similar sentiments, it seems trends might be toward greater willingness of diverse sectors as developers, real estate agents, land use planners and land trusts to work together to strengthen the foundations of their communities. While this is certainly happening on some levels in a variety of places, interviews revealed that the general tone is still very much one of “us against them”. In the US, and to a lesser extent in the UK, interviewees often reflected on the debate



over land use and focus on private property rights and the appropriate role of government in protecting resources. Polarisation on issues such as effects on local tax base and whether or not there was a “need” for the conservation of land were more frequently expressed by US interviewees.

The following excerpts give particular attention to interviewee statements that may be viewed as reflecting a negative sentiment towards land conservation or more specifically the work of the given organisation (Figure 7.15). As appropriate, most interviewee’s identified the sector of the community to which their statements refer. The purpose of the process was both to elicit both “positive” and “negative” insights into the beliefs and attitudes toward land conservation and the work of respective organisations. It is not necessary here, however, to show that, people value the protection of land and other environmental resources, this has been well established by respective national polls and a multitude of surveys conducted over the past decade or more. What is less well established are some of the underlying connections that may assist us in understanding the reasons behind negative attitudes.

Figure 7.15 *On public perceptions and attitudes in the US:*

*There are probably four or five principle prevailing or underlying arguments against land conservation efforts in our area. One of them lies with the tax assessors who give land conservation generally a bad name by not giving a revaluation of land for tax purposes once its protected. [CASE\_4\_8/8/96 (NY, US); lines 271—278].*

*Frequently heard in opposition to land conservation efforts in Lancaster County is that we are tying up the rights of our children, some say land conservation is a waste of taxpayers money, others say we are trying to circumvent the planning and zoning process by promoting agricultural security areas and preserving farms, and pessimists are always saying the laws will change and this won't go on forever. There are also those who are just philosophically opposed to any permanent restrictions on land or landowners rights, there is enough agricultural land in this country we don't need to preserve it here, and farmers aren't making any money why should they preserve their land. [CASE\_12\_20/8/96 (PA, US); lines 1002—1019].*

*We are squarely up against the manifest destiny attitude that's for sure. It seems everyone measures the value of a piece of land in its highest and best use. It seems to be so firmly rooted in our culture. Many people don't even question whether higher is the best it's just so much of the institutional dogma that land is a commodity to be owned and exploited. And then there are of course the property rights advocates and we've been relatively successful with that group essentially we take the position that there is as much right of a landowner to preserve a property as to exploit it. And the final argument probably is that by protecting lands we are subsidizing the "hell" out of development. People on this agenda feel that there's hundreds of thousands of less in tax revenue by protecting the land. However, they have not come full circle to realise that the way this region looks and the sense people get when they come here on their summer holidays is the economic heart beat of our region and if we do not protect it there will be much more lost in tourist dollars annually than in tax dollars. [CASE\_41\_30/9/96 (MI, US) 3578—3607].*

While interviewees, particularly in the eastern half of the US almost unfailingly mentioned the concerns expressed by the public at large in relation to protected lands being withdrawn from the tax base, this particular issue was never mentioned by the UK participants. Although this specific concern is largely unfounded in the US and is fact a misinterpretation of tax treatment in most jurisdictions, one interviewee expressed that this line of reasoning had “...spread like wildfire...we are trying to sell the public on the benefits of preserving land in their community, and suddenly before we knew it we were the bad guys. It has taken nearly two years to get the community over that hurdle, but in that two years we lost a huge project which we were trying to get the community to support... now we get to look at a lovely strip mall and 600 houses that all look the same.” [CASE\_112\_15/1/98 (MD, US); lines 557—772]. The absence of discussion on the relationship between protected landscapes and the local tax base, is logical, however, given the differences in the land use and property tax systems in the US and UK.

Discussions with UK interviewees reflect scepticism of the genuineness behind political sentiments, the difficulties in communicating with the development community, and hope in their general perception of public support (Figure 7.16).

Figure 7.16 *On public perceptions and attitudes in the UK:*

*Politicians, they are probably the most unpredictable. By-and-large sentiments seem to be that they think BBONT is "anti-development" and/or that we are living in the past. [CASE\_01\_24/6/97 (England, UK); lines 119—123].*

*Landowners think we are unrealistic and that there is no consideration given to free market influences. Politicians are generally supportive because it is politically popular at the moment. The public at large has been unfailingly supportive. [CASE\_02\_24/5/97 (England, UK); lines 248—257].*

*There has been a definite change over the past few years. It used to be jobs or nothing, things like planting trees would be very low on the list of priorities. It is hard to know if being green is just "the flavour of the month" or if it is for real. I suspect much of it is economy led. Many people seem to be of the opinion that it is already too late... "a waste of my time and money" one guy told me. Generally though the man in the street is probably more concerned with "dog dirt", though I feel values are still related and very, very important. [CASE\_14\_23/7/97 (England, UK); lines 2647—2660].*

*Developers and commercial interests need to grasp or have better idea of what we are doing...it would go a long way in helping us all understand each other better. This is a monumental task sometimes. I hear from some groups in the US that they actually do some projects with conservation and preservation with development...Anyway that is a big job we face—generally I get the sense that “they” think of as something to get out of the way, though we have been working with one developer who has agreed to some habitat translocation on one particular site, the fury is still out, we will have see what happens. [Case\_19\_2/6/98 (Scotland, UK) 3259—3275].*

On the positive side, interviewees often expressed that their communities viewed their organisations as largely “doing good”. Some interviewees, particularly in the US, reflected on benefits related to land conservation measures that their communities have experienced, such as, stabilising and/or increasing nearby or adjacent property values, thereby avoiding the need for increased property tax rates, while others recited various studies that have documented increases in real estate value for residences located near parks, with increments in real estate value attributed to individual parks ranging into millions of dollars.

### 7.7 On the Use of Criteria or Decision-making Processes

When asked to what extent participant organisations used some form of decision criteria to evaluate particular lands for conservation purposes interviewee responses fell into three distinct categories; 1) land trusts that customarily use either a specific set of criteria, a check list or a reserve acquisition policy (RAP); 2) land trusts that have only recently adopted a decision-support tool, sometimes after 40 or more years of operation; and 3) organisations that “have loose notions” about what their criteria are and operate under the “gut instinct” philosophy. Table 7.7 shows the breakdown for the interview sample of UK and US land trusts falling into these three categories.<sup>32</sup>

Table 7.7 Use of decision-support tool(s) by UK and US land trusts interviewed

Decision-Support Tool	UK	US
Use RAP, criteria or check-list (1 year or more)	47.3%	45.8%
Using RAP, criteria or check-list (less than one-year)	21.1%	15.0%
No DS tool used at time of interview	31.6%	39.2%

<sup>32</sup> While 139 organisations were interviewed in total, the statistics here are based on a sample of 137 organisations, as there were two “umbrella” type organisations involved in the initial interviews that were not directly involved in the protection of land. Therefore, in order to provide accurate and consistent information they have been removed from this calculation.

If for example a characteristic sampling error of +/- 2% were applied, as many as 451 to 500 of the 1,213 land trusts existing in the US as of 1998 may be making random “seat of the pants” decisions, that may bear little relationship to the future direction of their region or community. Or worse, in the excitement of being offered a parcel of land, without a thorough assessment, a land trust may for example find themselves in the position of having unknowingly accepted land that may have been used for dumping toxic or industrial wastes. While the clean-up and reuse of derelict land and former industrial sites provides many urban trusts with unique opportunities to “re-create” nature in the urban environment, the land trust must go into such arrangements with their eyes-wide open, leaving responsibility for clean-up both now and into the future with the donor.

The question of whether or not an organisation used a decision tool in evaluating land proposed for conservation was met with both interesting and often unexpected responses (Figure 7.17). No definitive pattern could be established between age of the organisation and use of a decision tool, though it does appear that organisations who have an abundance of lands being offered for conservation are more likely to feel the “luxury of being selective” about those projects they accept and those they forego. Thus, such organisations whether young or old, are more likely to have developed specific criteria or reserve acquisition policies. In the UK, those land trusts that collectively fall under the umbrella designation of the Wildlife Trusts tend to be using or in various stages of developing reserve acquisition policies (RAP) which the national office has advocated. High on the list of strategies traditionally taken by both UK and US land trusts was that of opportunism. Fifty-seven or (41.6%) of the 137 organisations directly involved with protection of land mentioned that their organisations had largely taken an “opportunistic” approach to land conservation, particularly early in their histories. Hence, the notion of identifying not only where conservation efforts should be focused but also selecting target properties for protection while often talked about within organisations frequently was dismissed out of hand. The following excerpts highlight actual responses.



Figure 7.17 *On the Decision-making Process:*

*We do have a checklist of things that we look at with each potential project it is pretty flexible though, nothing concrete... Many times it is pretty much "gut instinct" that tells you this project is worth going for even if it is complex or unusual. [CASE\_78\_15/9/96 (CA, US); lines 7232—7155].*

*We only just adopted a new criteria system, well rather, guidelines. It isn't really dogma nor is it rigid we seek to protect quality lands and I have to say much of it over our history has been purely opportunistic. [CASE\_41\_30/9/96 (MI, US); lines 3610—3615]*

*We have never used criteria. Essentially we act on opportunity... we get a tip off on a piece of property that might be up for sale or otherwise threatened by development, discuss it with the board, consult with other organisations and then try to put the wheels in motion to get the property purchased and then transferred to either the county or state parks division. [CASE\_31\_17/9/96 (IA, US); lines 2613—2623.]*

*Yes as an organisation DLC does use a set of criteria to assist us in making decisions about particular land conservation efforts. It is however, relatively loosely defined and based upon our mission statement. [CASE\_4\_8/8/96 (NY, US); lines 30—306].*

*At this point in time we have no written criteria to help establish or identify the viability of various land conservation projects. [CASE\_29\_10/9/96 (OR, US) 2340—2343].*

*We now use a Reserve Acquisition Policy that sets some criteria for all reserve acquisitions, whether leasehold, or through management agreements. This is relatively recent and we did not have anything at all for the first 30 years, so we have some pretty small and rather insignificant reserves as a result. [CASE\_01\_24/6/97 (England, UK); 135—143].*

*Yes and no; RS let's the mission statement guide decision-making. Also, there is a consultation with membership. There seems to be an acceptance or maybe a predilection towards a level of abstraction and generality. [CASE\_05\_4/7/97 (Scotland, UK); lines 760—770].*

*Yes, we have a (RAP) Reserve Acquisition Policy, it is flexible but quite clear. I think it is necessary in order to help us overcome the tendency to go after every site that is threatened. Essentially the Reserve Action Policy aims to prioritise site, assess quality of land for wildlife, etc. Also, we try to make sure that all sites types throughout our region is represented in our portfolio, and where it is in relation to region. Also, other things are considered. For example, degree of threat a particular site may be under. So we must ask ourselves, "What will happen to this site if we do not protect it? [CASE\_07\_10/7/97 (Wales, UK); lines 1078—1097].*

*We never really act solely on "gut" feeling, but do try to take a case by case approach. [CASE\_08\_11/7/97 (Wales, UK); lines 1362—1370].*

*Yes, we have a Reserve Acquisition Policy which was adopted in 1993 and has since been revised. This was initiated when I came on as Conservation Officer because the Trust had taken on some properties that clearly did not fit into the overall picture of what MNCT is about. [CASE\_09\_8/7/97 (IOM, UK); lines 1630—1637].*

*This "gut feeling" debate is one that is about to be had. That is, should we ever be directed by "our gut feeling?" [CASE15\_23/7/97 (England, UK) 2872—2875].*

## 7.8 On the Conceptual ILCDS Model

The final questions in the interview protocol dealt specifically with the conceptual integrated land conservation decision-support (ILCDS) model presented in Chapter 2. Once an interview was scheduled, usually 3 to 4 weeks in advance, a letter together with a three page abstract of the research and a brief explanation of the proposed decision-support model was sent to interviewees for their review prior to the scheduled interview. This format allowed the interviewee to become familiar with the general nature of the research and to feel at ease with their interpretations and responses provided, particularly in relation to the ILCDS model.

Overall, interviewees were cooperative, encouraging, and enthusiastic over the potential prospects for such a decision-support tool. Their responses also provided unexpected insights and interpretations on the use of information generated. Among these visions were thoughts on how such a tool could; 1) assist in facilitating decisions between competing parcels; 2) garner public support; 3) help leverage funding from community; 4) leverage political support; 5) be used as a “truthing” instrument to test community support; and, 6) be used in conjunction with other tools, particularly those using ecological measures.

The astute and intuitive perceptions offered by experts assured both that this research was on the right track, and facilitated the expansion of the ILCDS model framework (Figures 7.18 and 7.19). Several interviewees noted that the ultimate key to the “success” of any such a tool is that it be both “easy to use” and “reasonably priced” so as to neither require an “expert” to use it, or be “...so expensive that it is out of reach for the organisations it is designed for”. Beyond ease of use and cost, the only other concern expressed by interviewees was a general feeling that by tying an organisation strictly to any ranking, evaluation or decision-support system “seat of the pants” decisions and unique opportunities may be restricted. Though, as shown in Table 7.8, experts indicated an overwhelming support for the development and implementation of the ILCDS.



Table 7.8 Land trust support for ILCDS decision-support tool.

<b>Decision-Support Tool</b>	<b>UK</b>	<b>US</b>	<b>Median.</b>
Support ILCDS conceptual model	89.5%	95.8%	94.2%
Support ILCDS conceptual model, but uncertain of applicability to specific organisation	5.2%	2.5%	3.6%
Do not support ILCDS conceptual model for use within specific organisation	5.2%	1.7%	2.2%

In the final analysis, every interviewee stated in various ways that there was “room for huge improvements in the way we do business”. Those interviewees that did not support the ILCDS model for use by their specific organisation, generally indicated that such a tool either would not benefit their organisation in that they were “...not directly involved in holding or protecting lands”, took a “public policy approach” or that their organisation is either “too young” or may not ever “...get to the level of sophistication of actually using a model”. However, although about five-percent of interviewees stated that the ILCDS model may not fit with the needs of their particular land trust, they generally offered opinions as to how or where they saw the use of information developed through ILCDS could be of benefit in their region. Across the 139 organisations represented in the interview sessions, all welcomed the potential for a tool that incorporates both important community values and economics associated with private land conservation efforts.

Figure 7.18 *On the Conceptual Integrated Land Conservation Model in the US:*

*Personally, I would think that most land trusts would probably welcome a better tool to help us in determining future open space values. I think that the project you are working on is incredibly interesting and addresses an area of privately owned property that hasn't truly received the attention that it deserves. As long as we are not locked into using a particular mechanism on special projects and don't significantly increase or add to the expense of protecting property, I think it is a great idea. [CASE107\_15/1/98 (AZ, US); lines 68—82].*

*I think that having an accessible understanding of how land conservation and economics works hand in hand will only be a positive thing for both the communities we live in and the land conservation community. [CASE5\_7/8/96 (NY, US); lines 399—404].*

*Very helpful indeed, I only wish it were available today. We are always looking for new ways to put forth the benefits, from a community perspective, of protecting land. Combining local information about particular lands and overall economic perspectives will be very helpful to land trusts. I think it would also be an instrument that would be helpful in defeating proposed projects where there could be shown to be a long-term economic detriment to a community. It seems that everyone is so short-sighted and really don't look to the long term. [CASE\_75\_23/8/96 (CA, US); lines 6990—7004].*

*I think that the work you are doing would be a tremendous contribution to the entire land conservation community. As you know from experience, we do not have a lot of time to sit around and think about how to do things better or even in more theoretical context. If I had a tool where I could go directly to communities that we are involved with and tell them in real terms about what protecting the land resources of their community meant in long term investment or as a long term investment in their community this would be of tremendous benefit. [CASE6\_16/9/96\_ (NY, US) 546—561].*

*Internally, I am not sure if we would ever get to the level of sophistication of actually using a model such as the one you are working one, however I think that it would be particularly helpful at perhaps the community level at helping our community examine its location, its size, the natural habitats and the built environment to look at what they are as well as what they might be. Certainly as an organisation we always try to get across the message about the economic benefits of land conservation but with the current atmosphere that encourages and subsidises sprawl it seems that the message is lost. Also there have been "Cost of Community Services Studies" done in Michigan by AFT but I think there are substantial gaps in their argument in that it does not take into account the long term sustainability issues that are integrated and interwoven into the land conservation framework. [CASE\_44\_23/9/96 (MI, US); lines 3914—3939]*

*Yes, most definitely. I can foresee such a tool being used in any number of ways. For example, assisting us in making wise choices on the lands that we spend money on protecting, and probably to assist in garnering community support through various fundraising and awareness raising activities on a particular site. It seems perfectly logical to assume that if land protection efforts are geared to those projects or lands that are viewed as most important by the community that there will be a higher level of public and political support. In addition, I think that we as an organisation could use such a tool internally for self-reflection, i.e. evaluation of who the land trust is and how we are doing as an organisation. [CASE\_79\_15/9/97 (OH, US); lines 7309—7329].*

Figure 7.19 *On the Conceptual Integrated Land Conservation Model in the UK:*

*Yes, can't wait to see it. I think any work in this area is important right now, because it will help bring us to new understandings to help us do a better job than we have in the past. We must be less parochial and get people to think not only locally.* [CASE\_01\_24/6/97 (England, UK); lines 151—156].

*Absolutely. I think that we need to be able to make much stronger arguments on behalf of nature and its value so we don't continue to loose battles like the one we just lost. Also, within the planning system it is very important. Work like yours will help those of us in the field to do our jobs better by protecting lands that are both ecologically and socially important to the community.* [CASE03\_25/7/97 (England, UK); 396—409].

*I think your work is probably long over due. It seems that through your work you will be able to help breakout the work we do into a format that will help us to gather greater support from all sectors.* [CASE\_06\_26/7/97 (England, UK); lines 944—949].

*Yes, I think that your work will encourage communities and companies, people in general, to take on a more holistic approach to the use of land and how we use it. The days of local authorities sweeping off are nearly gone, people are wanting more accountability. This does not mean that we should be setting land aside just for the sake of it. Rather we should be looking to set aside the best of the best and do what we can with marginal lands... An interactive software package that could build out a demonstration model to show impacts of various decisions would be wonderful.* [CASE08\_11/7/97 (Wales, UK); lines 1376—1404]

*I think there is great value in your work and in being able to put forth a sound argument for or against a particular type of development in a certain area. Also, I think this type of information would be helpful in the justification of the acquisition of land. Involving the community more should have great impact on not only the land resources protected but also on the environmental education and recreational uses of such lands. Another thought I just had, this type of information should also be helpful in the marketing or fundraising aspects and give good justification for sponsorship.* [CASE\_09\_8/7/97 (IOM, UK); lines 1661—1681].

*Yes, but I think the true value will depend largely on the ability to reflect on the measures chosen. People are intimately linked to the place where they live, so they should definitely have some input on the process. I like your idea.* [CASE\_11\_9/7/97 (IOM,UK); lines 2000—2007].

*Yes, but I'd be quite cautious sometimes it can be a dangerous road to go down. Having said that, I'd be the first to use any thing that put forth a positive social and economic argument for conservation. Any tool that is well researched and will put forth a stronger foundation for the WLT's and our mission will be very useful.* [CASE\_12\_14/7/97 (England, UK); lines 2199—2209].

*Definitely, your work definitely has a place. I believe organisations like ours for years have never really took full consideration of what they were protecting or why. Also, intergenerational aspects of social value are an interesting aspect of your work. I suppose if we spent a lot of time thinking about all of these crucially important elements we would all start to see more value in protecting natural areas and historic sites. People care a lot when something is at their doorstep, a "Sense of Place", people living and working in an area know it inside and out, they should definitely be brought into the fold.* [CASE14\_23/7/97 (England, UK); lines 2711—2730].

## 7.9 Conclusion

It is not uncommon for communities to desire to preserve open space, yet lack the resources to accomplish their goal. Often land trusts are formed in an effort to fill the gap between community goals, and public and private efforts to conserve the natural, cultural and historic resources land provides. In this intermediary position, the non-profit land trust plays a pivotal role. Four overarching conclusions can be drawn from the Phase III expert interviews:

1. Land trusts, predominantly local and regional land conservation organisations, are heavily dependent on their respective geographical populations for support. This support can be mirrored in the overall “success” experienced by the land trust, and is traditionally reflected in terms of financial contributions, lands protected, and community awareness.
2. While there are both regional and national variations on attitudes, both positive and negative, towards the conservation of land, land trusts are largely seen as “doing good” and are increasingly becoming integral and respected components of the political and planning machinery of their respective communities and regions.
3. Over the past decade, the challenges facing land trusts in both the UK and US for making sound land conservation decisions have multiplied. As the participants in this evaluation are acutely aware, there can never be a final solution to land use, conservation and related resource issues. Evolving social, economic and ecological systems will continue to require changes in strategies and long-term goals. While this recognition has led some organisations to adopt a “flexible”, “case-by-case” approach to decision-making, land trusts both large and small are beginning to look to more secure tools, criteria and methods of evaluating potential conservation lands as part of their long-term land conservation strategies.



4. Given the complexity and different social perceptions of many land use debates, experts viewed the process offered by the conceptual ILCDS model as one that actively supports improved communication flows among various stakeholder groups within a community, by sharing and channelling that "useful knowledge" to provide practical decision support.

For some land trusts, such acknowledgements will require a reorientation to ensure responsiveness to local demand and empower their communities to become a part of the evolving process. Effectively, tools as the ICDS which advocates incorporation of community values together with local economic factors to guide policies and ultimately decisions made, are based on partnerships and cooperation. To successfully implement such decision-support mechanisms will require discarding old norms and the quest to achieve internally identified goals (Mermet, 1991).

Perhaps these conclusions seem stark and obvious, yet they reflect profoundly on the importance of both involving communities and the perceived need for a better tool to support the decision-making process at the land trust level.

Land trust professionals dealing with a diversity of land use, conservation and management processes have often the poignant and disquieting feeling of watching a phenomenon touching on the most significant aspects of life—parity, equity, development and cultural survival—besides the specific concerns of conservation and sound management of land resources. The experience and inside views of these experts were invaluable to obtaining a more complete perspective on this phenomenon which is in full evolution and not easily bounded. The processes involved here together with the wealth of information obtained act to both broaden the scope of research efforts, while simultaneously taking a first step toward building a necessary bridge between the culture of the academic community and the very different culture of the decision-making at the land trust level.

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## **CHAPTER 8**

### **TYING TOGETHER THE STRANDS:**

**Summary, Conclusions, Recommendations & Directions for Future Research**

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## CHAPTER 8

### Tying together the strands: Summary, Conclusions, Recommendations & Directions for Future Research

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#### 8.1 Introduction

Whether in the UK or the US, the allocation of land to different uses and activities is fundamentally and inextricably a matter of choices based on ethics. Decisions concerning land use and the environment always involve costs and benefits. Though often driven by opposite forces, both ethics and economics are facts of the world we have socially constructed. Thousands of planning commissions, councils, conservation organisations, and a miscellany of citizen boards make difficult land use decisions on a regular basis. Perhaps in no other aspect of resource management are there as many decisions to make, with so many different actors, interest groups, and community factions seeking to influence these outcomes. These thoughts on the social allocation of land have been a driving force throughout this research.

The foregoing investigation and analysis make unmistakable disclosures concerning various aspects of the hypotheses stated in Chapter 1. In particular, the fragmentation and insufficiency of the existing framework to provide clear guidance in this massive decision-making arena are revealed (Chapters 3 through 7). Land conservation professionals identify inadequacies in current tools and models that rely wholly on bioecological factors or the capability for production and their application to the long-term protection of land resources in Chapter 7.

This chapter summarises the conceptual framework of the ILCDS model presented in Chapter 2 in light of the ethics-economics-policy paradigm, the legal analysis, and results obtained from the Phase I focus groups, Phase II mail surveys, and Phase III expert interviews. The usefulness of the conceptual framework is examined

and new questions raised from the current research are explored briefly in Sections 8.3 through 8.7. In Section 8.8 principal recommendations are put forth. Finally, future research directions are proposed and the current work's contribution to both understanding and forging a new direction in 'valuing' private lands for conservation purposes is assessed in Section 8.9.

## **8.2 Summary: An Alternative Paradigm**

The transdisciplinary approach put forth is based on the trans-Atlantic research carried out in the US and Britain on the long neglected, complex and interdisciplinary relationship of the ethics-economics-policy paradigm. This alternative paradigm is set in a land conservation framework and viewed from the little explored private lands perspective; laying an appropriate base for further exploration and conceptual development of the Integrated Land Conservation Decision Support (ILCDS) model. The ILCDS model is but a first step toward bridging the current gap in integrated decision-making tools as stated in the hypotheses (Chapters 1 and 2), identified in Phases I and II (Chapters 5 and 6) and supported in Phase III interviews with land trust professionals (Chapter 7).

Paradigms, as discussed in Chapter 2, are defined either as models or patterns, or as ways of thinking about or valuing situations, or as a framework that defines a set of rules we live by. Some may consider a number of paradigms to be in force at any given time, while others look only at the significant or ubiquitous ones. Most importantly is that we recognise when shifts occur between the major paradigms, so that we can operate in the context of future changes rather than in the past. The alternative paradigm proposed here, the ethics-economics-policy paradigm, speaks specifically to changes in the relationships between governments, policy makers, non-profit land conservation organisations, communities and private landowners. The appreciation that the success of efforts to conserve private land is dependent on the willingness of landowners to refrain from exercising some of the rights of ownership, in return for various forms of tax

breaks and payments, in the interest of the public good is key (Gustanski, 2000 *a*). Both the debate and a greater share of the responsibility for land conservation is shifted from the public to the private realm, together with traditional attendant conflicts. Thus, firmly grounding questions of community goals and values, while encouraging constructive partnerships during the development and implementation of wide-ranging community land use goals where understanding the important role of, and emphasis placed on, the protection of private lands is fundamental. This paradigm shift has significant implications for land trusts, and calls to question traditional decision-making methods as identified in the hypotheses to this thesis (Chapters 1 and 2).

### **8.2.1 Evaluating the emergence of the ethics-economics-policy paradigm**

The physics of the conceptual ILCDS model evokes an alternative land conservation paradigm. Requisite to the ethics-economics-policy paradigm is the incorporation of the views and values of people who are most directly affected by changes to land use in their communities. By doing so, incentives and techniques are more likely to succeed in promoting the conservation of land resources and will lead to a more sustainable future for the community as a whole.

By their very nature, communities involve a wide range of people and organisations, from landowners and farmers who may own and manage vast tracts of land, through resource industries as agriculture, forestry, and mining, to people who live in urban centres and suburban neighbourhoods. Communities themselves interact both within and outside their own loosely defined boundaries.

As reflected across Phase I focus groups, Phase II mail surveys and Phase III expert interviews, the relationships we as humans have with the land are not abstract, they abound with the rich textures, and endless diversity. They are reflections of the cultural landscapes that have been shaped by the laws and policies enacted over time to

protect the land and its appurtenant resources that provide meaning to the very fabric of these two nations.

Data collection and analyses employed a triangulated methodology as discussed in Chapter 4. Through this approach a rich and diversified data set was developed. Analysis focused on a view towards assessing, comparing and measuring various paradigm components and determining the implications of findings on attitudes toward land use, responsibility, decision-support processes, conservation sector tools, and willingness to pay for land conservation.

### **8.2.2 Static and dynamic influences in the ethics-economics-policy paradigm**

Adam Smith's remarks regarding the way in which, in a market economy, there is an invisible hand causing individuals' actions to lead to maximum efficiency are well known. Less well known has been the work of numerous less famous economists in the ensuing 200 years, who have attempted to specify the conditions under which Smith's argument holds, and those under which it does not. Some conditions were known to, and remarked on by, Smith himself, for example the dangers of monopolies and industrial cartels. Some have become more clear over the years. In the context of private lands, the important point is this: a market will work efficiently to maximise welfare provided that the price paid for a good is an accurate representation of its value to society. Herein, begins the conundrum.

The benefits of most services and goods accrue to those who pay for them; 'externalities' are not usually considered by the market (Harvey, 1992). But a protected landscape that provides scenic views, for example, necessarily benefits others: apart from the direct use value which benefits those who own or occupy the land, there is also an indirect use value that benefits those who live in the community or visit the area (Rolston, 1991; Turner, *et al.*, 1994). In this way, those who live in communities with protected private lands benefit even if they do not have access to the lands—in much the

same way that visitors to the area may benefit, even if they spend no money there. In addition, there are also option and existence values (Swanson and Barbier, 1992; Pearce, 1993; Quiggin, 1998). People may benefit from the option to visit somewhere, even if they never exercise that option. They may also benefit from the continued existence of a protected historical site or a woodland that they may never visit, so that reports of a proposed shopping centre, for example, may affect the enjoyment of people who will never visit, though they value from the benefit of knowing it exists (Costanza, 1991; Swanson and Barbier, 1992; Turner, et al., 1994).

The conservation of land resources in a region may also have dynamic effects. The aesthetic and environmental improvements may cause the price of neighbouring properties to rise, thus revitalising the economy of the area (Hodge, 1995; Power, 1996).

#### **8.2.2.1 Static benefits**

It must not be forgotten that land is traded in the market, where excludability can normally be exercised; that is to say, the benefits can be confined to the purchaser rather than extended to the wider group. In the market, the exchange value of a good or service is indicated by the price at which it can be traded. Nevertheless, it is recognised in economics that the use value can be greater than this for all but the marginal consumer, on the assumption of a demand curve sloping downward, as there are many purchasers who are willing to pay a price above that which prevails in the market. This, consumers' surplus, yields an aggregate use value above the sum of the price paid by individual consumers and the quantity purchased by each. In practice, the concept of consumers' surplus is rarely invoked to ascertain the total user value for priced goods, but is of interest here because it forms the theoretical foundation of a valuation methods used to establish WTP for non-priced environmental goods (Power, 1988; Dixon and Sherman, 1990).

Market prices are often poor indicators for the value of many public or collective consumption goods because their key features consist of many externalities, which are not taken into account in the price for which the goods are sold. This is the case for unique natural and cultural land resources, and many other environmental goods, that fall into a category for which market values are not available (Hodge, 1995). In economic terms, the various benefits derived from private protected lands have the characteristics of non-exclusion, and consequently the owners are unable to charge a price for the benefits derived (Dixon and Sherman, 1990; Whitby, 1990). This has two effects; insufficient quantities to meet demand and overuse because demand is greater than it would be if consumers were required to pay for them—price would ration demand.

Although many collective consumption goods remain unpriced, their true value can be considered greater than their market price because they are unique (Dixon and Sherman, 1990; Pearce, 1993). Overuse may initiate an irreversible trend that will lead to their destruction, and because they are unique, they cannot be reproduced. This often imparts a non-use, or passive value in addition to other user benefits. Such goods therefore have a value that transcends both their exchange value (any price paid) and their user value (the consumers' surplus).

With respect to static benefits, those generated at one point in time, arising from existing resources such as natural lands, scenic vistas, and open space, the following are well known and generally, although not universally, accepted as relevant forms of value:

- Option value – encompasses potential use by an individual or that individual's preference for use by others or by future generations. It is an expression of a WTP for the preservation of such resources in order to retain the option of using them in the future (Costanza, 1991; Ready, 1995). Thus, there would be a willingness to pay to retain the possibility of visiting a particular protected landscape. In the case of the Phase II survey where respondents indicate either their WTP increased taxes for the improvement or creation of public open spaces in their area, option demand is a quasi-use value (Freeman, 1986). Though, it may also be extended to include an option for others to enjoy the use of certain resources, a kind of vicarious demand. Some economists distinguish between demand by the current and future generations



(Barbier, et al. 1995). The term 'bequest value' has been coined to suggest the value that the present generation places on resources, when it expresses a WTP for their preservation for the benefit of future generations (Pearce, 1993).

- Intrinsic, non-use or existence value – a more complex and unclear form of value, whereby people might be willing to pay something simply to know unique lands were going to be protected, even though they never personally expect to use or visit them. People may have preferences for, and therefore place value on, the continued existence of resources which they do not intend to ever use. Therefore, the conservation of particular landscapes may be advocated because it is recognised that they have intrinsic value. Though principle relevancy is generally attributed to world landmarks such as the Statue of Liberty or the Tower of London, it is as applicable to private protected lands. More problematic is the possibility that a value is placed on conservation per se—that one might be willing to pay something simply to know that a local land trust, for instance, will be protecting privately held farm lands in their community.
- User value – both direct and indirect; for example, camping in a protected woodland would represent direct value, while the scenic views it affords the owners, the community at large and visitors, would constitute indirect value.

#### **8.2.2.2 Dynamic benefits of private land conservation**

Implicit to the forgoing discussion is the assumption that the world is fixed—there is a given landscape heritage, and the relevant question is ‘what value do people within a community attach to this landscape?’ In addition to this question of the current value of landscape, however, there is the ‘dynamic’ question. Is it possible that conservation of private lands will have a beneficial effect in causing or accelerating environmental quality? If that does prove to be the case, then it is not sufficient simply to estimate the size of a given pie; as the conservation of land may act as a catalyst in making the pie bigger.

This argument derives from a seminal contribution to the analysis of urban renewal (Davis and Whinston, 1961). It is argued that its boundaries extend to that of the conservation of private land. Davis and Whinston point out that, in an urban context, individuals pursuing their own interests and reacting to market prices will systematically tend to underinvest in the maintenance of their properties. Since this process is

dynamic, it will tend to generate competitive underinvestment by neighbours, which will lead to the deterioration of the buildings. Consequently, this form of dynamic market failure will lead to the progressive deterioration of the whole urban environment. Slum areas will come into existence, and remain in existence because no owners will find it worthwhile to renovate their properties.

Taking this line of thinking a step further and considering it in the context of farm land, for example, a direct comparison in the gradual deterioration of farming communities, particularly those proximate to urban or suburban centres, can be seen (Carlson, et al., 1993; Daniels, 1997). Although expenditure on maintenance of a residential property may be somewhat different than capital investments in machinery, irrigation systems or sedimentation control, other things being equal, it increases the value of a particular tract of land for agricultural use, it also increases the likelihood that neighbouring farmers will continue to make similar commitments to their land (Gustanski, 1991; Daniels, 1997). It follows that disinvestments in agriculture, and ultimately the sale of a property for commercial or residential uses will act as a catalyst to the gradual deterioration and conversion of neighbouring farmland (Carlson, et al. 1993; Daniels, 1997). Rational landowners wishing to maximise profits over time will adopt a strategy of undermaintaining their land relative to neighbouring farms. Thus, because of the interdependence of seemingly rational decisions by individual owners, the uses and values of neighbouring properties, both residential areas and rural communities may go into a near terminal decline (Daniels, 1997). Accordingly, public intervention would be justified to secure the maintenance of values or to bring about urban renewal (Davis and Whinston, 1961). Similar philosophies have been used in advocating for publicly funded land preservation programs, and expenditures from other public coffers, such as lottery funds (Lembeck, et al., 1991; Myers, 1999).

However, if the value of a property is negatively affected by the physical condition and uses of surrounding properties, it follows that the value of surrounding buildings may be positively affected by the physical characteristics of a protected property (Dublin, et al. 1992). Thus, if conservation results in an improvement in the

land and a long-term commitment to agriculture, this may be a partial trigger for neighbouring landowners to protect their land as well (Daniels, 1990; and 1997).

The process of generating environmental improvement and the change in the social character of the community may be interdependent. Thus, using the above example of agricultural lands, the commitment to conservation of a block of landowners will result in maintaining both agriculture and its necessary infrastructure. Moreover, this will have spill-over effects on property values and rents in the surrounding community, and in maintaining the social character (Miller, 1992; Association of New Jersey Environmental Commissions (ANJEC), 1996; Laughland and Caudill, 1997; Tibbets, 1998).

It is plausible to assume that the value put on the environment is not only positively related to rises in income, but also increases more proportionately with them. In economic terms, environmental preference is a superior good. While this was not directly explored within this body of research, it does provide an interesting direction for potential future research into the linked values of private protected lands.

Other things being equal—the higher the overall environmental quality of an area, the more likely it is to be occupied by those with higher incomes (Power, 1995). In this connection, the listing of an individual property as ‘protected’ has two effects. First, the value of the land itself may be reduced because the way in which it can be developed, or otherwise altered, is restricted. This result depends on a fundamental mathematical and economic theorem: the value-achieved subject to restrictions cannot be increased, but may be reduced, by the imposition of another constraint. It follows that protecting the land, as such, does not increase the land’s market value. On the other hand, those lands surrounding a protected property may increase in value (National Park Service, 1995; Fausold and Lilieholm, 1998). In addition, subsequent designation of an area surrounding a protected property may have a similar impact if the area in which it is situated is regarded as worthy of protecting (Maryland Greenways Commission, 1994; National Park Service, 1995). The freedom of manoeuvre of the other owners is now

reduced. They cannot do things with their land that would cause the natural, agricultural, historic or scenic value of the surrounding lands to deteriorate by allowing incompatible uses.

Thus, designation as a conservation area, overall, raises the value of properties because the physical environment surrounding them becomes more secure and more likely to be realisable on any future sale of individual properties (Brabec, 1993: Tibbetts, 1998). Recent studies conducted in the US have also shown not only an elevated raise in the value of properties surrounding a protected area, but on the protected parcel as well (ANJEC, 1996: Tibbetts, 1998).

Decisions concerning land use and the environment always involve costs and benefits—a fact of the world we have socially constructed. These values may be monetary or non-monetary (Fausold, and Lilieholm, 1998). In situations such as the conservation of land, where real-world decisions affect not only the immediate resource but the connected community as well, monetary and non-monetary values must be incorporated into the whole of the decision-making process. Again, a strong association is drawn between the stated hypotheses and the need to incorporate a broader data set than is currently employed in conventional decision-support tools used in the land trust sector.

### **8.2.3 The challenge for the ILCDS model**

The challenges presented for the ILCDS model call for a process that: 1) facilitates clear definitions of the land conservation decisions under consideration; 2) aids in determining or recognising common community goals and values; 3) assists in assimilating values, both monetary and non-monetary into the decision-making process; 4) involves stakeholders (community at large); 5) coordinates views of those affected by decisions made; 6) integrates the perspectives of experts; 7) avoids blind reliance on single attribute or linear decision models in the face of complex non-linear decisions;

and 8) aids in the determination of alternatives and solutions that serve to optimise the whole.

In this light, the ethics-economics-policy paradigm as embodied in the conceptual ILCDS model, is not about a matter of right or wrong decisions; it is a matter of facilitating sound decision-making by those charged with the use and conservation of lands within their jurisdiction. Making choices that contribute to individual community goals are aligned with the values of the people who live and work there, and do not detract from their ultimate purpose of protecting the communities sense of place (Morrish and Brown, 1994).

Including people is central to the ILCDS model. This realisation, in part came about by seeking to address the needs of land trusts, a relatively small, distinctive sector working predominantly with private landowners at the local and regional level.

As land trusts throughout America and Britain reiterated repeatedly, all the data and analysis in the world does not mean much unless the ability to communicate ideas and information to others in ways they can connect or relate to exists. This was and continues to be a primary consideration in the development of the ILCDS model.

There is no reason why the technology used to build numerous commercial software packages available today, making them fun and easy to play, cannot be built to support the land conservation decision-making process at the land trust level—and beyond. Primary objectives for the development of ILCDS are: 1) affordability; 2) accessibility—PC based; 3) ease of use and data input; 4) useful output in easy to understand formats; and 4) the ability to respond to changing conditions.

### **8.3 The policy arena**

The connection we as human beings have to the places we inhabit are on one level created by public policies that are shaped by laws. As Chapter 3 illustrates, the purpose of the battery of legal instruments developed to date is to protect land and its

appurtenant natural resources that provide meaning to the national fabric of both Britain and America.

Across the UK and US, communities are regularly making decisions about the use to which particular land resources should be put. These decisions are made within the existing boundaries of laws, policies and regulations established to govern the use, tenure and protection of land resources. These laws depend on the social, political and economic context of a given society and ultimately influence decisions made. Chapter 3 lays the foundation for an appreciation of the different legal frameworks and an understanding of the public consciousness and the influence it has over the policy domain in the UK and US. Thus, the discussion and analysis of applicable laws, regulations and policies designed to protect private land resources in the US and UK provide the fundamental structure for understanding not only the dimensions of the legal settings in operation, but also the role of social influences and economic forces within their respective settings.

The common law origins of both British and US legal systems have resulted in a *mélange* of both case and statutory laws governing land uses, and the local procedures that apply to them. Still, there is a great deal of diversity and divergence even across the 50 states—let alone the two nations, wherein Scotland has its own body of laws that while similar, have on various occasions made significant departures from laws governing England and Wales.

Common difficulties in both the US and UK do exist, however, with the laws enacted to date—many of which are fragmented and scattered throughout the statutes, with little or no discernible connection among them. While it can be understood how this shotgun approach has resulted—with different drafters and committees creating various laws at different points in time to accomplish separate purposes—it is time the host of laws relating to the use and regulation of land connected with one another; becoming integrated with the objectives they seek to accomplish.



In making a comprehensive generalisation on the status of the statutory framework in the US, for a majority of the states the problem with land conservation at various levels is not that state and federal legislatures have failed to provide the necessary power-tools required to protect the land. Rather the fundamental problem is that, as constructed, these provisions do not establish clear programs to enable municipalities to realise constitutional objectives of protecting land.

There may be only one certainty for the future of the more than 60% of the land base held in private ownership in the UK and US—there will be changes; changes in ownership, in the use of various lands, and in the laws governing its use and protection. Given the fundamental power of land there is little reason to expect this to change, irrespective of which political party is at the helm land, and its use, will as it has for centuries, remain a popular political subject. The way in which the UK and US and their relevant sub-parts move forth to modify existing laws and policies will, however, ultimately depend on the political and landscape vision that is adopted. If muddling through incrementalism rooted in the status quo is acceptable, then the respective current policies only need to be adjusted in the way they have been thus far. If, however, the vision is of a landscape that is sustainable in the long-term—then only progressive reforms will do.

There are several lessons to be taken from the evaluation of the land use and conservation legislation arena. These lessons may play significant roles in reforming not only existing policies, but also the degree with which land trusts in the UK and US successfully meet their land conservation goals. Most significantly for the UK, would be the introduction of legislation akin to that of the UCEA in the US. Phase III expert interviews with UK land trusts indicate that such legislation would “relieve budget constraints”, “stretch capabilities to protect land”, and were perceived as “good incentive for landowners”. The introduction of such enabling laws would provide an effective tool that would significantly enhance the ability of the nation’s more than 130 land conservation organisations, and put their land protection efforts on par with those of the National Trust.

Enacting such easement enabling laws in the UK would accomplish a number of goals. Principle among them would be the extinguishment of common law impediments against such easements. Other benefits include: 1) elimination of the perceived need to purchase lands in fee; 2) significantly reduce land and maintenance expenditures of the nation's land conservation trusts; 3) enable the permanent protection of more land by small and less well funded organisations; 4) provide landowners with the security of maintaining ownership of their land for future generations; 5) provide various tax or charitable contribution breaks to landowners so protecting their land; 6) facilitate stability in the nation's countryside and urban centres; 7) enhance the overall ability of the nation's conservation trusts; and 8) reduce landowner anxiety over the perpetual nature of conservation interests donated.

The lesson best learned for the US is one of a national statutory planning framework. Neither this concept nor its proposition is new to the US. Various attempts along these lines have been made over the past few decades. Given the enormity and geographic diversity of a nation the size of the US, a more realistic approach may include an across the board system built upon a statutory foundation at the state level—similar to that in use in Oregon and Hawaii.

The most revolutionary alternative for both the UK and US would be full-scale reform of land use and development controls as currently defined by a host of assorted and divergent laws. An interesting new model is that of Australia's Environment Protection and Biodiversity Conservation Act, in which all policies linked to the entire range of development, sustainability, biodiversity and other environmental concerns have been wrapped into a single body of legislation.

#### **8.4 Phase I Focus Groups**

Phase I focus groups employed qualitative research methods. In that this research was conducted across two nations, it was important that a uniform base was established. In context, a qualitative origin was the most logical beginning as the places

we live, raise our families, work and recreate are manifestations both of natural and human interaction. This realisation coupled with the observation that our ability to talk distinguishes humans from the natural world. The use of quantitative research methods at this juncture would not have enabled an appreciation and understanding of the people, and the social and cultural contexts within which they live, the words they use, or the views they hold with regard to land and conservation issues. The goal of understanding a phenomenon from the point of view of the participants was important both to the development and actual language used within the Phase II mail survey.

While the twelve focus groups conducted attempted to have good geographic coverage of the UK and US, it is acknowledged here that there are certain populations under represented. Specifically, minority groups for both the UK and US are not well represented by participant groups. In part, this may be related to the geographic locations in which we were able to both host and amass willing participants for urban-suburban and rural groups. It must also be kept in mind that the whole of this research was a solitary effort—at every level. Had this research effort been funded, it is anticipated that there would have been both additional resources and researchers involved from which to draw on for assistance in the formation and conduction of further focus groups in other areas of both the UK and the US. In the final analysis, however, under representation of various minority groups and limited geographic representation appears to have had little or no impact on the aggregate level of agreement or disagreement on various land and conservation issues when compared against responses obtained from the more geographically and socially diverse Phase II survey population.

Phase I focus groups analysis suggests that while there are some defined differences in views and attitudes expressed between focus group participants in the UK and those in the US, there are underlying similarities in the values in which such views and attitudes are cast.

The core directives stemming from the twelve focus group sessions can be summed up by four underlying principles; 1) start with local values and frame issues in a relevant geographical context; 2) protect open spaces for community recreation and environmental health; 3) future generations – consider impacts of current decisions on future generations; and, 4) education – expand current environmental education programmes at all levels (primary, secondary, university and community) to include more issues related to land and land use.

The information distilled from the focus group process represents the heretofore-undocumented “big picture” as to the beliefs, attitudes and values embedded in mainstream American and British thinking on issues specific to land conservation.

## **8.5 Phase II: Mail Survey**

Phase I focus groups presented some important concepts and concerns on the use and conservation of land within the general populace of the UK and US. But to what extent do the issues and concerns raised, and positions taken by the focus group participants actually reflect a broader consensus?

The Phase II mail survey was used to identify values and attitudes towards land use and conservation issues, to test how widely focus group findings applied across diverse groups in both American and British society, and to provide direction for the third phase of this research. Values, the fundamental beliefs held by individuals, form the basis for our views, attitudes, and behaviour. Understanding these values and how they impact the formation of attitudes is key to focusing the institutional efforts of land trusts, particularly those operating within narrowly defined local or regional parameters.

‘*Public Attitudes on Land and Conservation*’ survey results were used to statistically describe respondent characteristics, attitudes towards and preferences for land protection, perceptions of land and open space protection priorities and reaction to public and non-profit sector land conservation measures. Two questions address two

different measures of 'willingness to pay'. While there was no specifically defined project for which respondents were asked about their willingness to pay, some 58.6% of respondents in the UK and 51.4% in the US indicated they would be willing to pay increased taxes for improvements to or the development of parks and open space in their respective communities. This resulted in an average mean WTP of 4.85% increase in taxes for the UK and 5.18% for the US. On the question of willingness to support the conservation work of non-profit conservation organisations through annual contributions, again a majority of respondents in both the UK (84.1%) and US (80.6%) indicated at least some level of WTP, and reflect a mean WTP of £27.90 (standardised in USD \$44.91) for the UK and \$44.82 for the US. The goal of this study is not aimed at determining assigned contingent values, yet its absence does not negate prevailing views in favour of both paying more in taxes to enhance lands for public access, as well as for the support of land trusts themselves.

Survey findings for both the UK and the US are closely correlated to findings of the Phase I focus groups. Respondents reveal unique similarities, confirm noted differences and clearly denote strong public support for non-profit sector land conservation measures including establishing and improving parks, and protecting open space and natural lands, particularly for public access. Findings conclusively confirm those of the focus groups in most regards, supporting the ethics-economics-policy paradigm as embodied by the ILCDS model. Specifically, respondents in the UK and the US:

1. believe government is doing an inadequate job of creating parks and open space and should reduce spending in other areas to more adequately provide for protection of land and other environmental resources;
2. identify protecting natural and agricultural lands as key priorities for action;
3. regard non-profit conservation organisations as more trustworthy than their government counterparts in association with the delivery of services associated with protection of land and the environment;

4. strongly support improvement of governmental policies with regard to the conservation of land, and;
5. not only do respondents support land conservation efforts, particularly within their own regions, they substantiate their willingness to pay for it.

## **8.6 Phase III: expert interviews**

The backdrop for understanding non-profit land trusts in the UK and US, is provided by Chapter 7, through exploration, analysis and presentation of results from Phase III expert interviews. Here land trust professionals dealing with a diversity of land use, conservation and management processes reveal insights on specific issues pertaining to the conservation and management of land resources, and reflect on the need for a more integrated approach to land conservation decision-making at the land trust level.

Phase III expert interviews were employed to examine the experiences of land trusts and evaluate the validity and utility of an integrated decision-support tool, as the conceptual ILCDS model. Here a qualitative approach is taken using personal in-depth interviews. This method allowed for frank, open responses between professionals, and revealed information that may have otherwise been missed using a mail survey.

To illustrate how expert judgements on the issues and uncertainties raised can be formalised, participants were asked a series of six questions to elicit distributions on a range of thoughts pertaining to five principal areas of concern: 1) how land trusts “measure” their success; 2) the decision processes employed across the UK and US land trust spectrum in moving forward with land conservation projects; 3) primary land conservation tools used; 4) perceptions about public attitudes toward the organisation and its work; and, 5) how the proposed ILCDS model was received and potential uses envisioned.



The objectives being to both summarise the state of knowledge and beliefs, and not to achieve a false consensus on the possibilities for the conceptual ILCDS model. Masking disagreement or different perspectives will help neither the organisations, their experts, policymakers nor the researcher in the end (Morgan and Keith, 1995).

It is not uncommon for communities to desire to preserve open space, yet lack the resources to accomplish their goal. Often land trusts are formed in an effort to fill the gap between community goals, and public efforts to conserve the natural, cultural and historic resources land provides. In this intermediary position, the non-profit land trust plays a pivotal role. Four over-arching conclusions can be drawn from the Phase III expert interviews:

1. Land trusts, predominantly local and regional land conservation organisations, are heavily dependent on their respective geographical populations for support. This support can be mirrored in the overall “success” experienced by the land trust, and is traditionally reflected in terms of financial contributions, lands protected, and community awareness.
2. While there are both regional and national variations on attitudes, both positive and negative, towards the conservation of land, land trusts are largely seen as “doing good” and are increasingly becoming integrated into the political and planning machinery of their communities and regions.
3. Over the past decade, the challenges facing land trusts in both the UK and US for making sound land conservation decisions have multiplied. Participants in this evaluation are acutely aware that there can never be a final solution to land use, conservation and related resource issues. Evolving social, economic and ecological systems will continue to require changes in strategies and long-term goals. While this recognition has led some organisations to adopt a “flexible”, “case-by-case” approach to decision-making, land trusts both large and small are beginning to look to more secure tools, criteria and methods of evaluating potential conservation lands as part of their long-term land conservation strategies.

4. Given the complexity and different social perceptions of many land use debates, experts viewed the process offered by the conceptual ILCDS model as one that actively supports improved communication flows among various stakeholder groups within a community, by sharing and channelling that "useful knowledge" to provide practical decision support.

For some land trusts, such acknowledgements will require a reorientation to ensure responsiveness to local demand and empower their communities to become a part of the evolving process. Tools, such as the proposed ILCDS model, that advocate incorporation of community values together with local economic factors to guide policies and ultimately decisions made, are based on partnerships and cooperation. To successfully implement such decision-support mechanisms will require discarding old norms and the quest to achieve internally identified goals (Mermet, 1991).

The experience and inside views of land trust professionals were invaluable to obtaining a more complete perspective. The processes involved here together with the wealth of information obtained act to both broaden the scope of research efforts, while simultaneously taking a first step toward building a necessary bridge between the culture of the academic community and the very different culture of decision-making at the land trust level.

## **8.7 Conclusions**

Land is a fixed, non-renewable limited supply asset that has value as an income generating input, a consumer good valued for its own sake and as a physical location for income earning activities. It is the uses of land that come and go, not the land itself. Thus, efforts to protect open space, natural or historic lands, are designed to retain patterns of land use in which these particular landscapes remain prominent. In reality, land is not "lost," landowners just choose to do something else with it or sell it to someone who will. The land itself is still there. Only the use has changed, and will

probably change again over time. To the extent that the land is not severely damaged, some will go back into forest, farming, or open space uses as it changes hands and local economic circumstances shift. The rules of a given society affect relationships among individuals, balancing rights and obligations of citizens—this is a universal truth. Land use patterns that have emerged in the UK and US are reflections of the results of competition, bargaining, and cooperation between citizens, governments and the institutional frameworks in operation within the structure of these rules.

Numerous lessons emerge from the impenetrable fog of laws and policies aimed at the conservation of land resources in the UK and US. This particular area of law and its policies are not precise, with sharp lines and consistent if-then relationships that produce compelling results. In fact, many would argue that economics is the obstacle, suggesting that a land use pattern of constantly increasing intensity is efficient and therefore "best". This is the simple conclusion drawn by using the discipline as a normative template for resource allocation. Open space, a protected woodland or farming, to be sure, falls at or near the bottom of the rent pyramid, claiming land only until a 'higher and better' use comes along. The grounded argument throughout the whole of this research is that we should be able to get more from the discipline than that. Not only can economics help us understand the forces that bring about the conversion of land use, economics coupled with an appreciation of a community's values and the policy relationships between incentives and action may facilitate our ability to sustain desired patterns of land use. At its base economics is a behavioural science that helps to forecast the results of specific incentive structures. Essential to any market system is the explicit inclusion of the rules and institutions that allocate rights and obligations among stakeholders. This inclusion, is perhaps nowhere more essential than in the market for protected lands.

With regard to land and its conservation, this research has found through its various phases, that people in both the UK and the US think there is an issue and they have indicated a willingness to act on their beliefs. The protection of land is an issue because people believe it is an issue. This established, the best role is to add supporting

logic to what people already believe to be important, to help them understand the roots of the issue. This is the foundation of the conceptual ILCDS model as personified by the ethics-economics-policy paradigm and from which useful debate may continue.

The great irony of the challenges facing the protection of privately held land resources is that the workings of natural phenomena—the ecological facts of life—are utterly unconcerned with human illusions about control over nature, destiny, values, biases, and concerns (Passmore, 1995). The failure to appreciate the distance encompassed by this gap is one reason we find ourselves in our current position of correcting and re-evaluating entire values systems—namely those that have led to decades of sprawling development patterns in the name of economic growth and development, and to the current turning-point trends. In order to surmount this breach, we must work to bridge the gap in our understanding of the human-land relationship, and to discard the long-held illusions of separateness from the land. The ethics-economics-policy paradigm enables an enhanced consciousness that facilitates recognition of both individual and community connections to this most basic resource.

Perhaps these conclusions seem stark and obvious, yet they reflect profoundly on the importance of both involving communities and the perceived need for a better tool to support the decision-making process at the land trust level.

## **8.8 Recommendations**

The following recommendations speak to a diverse array of issues related to the hypotheses put forth and emanate from conclusions drawn from the divergent phases of this research. Further, they serve to provide guidance to directions for further research discussed in Section 8.9

- Introduction of uniform easement enabling legislation in the UK similar to that in the US to provide both extinguishment of common law impediments against

such easements and enable the permanent protection of lands while reducing organisational and agency costs of fee simple ownership and related maintenance and management burdens.

- Revise statutory framework, at the state level, to provide a more cohesive system with regard to land use planning in the US.
- Overhaul of UK and US land use and development control laws, wherein all policies related to land use development, sustainability, biodiversity and other related environmental concerns are linked within a single body of legislation.
- Advance the land conservation decision-making framework of the ILCDS model for UK and US land trusts to: frame local community values in a relevant context; consider multidimensional impacts on current and future generations; and, incorporate qualitative social and quantitative economic information to complement existing ranking tools and other bioecological and environmental evaluation techniques.
- Enhance and strengthen current laws and policies facilitating non-profit sector land conservation efforts in the UK and US.
- Explore new directions to enable individuals to act upon their indicated willingness to support land conservation efforts in their own regions and communities. Potential opportunities might include the addition of a general annual tax contribution or through the dedication of a percentage of real estate transfer tax paid when land, homes and commercial properties change ownership.
- Continue expansion of the roles played by non-profit sector land trusts within the regions and communities they service. .
- Improve integration of land trusts into the local political and planning machinery of their communities and regions.

- Reorient the land trust community in the UK and US to take advantage of their special niche in the protection of private lands within their geographic regions.
- Develop standards for land conservation decision-making at the land trust level in the UK and US that will ensure improved communication flows between various stakeholders at the local and regional level. Thus, enhancing responsiveness to concerns and interests of the community and empowering people to become better integrated in the evolving processes that will shape the future landscape of their communities.

## **8.9 Directions for Future Research**

While this research does not nearly approach full explication of the questions—or answers, it does lay a foundation to begin the process of asking the right questions and building the right tools to help provide answers to these questions. A number of directions for future research are suggested. Some perhaps result out of the project's enormity of scale. Others may be related to deficiencies in design of the study as noted elsewhere. Still others are extensions of the present work suggested by the results. Below are several future directions for related research.

- This study provides the background for interpreting the conceptual framework of the ILCDS model. The next logical step is full-scale development of the model. This will ultimately require adequate funding and a team of individuals with appropriate expertise to bring this tool to fruition.
- As funding allows, future research related to model development will require that the interactive ILCDS system prototype be tested on case study sites in order to project future implications and evaluations on the likely impacts of various land use decisions. Thus, one particular aspect of future research will rely on identifying a series of appropriate case studies to evaluate model functions.



- The study design did not go in search of a conclusive measure of WTP. Future research that both explores estimates on WTP based on the amount of land respondents feel is necessary to protect would be valuable. Such information may also be of interest, particularly to policy makers and land trusts themselves, offering yet another avenue for further potential research.
- The current study is not one of a regional or localised nature and therefore does not attempt to identify respondent preferences for the protection of one landscape over, or compared to another. While Phase II focus groups explored those landscapes participants felt were most important to protect, a more detailed, local or regional exploration of the perceived degree of substitution between various landscapes and other types of open space would provide an interesting contribution to the growing body of research in this area. Replication of these types of studies in specific regions may identify regional characteristics that contribute to different preferences for protection. Ultimately, such preferences are one of the site-specific components of the ILCDS model.
- Due to the scale of this study, no attempt was made to evaluate the very specific regional variations within the US or the UK. Exploration into particular aspects of regional variation in relation to queries posed in this study provides an intriguing opportunity to extend both qualitative and quantitative aspects of the current research.

Without much doubt there is also much work yet to be done to integrate non-linear dynamics at multiple time scales with those of complex social systems and economic variables. However, this important topic is just emerging. Future research in this area demands careful and extensive exploration. Future work should also explore the conditions necessary for the dynamics described and illustrated in relation to the conceptual ILCDS model and the dependency of these dynamics on particular assumptions. Despite these words of caution, such work introduces an exciting area of interdisciplinary research which may not only assist land trusts in making sound

decisions on the conservation of lands in their communities for the long-term—it may prove key to wide-ranging goals of sustainability.

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- United States Code, Title 42 USC § 4331 (c), National Environmental Policy Act (NEPA) §1 *et seq.*
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## APPENDIX 2-1

Gustanski, J.A., Edwards-Jones, G. and Squires, R.H. (2000) "The Ethics-Economics-Policy Paradigm: the foundation for an integrated land trust conservation decision-support model." *Urban Ecosystems, Special Edition, Vol. 3(4) (in press)*

## ABSTRACT

This paper sets forth a transdisciplinary approach, based upon current trans-Atlantic research carried out in Britain and the US, on the complex and interdisciplinary relationship of the *ethics-economics-policy* paradigm. To provide the proper associations within the land trust framework, the paradigm is viewed from the little explored private lands perspective.

The results of interviews carried out with conservation professionals in Britain and the US indicate a strong desire to use a more integrated framework to facilitate the decision-making process. Approximately 96% of the 139 land trusts interviewed felt that their organization's conservation efforts would ultimately be enhanced through the use of a decision-support tool that extended beyond traditional ecological criteria, constraints and incorporated both qualitative social and quantitative economic information. To this end, this paper will both examine the current status of land trust decisions-making and frame the fundamentals and dimensions (e.g., land resources, sustainability, community, environment, etc.) of the ethics-economics-policy paradigm. ♣

The conceptual integrated land conservation decision-support (ILCDS) model is introduced. Aims of the model, as prescribed by the ethics-economics-policy paradigm, are to integrate concerns of economic efficiency, equity (between and within generations), behavioral models of resource use and ecological integrity, and other patterns of human and economic development within a private land—land trust context.

*Keywords:* land conservation; values; economics; decision-making; land trusts.

♣ Although notions of sustainable development and sustainability are fundamental concepts in any discussion on the conservation of natural resources they remain vague. We choose not to engage in this discourse, however, and instead depend on intuitive understandings. In human systems, sustainability suggests reproducibility of the social unit, through satisfactory economic performance. Related to the human system, the ecological dimension extends our use; that is, ecological sustainability intimates reproducibility of the resident ecosystem. Thus, sustainability suggests harmonious long-term relationships between human systems and the environment, when taken as a term of sufficient abstraction so as to include natural and human dimensions.

## Appendix 3-1

### Planning Policy Guidance Notes (PPGs)\*

- PPG1 General Policy and Principles (Feb. '97)
  - PPG2 Green Belts (Jan. '95)
  - PPG3 Housing (Mar. '93)
  - PPG4 Industrial and Commercial Development and Small Firms (Nov. '92)
  - PPG5 Simplified Planning Zones (Nov. '92)
  - PPG6 Town Centres and Retail Developments (Jul. '93)
  - PPG7 The Countryside - Environmental Quality and Economic and Social Development (new)
  - PPG8 Telecommunications (Dec. '92)
  - PPG9 Nature Conservation (new)
  - PPG12 Development Plans and Regional Planning Guidance (Feb. '92)
  - PPG13 Transport (Mar. '94) + PPG13 Technical Annex
  - PPG14 Development on Unstable Land (Apr. '90) + PPG14 Technical Annex
  - PPG15 Planning and the Historic Environment (Sep. '94)
  - PPG16 Archaeology and Planning (Nov. '90)
  - PPG17 Sport and Recreation (Sep. '91) PPG18 Enforcing Planning Control (Dec. '91)
  - PPG19 Outdoor Advertisement Control (Mar. '92)
  - PPG20 Coastal Planning (Sep. '92)
  - PPG21 Tourism (Nov. '92)
  - PPG22 Renewable Energy (Feb. '93) + PPG22 Technical Annex
  - PPG23 Planning and Pollution Control (Jul. '94)
  - PPG24 Planning and Noise (Sep. '94)
- \*Note - PPGs are only valid in England though similar guidance notes have been promulgated for the rest of the UK.

### Regional Policy Guidance Notes

- RPG1 Strategic Guidance for Tyne and Wear (Jun. '89)
- RPG2 Strategic Guidance for West Yorkshire (Sep. '89)
- RPG3 Strategic Guidance for London (Sep. '89)
- RPG4 Strategic Guidance for Manchester (Dec. '89)
- RPG5 Strategic Guidance for South Yorkshire (Dec. '89)
- RPG6 Regional Planning Guidance for East Anglia (Jul. '91)
- RPG7 Regional Planning Guidance for Northern Region (Sep. '93)
- RPG8 Regional Planning Guidance for the East Midlands (Mar. 94)
- RPG9 Regional Planning Guidance for South East (Mar. '94)
- RPG9a The Thames Gateway Planning Framework (Jun. '95)
- RPG10 Regional Planning Guidance for the South West (Jul. '94)
- RPG11 Regional Planning Guidance for the West Midlands Region (Sep. '95)
- RPG13 Regional Planning Guidance for North-West Region (new)



## Appendix 3-2

### THE UNIFORM CONSERVATION EASEMENT ACT.

The UNIFORM CONSERVATION EASEMENT ACT was approved by the National Conference of Commissioners on Uniform State Laws in 1981. Included with the Uniform Act are a series of notes or comments prepared by the Commissioners. The Prefatory Note contains an explanation of the entire Act. The individual sections that were adopted are followed by additional comments explaining the reasons for their existence.

#### **Prefatory Note**

“The Act enables durable restrictions and affirmative obligations to be attached to real property to protect natural and historic resources. Under the conditions spelled out in the Act, the restrictions and obligations are immune from certain common law impediments which might otherwise be raised. The Act maximizes the freedom of the creators of the transaction to impose restrictions on the use of land and improvements in order to protect them, and it allows similar latitude to impose affirmative duties for the same purposes. In each instance, if the requirements of the Act are satisfied, the restrictions or affirmative duties are binding upon the successors and assigns of the original parties.

“The Act thus makes it possible for Owner to transfer a restriction upon the use of Blackacre to Conservation, Inc., which will be enforceable by Conservation and its successors whether or not Conservation has an interest in land benefited (sic) by the restriction, which is assignable although unattached to any such interest in fact, and which has not arisen under circumstances where the traditional conditions of privity of estate and "touch and concern" applicable to covenants real are present. So, also, the Act enables the Owner of Heritage Home to obligate himself and future owners of Heritage to maintain certain aspects of the house and to have that obligation enforceable by Preservation, Inc., although Preservation has no interest in property benefited by the obligation. Further, Preservation may obligate itself to take certain affirmative actions to preserve the property. In each case, under the Act, the restrictions and obligations bind successors. The Act does not itself impose restrictions or affirmative duties. It merely allows the parties to do so within a consensual arrangement freed from common law impediments, if the conditions of the Act are complied with.

“These conditions are designed to assure that protected transactions serve defined protective purposes (Section 1(1)) and that the protected interest is in a "holder" which is either a governmental body or a charitable organization having an interest in the subject matter (Section 1(2)). The interest may be created in the same manner as other easements in land (Section 2(a)). The Act also enables the parties to establish a right in a third party to enforce the terms of the transaction (Section 3(a)(3)) if the possessor of the right is also a governmental unit or charity (Section 1(3)).

“The interests protected by the Act are termed "easements.” The terminology reflects a rejection of two alternatives suggested in existing state acts dealing with non-possessory conservation and preservation interests. The first removes the common law disabilities associated with covenants real and equitable servitudes in addition to those associated with easements. As statutorily modified, these three common law interests retain their separate existence as instruments employable for conservation and preservation ends. The second approach seeks to create a novel additional interest, which, although unknown to the common law, is, in some ill-defined sense, a statutorily modified amalgam of the three traditional common law interests.

“The easement alternative is favored in the Act for three reasons. First, lawyers and courts are most comfortable with easements and easement doctrine, less so with restrictive covenants and equitable servitudes, and can be expected to experience severe confusion if the Act opts for a hybrid fourth interest. Second, the easement is the basic less-than-fee interest at common law; the restrictive covenant and the equitable servitude appeared only because of then-current, but now outdated, limitations of easement doctrine. Finally, non-possessory interests satisfying the requirements of covenant real or equitable servitude doctrine will invariably meet the Act's less demanding requirements as "easements.” Hence, the Act's easement orientation should not prove prejudicial to instruments drafted as real covenants or equitable servitudes, although the converse would not be true.

“In assimilating these easements to conventional easements, the Act allows great latitude to the parties to the former to arrange their relationship as they see fit. The Act differs in this respect from some existing statutes, such as that in effect in Massachusetts, under which interests of this nature are subject to public planning agency review.

“There are both practical and philosophical reasons for not subjecting conservation easements to a public ordering system. The Act has the relatively narrow purpose of sweeping away certain common law impediments which might otherwise undermine the easements' validity, particularly those held in gross. It is the intention to facilitate private grants that serve the ends of land conservation and historic preservation; moreover, the requirement of public agency approval adds a layer of complexity that may discourage private actions. Organizations and property owners may be reluctant to become involved in the bureaucratic, and sometimes political, process which public agency participation entails. Placing such a requirement in the Act may dissuade a state from enacting it for the reason that the state does not wish to accept the administrative and fiscal responsibilities of such a program.

“In addition, controls in the Act and in other state and federal legislation afford further assurance that the Act will serve the public interest. To begin with, the very adoption of the Act by a state legislature facilitates the enforcement of conservation easement serving the public interest. Other types of easements, real covenants, and equitable servitudes are enforceable, although state legislative bodies have seldom expressly scrutinized their myriad of purposes. Moreover, Section 1(2) of the Act restricts the entities that may hold conservation and preservation easements to governmental agencies and charitable organizations, neither of which is likely to accept them on an indiscriminate basis. Governmental programs that extend benefits to private donors of these easements provide additional controls against potential abuses. Federal tax statutes and regulations, for example, rigorously define the circumstances under which easement donations qualify for favorable tax treatment. Controls relating to real estate assessment and taxation of restricted properties have been, or can be, imposed by state legislatures to prevent easement abuses or to limit potential loss of local property tax revenues resulting from unduly favorable assessment and taxation of these properties. Finally, the American legal system generally regards private ordering of property relationships as sound public policy. Absent conflict with constitutional or statutory requirements, conveyances of fee or non-possessory interests by and among private entities are the norm, rather than the exception, in the United States. By eliminating certain outmoded easement impediments that are largely attributable to the absence of a land title recordation system in England centuries earlier, the Act advances the values implicit in this norm.

“The Act does not address a number of issues which, though of conceded importance, are considered extraneous to its primary objective of enabling private parties to enter into consensual arrangements with charitable organizations or governmental bodies to protect land and buildings without the encumbrance of certain potential common law impediments (Section 4). For example, with the exception of the requirement of Section 2(b) that the acceptance of the holder be recorded, the formalities and effects of recordation are left to the state's registry system; an adopting state may wish to establish special indices for these interests, as has been done in Massachusetts.

“Similarly unaddressed are the potential impacts of a state's marketable title laws upon the duration of conservation easements. The Act provides that conservation easements have an unlimited duration unless the instruments creating them provide otherwise (Section 2(c)). The relationship between this provision and the marketable title act or other statutes addressing restrictions on real property of unlimited duration should be considered by the adopting state.

“The relationship between the Act and local real property assessment and taxation practices is not dealt with; for example, the effect of an easement upon the valuation of burdened real property presents issues which are left to the state and local taxation system. The Act enables the structuring of transactions so as to achieve tax benefits which may be available under the Internal Revenue Code, but parties intending to attain them must be mindful of the specific provisions of the income, estate and gift tax laws which are applicable. Finally, the Act neither limits nor enlarges the power of eminent domain; such matters as the scope of that power and the entitlement of property owners to compensation upon its exercise are determined not by this Act but by the adopting state's eminent domain code and related statutes.”

### Section 1. Definitions.

As used in this Act, unless the context otherwise requires:

- (1) “Conservation easement” means a nonpossessory interest of a holder in real property imposing limitations or affirmative obligations the purposes of which include retaining or protecting natural, scenic, or open-space values of real property, assuring its availability for agricultural, forest, recreational, or open-space use, protecting natural resources, maintaining or enhancing air or water quality, or preserving the historical, architectural, archaeological, or cultural aspects of real property.
- (2) “Holder” means:
  - (i) a governmental body empowered to hold an interest in real property under the laws of this State or the United States; or
  - (ii) a charitable corporation, charitable association, or charitable trust, the purposes or powers of which include retaining or protecting the natural, scenic, or open-space values of real property, assuring the availability of real property for agricultural, forest, recreational, or open-space use, protecting natural resources, maintaining or enhancing air or water quality, or preserving the historical, architectural, archaeological, or cultural aspects of real property.
- (3) “Third-party right of enforcement” means a right provided in a conservation easement to enforce any of its terms granted to a governmental body, charitable corporation, charitable association, or charitable trust, which, although eligible to be a holder, is not a holder.

### Comment.

Section 1 defines three central elements: What is meant by a conservation easements; who can be a holder; and who can possess a “third-part right of enforcement.” Only those interests held by a “holder”, as defined by the Act, falls within the definitions of protected easements. Such easements are defined as interests in real property. Even if so held, the easement must serve one or more of the following purposes: Protection of natural or open-space resources; protection of air or water quality; preservation of the historical aspects of property; or other similar objectives spelled out in subsection (1).

A “holder” may be a governmental units having specified powers (subsection (2)(I)) or certain types of charitable corporations, associations, and trusts, provided that the purposes of the holder include those same purposes for which the conservation easement should have been created in the first place (subsection (2)(ii)). The word “charitable”, in Section 1(2) and (3) describes organizations that are charities according to the common law definition regardless of their tax status as exempt organizations under any tax law.

Recognition of a “third-party right of enforcement” enables a party to structure into the transaction a party that is not an easement “holder”. But which, nonetheless, has the right to enforce the terms of the easement (Sections 1(3), 3(a)(3)). However, the possessor of the third-party enforcement right must be a governmental body or a charitable corporation, association, or trust. Thus, if Owner transfers a conservation easement on Blackacre to Conservation, Inc., he could grant to Preservation, Inc., a charitable corporation, the right to enforce the terms of the easement, even though Preservation was not the holder, and Preservation would be free of the common law impediments eliminated by the Act (Section 4). Under this Act, however, Owner could not grant a similar right to Neighbor, a private person. However, whether such a grant might be valid under other applicable law of the adopting state is left to the law of that state. (Section 5(c).)

## Section 2. Creation, Conveyance, Acceptance and Duration.

- (a) Except as otherwise provided in this Act, a conservation easement may be created, conveyed, recorded, assigned, released, modified, terminated, or otherwise altered or affected in the same manner as other easements.
- (b) No right or duty in favor of or against a holder and no right in favor of a person having a third-party right of enforcement arises under a conservation easement before its acceptance by the holder and a recordation of the acceptance.
- (c) Except as provided in Section 3(b), a conservation easement is unlimited in duration unless the instrument creating it otherwise provides.
- (d) An interest in real property in existence at the time a conservation easement is created is not impaired by it unless the owner of the interest is a party to the conservation easement or consents to it.

## Comment.

Section 2(a) provides that, except to the extent otherwise indicated in the Act, conservation easements are indistinguishable from easements recognized under the pre-Act law of the state in terms of their creation, conveyance, recordation, assignment, release, modification, termination, or alteration. In this regard, subsection (a) reflects the Act’s overall philosophy of bringing less-than-fee conservation interests under the formal easement rubric and of extending that rubric to the extent necessary to effectuate the Act’s purposes given the adopting state’s existing common law and statutory framework. For example, the state’s requirements concerning release of conventional easements apply as well to conservation easements because nothing in the Act provides otherwise. On the other hand, if the state’s existing law does not permit easements in gross to be assigned, it will not be applicable to conservation easements because Section 4(2) effectively authorizes their assignment.



Conservation and preservation organizations using easement programs have indicated a concern that instruments purporting to impose affirmative obligations on the holder may be unilaterally executed by grantors and recorded without notice to or acceptance by the holder ostensibly responsible for the performance of the affirmative obligations. Subsection (b) makes clear that neither a holder nor a person having a third-party enforcement right has any rights or duties under the easement prior to the recordation of the holder's acceptance of it.

The Act enables parties to create a conservation easement of unlimited duration subject to the power of a court to modify or terminate it in states whose case or statute law accords their courts that power in the case of easement - See Section 3(b). The latitude given the parties is consistent with the philosophical premise of the Act. However, there are additional safeguards; for example, easements may be created only for certain purposes and may be held only by certain "holders." These limitations find their place comfortably within similar limitations applicable to charitable trusts, whose duration may also have no limit. Allowing the parties to create such easements also enables them to fit within federal tax law requirements that the interest be "in perpetuity" if certain tax benefits are to be derived.

Obviously, an easement cannot impair prior rights of owners of interests in the burdened property existing when the easement comes into being unless those owners join in the easement or consent to it. The easement property thus would be subject to existing liens, encumbrances and other property rights (such as subsurface mineral rights) which pre-exist the easement, unless the owners of those rights release them or subordinate them to the easement. (Section 2(d).)

### Section 3. Judicial Actions.

(a) An action affecting a conservation easement may be brought by:

- (1) an owner of an interest in the real property burdened by the easement;
- (2) a holder of the easement;
- (3) a person having a third-party right of enforcement; or
- (4) a person authorized by other law.

(b) This Act does not affect the power of a court to modify or terminate a conservation easement in accordance with the principles of law and equity.

### Comment

Section 3 identifies four categories of persons who may bring actions to enforce, modify, or terminate conservation easements, quiet title to parcels burdened by conservation easements, or otherwise affect conservation easements. Owners of interests in real property burdened by easements might wish to sue in cases where the easements also impose duties upon holders and these duties are breached by the holders. Holders and persons having third-party rights of enforcement might obviously wish to sue to enforce restrictions on the owners' use of the burdened properties. In addition to these three categories of persons who derive their standing from the explicit terms of the easement itself, the Act also recognizes that the state's other applicable law may create standing in other persons. For example, independently of the Act, the attorney general could have standing in his capacity as supervisor of charitable trusts, either by statute or at common law.

A restriction burdening real property in perpetuity or for long periods can fail of its purposes because of changed conditions affecting the property or its environs, because the holder of the conservation easement may cease to exist, or for other reasons not anticipated at the time of its creation. A variety of doctrines, including the doctrines of changed conditions and *cy pres*, have been judicially developed, and, in many states, legislatively sanctioned as a basis for responding to these vagaries. Under the changed conditions doctrine, privately created restrictions on land use may be terminated or modified if they no longer substantially achieve their purpose due to the changed conditions. Under the statute and case law of some states, the court's order limiting or terminating the restriction may include such terms and conditions, including monetary adjustments, as it deems necessary to protect the public interest and to assure an equitable resolution of the problem. The doctrine is applicable to real covenants and equitable servitudes in all states, but its application to easements is problematic in many states.

Under the doctrine of *cy pres*, if the purposes of a charitable trust cannot be carried out because circumstances have changed after the trust came into being or, for any other reason, the settlor's charitable intentions cannot be effectuated, courts under their equitable powers may prescribe terms and conditions that may best enable the general charitable objective to be achieved while altering specific provisions of the trust. So, also, in cases where a charitable trustee ceases to exist or cannot carry out its responsibilities, the court will appoint a substitute trustee upon proper application and will not allow the trust to fail.

The Act leaves intact the existing case and statute law of adopting states as it relates to the modification and termination of easements and the enforcement of charitable trusts.

#### Section 4. Validity.

A conservation easement is valid even though:

- (1) it is not appurtenant to an interest in real property;
- (2) it can be or has been assigned to another holder;
- (3) it is not of a character that has been recognized traditionally at common law;
- (4) it imposes a negative burden;
- (5) it imposes affirmative obligations upon the owner of an interest in the burdened property or upon the holder;
- (6) the benefit does not touch or concern real property; or
- (7) there is no privity of estate or of contract.

#### Commissioners' Comments.

One of the Act's basic goals is to remove outmoded common law defenses that could impede the use of easements for conservation or preservation ends. Section 4 addresses this goal by comprehensively identifying these defenses and negating their use in actions to enforce conservation or preservation easements.

Subsection (1) indicates that easements, the benefit of which is held in gross, may be enforced against the grantor or his successors or assigns. By stating that the easement need not be appurtenant to an interest in real property, it eliminates the requirement in force in some states that the holder of the easement must own an interest in real property (the "dominant estate") benefited by the easement.

Subsection (2) also clarifies common law by providing that an easement may be enforced by an assignee of the holder.



Subsection (3) addresses the problem posed by the common law's recognition of easements that served only a limited number of purposes and its reluctance to approve so-called "novel incidents." Easements serving the conservation and preservation ends enumerated in Section I (1) might fail of enforcement under this restrictive view. Accordingly, subsection (3) establishes that conservation or preservation easements are not enforceable solely because they do not serve purposes or fall within the categories of easements traditionally recognized at common law.

Subsection (4) deals with a variant of the foregoing problem. The common law recognized only a limited number of "negative easements"-those preventing the owner of the burdened land from performing acts on his land that he would be privileged to perform absent the easement. Because a far wider range of negative burdens than those recognized at common law might be imposed by conservation or preservation easements, subsection (4) modifies the common law by eliminating the defense that a conservation or preservation easement imposes a "novel" negative burden.

Subsection (5) addresses the opposite problem-the unenforceability at common law of an easement that imposes affirmative obligations upon either the owner of the burdened property or upon the holder. Neither of those interests was viewed by the common law as true easements at all. The first, in fact, was labeled a "spurious" easement because it obligated the owner of the burdened property to perform affirmative acts. (The spurious easement was distinguished from an affirmative easement, illustrated by a right-of-way, which empowered the easement's holder to perform acts on the burdened property that the holder would not have been privileged to perform absent the easement.)

Achievement of conservation or preservation goals may require that affirmative obligations be incurred by the denied property owner or by the easement holder or both. For example, the donor of a facade easement, one type of preservation easement, may agree to restore the facade to its original state; conversely, the holder of a facade easement may agree to undertake restoration. In either case, the preservation easement would impose affirmative obligations.

Subsection (5) treats both interests as easements and establishes that neither would be unenforceable solely because it is affirmative in nature.

Subsection (6) and (7) preclude the touch, concern, and privity of estate or contract defenses, respectively. Strictly speaking, they do not belong in the Act because they have traditionally been asserted as defenses against the enforcement not of easements but of real covenants and of equitable servitudes. The case law dealing with these three classes of interests, however, had become so confused and arcane over the centuries that defenses appropriate to one of these classes may incorrectly be deemed applicable to another. The inclusion of the touch and concern and privity defenses in Section 4 is a cautionary measure, intended to safeguard conservation and preservation easements from invalidation by courts that might inadvertently confuse them with real covenants or equitable servitudes.

## Section 5. Applicability.

- (a) This Act applies to any interest created after its effective date which complies with this Act, whether designated as a conservation easement or as a covenant, equitable servitude, restriction, easement, or otherwise.
- (b) This Act applies to any interest created before its effective date if it would have been enforceable had it been created after its effective date unless retroactive application contravenes the constitution or laws of this State or the United States.

(c) This Act does not invalidate any interest, whether designated as a conservation or preservation easement or as a covenant, equitable servitude, restriction, easement, or otherwise, that is enforceable under other law of this State.

### Commissioners' Comment

There are four classes of interest to which the Act might be made applicable:

- (1) those created after its passage, which comply with it in form and purpose;
- (2) those created before the Act's passage which comply with the Act and which would not have been invalid under the pertinent pre-Act statutory or case law either because the latter explicitly validated interests of the kind recognized by the Act or, at least, was silent on the issue;
- (3) those created either before or after the Act which do not comply with the Act but which are valid under the state's statute or case law; and
- (4) those created before the Act's passage which comply with the Act but which would have been invalid under the pertinent pre-Act statutory or case law.

It is the purpose of Section 5 to establish or confirm the validity of the first three classes of interests. Subsection (a) establishes the validity of the first class of interests, whether or not they are designated as conservation or preservation easements. Subsection (b) establishes the validity under the Act of the second class. Subsection (c) confirms the validity of the third class independently of the Act by disavowing the intent to invalidate any interest that does comply with other applicable law.

Constitutional difficulties could arise, however, if the Act sought retroactively to confer blanket validity upon the fourth class of interests. The owner of the land ostensibly burdened by the formerly invalid interest might well succeed in arguing that his property would be "taken" without just compensation was that interest subsequently validated by the Act. Subsection (b) addresses this difficulty by precluding retroactive application of the Act if such application "contravenes the constitution or laws of this state or the United States." That determination, of course, would have to be made by a court.

### Section 6. Uniformity of Application and Construction.

This Act shall be applied and construed to effectuate its general purpose to make uniform the laws with respect to the subject of the Act among states enacting it.

Nineteen states have adopted the Uniform Conservation Easement Act.<sup>1</sup> (See Introduction to Legal Analysis)

Whether a state has adopted the major provisions of the UCEA can be difficult to determine through casual observation. Some states have departed from the title and have even omitted the term "Uniform". The statutory citation for the UCEA varies as the state amends and renumbers the legislation. The General Statutory Notes includes such variations also a variety of information relating to the enactment of the UCEA.<sup>2</sup> Some states have altered the language of the uniform act to suit their particular circumstances, their political history and legal traditions, especially their approaches to private real property rights and land uses targeted in the UCEA. "Not infrequently a jurisdiction will substantially

adopt the major provisions of a Uniform Act, and, yet, depart from the official text in such a manner that the various instances of substituted, omitted, and added matter cannot clearly be indicated".<sup>3</sup>

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<sup>1</sup> Uniform Laws Annotated, Master edition. (St. Paul, MN., West Publishing Company, 1968) 1998

pocket part 10

<sup>2</sup> Uniform Laws Annotated note 1 p. v

<sup>3</sup> Uniform Laws Annotated note 1 p. v

## Appendix 3-3

### USC TITLE 26 - INTERNAL REVENUE CODE

#### Subtitle A - Income Taxes

#### CHAPTER 1 - NORMAL TAXES AND SURTAXES

#### Subchapter B - Computation of Taxable Income

#### PART VI - ITEMIZED DEDUCTIONS FOR INDIVIDUALS AND CORPORATIONS

### Sec. 170. Charitable, etc., contributions and gifts

- (a) Allowance of deduction
  - (1) General rule

There shall be allowed as a deduction any charitable contribution (as defined in subsection (c)) payment of which is made within the taxable year. A charitable contribution shall be allowable as a deduction only if verified under regulations prescribed by the Secretary.
  - (2) Corporations on accrual basis

In the case of a corporation reporting its taxable income on the accrual basis, if -

    - (A) the board of directors authorizes a charitable contribution during any taxable year, and
    - (B) payment of such contribution is made after the close of such taxable year and on or before the 15th day of the third month following the close of such taxable year, then the taxpayer may elect to treat such contribution as paid during such taxable year. The election may be made only at the time of the filing of the return for such taxable year, and shall be signified in such manner as the Secretary shall by regulations prescribe.
  - (3) Future interests in tangible personal property

For purposes of this section, payment of a charitable contribution which consists of a future interest in tangible personal property shall be treated as made only when all intervening interests in, and rights to the actual possession or enjoyment of, the property have expired or are held by persons other than the taxpayer or those standing in a relationship to the taxpayer described in section 267(b) or 707(b). For purposes of the preceding sentence, a fixture which is intended to be severed from the real property shall be treated as tangible personal property.
- (b) Percentage limitations
  - (1) Individuals

In the case of an individual, the deduction provided in subsection (a) shall be limited as provided in the succeeding subparagraphs.

    - (A) General rule

Any charitable contribution to -

      - (i) a church or a convention or association of churches,
      - (ii) an educational organization which normally maintains a regular faculty and curriculum and normally has a regularly enrolled body of pupils or students in attendance at the place where its educational activities are regularly carried on,
      - (iii) an organization the principal purpose or functions of which are the providing of medical or hospital care or medical education or medical research, if the organization is a hospital, or if the organization is a medical research organization directly engaged in the continuous active conduct of medical research in conjunction with a hospital, and during the calendar year in which the contribution is made such organization is committed to spend such contributions for such research before January 1 of the fifth calendar year which begins after the date such contribution is made,

- (iv) an organization which normally receives a substantial part of its support (exclusive of income received in the exercise or performance by such organization of its charitable, educational, or other purpose or function constituting the basis for its exemption under section 501(a)) from the United States or any State or political subdivision thereof or from direct or indirect contributions from the general public, and which is organized and operated exclusively to receive, hold, invest, and administer property and to make expenditures to or for the benefit of a college or university which is an organization referred to in clause
- (ii) of this subparagraph and which is an agency or instrumentality of a State or political subdivision thereof, or which is owned or operated by a State or political subdivision thereof or by an agency or instrumentality of one or more States or political subdivisions,
- (v) a governmental unit referred to in subsection (c)(1),
- (vi) an organization referred to in subsection (c)(2) which normally receives a substantial part of its support (exclusive of income received in the exercise or performance by such organization of its charitable, educational, or other purpose or function constituting the basis for its exemption under section 501(a)) from a governmental unit referred to in subsection (c)(1) or from direct or indirect contributions from the general public,
- (vii) a private foundation described in subparagraph (E), or
- (viii) an organization described in section 509(a)(2) or
  - (a) an organization described in section 509(a)(2) or shall be allowed to the extent that the aggregate of such contributions does not exceed 50 percent of the taxpayer's contribution base for the taxable year.
- (B) Other contributions
 

Any charitable contribution other than a charitable contribution to which subparagraph (A) applies shall be allowed to the extent that the aggregate of such contributions does not exceed the lesser of -

  - (i) 30 percent of the taxpayer's contribution base for the taxable year, or
  - (ii) the excess of 50 percent of the taxpayer's contribution base for the taxable year over the amount of charitable contributions allowable under subparagraph (A) (determined without regard to subparagraph (C)). If the aggregate of such contributions exceeds the limitation of the preceding sentence, such excess shall be treated (in a manner consistent with the rules of subsection (d)(1)) as a charitable contribution (to which subparagraph (A) does not apply) in each of the 5 succeeding taxable years in order of time.
- (C) Special limitation with respect to contributions described in subparagraph (A) of certain capital gain property
  - (i) In the case of charitable contributions described in subparagraph (A) of capital gain property to which subsection (e)(1)(B) does not apply, the total amount of contributions of such property which may be taken into account under subsection (a) for any taxable year shall not exceed 30 percent of the taxpayer's contribution base for such year. For purposes of this subsection, contributions of capital gain property to which this subparagraph applies shall be taken into account after all

- other charitable contributions (other than charitable contributions to which subparagraph (D) applies).
- (ii) If charitable contributions described in subparagraph (A) of capital gain property to which clause (i) applies exceeds 30 percent of the taxpayer's contribution base for any taxable year, such excess shall be treated, in a manner consistent with the rules of subsection (d)(1), as a charitable contribution of capital gain property to which clause (i) applies in each of the 5 succeeding taxable years in order of time.
  - (iii) At the election of the taxpayer (made at such time and in such manner as the Secretary prescribes by regulations), subsection (e)(1) shall apply to all contributions of capital gain property (to which subsection (e)(1)(B) does not otherwise apply) made by the taxpayer during the taxable year. If such an election is made, clauses (i) and (ii) shall not apply to contributions of capital gain property made during the taxable year, and, in applying subsection (d)(1) for such taxable year with respect to contributions of capital gain property made in any prior contribution year for which an election was not made under this clause, such contributions shall be reduced as if subsection (e)(1) had applied to such contributions in the year in which made.
  - (iv) For purposes of this paragraph, the term "capital gain property" means, with respect to any contribution, any capital asset the sale of which at its fair market value at the time of the contribution would have resulted in gain which would have been long-term capital gain. For purposes of the preceding sentence, any property which is property used in the trade or business (as defined in section 1231(b)) shall be treated as a capital asset.
- (D) Special limitation with respect to contributions of capital gain property to organizations not described in subparagraph (A)
- (i) In general  
In the case of charitable contributions (other than charitable contributions to which subparagraph (A) applies) of capital gain property, the total amount of such contributions of such property taken into account under subsection (a) for any taxable year shall not exceed the lesser of -
  - (I) 20 percent of the taxpayer's contribution base for the taxable year, or
  - (II) the excess of 30 percent of the taxpayer's contribution base for the taxable year over the amount of the contributions of capital gain property to which subparagraph (C) applies. For purposes of this subsection, contributions of capital gain property to which this subparagraph applies shall be taken into account after all other charitable contributions.
  - (ii) Carryover  
If the aggregate amount of contributions described in clause (i) exceeds the limitation of clause (i), such excess shall be treated (in a manner consistent with the rules of subsection (d)(1)) as a charitable contribution of capital gain property to which clause (i) applies in each of the 5 succeeding taxable years in order of time.



- (E) Certain private foundations
 

The private foundations referred to in subparagraph (A)(vii) and subsection (e)(1)(B) are -

  - (i) a private operating foundation (as defined in section 4942(j)(3)),
  - (ii) any other private foundation (as defined in section 509(a)) which, not later than the 15th day of the third month after the close of the foundation's taxable year in which contributions are received, makes qualifying distributions (as defined in section 4942(g), without regard to paragraph (3) thereof), which are treated, after the application of section 4942(g)(3), as distributions out of corpus (in accordance with section 4942(h)) in an amount equal to 100 percent of such contributions, and with respect to which the taxpayer obtains adequate records or other sufficient evidence from the foundation showing that the foundation made such qualifying distributions, and
  - (iii) a private foundation all of the contributions to which are pooled in a common fund and which would be described in section 509(a)(3) but for the right of any substantial contributor (hereafter in this clause called "donor") or his spouse to designate annually the recipients, from among organizations described in paragraph (1) of section 509(a), of the income attributable to the donor's contribution to the fund and to direct (by deed or by will) the payment, to an organization described in such paragraph (1), of the corpus in the common fund attributable to the donor's contribution; but this clause shall apply only if all of the income of the common fund is required to be (and is) distributed to one or more organizations described in such paragraph (1) not later than the 15th day of the third month after the close of the taxable year in which the income is realized by the fund and only if all of the corpus attributable to any donor's contribution to the fund is required to be (and is) distributed to one or more of such organizations not later than one year after his death or after the death of his surviving spouse if she has the right to designate the recipients of such corpus.
- (F) Contribution base defined
 

For purposes of this section, the term "contribution base" means adjusted gross income (computed without regard to any net operating loss carryback to the taxable year under section 172).
- (2) Corporations
 

In the case of a corporation, the total deductions under subsection (a) for any taxable year shall not exceed 10 percent of the taxpayer's taxable income computed without regard to -

  - (A) this section,
  - (B) part VIII (except section 248),
  - (C) any net operating loss carryback to the taxable year under section 172, and
  - (D) any capital loss carryback to the taxable year under section 1212(a)(1).
- (c) Charitable contribution defined
 

For purposes of this section, the term "charitable contribution" means a contribution or gift to or for the use of -

- (1) A State, a possession of the United States, or any political subdivision of any of the foregoing, or the United States or the District of Columbia, but only if the contribution or gift is made for exclusively public purposes.
- (2) A corporation, trust, or community chest, fund, or foundation -
  - (A) created or organized in the United States or in any possession thereof, or under the law of the United States, any State, the District of Columbia, or any possession of the United States;
  - (B) organized and operated exclusively for religious, charitable, scientific, literary, or educational purposes, or to foster national or international amateur sports competition (but only if no part of its activities involve the provision of athletic facilities or equipment), or for the prevention of cruelty to children or animals;
  - (C) no part of the net earnings of which inures to the benefit of any private shareholder or individual; and
  - (D) which is not disqualified for tax exemption under section 501(c)(3) by reason of attempting to influence legislation, and which does not participate in, or intervene in (including the publishing or distributing of statements), any political campaign on behalf of (or in opposition to) any candidate for public office. A contribution or gift by a corporation to a trust, chest, fund, or foundation shall be deductible by reason of this paragraph only if it is to be used within the United States or any of its possessions exclusively for purposes specified in subparagraph (B). Rules similar to the rules of section 501(j) shall apply for purposes of this paragraph.
- (3) A post or organization of war veterans, or an auxiliary unit or society of, or trust or foundation for, any such post or organization -
  - (A) organized in the United States or any of its possessions, and
  - (B) no part of the net earnings of which inures to the benefit of any private shareholder or individual.
- (4) In the case of a contribution or gift by an individual, a domestic fraternal society, order, or association, operating under the lodge system, but only if such contribution or gift is to be used exclusively for religious, charitable, scientific, literary, or educational purposes, or for the prevention of cruelty to children or animals.
- (5) A cemetery company owned and operated exclusively for the benefit of its members, or any corporation chartered solely for burial purposes as a cemetery corporation and not permitted by its charter to engage in any business not necessarily incident to that purpose, if such company or corporation is not operated for profit and no part of the net earnings of such company or corporation inures to the benefit of any private shareholder or individual. For purposes of this section, the term "charitable contribution" also means an amount treated under subsection (g) as paid for the use of an organization described in paragraph (2), (3), or (4).
- (d) Carryovers of excess contributions
  - (1) Individuals
    - (A) In general
 

In the case of an individual, if the amount of charitable contributions described in subsection (b)(1)(A) payment of which is made within a taxable year (hereinafter in this paragraph referred to as the "contribution year") exceeds 50 percent of the taxpayer's contribution base for such year, such excess shall be treated as a charitable contribution described in subsection (b)(1)(A) paid in each of the 5 succeeding taxable years in order of time, but, with respect to any such succeeding taxable year, only to the extent of the lesser of the two following amounts:



- (1) General rule
 

The amount of any charitable contribution of property otherwise taken into account under this section shall be reduced by the sum of -

  - (A) the amount of gain which would not have been long-term capital gain if the property contributed had been sold by the taxpayer at its fair market value (determined at the time of such contribution), and
  - (B) in the case of a charitable contribution -
    - (i) of tangible personal property, if the use by the donee is unrelated to the purpose or function constituting the basis for its exemption under section 501 (or, in the case of a governmental unit, to any purpose or function described in subsection (c)), or
    - (ii) to or for the use of a private foundation (as defined in section 509(a)), other than a private foundation described in subsection (b)(1)(E), the amount of gain which would have been long-term capital gain if the property contributed had been sold by the taxpayer at its fair market value (determined at the time of such contribution). For purposes of applying this paragraph (other than in the case of gain to which section 617(d)(1), 1245(a), 1250(a), 1252(a), or 1254(a) applies), property which is property used in the trade or business (as defined in section 1231(b)) shall be treated as a capital asset.
- (2) Allocation of basis
 

For purposes of paragraph (1), in the case of a charitable contribution of less than the taxpayer's entire interest in the property contributed, the taxpayer's adjusted basis in such property shall be allocated between the interest contributed and any interest not contributed in accordance with regulations prescribed by the Secretary.
- (3) Special rule for certain contributions of inventory and other property
  - (A) Qualified contributions
 

For purposes of this paragraph, a qualified contribution shall mean a charitable contribution of property described in paragraph (1) or (2) of section 1221, by a corporation (other than a corporation which is an S corporation) to an organization which is described in section 501(c)(3) and is exempt under section 501(a) (other than a private foundation, as defined in section 509(a), which is not an operating foundation, as defined in section 4942(j)(3)), but only if -

    - (i) the use of the property by the donee is related to the purpose or function constituting the basis for its exemption under section 501 and the property is to be used by the donee solely for the care of the ill, the needy, or infants;
    - (ii) the property is not transferred by the donee in exchange for money, other property, or services;
    - (iii) the taxpayer receives from the donee a written statement representing that its use and disposition of the property will be in accordance with the provisions of clauses
    - (i) and (ii); and
    - (iv) in the case where the property is subject to regulation under the Federal Food, Drug, and Cosmetic Act, as amended, such property must fully satisfy the applicable requirements of such Act and regulations promulgated

thereunder on the date of transfer and for one hundred and eighty days prior thereto.

- (B) Amount of reduction  
The reduction under paragraph (1)(A) for any qualified contribution (as defined in subparagraph (A)) shall be no greater than the sum of -
  - (i) one-half of the amount computed under paragraph (1)(A) (computed without regard to this paragraph), and
  - (ii) the amount (if any) by which the charitable contribution deduction under this section for any qualified contribution (computed by taking into account the amount determined in clause (i), but without regard to this clause) exceeds twice the basis of such property.
- (C) This paragraph shall not apply to so much of the amount of the gain described in paragraph (1)(A) which would be long-term capital gain but for the application of sections 617, 1245, 1250, or 1252.
- (4) Special rule for contributions of scientific property used for research
  - (A) Limit on reduction  
In the case of a qualified research contribution, the reduction under paragraph (1)(A) shall be no greater than the amount determined under paragraph (3)(B).
  - (B) Qualified research contributions  
For purposes of this paragraph, the term "qualified research contribution" means a charitable contribution by a corporation of tangible personal property described in paragraph (1) of section 1221, but only if -
    - (i) the contribution is to an organization described in subparagraph (A) or subparagraph (B) of section 41(e)(6),
    - (ii) the property is constructed by the taxpayer,
    - (iii) the contribution is made not later than 2 years after the date the construction of the property is substantially completed,
    - (iv) the original use of the property is by the donee,
    - (v) the property is scientific equipment or apparatus substantially all of the use of which by the donee is for research or experimentation (within the meaning of section 174), or for research training, in the United States in physical or biological sciences,
    - (vi) the property is not transferred by the donee in exchange for money, other property, or services, and
    - (vii) the taxpayer receives from the donee a written statement representing that its use and disposition of the property will be in accordance with the provisions of clauses
      - (v) and (vi).
  - (C) Construction of property by taxpayer  
For purposes of this paragraph, property shall be treated as constructed by the taxpayer only if the cost of the parts used in the construction of such property (other than parts manufactured by the taxpayer or a related person) do not exceed 50 percent of the taxpayer's basis in such property.
  - (D) Corporation  
For purposes of this paragraph, the term "corporation" shall not include -

- (i) an S corporation,
  - (ii) a personal holding company (as defined in section 542), and
  - (iii) a service organization (as defined in section 414(m)(3)).
- (5) Special rule for contributions of stock for which market quotations are readily available
  - (A) In general
 

Subparagraph (B)(ii) of paragraph (1) shall not apply to any contribution of qualified appreciated stock.
  - (B) Qualified appreciated stock
 

Except as provided in subparagraph (C), for purposes of this paragraph, the term "qualified appreciated stock" means any stock of a corporation -

    - (i) for which (as of the date of the contribution) market quotations are readily available on an established securities market, and
    - (ii) which is capital gain property (as defined in subsection (b)(1)(C)(iv)).
  - (C) Donor may not contribute more than 10 percent of stock of corporation
    - (i) In general
 

In the case of any donor, the term "qualified appreciated stock" shall not include any stock of a corporation contributed by the donor in a contribution to which paragraph (1)(B)(ii) applies (determined without regard to this paragraph) to the extent that the amount of the stock so contributed (when increased by the aggregate amount of all prior such contributions by the donor of stock in such corporation) exceeds 10 percent (in value) of all of the outstanding stock of such corporation.
    - (ii) Special rule
 

For purposes of clause (i), an individual shall be treated as making all contributions made by any member of his family (as defined in section 267(c)(4)).
  - (D) Termination
 

This paragraph shall not apply to contributions made -

    - (i) after December 31, 1994, and before July 1, 1996, or
    - (ii) after May 31, 1997.
- (f) Disallowance of deduction in certain cases and special rules
  - (1) In general
 

No deduction shall be allowed under this section for a contribution to or for the use of an organization or trust described in section 508(d) or 4948(c)(4) subject to the conditions specified in such sections.
  - (2) Contributions of property placed in trust
    - (A) Remainder interest
 

In the case of property transferred in trust, no deduction shall be allowed under this section for the value of a contribution of a remainder interest unless the trust is a charitable remainder annuity trust or a charitable remainder unitrust (described in section 664), or a pooled income fund (described in section 642(c)(5)).
    - (B) Income interests, etc.
 

No deduction shall be allowed under this section for the value of any interest in property (other than a remainder interest) transferred in trust unless the interest is in the form of a guaranteed annuity or the trust instrument specifies that the



interest is a fixed percentage distributed yearly of the fair market value of the trust property (to be determined yearly) and the grantor is treated as the owner of such interest for purposes of applying section 671. If the donor ceases to be treated as the owner of such an interest for purposes of applying section 671, at the time the donor ceases to be so treated, the donor shall for purposes of this chapter be considered as having received an amount of income equal to the amount of any deduction he received under this section for the contribution reduced by the discounted value of all amounts of income earned by the trust and taxable to him before the time at which he ceases to be treated as the owner of the interest. Such amounts of income shall be discounted to the date of the contribution. The Secretary shall prescribe such regulations as may be necessary to carry out the purposes of this subparagraph.

- (C) Denial of deduction in case of payments by certain trusts In any case in which a deduction is allowed under this section for the value of an interest in property described in subparagraph (B), transferred in trust, no deduction shall be allowed under this section to the grantor or any other person for the amount of any contribution made by the trust with respect to such interest.
- (D) Exception  
This paragraph shall not apply in a case in which the value of all interests in property transferred in trust are deductible under subsection (a).
- (3) Denial of deduction in case of certain contributions of partial interests in property
  - (A) In general  
In the case of a contribution (not made by a transfer in trust) of an interest in property which consists of less than the taxpayer's entire interest in such property, a deduction shall be allowed under this section only to the extent that the value of the interest contributed would be allowable as a deduction under this section if such interest had been transferred in trust. For purposes of this subparagraph, a contribution by a taxpayer of the right to use property shall be treated as a contribution of less than the taxpayer's entire interest in such property.
  - (B) Exceptions  
Subparagraph (A) shall not apply to -
    - (i) a contribution of a remainder interest in a personal residence or farm,
    - (ii) a contribution of an undivided portion of the taxpayer's entire interest in property, and
    - (iii) a qualified conservation contribution.
- (4) Valuation of remainder interest in real property  
For purposes of this section, in determining the value of a remainder interest in real property, depreciation (computed on the straight line method) and depletion of such property shall be taken into account, and such value shall be discounted at a rate of 6 percent per annum, except that the Secretary may prescribe a different rate.
- (5) Reduction for certain interest  
If, in connection with any charitable contribution, a liability is assumed by the recipient or by any other person, or if a charitable contribution is of property which is subject to a liability, then, to the extent necessary to avoid the duplication of amounts, the amount taken into account for purposes of this section as the amount of the charitable contribution -

- (A) shall be reduced for interest (i) which has been paid (or is to be paid) by the taxpayer, (ii) which is attributable to the liability, and (iii) which is attributable to any period after the making of the contribution, and
- (B) in the case of a bond, shall be further reduced for interest (i) which has been paid (or is to be paid) by the taxpayer on indebtedness incurred or continued to purchase or carry such bond, and (ii) which is attributable to any period before the making of the contribution. The reduction pursuant to subparagraph (B) shall not exceed the interest (including interest equivalent) on the bond which is attributable to any period before the making of the contribution and which is not (under the taxpayer's method of accounting) includible in the gross income of the taxpayer for any taxable year. For purposes of this paragraph, the term "bond" means any bond, debenture, note, or certificate or other evidence of indebtedness.
- (6) Deductions for out-of-pocket expenditures  
No deduction shall be allowed under this section for an out-of-pocket expenditure made by any person on behalf of an organization described in subsection (c) (other than an organization described in section 501(h)(5) (relating to churches, etc.)) if the expenditure is made for the purpose of influencing legislation (within the meaning of section 501(c)(3)).
- (7) Reforms to comply with paragraph (2)
  - (A) In general  
A deduction shall be allowed under subsection (a) in respect of any qualified reformation (within the meaning of section 2055(e)(3)(B)).
  - (B) Rules similar to section 2055(e)(3) to apply For purposes of this paragraph, rules similar to the rules of section 2055(e)(3) shall apply.
- (8) Substantiation requirement for certain contributions
  - (A) General rule  
No deduction shall be allowed under subsection (a) for any contribution of \$250 or more unless the taxpayer substantiates the contribution by a contemporaneous written acknowledgment of the contribution by the donee organization that meets the requirements of subparagraph (B).
  - (B) Content of acknowledgement  
An acknowledgement meets the requirements of this subparagraph if it includes the following information:
    - (i) The amount of cash and a description (but not value) of any property other than cash contributed.
    - (ii) Whether the donee organization provided any goods or services in consideration, in whole or in part, for any property described in clause (i).
    - (iii) A description and good faith estimate of the value of any goods or services referred to in clause (ii) or, if such goods or services consist solely of intangible religious benefits, a statement to that effect. For purposes of this subparagraph, the term "intangible religious benefit" means any intangible religious benefit which is provided by an organization organized exclusively for religious purposes and which generally is not sold in a commercial transaction outside the donative context.

- (C) Contemporaneous  
For purposes of subparagraph (A), an acknowledgment shall be considered to be contemporaneous if the taxpayer obtains the acknowledgment on or before the earlier of -
  - (i) the date on which the taxpayer files a return for the taxable year in which the contribution was made, or
  - (ii) the due date (including extensions) for filing such return.
- (D) Substantiation not required for contributions reported by the donee organization Subparagraph (A) shall not apply to a contribution if the donee organization files a return, on such form and in accordance with such regulations as the Secretary may prescribe, which includes the information described in subparagraph (B) with respect to the contribution.
- (E) Regulations  
The Secretary shall prescribe such regulations as may be necessary or appropriate to carry out the purposes of this paragraph, including regulations that may provide that some or all of the requirements of this paragraph do not apply in appropriate cases.
- (9) Denial of deduction where contribution for lobbying activities. No deduction shall be allowed under this section for a contribution to an organization which conducts activities to which section 162(e)(1) applies on matters of direct financial interest to the donor's trade or business, if a principal purpose of the contribution was to avoid Federal income tax by securing a deduction for such activities under this section which would be disallowed by reason of section 162(e) if the donor had conducted such activities directly. No deduction shall be allowed under section 162(a) for any amount for which a deduction is disallowed under the preceding sentence.
- (g) Amounts paid to maintain certain students as members of taxpayer's household
  - (1) In general  
Subject to the limitations provided by paragraph (2), amounts paid by the taxpayer to maintain an individual (other than a dependent, as defined in section 152, or a relative of the taxpayer) as a member of his household during the period that such individual is -
    - (A) a member of the taxpayer's household under a written agreement between the taxpayer and an organization described in paragraph (2), (3), or (4) of subsection (c) to implement a program of the organization to provide educational opportunities for pupils or students in private homes, and
    - (B) a full-time pupil or student in the twelfth or any lower grade at an educational organization described in section 170(b)(1)(A)(ii) located in the United States, shall be treated as amounts paid for the use of the organization.
  - (2) Limitations
    - (A) Amount  
Paragraph (1) shall apply to amounts paid within the taxable year only to the extent that such amounts do not exceed \$50 multiplied by the number of full calendar months during the taxable year which fall within the period described in paragraph (1). For purposes of the preceding sentence, if 15 or more days of a calendar month fall within such period such month shall be considered as a full calendar month.
    - (B) Compensation or reimbursement  
Paragraph (1) shall not apply to any amount paid by the taxpayer within the taxable year if the taxpayer receives any money or

other property as compensation or reimbursement for maintaining the individual in his household during the period described in paragraph (1).

- (3) Relative defined  
For purposes of paragraph (1), the term "relative of the taxpayer" means an individual who, with respect to the taxpayer, bears any of the relationships described in paragraphs (1) through (8) of section 152(a).
- (4) No other amount allowed as deduction  
No deduction shall be allowed under subsection (a) for any amount paid by a taxpayer to maintain an individual as a member of his household under a program described in paragraph (1)(A) except as provided in this subsection.
- (h) Qualified conservation contribution
  - (1) In general  
For purposes of subsection (f)(3)(B)(iii), the term "qualified conservation contribution" means a contribution -
    - (A) of a qualified real property interest,
    - (B) to a qualified organization,
    - (C) exclusively for conservation purposes.
  - (2) Qualified real property interest  
For purposes of this subsection, the term "qualified real property interest" means any of the following interests in real property:
    - (A) the entire interest of the donor other than a qualified mineral interest,
    - (B) a remainder interest, and
    - (C) a restriction (granted in perpetuity) on the use which may be made of the real property.
  - (3) Qualified organization  
For purposes of paragraph (1), the term "qualified organization" means an organization which -
    - (A) is described in clause (v) or (vi) of subsection (b)(1)(A), or
    - (B) is described in section 501(c)(3) and -
- (i) meets the requirements of section 509(a)(2), or
- (ii) meets the requirements of section 509(a)(3) and is controlled by an organization described in subparagraph (A) or in clause (i) of this subparagraph.
  - (4) Conservation purpose defined
    - (A) In general  
For purposes of this subsection, the term "conservation purpose" means -
      - (i) the preservation of land areas for outdoor recreation by, or the education of, the general public,
      - (ii) the protection of a relatively natural habitat of fish, wildlife, or plants, or similar ecosystem,
      - (iii) the preservation of open space (including farmland and forest land) where such preservation is -
        - (I) for the scenic enjoyment of the general public, or
        - (II) pursuant to a clearly delineated Federal, State, or local governmental conservation policy, and will yield a significant public benefit, or
      - (iv) the preservation of an historically important land area or a certified historic structure.
        - (B) Certified historic structure  
For purposes of subparagraph (A)(iv), the term "certified historic structure" means any building, structure, or land area which -
          - (i) is listed in the National Register, or
          - (ii) is located in a registered historic district (as defined in section 47(c)(3)(B)) and is certified by the Secretary of the Interior to the Secretary as being of historic

significance to the district. A building, structure, or land area satisfies the preceding sentence if it satisfies such sentence either at the time of the transfer or on the due date (including extensions) for filing the transferor's return under this chapter for the taxable year in which the transfer is made.

- (5) Exclusively for conservation purposes  
For purposes of this subsection -
  - (A) Conservation purpose must be protected A contribution shall not be treated as exclusively for conservation purposes unless the conservation purpose is protected in perpetuity.
  - (B) No surface mining permitted
- (i) In general  
Except as provided in clause (ii), in the case of a contribution of any interest where there is a retention of a qualified mineral interest, subparagraph (A) shall not be treated as met if at any time there may be extraction or removal of minerals by any surface mining method.
- (ii) Special rule  
With respect to any contribution of property in which the ownership of the surface estate and mineral interests were separated before June 13, 1976, and remain so separated, subparagraph (A) shall be treated as met if the probability of surface mining occurring on such property is so remote as to be negligible.
  - (6) Qualified mineral interest  
For purposes of this subsection, the term "qualified mineral interest" means -
    - (A) subsurface oil, gas, or other minerals, and
    - (B) the right to access to such minerals.
- (i) Standard mileage rate for use of passenger automobile  
For purposes of computing the deduction under this section for use of a passenger automobile the standard mileage rate shall be 12 cents per mile.
  - (j) Denial of deduction for certain travel expenses  
No deduction shall be allowed under this section for traveling expenses (including amounts expended for meals and lodging) while away from home, whether paid directly or by reimbursement, unless there is no significant element of personal pleasure, recreation, or vacation in such travel.
  - (k) Disallowance of deductions in certain cases  
For disallowance of deductions for contributions to or for the use of communist controlled organizations, see section 11(a) <sup>[1]</sup> of the Internal Security Act of 1950 (50 U.S.C. 790).
  - (l) Treatment of certain amounts paid to or for the benefit of institutions of higher education
    - (1) In general  
For purposes of this section, 80 percent of any amount described in paragraph (2) shall be treated as a charitable contribution.
    - (2) Amount described  
For purposes of paragraph (1), an amount is described in this paragraph if -
      - (A) the amount is paid by the taxpayer to or for the benefit of an educational organization -
- (i) which is described in subsection (b)(1)(A)(ii), and
- (ii) which is an institution of higher education (as defined in section 3304(f)), and
  - (B) such amount would be allowable as a deduction under this section but for the fact that the taxpayer receives (directly or indirectly) as a result of paying such amount the right to purchase tickets for seating at an athletic event in an athletic stadium of such institution. If any portion of a payment is for the purchase of such tickets, such portion and the remaining portion (if any) of such payment shall be treated as separate amounts for purposes of this subsection.



- (m) Other cross references
  - (1) For treatment of certain organizations providing child care, see section 501(k).
  - (2) For charitable contributions of estates and trusts, see section 642(c).
  - (3) For nondeductibility of contributions by common trust funds, see section 584.
  - (4) For charitable contributions of partners, see section 702.
  - (5) For charitable contributions of nonresident aliens, see section 873.
  - (6) For treatment of gifts for benefit of or use in connection with the Naval Academy as gifts to or for use of the United States, see section 6973 of title 10, United States Code.
  - (7) For treatment of gifts accepted by the Secretary of State, the Director of the International Communication Agency, or the Director of the United States International Development Cooperation Agency, as gifts to or for the use of the United States, see section 25 of the State Department Basic Authorities Act of 1956.
  - (8) For treatment of gifts of money accepted by the Attorney General for credit to the "Commissary Funds Federal Prisons" as gifts to or for the use of the United States, see section 4043 of title 18, United States Code.
  - (9) For charitable contributions to or for the use of Indian tribal governments (or their subdivisions), see section 7871.

## Notes on Title 26, Section 170 (excluding Amendments and notes thereon)

### SOURCE

(Aug. 16, 1954, ch. 736, 68A Stat. 58; Aug. 7, 1956, ch. 1031, Sec. 1, 70 Stat. 1117; Sept. 2, 1958, Pub. L. 85-866, title I, Sec. 10(a), 11, 12(a), 72 Stat. 1609, 1610; Sept. 14, 1960, Pub. L. 86-779, Sec. 7(a), 74 Stat. 1002; Oct. 16, 1962, Pub. L. 87-834, Sec. 13(d), 76 Stat. 1034; Oct. 23, 1962, Pub. L. 87-858, Sec. 2(a), (b), 76 Stat. 1134; Feb. 26, 1964, Pub. L. 88-272, title II, Sec. 209(a), (b), (c)(1), (d)(1), (e), 231(b)(1), 78 Stat. 43, 45-47, 105; Sept. 12, 1966, Pub. L. 89-570, Sec. 1(b)(1), 80 Stat. 762; Dec. 30, 1969, Pub. L. 91-172, title I, Sec. 101(j)(2), title II, Sec. 201(a)(1), (2)(A), (h)(1), 83 Stat. 526, 549, 558, 565; Oct. 4, 1976, Pub. L. 94-455, title II, Sec. 205(c)(1)(A), title X, Sec. 1052(c)(2), title XIII, Sec. 1307(c), (d)(1)(B)(i), 1313(b)(1), title XIX, Sec. 1901(a)(28), (b)(8)(A), 1906(b)(13)(A), title XXI, Sec. 2124(e)(1), 2135(a), 90 Stat. 1535, 1648, 1726, 1727, 1730, 1768, 1794, 1834, 1919, 1928; May 23, 1977, Pub. L. 95-30, title III, Sec. 309(a), 91 Stat. 154; Nov. 6, 1978, Pub. L. 95-600, title IV, Sec. 402(b)(2), 403(c)(1), 92 Stat. 2868; Oct. 17, 1980, Pub. L. 96-465, title II, Sec. 2206(e)(2), 94 Stat. 2162; Dec. 17, 1980, Pub. L. 96-541, Sec. 6(a), (b), 94 Stat. 3206; Aug. 13, 1981, Pub. L. 97-34, title I, Sec. 121(a), title II, Sec. 222(a), 263(a), 95 Stat. 196, 248, 264; Sept. 3, 1982, Pub. L. 97-248, title II, Sec. 286(b)(1), 96 Stat. 570; Sept. 13, 1982, Pub. L. 97-258, Sec. 3(f)(1), 96 Stat. 1064; Oct. 19, 1982, Pub. L. 97-354, Sec. 5(a)(21), 96 Stat. 1694; Jan. 12, 1983, Pub. L. 97-448, title I, Sec. 102(f)(7), 96 Stat. 2372; Jan. 14, 1983, Pub. L. 97-473, title II, Sec. 202(b)(4), 96 Stat. 2609; July 18, 1984, Pub. L. 98-369, div. A, title I, Sec. 174(b)(5)(A), title III, Sec. 301(a)-(c), title IV, Sec. 492(b)(1), title X, Sec. 1022(b), 1031(a), 1032(b)(1), 1035(a), 98 Stat. 707, 777, 778, 854, 1028, 1033, 1042; Oct. 22, 1986, Pub. L. 99-514, title I, Sec. 142(d), title II, Sec. 231(f), title III, Sec. 301(b)(2), title XVIII, Sec. 1831, 100 Stat. 2120, 2180, 2217, 2851; Dec. 22, 1987, Pub. L. 100-203, title X, Sec. 10711(a)(1), 101 Stat. 1330-464; Nov. 10, 1988, Pub. L. 100-647, title VI, Sec. 6001(a), 102 Stat. 3683; Nov. 5, 1990, Pub. L. 101-508, title XI, Sec. 11801(a)(11), (c)(5), 11813(b)(10), 104 Stat. 1388-520, 1388-523, 1388-554; Aug. 10, 1993, Pub. L. 103-66, title



XIII, Sec. 13172(a), 13222(b), 107 Stat. 455, 479; Aug. 20, 1996, Pub. L. 104-188, title I, Sec. 1206(a), 1316(b), 110 Stat. 1776, 1786.)

## **APPENDIX 3-4**

### **Sample Conservation Easements**

- 1) **Trail Easement**
- 2) **Michigan Model Conservation Easement**
- 3) **Wisconsin Riparian Corridor Easement**

## GRANT OF TRAIL EASEMENT

KNOW ALL PERSONS BY THESE PRESENTS that \_\_\_\_\_ and \_\_\_\_\_, both of \_\_\_\_\_, Vermont, on behalf of their heirs, executors, administrators, successors and assigns (hereinafter "Owners"), pursuant to the authority granted in Title 10 V.S.A. Chapter 155 and in consideration of the payment of Ten Dollars and other valuable consideration paid to its full satisfaction, do freely give, grant, sell, convey and confirm unto \_\_\_\_\_, a non-profit corporation organized under the laws of the State of Vermont with offices in \_\_\_\_\_, Vermont (hereinafter "Holder") forever, a perpetual, non-exclusive, and assignable easement for a right-of-way all as more particularly set forth below, over a certain parcel of land located in the Town of \_\_\_\_\_, Vermont (hereinafter the "Property"). The Property is more particularly described in Schedule A attached hereto and incorporated herein. The location of the right-of-way easement conveyed hereby is more particularly described in Schedule B attached hereto and incorporated herein (hereinafter the "Corridor"). A trail shall be located within the Corridor and may be improved as provided below (hereinafter the "Trail"). This Easement also contains covenants on the part of Owners and the Holder to do or refrain from doing various acts as set forth below. It is hereby acknowledged that this Easement constitutes a servitude upon the land and runs with the land. Holder accepts this Easement in order to provide public access to recreational opportunities and activities throughout the Corridor.

I. PURPOSES. The purposes of this Easement as set forth below in this Section I are hereinafter collectively referred to as the "Purposes of this Easement" and Owners and Holder acknowledge that the Purposes of this Easement are:

1. The primary purpose is to provide permanent and perpetual public, recreational use of the Corridor, and to locate the Corridor so that it provides public recreational access [ADDITIONAL EXAMPLES: "four-season public recreational use", "situated principally on the abandoned bed of the former \_\_\_\_\_ Railroad", "of which this Easement is intended to be a part", "that has been recognized, pursuant to 10 V.S.A. §443, by the Vermont Agency of Natural Resources as a component of the Vermont Trails System" or "seasonal, pedestrian, non-motorized, wilderness-type recreation".] across the Property in a manner that enhances the outdoor experience, to establish a Trail without undue expense, and to implement these purposes while limiting the adverse impact on Owners' [if relevant: residential use,] agricultural use and forestry use of the Property.

2. The secondary purposes are to preserve the scenic beauty and natural qualities of the Corridor, in particular (INSERT HERE ANY PARTICULAR PHYSICAL ATTRIBUTES OF NOTE), to limit erosion caused by public use of the Corridor, consistent with public recreational and other uses specifically permitted by this Easement, and to protect and maintain any private or public investment made in obtaining this Easement, in establishing the Corridor, and in constructing and managing the Trail. [OPTIONAL PROVISION: "In addition the Property is conserved by a Grant of Development Rights and Conservation Restrictions dated \_\_\_\_\_ and held by \_\_\_\_\_"].

## II. USES AND OBLIGATIONS.

1. Public Access: Holder may permit, in its sole discretion, public access to the Corridor for four-season, pedestrian or mechanized, non-motorized recreational activities, [CHOOSE FROM THE FOLLOWING LIST TO MATCH THE PURPOSES: such as walking, skiing,

bicycling, in-line skating, or riding horses or other pack animals.] Except as provided below, motor vehicles are not permitted. Overnight camping and campfires are not permitted. Holder shall have the right, in its sole discretion, to restrict or limit public use of and access to the Corridor. If use of the Corridor materially interferes with Owners' quiet enjoyment of the Property on a frequent, continuous basis, and measures taken by Holder do not, in Owners' reasonable opinion, sufficiently abate the interference, Owners may close the Corridor for a period not to exceed two weeks to enable Holder to take corrective action. Owners shall provide written notice to Holder of such Corridor closure.

2. Corridor Location: While the location of the Corridor is generally described in Schedule B attached hereto and incorporated herein and is depicted on a map entitled \_\_\_\_\_ Public Recreation Corridor held by Holder, the precise location shall be fixed on the ground by mutual agreement of Holder and Owners, and marked by blazing, signs or otherwise along the perimeter of the Corridor by Holder. The Corridor location may be altered from time to time by mutual consent of Holder and Owners. Owners and Holder shall locate the Corridor in a manner consistent with the Purposes of this Easement. If Owners and Holder are unable to agree on the Corridor location, said matter shall be submitted for binding arbitration as provided in Section IV, below.

3. Trail Construction: Holder shall have the right, but not the obligation, at Holder's expense, to construct, manage, use, repair and maintain [OPTIONAL PROVISION: insert the words ", including paving," if this would be consistent with the Purposes] a Trail, including the right to install, maintain, repair and replace waterbars, steps and other trail surface structures, as well as bridges and/or culverts as necessary to traverse surface waters within the Corridor. Prior to initial Trail installation, Trail relocation within the Corridor, and major maintenance activity, Holder shall give at least two weeks notice to Owners by certified mail, Return Receipt Requested. The Trail shall not exceed \_\_ feet in width within the \_\_ foot wide Corridor. The Trail may be relocated within the Corridor at the Holder's sole discretion after giving notice to Owners as provided above.

4. Vegetation Management: Holder shall not cut or remove any vegetation from the Property until the Corridor has been located on the ground as provided above. Holder may clear brush as required to maintain the Trail [OPTIONAL IF USED BELOW: "and the additional cleared areas required to turn grooming equipment"] and may remove dead, dying or diseased vegetation within the Corridor which poses a safety risk to Trail users after the Trail has been constructed; otherwise Holder may cut or remove additional vegetation only with the prior written consent of Owners. Holder shall not employ herbicides, pesticides, growth inhibitors or other chemicals within the Corridor without the prior written consent of Owners. Owners shall not harvest any trees in the Corridor without the prior written consent of Holder, except that Owners may remove dead, diseased or dying trees without prior permission of Holder, provided that Owners have given Holder notice of the proposed activity so that Holder can divert public use of the Trail if necessary.

5. Fencing, Barriers and Signs: Holder, or Owners with Holder's prior written consent, may erect and maintain such fencing and barriers within the Corridor as may be reasonably necessary to prevent access to the Trail by motor vehicles. Holder shall have the right to erect reasonable signs, blazing or other markings within the Corridor to inform the public of the Trail location or other Trail features. Owners shall not erect fences, barriers or signs that impede access to or use of the Trail.

6. Motor Vehicles: Holder may use motorized vehicles and equipment within the Corridor to construct, relocate, maintain, repair and patrol the Trail, and for medical emergencies. Owners and Holder shall not use or permit the use of motor vehicles within the Corridor,

except as specifically provided in this Section II. [OPTIONS: "Snowmobiles may be permitted within the Corridor by mutual agreement of Holder and Owners. If permitted, then Holder shall have the right to operate snow grooming equipment within the Corridor and the right to establish and maintain a cleared zone of \_\_\_ feet within the Corridor as necessary to permit turning on and navigation of the Trail by grooming equipment." Note: the minimum distances are an 8 foot trail, within a 25 foot Corridor, allowing a total of 15 feet of clearing with a 5 foot vegetated buffer on either side].

7. Handicapped Access: Holder may permit motor-driven wheelchairs or all terrain vehicles for the use of handicapped persons within the Corridor if consistent with the Purposes of this Easement.

8. Driveways and Other Access: Except as specifically permitted under this Easement, no rights-of-way, easements of ingress or egress, driveways, roads, utility lines or other easements shall be constructed, developed or maintained into, on, over, under, or across the Corridor, without the prior written permission of the Holder. [CHOOSE ONE DISCRETIONARY STANDARD, based on volume of trail use, physical attributes of the Corridor, trail location(rural or suburban). For an unimpaired wilderness experience, CHOOSE: "Holder may grant, condition or deny permission in its sole discretion." For a suburban location, CHOOSE: "Holder shall not unreasonably withhold or condition Holder's permission, provided that granting permission would not materially impair the recreational use of the Corridor and is otherwise not inconsistent with the Purposes of this Easement."]

9. Buildings and other Non-Recreational Uses: Owners shall use the Corridor exclusively for recreation and open space purposes, as well as for the limited commercial purposes described below. No residential or industrial activities shall be permitted, and no building or structure shall be constructed, created, erected or moved into the Corridor, other than the Trail surface structures mentioned in Section II(2). [OPTIONAL PROVISION: "and one or more lean-tos or other open-air shelters, each not to exceed 150 square feet; provided, however, that said structures shall be erected only with the prior written consent of both Owners and Holder"].

10. Agriculture and Forestry: Owners may mow and remove hay crops within the Corridor, but shall not engage in other agricultural activities within the Corridor without the prior written permission of Holder, who may permit certain agricultural uses that, in Holder's sole discretion, do not materially interfere with the recreational use of the Corridor, in which event, Holder and Owners shall agree upon reasonable locations for agricultural and forestry equipment to cross the Corridor so that agricultural, forestry and other open space uses of the Property, exclusive of the Corridor, can be conducted in the customary manner. Owners may cross or use the Corridor for the purpose of transporting timber and other wood products, and agricultural products from adjacent lands to a public road, provided that:

- (a) there is no reasonable alternative access outside the Corridor to transport the products;
- (b) Owners provide not fewer than thirty (30) days written notice to Holder prior to the commencement of the use of the Corridor for such purposes;
- (c) such use is limited to a period of \_\_\_ days annually, unless extended by mutual agreement of the parties;
- (d) Owners use reasonable means to limit damage to the Trail caused by the transportation of timber and agricultural products;
- (e) Owners employ sufficient signs to warn Trail users of the presence of machinery associated with transporting timber and agricultural products during times of such activity;
- (f) no equipment, materials, or timber or agricultural products are stored, parked, or piled on the Corridor;

- (g) Owners establish a practical temporary alternative trail outside the Corridor for the duration of the operation;  
[OPTIONAL PROVISION: in the event that Owners must retain the right to temporarily close the Corridor for the frequent, safe transportation of timber products produced during a timber harvest, then items e, f, and g should be deleted, and should be replaced with the clause:  
"(e) Owners may close the Corridor to public access for a period not to exceed \_\_ days annually in order to allow the safe transportation of timber and other wood products on the Corridor, and must employ clear and sufficient signs stating that the Trail is closed, the reason for such closure and the scheduled date of its reopening."]; and  
(h) Owners restore the Trail to its original condition within \_\_ days of completion of the such uses.

11. Excavation, Mining and Trash: Except as provided in Section II(3), there shall be no disturbance of the surface of the Property, including but not limited to filling, excavation, removal of topsoil, sand, gravel, rocks or minerals, or change of the topography of the Corridor in any manner. In no case shall surface mining of subsurface oil, gas, or other minerals be permitted. Further, there shall be no placement, collection, or storage of trash, human waste, ashes, chemicals, hazardous or toxic substances, or any other unsightly or offensive material within the Corridor.

12. Liability: Owners may, in Owners' discretion, close the Corridor to public use in the event the landowner liability protection afforded by 10 V.S.A. §5212 [if "Vermont Trail System", add 10 V.S.A. §448] is repealed or altered in a manner which materially increases, in Owners' reasonable opinion, Owners' potential liability to public users of the Corridor, and (a) no other statute or law affords Owners, in Owners' reasonable opinion, liability protection which is substantially similar to that now afforded by 10 V.S.A. §5212 [and 448]; and (b) no Holder or Manager elects to provide reasonable insurance coverage or otherwise agrees to hold Owners harmless against potential liability to public users of the Corridor.

13. Miscellaneous: No use shall be made of the Corridor, and no activity shall be permitted in the Corridor which, in the reasonable opinion of Holder, is or may possess the potential to become inconsistent with the Purposes of this Easement.

### III. MANAGER AND MANAGEMENT PLAN.

Holder may assign its rights and obligations under this instrument with regard to construction re-location and management of the Trail to an individual or entity (the "Manager"), first provided that Manager (1) is qualified and has the capacity to perform the Trail management functions of Holder; (2) Manager undertakes in writing to fulfill the management obligations of the Holder; and (3) Holder first provides written notice to Owners of the name, address and other means of contacting Manager.

Manager shall prepare a Management Plan for the Trail, to provide direction and guidance to Trail users, to Owners and Holder regarding Trail construction, use, maintenance, and problem solving. The Management Plan shall be consistent with and shall not replace this Easement. The Management Plan shall be reviewed by Holder and Owner, in order to ensure consistency with this Easement. If Holder does not assign its rights to a Manager, all references to Manager shall mean Holder.



#### IV. COMPLIANCE WITH EASEMENT AND BINDING ARBITRATION.

Owners and Holder shall take reasonable steps to periodically inspect the Corridor to assure compliance with this Easement. In the event that Owners or Holder becomes aware of an event or circumstance of non-compliance with this Easement, that party shall give notice to the other of such event or circumstance of non-compliance via certified mail, return receipt requested, and demand corrective action sufficient to abate such event or circumstance of non-compliance and restore the Corridor to its previous condition. Any event or circumstance of non-compliance with this Easement not corrected voluntarily shall be submitted to binding arbitration.

The arbitrator's authority shall include the right to determine whether a violation of this Easement by either Owners or Holder has or continues to occur, and what corrective action is appropriate. Further, the arbitrator's authority shall include the right to determine whether public use of the Corridor materially interferes with Owners' quiet enjoyment of the Property on a frequent basis, whether Holder's corrective action is sufficient, and what additional corrective action should be implemented to achieve the objectives of permitting reasonable public recreational access without materially interfering with Owners' quiet enjoyment of the Property. The arbitrator's authority shall include the right to temporarily close the Corridor to public use but shall not include the right to permanently close the Corridor.

The arbitrator shall be selected by the parties or by the American Arbitration Association if the parties cannot agree on an arbitrator. The costs of arbitration shall be shared equally by the parties, unless otherwise determined by the arbitrator due to one party being unreasonable or otherwise dilatory. The decision of the arbitrator shall be binding on the parties. The parties shall select an arbitrator within two weeks of the submission of an issue to arbitration, and every reasonable effort shall be made to complete arbitration of any dispute within thirty (30) days of the selection of an arbitrator.

Notwithstanding the foregoing, Owners and Holder reserve the right to bring an action in a court of competent jurisdiction to (1) secure a temporary restraining order or preliminary injunction to maintain the status quo pending the arbitration of a dispute; (2) enforce a directive issued by an arbitrator to maintain the status quo pending disposition of the arbitration proceeding; or (3) enforce a final order issued by the arbitrator. The prevailing party shall be reimbursed the reasonable costs of enforcement, including staff time, court costs and reasonable attorneys' fees, in addition to any other payments ordered by such Court. The remedies described herein are in addition to, and not in limitation of, any other remedies available to Holder at law, in equity, or through administrative proceedings.

No delay or omission by Holder or Owner in the exercise of any right or remedy shall impair Holder's or Owner's rights or remedies or be construed as a waiver. Nothing in this Section IV shall be construed as imposing a liability upon a prior Owner of the Property or Holder of the Easement, where the event or circumstance of non-compliance shall have occurred after said prior Owner's ownership or control of the Property or said prior Holder's rights in the Easement have terminated.

#### V. MISCELLANEOUS PROVISIONS.

1. The Holder shall transfer this Easement only to a State agency, municipality, or qualified organization, as defined in Title 10 V.S.A. Section 6301a, in accordance with the laws of the State of Vermont and the regulations established by the Internal Revenue Service governing such transfers.

2. In the event this Easement is extinguished by eminent domain or other legal proceedings, Holder shall be entitled to any proceeds which pertain to the extinguishment of Holder's rights and interests in this Easement.

3. In any deed conveying an interest in all or part of the Corridor, Owners shall make reference to this Easement and shall indicate that this Easement is binding upon all successors in interest in the Corridor in perpetuity. Owners shall also notify the Holder of the name(s) and address(es) of Owners' successor(s) in interest.

4. Holder shall be entitled to rerecord this Easement, or to record a notice making reference to the existence of this Easement, in the Town of \_\_\_\_\_ Land Records as may be necessary to satisfy the requirements of the Record Marketable Title Act, 27 V.S.A., Chapter 5, Subchapter 7, including 27 V.S.A. 603 and 605.

5. The term "Owners" shall include the heirs, successors and assigns of the original Owners, \_\_\_\_\_ and \_\_\_\_\_. The term "Holder" shall include the successors and assigns of the original Holder \_\_\_\_\_.

USE #6 ONLY IF VLT IS A BACKUP HOLDER:

6. Owners hereby give, grant and convey to \_\_\_\_\_ <insert name of backup holder> an executory interest so that in the event that Holder ceases to exist as a legal entity or fails to perform its obligations under this Easement or fails to locate a Corridor or construct a Trail, and no successor organization is created or assigned this Easement, then the rights, obligations and interests hereby conveyed to Holder through this Easement shall shift to and be vested in \_\_\_\_\_. The rights, obligations and interests held by Holder shall shift to and vest in \_\_\_\_\_ upon the recording in the Town of \_\_\_\_\_ Land Records a notice ("Notice") which has been mailed to Holder, Manager and Owner and their respective successors and assigns, if any, by certified mail, together with copies of the signed return receipts. Holder shall have a period of sixty (60) days from the date of receipt of said Notice to appoint a qualified organization as a successor. If a qualified organization is not appointed as a successor within said sixty (60) day period, the Notice shall be recorded in the Town of \_\_\_\_\_ Land Records and thereupon Holder's rights, obligations and interests under this Easement shall shift to and be immediately vested in \_\_\_\_\_. If \_\_\_\_\_ (1) is no longer in existence at the time the rights, obligations and interests under this Easement would otherwise vest in it, or (2) is not qualified or authorized to hold easements as provided for in an assignment pursuant to Section \_\_\_\_\_, or (3) refuses such rights, obligations and interests or (4) fails to mail or to record the Notice or (5) fails for some other reason to be vested of the rights, obligations and interests under this Easement, then the rights, obligations and interests under this Easement shall vest in such qualified organization as a court of competent jurisdiction shall direct pursuant to the applicable law of the State of Vermont and with due regard to the requirements for an assignment pursuant to Section \_\_\_\_\_, above.

7. Invalidation of any provision hereof shall not affect any other provision of this Easement.

TO HAVE AND TO HOLD said granted Easement, with all the privileges and appurtenances thereof, to the said Holder \_\_\_\_\_, and its successors and assigns, to its own use and behoof forever, and the said Owners, \_\_\_\_\_ and \_\_\_\_\_, for themselves and their heirs, successors and assigns, do covenant with the said Holder, its successors and assigns, that until the ensealing of these presents, they are the sole Owners of the Property, and have good right and title to convey the same in the manner aforesaid, that the Property is free from

every encumbrance, except those of record, and they hereby engage to warrant and defend the same against all lawful claims whatever.

IN WITNESS WHEREOF, we set our hands and seals this \_\_\_\_ day of \_\_\_\_\_, 199\_.

Signed, sealed and delivered  
In The Presence Of: Owners

\_\_\_\_\_  
Witness to

\_\_\_\_\_  
Witness to

STATE OF \_\_\_\_\_ COUNTY, ss.

At \_\_\_\_\_, this \_\_\_\_ day of \_\_\_\_\_, 19\_\_,  
\_\_\_\_\_ and \_\_\_\_\_ personally appeared and they  
acknowledged this instrument, by them sealed and subscribed, to be their free act and deed,  
before me,

\_\_\_\_\_  
Notary Public  
My commission expires:

ACKNOWLEDGMENT OF ARBITRATION

We understand that Section IV of this instrument contains an agreement to arbitrate. After signing this document we understand that we will not be able to bring a lawsuit concerning any dispute that may arise which is covered by the arbitration agreement set forth in Section IV, unless it involves a question of constitutional or civil rights. Instead, we agree to submit any such dispute to an impartial arbitrator. We understand that the arbitration provisions of this instrument are limited exclusively to matters set forth in said Section IV.

\_\_\_\_\_  
Owner Dated: \_\_\_\_\_

\_\_\_\_\_  
Owner Dated: \_\_\_\_\_

\_\_\_\_\_  
Holder Dated: \_\_\_\_\_

SCHEDULE A  
DESCRIPTION OF PROPERTY

SCHEDULE B  
DESCRIPTION OF CORRIDOR LOCATION

**CONSERVATION EASEMENT**

(NOTE TO USER: Please delete the indented "Explanation" sections from the final copy to be signed by the Donor and the Conservancy)

**DATE:**

**DONOR:** \_\_\_\_\_, husband and wife  
\_\_\_\_\_  
\_\_\_\_\_

**CONSERVANCY:** (Conservancy/Organization Name and Address)

**EXPLANATION:** The words "Grantor" and "Grantee" are commonly used in conveyancing forms. These words could appear in a warranty deed as well as in a quit claim deed. The words "Donor" and "Conservancy" similarly offer no insight into whether this is a conveyance with or without warranties. The term "Donor" may be preferable to "Grantor" since it more accurately captures the nature of the gift. On the other hand, the term "Donee" seems legalistic or cumbersome. Therefore this form identifies the recipient of the easement as the "Conservancy". The term "Donor" is used in its singular form the agreement. Although the singular convention might seem awkward for husband and wife donors, any of the alternatives also have disadvantages. A plural convention would probably be more offensive for a singular donor. The use of one agreement form for a single and a separate form for multiple donors has administrative difficulties. The form will inevitably undergo revision in the future. Particular attention will then be required to assure all eventual changes are incorporated in both forms. There is also a risk of accidentally substituting a plural for a singular form. What started out as a multiple, may eventually become a single, donor (or visa versa) before signing. Since each of the agreements will be separately word-processed, it would be tedious to assure that all word-processed changes follow through the substitution of one form for another. In balance, the semantic disadvantages of the singular "Donor" convention seem to be outweighed by the advantages.

**PROPERTY:** In \_\_\_\_\_ Township, \_\_\_\_\_ County, Michigan:

**EXPLANATION:** The full legal description should be inserted here. A street address will not suffice. The legal description will commonly be derived from a prior deed, a title commitment or a survey.

**CONVEYANCE:** The Donor conveys and warrants to the Conservancy a perpetual Conservation Easement over the Property. The scope of this Conservation Easement is set forth in this agreement. This conveyance is a gift from the Donor to the Conservancy.

**EXPLANATION:** The Conservation Easement must be perpetual in order to be tax-deductible. The preceding provisions includes a warranty of title. A quit claim would also be sufficient to convey title and for tax deductibility, but it lacks the Donor's assurance of ownership. Under a quit claim the Conservancy could not require the Donor to satisfy an existing mortgage. The Donor represents "fee title" ownership in a subsequent provision. In some cases, the Conservancy may require a warranty of title. The statutory warranty deed form uses the phrase "conveys and warrants". Alternatively, the statutory quit claim simply defines the conveyance as a "quit claim". The word "conveys" invokes principles of "conveyancing" laws, albeit without warranties. The word "quitclaim" sounds less respectful of the Donor's intent than the word "convey". If a conveyance is to be without warranties of title, the word "convey" is preferred to the words "quit claim".

**CONSERVATION VALUES:** The Property possesses natural, scenic, open space, scientific, biological and ecological values of prominent importance to the Donor, the Conservancy and the public. These values are referred to as the "Conservation Values" in this easement.

**EXPLANATION:** Conservation easements traditionally set forth a broad range of "conservation values". These conservation values appear in subsequent portions of the easement to prescribe the rights and responsibilities of the parties. The conservation values are also specifically explained to meet the criteria for tax purposes.

#### **PURPOSE OF THIS CONSERVATION EASEMENT:**

A. The Donor is the fee simple title owner of the Property, and is committed to preserving the Conservation Values of the Property. This Conservation Easement assures that the Property will be perpetually preserved in its predominately (natural, scenic, historic, agricultural, forested, open space) condition. Any use of the Property which may impair or interfere with the Conservation Values are expressly prohibited. Donor agrees to confine use of the Property to activities consistent with the purposes of this easement and preservation of the Conservation Values.

**EXPLANATION:** This paragraph sets forth generic conservation values. It is patterned after the conservation purposes set forth in IRC Section 170(h). The generic conservation values in the preceding paragraph are followed by more specific references.



B. The Conservancy is a tax-exempt, nonprofit Michigan corporation qualified under Internal Revenue Code Sections 501(c)(3) and 170(h)(3) and 170(h)(4)(ii) and (iii); the Conservation and Historic Preservation Easement Act, MCL 324.2140 et seq. The Conservancy protects natural habitats of fish, wildlife, plants or similar ecosystems. The Conservancy also preserves open spaces, including farms and forests, where such preservation is for the scenic enjoyment of the general public or pursuant to clearly delineated governmental conservation policies and where it will yield a significant public benefit.

**EXPLANATION:** The Conservancy should confirm that it is, in fact, qualified under the cited statutes.

C. The Property has the following specific Conservation Values:

\* Significant natural habitat in which fish, wildlife, plants or a similar ecosystem thrive in a natural state.

\* Habitat for rare, endangered or threatened species of animal, fish or plants.

\* Natural areas which represent high quality examples of terrestrial or aquatic community.

\* It consists entirely of "prime farmland" and "farmland of local importance" as classified by the U.S. Department of Agriculture and the Soil Conservation Service.

\* A natural area which contributes to the ecological viability of a local, state or national park, nature preserve, wildlife refuge, wilderness area or other similar conservation area.

\* It is preserved pursuant to a clearly delineated federal, state or local conservation policy and yields a significant public benefit. The following legislation establishes relevant public policies: the Water Pollution Control Act of 1972, 33 USC 404 et seq; the Coastal Zone Management Act, 16 USC §1451 et seq; the Michigan Shorelands Protection and Management Act of 1970, MCL 324.32301 et seq; the Goemaere-Anderson Wetland Protection Act of 1979, MCL 324.30301 et seq; the Inland Lakes and Streams Act, MCL 324.30101 et seq; the Great Lakes Submerged Lands Act, MCL 324.32501 et seq; the Michigan Farmland and Open Space Preservation Act of 1974, MCL 324.36101 et seq; the Natural Rivers Act, MCL 324.30501 et seq.; the Conservation and Historic Preservation Easement Act, MCL 324.2140 et seq.; the Conservation and Historic Preservation Easement Act, MCL 324.2140 et seq; and the \_\_\_\_\_.

**EXPLANATION:** Any other legislation or local ordinance should be mentioned in the blank. There may, for example, be a local wetlands ordinance.



- \* A scenic landscape and natural character which would be impaired by a modification of the Property.
- \* A scenic panorama visible to the public from publicly accessible sites which would be adversely affected by modifications of the natural habitat.
- \* Relief from urban closeness.
- \* Harmonious variety of shapes and textures for the scenic enjoyment of the public.
- \* The \_\_\_\_\_ governmental agency has endorsed the proposed scenic view of the Property under a landscape inventory, pursuant to a review process.
- \* Valued wetlands, as described in Goemaere-Anderson Wetland Protection Act of 1979; MCL 324.30301 et seq.
- \* Sustainable habitat for biodiverse vegetation, birds, fish, and terrestrial animals.
- \* A diversity of plant and animal life in an unusually broad range of habitats for property of its size.
- \* A natural habitat for the endangered or threatened \_\_\_\_\_.
- \* Proximity to the following conserved properties which similarly preserve the existing natural habitat: . . .

**EXPLANATION:** List other conserved properties, such as nature preserves, state land, parks, eased properties, etc.

- \* Preservation of the Property enables the Donor to integrate the Conservation Values with other neighboring lands.
- \* The \_\_\_\_\_ office has recognized the importance of the Property as an ecological and scenic resource, by designating this and other land as a \_\_\_\_\_.
- \* Prominent visibility to the public from \_\_\_\_\_, and if preserved in its natural state it will enhance tourism.
- \* Biological integrity of other land in the vicinity has been modified by intense urbanization, and the trend is expected to continue.
- \* There is a reasonable possibility that the Conservancy may acquire other valuable property rights in other nearby properties to expand the Conservation Values preserved by this Conservation Easement.

**EXPLANATION:** As distinguished from the generic conservation values, the preceding list sets forth specific reference points for the Conservation Easement. To some extent it may parallel the baseline information. Treasury Regulation 1.170A-14(d) identifies essentially four "conservation purposes", only two of which are generally relevant to conservation easements. One of the other two requires the property to be open to the general public and the other pertains to historically important land or certified historical structures. The two relevant provisions read as follows:

(ii) Protection of a relatively natural habitat of fish, wildlife or plants, or similar ecosystem, within the meaning of paragraph (d)(3) of this section,

(iii) The preservation of certain open space (including farmland and forest land) within the meaning of paragraph (d)(4) of this section,

The specific conservation purposes should be enumerated. Furthermore, baseline information will likely be prepared at approximately the same time. The preceding exhaustive list of conservation purposes is intended to be word-processed with the expectation that only a handful of the specific paragraphs will actually be in any particular conservation easement agreement. The preceding list is prepared on the theory that it's easier to word-process out (ie delete) revisions than to word-process them in from somewhere else. The preceding list specifically excludes conservation purposes found in the regulations for outdoor recreation of the general public, since these provisions would be more applicable to nature preserves than to eased property. A number of the provisions have been copied directly out of the Treasury Regulations. For example, the somewhat awkward "relief from urban closeness" is "IRS-ese" from the Treasury Regulations.

D. Specific Conservation Values of the Property have been documented in a natural resource inventory signed by the Donor and Conservancy. This "Baseline Documentation" consists of maps, a depiction of all existing man-made modifications, prominent vegetation, identification of flora and fauna, land use history, distinct natural features, and photographs. The parties acknowledge that this natural resources inventory (the Baseline Documentation) is an accurate representation of the Property at the time of this donation.

**EXPLANATION:** Treasury Regulation 1.170A-14(g)(5)(i) requires Baseline Documentation for an allowable tax deduction. The documentation must establish the condition of the property at the time of the gift. Both parties must sign a statement substantially in the following form: "This natural resources inventory is an accurate representation of (the protected Property) at the time of the transfer." It's not necessary for the Baseline Documentation to be incorporated into the conservation easement. The preceding provision contains the essential language from the Treasury Regulations. This assures that the requirement of a signed statement will not be overlooked or accidentally discarded. Notwithstanding this provision, it is still advisable for both parties to sign the Baseline Documentation.

**THE PARTIES AGREE TO THE FOLLOWING TERMS OF THIS CONSERVATION AGREEMENT:**

**1. PROHIBITED ACTIONS.** Any activity on or use of the Property inconsistent with the purposes of this Conservation Easement or detrimental to the Conservation Values is expressly prohibited. By way of example, the following activities and uses are explicitly prohibited:

a. Division. Any division or subdivision of the Property is prohibited.

**EXPLANATION:** Any exceptions to the prohibition against subdividing should be noted here.

b. Commercial Activities. Commercial or industrial activity is prohibited.

**EXPLANATION:** Any exceptions, such as a small business activity taking place out of a home or existing building and which does not require additional structures beyond the modifications authorized in this easement should be noted here.

c. Construction. The placement or construction of any man-made modification, such as buildings, structures, fences, roads and parking lots is prohibited.

**EXPLANATION:** Any exceptions to the prohibition against construction should be noted here.

d. Cutting Vegetation. Any cutting of trees or vegetation is prohibited.

**EXPLANATION:** Any exceptions to the prohibition against cutting vegetation should be noted here.

e. Land Surface Alteration. Any mining or alteration of the surface of the land is prohibited.

f. Dumping. Waste and unsightly or offensive materials is not allowed and may not be accumulated on the Property.

g. Water Courses. Natural water courses, lake shores, wetlands, or other water bodies may not be altered.

h. Off Road Vehicles. Motorized off-road vehicles, such as snowmobiles, dune buggies, all terrain vehicles and motorcycles may not be operated on the Property.

i. Billboards. Billboards and signs are prohibited. A sign may, however, be displayed to state:

- The name and address of the Property.
- The owner's name.
- The area protected by this Conservation Easement.
- Prohibition of any unauthorized entry or use.
- An advertisement for the sale or rent of the Property.

2. **RIGHTS OF THE CONSERVANCY.** The Donor confers the following rights upon the Conservancy to perpetually maintain the Conservation Values of the Property:

a. Right to Enter. The Conservancy has the right to enter the Property at reasonable times to monitor or to enforce compliance with this Conservation Easement. The Conservancy may not, however, unreasonably interfere with the Donor's use and quiet enjoyment of the Property. The Conservancy has no right to permit others to enter the Property. **The general public is not granted access to the Property under this Conservation Easement.**

b. Right to Preserve. The Conservancy has the right to prevent any activity on or use of the Property that is inconsistent with the purposes of this easement.

c. Right to Require Restoration. The Conservancy has the right to require restoration of the areas or features of the Property which are damaged by activity inconsistent with this Conservation Easement.

d. Signs. The Conservancy has the right to place signs on the Property which identify the land as being protected by this Conservation Easement. The number and location of any signs are subject to Donor's approval.

3. **PERMITTED USES.** Donor retains all ownership rights which are not expressly restricted by this Conservation Easement. In particular, the following rights are reserved:

a. Right to Convey. The Donor retains the right to sell, mortgage, bequeath or donate the Property. Any conveyance will remain subject to the terms of this Conservation Easement and the subsequent owner will be bound by all obligations in this agreement.

b. Right to Maintain and Replace Existing Structures. The Donor retains the right to maintain, renovate and replace the existing structure(s) as noted in the baseline documentation in substantially the same location and size. Any expansion or replacement may not substantially alter the character or function of the structure.

c. Right to Add Designated Structures or Uses. The Donor retains the right to add the following structures, modifications or uses to the Property without notifying the Conservancy.

\* \_\_\_\_\_  
\* \_\_\_\_\_

**EXPLANATION:** The Donor may wish to add specified structures to the Property which should be listed here. Examples of specified structures or uses are: \* Accessory, non-residential structures within the designated Residential Area \* One dock not to exceed \_\_feet in length \* Access drives and footpaths \* Agricultural uses. **If there are no additional uses or structures, then this paragraph should be deleted in its entirety.**

4. **CONSERVANCY REMEDIES.** This section addresses cumulative remedies of the Conservancy and limitations on these remedies.

a. Delay in Enforcement. A delay in enforcement shall not be construed as a waiver of the Conservancy's right to eventually enforce the terms of this Conservation Easement.

b. Acts Beyond Donor's Control. The Conservancy may not bring an action against the Donor for modifications to the Property resulting from causes beyond the Donor's control. Examples are: unintentional fires, storms, natural earth movement, trespassers or even a Donor's well-intentioned actions in response to an emergency resulting in changes to the Property. The Donor has no responsibility under this Conservation Easement for such unintended modifications.

c. Notice and Demand. If the Conservancy determines that the Donor is in violation of this Conservation Easement, or that a violation is threatened, the Conservancy may provide written notice to the Donor unless the violation constitutes immediate and irreparable harm. The written notice will identify the violation and request corrective action to cure the violation or to restore the Property.

d. Failure to Act. If, for a 28 day period after written notice, the Donor continues violating this Conservation Easement, or if the Donor does not abate the violation and implement corrective measures requested by the Conservancy, the Conservancy may bring an action in law or in equity to enforce the terms of this Conservation Easement. The Conservancy is also entitled to enjoin the violation through injunctive relief, seek specific performance, declaratory relief, restitution, reimbursement of expenses, or an order compelling restoration of the Property. If the court determines that the Donor has

failed to comply with this Conservation Easement, then the Donor also agrees to reimburse all reasonable costs and attorney fees incurred by the Conservancy.

e. Unreasonable Litigation. If the Conservancy initiates litigation against the Donor to enforce this Conservation Easement, and if the court determines that the litigation was without reasonable cause or in bad faith, then the court may require the Conservancy to reimburse the Donor's reasonable costs and attorney fees in defending the action.

f. Donor's Absence. If the Conservancy determines that this Conservation Easement is, or is expected to be, violated, the Conservancy will make good-faith efforts to notify the Donor. If, through reasonable efforts, the Donor cannot be notified, and if the Conservancy determines that circumstances justify prompt action to mitigate or prevent impairment of the Conservation Values, then the Conservancy may pursue its lawful remedies without prior notice and without awaiting the Donor's opportunity to cure. The Donor agrees to reimburse all costs associated with this effort.

g. Actual or Threatened Non-Compliance. Donor acknowledges that actual or threatened events of non-compliance under the Conservation Easement constitutes immediate and irreparable harm. The Conservancy is entitled to invoke the equitable jurisdiction of the court to enforce this Conservation Easement.

h. Cumulative Remedies. The preceding remedies of the Conservancy are cumulative. Any, or all, of the remedies may be invoked by the Conservancy if there is an actual or threatened violation of this Conservation Easement.

**5. OWNERSHIP COSTS AND LIABILITIES.** In accepting this Easement, the Conservancy shall have no liability or other obligation for costs, liabilities, taxes or insurance of any kind related to the Property. The Conservancy, its members, directors, officers, employees and agents have no liability arising from injury or death to any person or physical damage to any property on the Property. The Donor agrees to defend the Conservancy against such claims and to indemnify the Conservancy against all costs and liabilities relating to such claims during the tenure of the Donor's ownership of the Property. Subsequent owners of the Property will similarly defend and indemnify the Conservancy for any claims arising during the tenure of their ownership.

**6. CESSATION OF EXISTENCE.** If the Conservancy shall cease to exist or if it fails to be "a qualified organization" for purposes of Internal Revenue Code Section 170(h)(3), or if the Conservancy is no longer authorized to acquire and hold conservation easements, then this Conservation Easement shall become vested in another entity. This entity shall be a "qualified organization" for purposes of Internal Revenue Code Section 170(h)(3). The Conservancy's rights and responsibilities shall be assigned to the following named entities in the following sequence:

- (1) \_\_\_\_\_
- (2) \_\_\_\_\_



(3) Any other entity having similar conservation purposes to which such rights may be awarded under the *cy pres* doctrine.

**EXPLANATION:** The preceding has been referred to as the "Executory Limitation" in the existing Land Trust Alliance Model Conservation Easement. As a practical matter, the doctrine of *cy pres* would govern the eventual disposition of charitable gifts, whether we say so or not. This doctrine would require the Conservation Easement to be given to another similar entity if the Conservancy is no longer viable. If the Conservancy is no longer viable, then what is the likelihood of another existing conservancy surviving?

**7. TERMINATION.** This Conservation Easement may be extinguished only by an unexpected change in condition which causes it to be impossible to fulfill the Conservation Easement's purposes, or by exercise of eminent domain.

a. Unexpected Change in Conditions. If subsequent circumstances render the purposes of this Conservation Easement impossible to fulfill, then this Conservation Easement may be partially or entirely terminated only by judicial proceedings. The Conservancy will then be entitled to compensation in accordance with the provisions of IRC Treasury Regulations Section 1.170A-14(g)(6)(ii).

b. Eminent Domain. If the Property is taken, in whole or in part, by power of eminent domain, then the Conservancy will be entitled to compensation by the same method as is set forth in IRC Treasury Regulations Section 1.170A-14(g)(6)(ii).

**8. LIBERAL CONSTRUCTION.** This Conservation Easement shall be liberally construed in favor of maintaining the Conservation Values of the Property and in accordance with the Conservation and Historic Preservation Easement Act; MCL 324.2140 et seq.

**9. NOTICES.** For purposes of this agreement, notices may be provided to either party by personal delivery or by mailing a written notice to that party (at the address shown at the top of this agreement, or at last known address of a party) by First Class mail. Service will be complete upon depositing the properly addressed notice with the U.S. Postal Service with sufficient postage.

**EXPLANATION:** The certainty that the notice has been received would be greater with certified mail, however this is far less conciliatory than first class. Since the mail may be used to notify the Donor, or successors, of a possible (perhaps merely suspected) violation, there may be good reason to minimize the possibility of an adversarial posture. Therefore, this form contemplates personal delivery or First Class mail. There is certainly no prohibition against Certified Mail, which would be recommended if a hostile relationship is inevitable.

**10. SEVERABILITY.** If any portion of this Conservation Easement is determined to be invalid, the remaining provisions will remain in force.

**11. SUCCESSORS.** This Conservation Easement is binding upon, and inures to the benefit of, the Donor's and the Conservancy's successors in interest. All subsequent owners of the property are bound to all provisions of this conservation easement to the same extent as the current property owner.

**12. TERMINATION OF RIGHTS AND OBLIGATIONS.** A party's future rights and obligations under this easement terminate upon transfer of that party's interest in the Property. Liability for acts or omissions occurring prior to transfer will survive the transfer.

**13. MICHIGAN LAW.** This Conservation Easement will be construed in accordance with Michigan Law.

**14. ENTIRE AGREEMENT.** This Conservation Easement sets forth the entire agreement of the parties. It is intended to supersede all prior discussions or understandings.

WITNESSES:  
(\*print/type names under signatures)

DONOR:

\*

\*

\*

\*

STATE OF MICHIGAN     )  
                                  )  
COUNTY OF            )

Acknowledged before me on \_\_\_\_\_, 19\_\_\_\_, by \_\_\_\_\_

Notary Public, \_\_\_\_\_  
County, Michigan. My  
commission expires: \_

WITNESSES:  
CONSERVANCY,  
(\*print/type names under signatures) a Michigan nonprofit corporation

NAME OF YOUR

\*

By:  
Its:

STATE OF MICHIGAN     )  
                                          )  
COUNTY OF                    )

Acknowledged before me on \_\_\_\_\_, 19\_\_\_\_, by \_\_\_\_\_  
known to me to be the \_\_\_\_\_ of the NAME OF YOUR  
CONSERVANCY, a Michigan nonprofit corporation.

Notary Public, \_\_\_\_\_  
County, Michigan. My  
commission expires: \_

PREPARED BY: Name and address of the person preparing the document.

State of Wisconsin  
Department of Natural Resources  
Box 7921  
Madison, WI 53707

EASEMENT-STREAM  
(Fish Management)  
30-DAY NOTICE  
Sections 23.09(2)(d)3 and 29.555, Wis.  
Stats  
Form 2200-155 7-94

This space reserved for recording data:

THIS EASEMENT, made this \_\_\_\_ day of \_\_\_\_, 19 \_\_\_\_, by and between \_\_\_\_, Grantor, and the State of Wisconsin Department of Natural Resources, Grantee.

WHEREAS, the Grantor is the owner in fee simple of certain real estate which is in, near, or adjacent to the Grantee's project area known as and located in \_\_\_\_ County, Wisconsin, and

WHEREAS, the Grantee desires to develop, operate and maintain such lands as a public fishing area for use and benefit of the general public,

NOW, THEREFORE, the Grantor for and in consideration of the sum of One (\$1.00) Dollar and the mutual terms and conditions hereinafter contained, conveys to the Grantee, upon acceptance by the Grantee, within \_\_\_\_ months from the date hereof, an easement and right in perpetuity to develop, operate and maintain a public fishing area on the following described real estate, hereinafter referred to as Premises:

Return to: Depart. of Natural Resources  
Bureau of Facilities/Lands  
P.O. Box 7921  
Madison, WI 53707

The location of said easement is shown on Exhibit "A" attached hereto, and made a part hereof.

The Premises shall move consistent with any movement of the stream within the limits of the legal description.

Upon recording this document and the Grantee receiving a title insurance policy indicating merchantable title in the Grantor, subject to the terms and conditions of this easement, the Grantee shall pay \_\_\_\_ Dollars (\$\_\_\_\_) to the Grantor for this easement.

The use of the Premises as a public fishing area shall include the following rights:

I. TRANSFERRED RIGHTS TO THE DEPARTMENT (GRANTEE)

- A. The public shall have the right: (a) to enter upon and utilize the Premises to the extent necessary for the full enjoyment and use of the rights and privileges granted by this easement; (b) to catch and take fish from the waters thereon by legal means; and (c) to observe wildlife and enjoy scenic beauty. Public travel on the Premises shall be by foot, snowshoe or ski. The Grantee shall not develop a trail unless permitted by the Grantor in a separate document.
- B. The Grantee shall have the right: (a) to protect and develop the waters within the Premises by the installation and maintenance of stream improvement measures deemed necessary by the Grantee for the purpose of fostering, improving and enhancing fishing, the fish populations, the aquatic habitat, and the quality of the waters therein; (b) to post signs on the Premises in order to delineate authorized public use; (c) to protect the Premises from erosion by the installation and maintenance of mechanical and physical means such as fencing\*, machinery crossings, livestock crossings, livestock watering areas, stream bank riprap, stream bank grading, building erosion control works and structures; (d) to cut, maintain, or plant trees, shrubs or plants where and to the extent deemed necessary for the protection of the stream; and (e) to manage fish and wildlife habitat and populations within the easement area, including the removal or destruction of beaver dams. If required by law, the Grantor shall co-apply with the Grantee for any and all federal, state and local licenses, permits or approvals necessary for exercising the rights granted to the Grantee pursuant to this easement. The Grantee shall pay all fees and incidental expenses for permits, approvals or licenses applied for pursuant to this easement.

\*NOTE: Fencing may be done by the Grantee only if the Grantee determines that fencing is needed to prevent damage to fishing, the fish populations, the aquatic habitat, or the quality of the waters, therein due to excessive livestock use. Further, the Grantor shall have 30 days following written notification by the Grantee to remedy the livestock problem to the Grantee's satisfaction before the Grantee can exercise the right to fence. Further, if the Grantee constructs a fence, the Grantee will provide machinery crossings, livestock crossings or livestock watering areas as reasonably needed to accommodate the Grantor's normal agricultural needs. Determination of excessive livestock use on the Premises is solely at the discretion of the Grantee.

- C. The Grantee, its employees, officers, and agents shall have the right of ingress and egress from the Premises across all contiguous lands owned by the Grantor for the purpose of carrying out the rights which are provided for in Paragraph 1B; and for the purposes of assessing and maintaining the aquatic community. It is understood that field roads, roadways, passageways, lanes or other normally traveled routes will be utilized for such ingress and egress whenever possible and where such travelways exist. The Grantor may provide a designated route to and from the Premises which the Grantee shall use if said route is reasonably convenient.
- D. The Grantee assumes the responsibility for the adjustment and payment of damages arising from the operation of the above described property as a public fishing area, but within the limits of the funds available for such purpose pursuant to s. 29.555, Stats. The Grantor shall submit a verified statement of the resultant damage to his/her property within ten (10) days from the date such alleged damage was first noted by the Grantor. The Grantor's failure to report this damage within the prescribed time period shall bar any recovery herein provided.

2. COVENANTS OF OWNER (GRANTOR)

- A. The Grantor shall not take any action which results in the degradation or loss of any wetlands, streams, springs, lakes, ponds, marshes, sloughs, swales, swamps, or potholes now existing or hereinafter occurring on the Premises, except as noted in 3.D.
- B. The Grantor may not adversely affect the natural flow of surface or underground waters, into, within and out of the Premises on property under the Grantor's control except as noted in 3.D.
- C. The Grantor shall not change the general topography of the landscape and stream frontage of the Premises from its present condition.
- D. The Grantor may not burn the vegetation of the Premises without the prior written permission of the Grantee.
- E. The Grantor shall not remove or destroy any trees or shrubs on the Premises without prior written approval of the Grantee.
- F. The Grantor may not till, crop, or cut the vegetation of the Premises without prior written approval of the Grantee.
- G. The Grantor may not place livestock on the Premises within a fence constructed as provided for in 1.B. without prior written approval of the Grantee.
- H. The Grantor shall not erect, display, place or maintain upon or within the Premises any sign, billboard, outdoor advertising structure or advertisement of any kind except signs which protect the Grantors retained rights.
- I. The Grantor shall not place or erect any new structures upon or in the Premises unless otherwise provided for in this easement.
- J. The Grantor shall not dump or place ashes, trash, garbage, sewage, sawdust, manure piles or any unsightly or offensive material upon or in the Premises.
- K. The Grantor releases the Grantee from any claims of damage which may arise as a result of floods and flash floods on the Premises.
- L. The Grantor shall neither lease nor convey any other easement on the Premises which in any way affects the use and enjoyment of this easement without the prior written permission of the Grantee.

3. RESERVED RIGHTS OF GRANTOR

- A. The Grantor shall have the right to sell, give or otherwise convey the Premises, provided such conveyance is subject to the terms of this easement.
- B. The Grantor may use the Premises in the same manner as the "public".
- C. The Grantor controls the Premises for hunting and trapping in accordance with applicable regulations, except as provided for in 1.B.(e).
- D. The Grantor may maintain and replace existing tiles and ditches draining lands from outside the Premises through the Premises in accordance with applicable regulations.
- E. The Grantor may continue to graze livestock on the Premises and to use the water in the stream for watering livestock subject to the provisions of 1.B. and 2.G.

4. GENERAL PROVISIONS

- A. If any provision of this easement is found to be invalid, the remainder of the provisions shall not be affected thereby.
- B. Any ambiguity in this easement shall be construed in a manner which best effectuates conservation and protects or enhances fishing, the fish populations, the aquatic habitat and the quality of the waters therein.
- C. The terms Grantor and Grantee, when used herein, shall mean either masculine or feminine, singular or plural, as the case may be and the provisions of this easement shall bind the parties mutually, their heirs, successors, personal representatives and assigns and shall run with the land.
- D. Other Conditions:

WITNESS the hands and seals of the Grantor and of any person joining in and consenting to this conveyance on the day and year hereinbefore written.

\_\_\_\_\_ (SEAL)

\_\_\_\_\_ (SEAL)

\_\_\_\_\_ (SEAL)

\_\_\_\_\_ (SEAL)

STATE OF WISCONSIN )  
 )  
\_\_\_\_\_ COUNTY ) ss.

Personally appeared before me this \_\_\_\_\_ day of \_\_\_\_\_, 19\_\_\_\_, the above

named \_\_\_\_\_

to me known to be the person(s) who executed the foregoing instrument and acknowledged the same.

\_\_\_\_\_  
Notary Public, State of Wisconsin  
My commission (expires) (is) \_\_\_\_\_

ACCEPTED this \_\_\_\_\_ day of \_\_\_\_\_, 19\_\_\_\_.

STATE OF WISCONSIN  
DEPARTMENT OF NATURAL RESOURCES  
For the Secretary

By \_\_\_\_\_

STATE OF WISCONSIN )  
 )  
\_\_\_\_\_ COUNTY ) ss.

Personally appeared before me this \_\_\_\_\_ day of \_\_\_\_\_, 19\_\_\_\_, the above

named \_\_\_\_\_

to me known to be the person(s) who executed the foregoing instrument and acknowledged the same.

\_\_\_\_\_  
Notary Public, State of Wisconsin  
My commission (expires) (is) \_\_\_\_\_

THIS INSTRUMENT WAS DRAFTED BY THE  
STATE OF WISCONSIN DEPARTMENT OF  
NATURAL RESOURCES.



**APPENDIX 4-1**

**PHASE II Survey Variables Map**

**PHASE II Survey:  
Public Attitudes Towards Land & Conservation and Issue Set**

	A	B	D	E	G	H	J	K	M	N
1	Record	RECORD	Q5.1	FEEL1	Q8.2	BLAME	Q14.1.4	ROLE4	Q22f	ACTION6
2	Q1	LIVEIN	Q5.2	FEEL2	Q8.3	BEDONE	Q14.1.5	ROLE5	Q22g	ACTION7
3	Q2.1	KNOW1	Q5.3	FEEL3	Q8.4	PAY	Q14.1.6	ROLE6	Q22h	ACTION8
4	Q2.2	KNOW2	Q5.4	FEEL4	Q9	CHANGED	Q14.1.7	ROLE7	Q22i	ACTION9
5	Q2.3	KNOW3	Q5.5	FEEL5	Q9.1	WAYCHNGE	Q14.1.8	ROLE8	Q22j	ACTION10
6	Q2.4	KNOW4	Q5.6	FEEL6	Q9.2	ISGOOD	Q14.1.9	ROLE9	Q22k	ACTION11
7	Q2.5	KNOW5	Q5.7	FEEL7	Q10a	LANDLOS1	Q14.1.10	ROLE10	Q22l	ACTION12
8	Q2.6	KNOW6	Q5.8	FEEL8	Q10b	LANDLOS2	Q14.1.11	ROLE11	Q22m	ACTION13
9	Q2.7	KNOW7	Q5.9	FEEL9	Q10c	LANDLOS3	Q14.1.12	ROLE12	Q22n	ACTION14
10	Q2.8	KNOW8	Q5.10	FEEL10	Q10d	LANDLOS4	Q14.1.13	ROLE13	Q22o	ACTION15
11	Q2.9	KNOW9	Q5.11	FEEL11	Q10e	LANDLOS5	Q14.1.14	ROLE14	Q23a	MEMBER1
12	Q2.10	KNOW10	Q5.12	FEEL12	Q10f	LANDLOS6	Q14.1.15	ROLE15	Q23b	MEMBER2
13	Q2.11	KNOW11	Q5.13	FEEL13	Q10g	LANDLOS7	Q14.15b	OTHROLE	Q23c	MEMBER3
14	Q2.12	KNOW12	Q5.14	FEEL14	Q10h	LANDLOS8	Q14.2rol	NOROLE	Q23d	MEMBER4
15	Q2.13	KNOW13	Q5.15	FEEL15	Q11.1	THREAT1	Q15	PAYYEAR	Q23e	MEMBER5
16	Q2.14	KNOW14	Q5.16	FEEL16	Q11.2	THREAT2	Q16	EVERPAY	Q23f	MEMBER6
17	Q.2.15	KNOW15	Q6.1	THINK1	Q11.3	THREAT3	Q16.1	SUPPORT	Q23g	MEMBER7
18	Q2.16	KNOW16	Q6.2	THINK2	Q11.4	THREAT4	Q16.2	QUALLIFE	Q23h	MEMBER8
19	Q3.1	AFFECT1	Q6.3	THINK3	Q11.5	THREAT5	Q16.3	CONTSUPP	Q23i	MEMBER9
20	Q3.2	AFFECT2	Q6.4	THINK4	Q11.6	THREAT6	Q17edu	SCHOOL	Q23j	MEMBER10
21	Q3.3	AFFECT3	Q6.5	THINK5	Q11.7	THREAT7	Q17.1	PUBLIC	Q23k	MEMBER11
22	Q3.4	AFFECT4	Q6.6	THINK6	Q11.8	THREAT8	Q17.2	LIKEDONE	Q23l	MEMBER12
23	Q3.5	AFFECT5	Q6.7	THINK7	Q11.9	THREAT9	Q18	GETINF	Q23m	MEMBER13
24	Q3.6	AFFECT6	Q6.8	THINK8	Q11.10	THREAT10	Q19most	TRUSTM	Q23n	OTHRORG
25	Q3.7	AFFECT7	Q6.9	THINK9	Q11.11	THREAT11	Q19least	TRUSTL	sex	SEX
26	Q3.8	AFFECT8	Q6.10	THINK10	Q11.12	THREAT12	Q20.a	ISSUES1	age	AGE
27	Q3.9	AFFECT9	Q6.11	THINK11	Q11.13	THREAT13	Q20.b	ISSUES2	educ	EDUC
28	Q3.10	AFFECT10	Q6.12	THINK12	Q12a	COUNTR1	Q20.c	ISSUES3	plus0	PLUS0
29	Q3.11	AFFECT11	Q6.13	THINK13	Q12b	COUNTR2	Q20.d	ISSUES4	plus5	PLUS5
30	Q3.12	AFFECT12	Q6.14	THINK14	Q12c	COUNTR3	Q20.e	ISSUES5	plus10	PLUS10
31	Q3.13	AFFECT13	Q6.15	THINK15	Q12d	COUNTR4	Q20.f	ISSUES6	plus18	PLUS18
32	Q3.14	AFFECT14	Q6.16	THINK16	Q12e	COUNTR5	Q20.g	ISSUES7	plus25	PLUS25
33	Q3.15	AFFECT15	Q7.1	LEAD1	Q12f	COUNTR6	Q20.h	ISSUES8	plus35	PLUS35
34	Q3.16	AFFECT16	Q7.2	LEAD2	Q12g	COUNTR7	Q20.i	ISSUES9	plus45	PLUS45
35	Q4.1	SRIOUS1	Q7.3	LEAD3	Q12h	COUNTR8	Q20.j	ISSUES10	plus65	PLUS65
36	Q4.2	SRIOUS2	Q7.4	LEAD4	Q12i	COUNTR9	Q20.k	ISSUES11	hmowner	HMOWNER
37	Q4.3	SRIOUS3	Q7.5	LEAD5	Q12j	COUNTR10	Q21a	LESS1	timeres	TIMERES
38	Q4.4	SRIOUS4	Q7.6	LEAD6	Q12k	COUNTR11	Q21b	LESS2	postcode	POSTCODE
39	Q4.5	SRIOUS5	Q7.7	LEAD7	Q12l	COUNTR12	Q21c	LESS3	autohshl	AUTOHSHL
40	Q4.6	SRIOUS6	Q7.8	LEAD8	Q12m	COUNTR13	Q21d	LESS4	headhshl	HEADHSHL
41	Q4.7	SRIOUS7	Q7.9	LEAD9	Q12n	COUNTR14	Q21e	LESS5	otherwge	OTHERWGE
42	Q4.8	SRIOUS8	Q7.10	LEAD10	Q12o	COUNTR15	Q21f	LESS6	occupa	OCCUPA
43	Q4.9	SRIOUS9	Q7.11	LEAD11	Q12p	COUNTR16	Q21g	LESS7	comments	COMMENTS
44	Q4.10	SRIOS10	Q7.12	LEAD12	Q12q	COUNTR17	Q21h	LESS8		
45	Q4.11	SRIOUS11	Q7.13	LEAD13	Q13	PAYTAX	Q21i	LESS9		
46	Q4.12	SRIOUS12	Q7.14	LEAD14	Q13.1	HOWMUCH	Q22a	ACTION1		
47	Q4.13	SRIOUS13	Q7.15	LEAD15	Q14	VOLROLE	Q22b	ACTION2		
48	Q4.14	SRIOUS14	Q7.16	LEAD16	Q14.1.1	ROLE1	Q22c	ACTION3		
49	Q4.15	SRIOUS15	Q8	IMPROVE	Q14.1.2	ROLE2	Q22d	ACTION4		
50	Q4.16	SRIOUS16	Q8.1	CAUSES	Q14.1.3	ROLE3	Q22e	ACTION5		



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14 August 1996

Dear Participant,

### Your Opinions on Land Use & Conservation

I am trying to find out some important facts on how people feel about the land, specifically their relationship with it and how they feel about conservation. You have been randomly selected to participate in this study. Your participation is very important. The accuracy of the results and further research depends on the responses, from people like yourself, to this survey.

I would be very grateful if you can help me by giving about 15 minutes of your time to complete the following survey form. The information provided will be kept strictly **confidential** and will be used only by myself for the purposes of my research.

Please use the enclosed prepaid envelope to return the questionnaire. Even if you only partially complete the survey, I am still interested in your responses.

I would like to have your personal views. Please do not ask anyone else to complete the form on your behalf or assist you with the form, or I will not have a true cross-section of opinions.

Thank you for your assistance and time.

Sincerely,

Julie Ann Gustanski

Ph.D. Candidate

Institute of Ecology & Resource Management



**For Questions 7 and 8 use only those issues you have placed in the  
'QUITE A LOT COULD BE DONE' GROUP.**

7. **These are the problems that you think a lot could be done about. Who should take the lead in doing something about them? Check the box you think best represents who should take the lead in doing something about these issues.**

	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
We all should/Public at large																
World governments																
Central government (state or national)																
Local authorities/government																
Developers																
Industry																
Non-profit/Voluntary Organizations																
Farmers/other owners of land																
Others																
Write in Who																

8. **If you had the power to improve just one of these which would it be?**

Write in the ID Number \_\_\_\_\_

Questions 8.1 - 8.4 deal only with the issue you have just selected.

8.1 **What are your feelings as to the primary causes of this problem? WRITE IN:** \_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

8.2 **In your opinion, who is responsible for causing this problem? Check all that apply.**

- |                                             |                                                  |
|---------------------------------------------|--------------------------------------------------|
| <input type="checkbox"/> We all are         | <input type="checkbox"/> Industry                |
| <input type="checkbox"/> Central government | <input type="checkbox"/> Farmers / Ranchers      |
| <input type="checkbox"/> Local authorities  | <input type="checkbox"/> Other landowners        |
| <input type="checkbox"/> Developers         | <input type="checkbox"/> Others (write in) _____ |

8.3 **What should be done about the issue you have selected? WRITE IN:** \_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

8.4 **Who should pay? (for the protection/to improve/for that). Check only one.**

- |                                             |                                                  |
|---------------------------------------------|--------------------------------------------------|
| <input type="checkbox"/> We all should      | <input type="checkbox"/> Industry                |
| <input type="checkbox"/> Central government | <input type="checkbox"/> Farmers / Ranchers      |
| <input type="checkbox"/> Local authorities  | <input type="checkbox"/> Other landowners        |
| <input type="checkbox"/> Developers         | <input type="checkbox"/> Others (write in) _____ |

**THE ISSUE SET CAN NOW BE PUT AWAY.**

9. **Have land uses in your area changed much in recent years?** For example: the number of people living there, number of houses, economy of the area, decrease in number of farms or open lands, etc. Do you think this area has:

- Changed a lot (Go to Question 9.1)
  Not changed much (Go to Question 10)
- Changed a little (Go to Question 9.1)
  Not changed (Go to Question 10)

9.1 **In what way has it changed?** WRITE IN: \_\_\_\_\_

9.2 **In your opinion has this been a good thing for the area in general?** Check one.

- Very Good
  Fairly Bad
- Fairly Good
  Very Bad
- Neither Good nor Bad

10. **The following statements are about the loss of land due to new residential and commercial development in your area.** Check the box that best represents the extent to which you agree or disagree with each statement.

	Strongly Agree	Agree	Neither	Disagree	Strongly Disagree
a. Development should only be allowed on the edge of built-up areas.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
b. No further development should be allowed in this area.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
c. Parks and open space should be part of all new developments.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
d. Development should be allowed only on available sites <u>within</u> existing built-up areas.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
e. There has already been too much development in this area.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
f. This area would benefit from more development.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
g. This area would benefit from a long term planning for future development.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
h. The car is the primary reason for development in rural areas and open space.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

11. **Rank the THREE (1-3) you feel are the greatest threat to natural and open space areas in your area?** One (1) being the greatest threat.

- Industrial smoke & fumes
- Pollution of water
- Farming practices
- Urban & suburban sprawl
- Housing development
- Detachment from the land
- Litter/Waste disposal
- Highways, freeways & other road building
- Commercial/Industrial Development
- Poor land planning/resource management
- Greed/Attitudes
- People moving to rural areas/accessibility
- Something else (WRITE IN) \_\_\_\_\_



12. **The following statements are about open space in your region.** Check the box that best represents your level of agreement or disagreement with each of the following statements.

	Strongly Agree	Agree	Neither	Disagree	Strongly Disagree
a. Modern farming methods damage the rural environment.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
b. To protect open space and natural areas we will have to limit the number of visitors.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
c. Too much is already done to protect open space.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
d. The government should pay more in incentives to owners of land to protect open space lands.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
e. Industry should be responsible for the clean-up of industrial eyesores in rural areas.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
f. Policies protecting farmland from development should be stronger.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
g. Unrestricted public access imposes a burden on farmers and other owners of land.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
h. Farmers and other owners of land should look after rural lands.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
i. More facilities are needed for recreational visitors to rural open spaces.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
j. Much can be learned about protecting open space lands by looking to other countries.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
k. Everyone should look after open space.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
l. Policies protecting open space could be stronger.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
m. Lands providing habitat for rare or endangered species are the most important lands to protect.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
n. Lands protected through government payment schemes should allow public access.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
o. More emphasis should be placed on protecting historical landscapes.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
p. Everyone should have access to recreational areas	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
q. More areas of the U.S. should be set aside as National Parks so that they are protected from development?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

13. **Would you personally be willing to pay more in taxes (local or property) if you knew that the funds would be used within your area to create new or improve existing parks, trails or open space corridors for public use?** Check one.

Yes (Go to 13.1)                       No (Go to 14)                       Don't know (Go to 14)

- 13.1 **How much more taxes would you be willing to pay for such improvements in your area?** Check one.

- Between 0 and 10%  
 Between 11% and 25%  
 Between 26% and 40%  
 Between 41% and 60%  
 Up to 70%  
 Up to 80%  
 Up to 100% more  
 Do not know

14. Do you think there is a greater role for non-profit/voluntary environmental and conservation groups to play in protecting land and other natural resources? *Check one.*

Yes (Go to 14.1)

No (Go to 14.2)

Don't know (Go to 15)

14.1 If Yes, What role(s) do you think such non-profit conservation organizations should play in land and natural resource protection? *Check all that apply.*

Owning & maintaining lands for public use

Holding partial interests or legal restrictions on lands to prevent future development

Helping with local and/or regional planning and conservation issues

Helping with community education and information on land and conservation issues

Promoting sound land use and environmentally friendly development

Promoting farming methods that are environmentally friendly

Helping to develop long term plans and regulations for land use

Education through schools

Monitoring and enforcing land use and environmental regulations

Assessment and survey of land and other natural resources

Inventory and recording of plants, animals, geologic and historic conditions, and other resource features

Creating trails, greenbelts, parks and other recreational areas for public use

Publishing information on conservation for the public

Conducting research on new ways to protect land resources

Other (write in): \_\_\_\_\_

14.2 If No, explain what role you see for such organizations. (write in):

15. How much would you be willing to contribute annually to such voluntary/non-profit conservation organizations to perform the roles you have just identified? *Check one.*

\$0 \_\_\_ \$15 \_\_\_ \$30 \_\_\_ \$50 \_\_\_ \$75 \_\_\_ \$100 \_\_\_ Other \_\_\_\_\_

16. Have you ever personally contributed to a non-profit conservation or environmental organization either as a one time donation or through a membership? *Check one.*

Yes (Go to 16.1)

No (Go to 16.2)

Can't recall (Go to 16.3)

16.1 In general do you believe that the group(s) you have supported, have made progress towards protecting land or the environment and that this has had a positive effect on your area? *Check one.*

Yes (Go to 16.2)

No (Go to 16.3)

Don't know (Go to 16.3)

16.2 Do you feel the work of such groups is important to your quality of life? *Check one.*

Yes (Go to 16.3)

No (Go to 16.3)

Don't know (Go to 16.3)

16.3 As applicable in: (16.1) Will you continue to support the work of such non-profit organizations? **OR** (16.2 or 16.3) Will you consider supporting the work of such groups in the future? *Check one.*

Yes

No

Don't know

**EDUCATION & GENERAL INFORMATION:**

17. Do you think that children in school are taught too much about land conservation issues, too little, or about the right amount? *Check one.*

- |                                     |              |                                       |              |
|-------------------------------------|--------------|---------------------------------------|--------------|
| <input type="checkbox"/> Too much   | (Go to 17.1) | <input type="checkbox"/> Right amount | (Go to 17.1) |
| <input type="checkbox"/> Too little | (Go to 17.1) | <input type="checkbox"/> Don't know   | (Go to 18)   |

17.1 Do you think, for the general public there is too much information about the environment, too little information or about the right amount? *Check one.*

- |                                     |              |                                       |            |
|-------------------------------------|--------------|---------------------------------------|------------|
| <input type="checkbox"/> Too much   | (Go to 18)   | <input type="checkbox"/> Right amount | (Go to 18) |
| <input type="checkbox"/> Too little | (Go to 17.2) | <input type="checkbox"/> Don't know   | (Go to 18) |

17.2 You think there is generally too little information about the environment. What would you like to see done? (write in) \_\_\_\_\_

\_\_\_\_\_

18. Where do you get most of your information about land use and conservation issues? (write in) \_\_\_\_\_

\_\_\_\_\_

19. Which ONE of these would you trust **MOST** and which would you trust the **LEAST** to tell you about land use and conservation issues? *Check only one box for each column.*

MOST

LEAST

- |                          |                          |                                                                            |
|--------------------------|--------------------------|----------------------------------------------------------------------------|
| <input type="checkbox"/> | <input type="checkbox"/> | Non-profit Environmental & conservation organizations                      |
| <input type="checkbox"/> | <input type="checkbox"/> | Government agencies as Dept. of Natural Resources or the Environment, etc. |
| <input type="checkbox"/> | <input type="checkbox"/> | Local or municipal authorities                                             |
| <input type="checkbox"/> | <input type="checkbox"/> | Friends                                                                    |
| <input type="checkbox"/> | <input type="checkbox"/> | Scientists                                                                 |
| <input type="checkbox"/> | <input type="checkbox"/> | Advertisements                                                             |
| <input type="checkbox"/> | <input type="checkbox"/> | Industry                                                                   |
| <input type="checkbox"/> | <input type="checkbox"/> | Media/News                                                                 |
| <input type="checkbox"/> | <input type="checkbox"/> | Other WRITE IN: _____                                                      |

**WHO SHOULD PAY?:**

20. Listed below are some things that people have said about land use and conservation issues, you may have even heard comments such as these. Check the box that best represents your level of agreement or disagreement with each statement.

	Strongly Agree	Agree	Neither	Disagree	Strongly Disagree
a. We should find the money to protect important lands by being prepared to pay higher taxes.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
b. Industry should be prevented from causing damage to land and the environment even if this leads to higher prices.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
c. It is up to all of us as individuals to help protect the land by changing our behavior and attitudes towards this resource.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
d. We should find the money to protect the environment by being prepared to pay more for products that are environmentally and ecologically friendly.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
e. New jobs should be created even if this sometimes causes damage to the land and the environment.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
f. Nothing should be spent on protecting the land or the environment because we can not afford it.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
g. Individuals should pay to have recreational access to natural and open space areas in order to protect it.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
h. Companies that seriously harm the land or the environment should be shut down.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
i. The government could do a lot more than it does at the moment to protect important lands.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
j. The protection of land for future generations would be better off in the hands of a non-governmental organization.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
k. The government should find the money to protect the environment by spending less on other things	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

If you **AGREE** or **STRONGLY AGREE** with 20k above, go to 21. All others go to 22.

21. What should the government spend less on in order to find money to protect the environment? Should it spend less on: Check as appropriate:

	YES	NO
Defense		
Health care		
Social services		
Law enforcement		
Aid to the 3rd world		
Aid to industry		
Aid to farmers		
Transportation		
Education		

22. Below is a list of actions. Please indicate whether, in the last 12 months you have done them at least once a week (F), at least once a month (Occ), several times a year (R), not at all (NAA) or never do this (N/A). Check as appropriate.

	F	Occ	R	NAA	N/A
a. Walked in the woods or along the shore	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
b. Purchased one product over another because it was better for the environment	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
c. Picked up other people's litter	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
d. Taken bottles, plastic or aluminum to the bottle bank/recycling center or put out for pick up	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
e. Bought a magazine concerned with nature or other 'green' issues	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
f. Watched a television program about nature or the environment	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
g. Cut down on the amount of car travel you do for environmental reasons	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
h. Requested information about 'green' issues	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
i. Cut down on the use of electricity, oil or gas in your home	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
j. Joined a conservation or 'green' organization	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
k. Avoided using pesticides on your garden or lawn	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
l. Donated money to environmental, conservation or other 'green' causes	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
m. Taken paper to a collection point for recycling or put out for pick up	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
n. Became active in community environmental issues	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
o. Backed political candidate(s) who supported 'green' issues	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

23. Are you a member of any organization concerned with the environment, wildlife, nature, planning, fishing, hunting, or open space? Check all that apply.

- Earth Watch
- National Wildlife Federation
- Audubon Society
- Friends of the Earth
- Greenpeace
- The Nature Conservancy
- World Wildlife Fund
- Environmental Defense Fund
- State or local Sportsman's Club/Association
- Sierra Club
- American Farmland Trust
- Local/regional land trust or conservancy
- Local/regional hiking club
- Other similar organizations - (please, list all)

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**CLASSIFICATION:**

The last few questions will enable me to analyze the answers statistically and ensure that all persons in the US are fairly represented. **As stated earlier all information and responses will be held strictly confidential.**

24. Sex:  Male  Female

24.1 Which of these age groups do you fall into? *Check one*

18 - 24  25 - 34  35 - 44  45 - 64  64+

24.2 What is the highest level of education you have obtained? *Check one.*

Primary  Secondary  Trade or Vocational  University or College  Post-graduate

24.3 How many people in the following age groups are in your household, including yourself? Write in the number in each age group.

0 - 4 \_\_\_\_\_  
5 - 10 \_\_\_\_\_  
10 - 17 \_\_\_\_\_  
18 - 24 \_\_\_\_\_  
25 - 34 \_\_\_\_\_  
35 - 44 \_\_\_\_\_  
45 - 64 \_\_\_\_\_  
65+ \_\_\_\_\_

24.4 Do you:

- own your house
- rent from council/housing assn.
- rent from a private landlord
- Other (WRITE IN) \_\_\_\_\_

24.5 How long have you stayed/lived in this area? WRITE IN \_\_\_\_\_ years

24.6 In what area of the Country do you live? ZIP CODE \_\_\_\_\_

24.7 How many cars/vans or other motor vehicles are available in your household? *Check one.*

0   
1   
2   
3   
More

25. Is the chief wage earner in the household: *Check one.*

- Working (full or part-time)  (Go to Q25.2)
- Retired/not working (but with private pension or other means)  (Go to Q25.2)
- Unemployed less than two months  (Go to Q25.2)
- Unemployed over two months  (Go to Q25.1)
- Retired/not working (but on State pension or benefit only)  (Go to Q25.1)

25.1 Is there another wage earner in the household? *Check one.*

Yes (Go to Q25.2)  No

25.2 Occupation of 'Head' of Household/Chief Wage Earner. (Write in full description of current or last main job, and profession/industry)

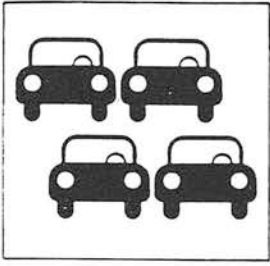


If you have any additional comments you would like to add, please use this page.

**Comments:** \_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_  
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\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

*Thank you for your time!*

ISSUE SET



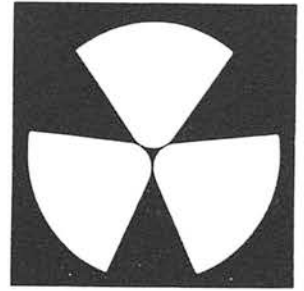
**Issue 1**  
Traffic / Transportation



**Issue 2**  
Urban Sprawl /  
Development in Open  
Space & Rural areas



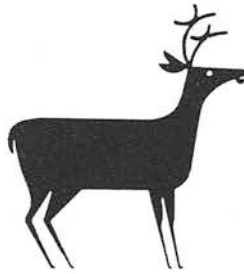
**Issue 3**  
Farming Methods &  
Sustainability



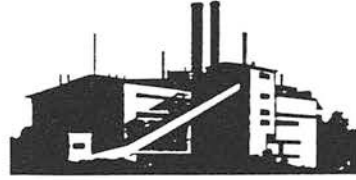
**Issue 4**  
Hazardous Waste  
Disposal / Landfills



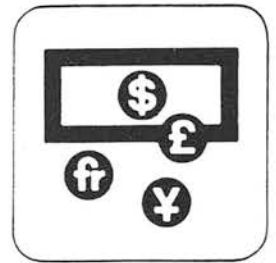
**Issue 5**  
Land Conservation



**Issue 6**  
Destruction of  
Wildlife Habitat



**Issue 7**  
Nuclear Energy



**Issue 8**  
Exploitation of Natural  
Resources



**Issue 9**  
Forests & Deforestation



**Issue 10.**  
Mismanagement of Land  
Resources / Poor Land  
Use Planning



**Issue 11**  
Preservation of Historic  
Sites / Areas



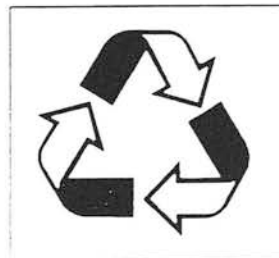
**Issue 12**  
Pollution  
(air, land & water)



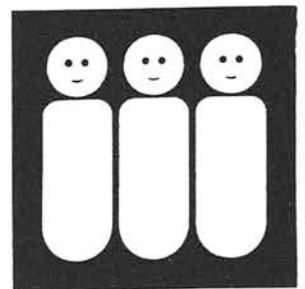
**Issue 13**  
Wetlands



**Issue 14.**  
Water Quality



**Issue 15**  
Recycling



**Issue 16**  
Population

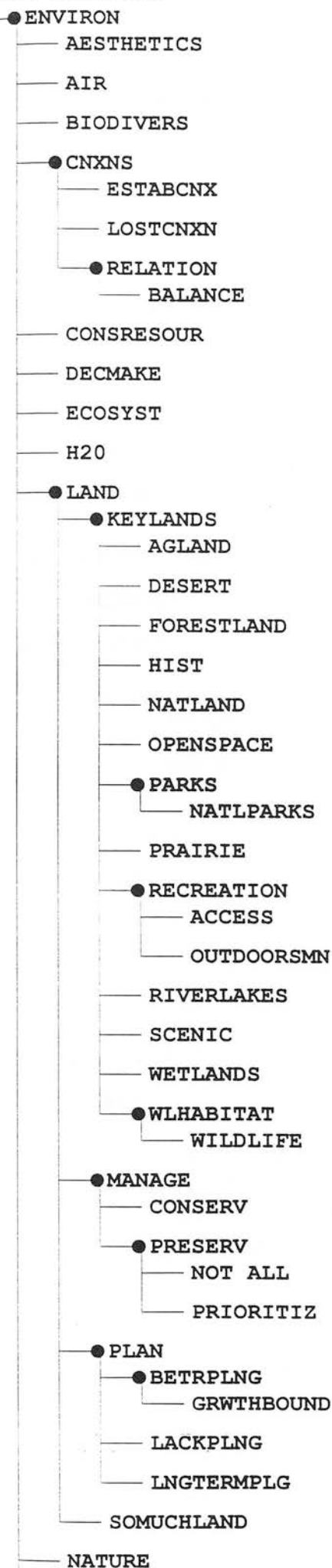
**APPENDIX 5-1**

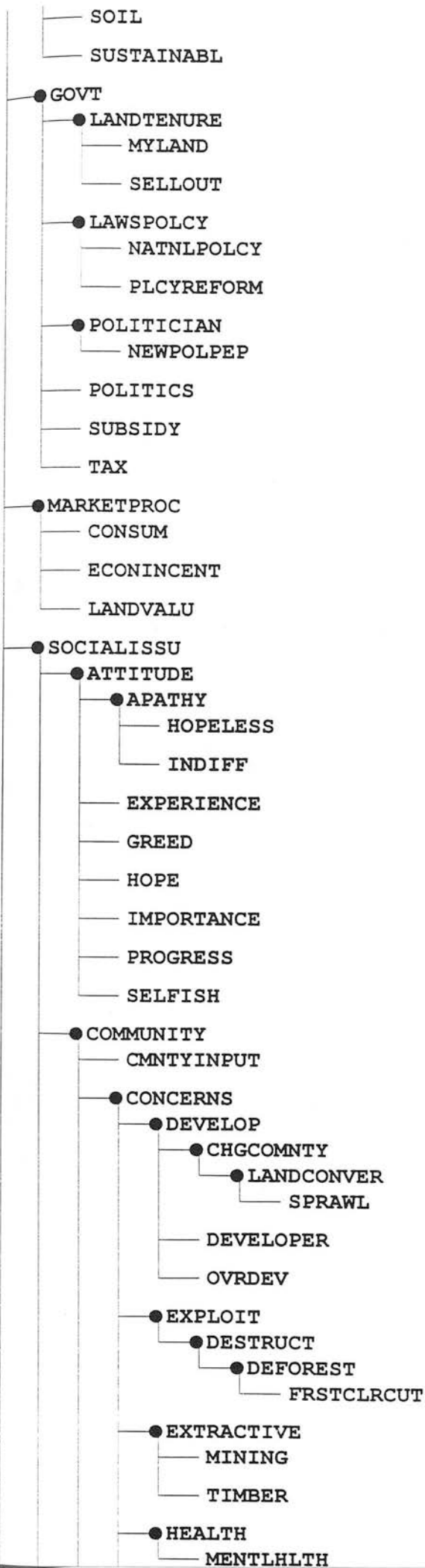
**PHASE I Focus Groups**

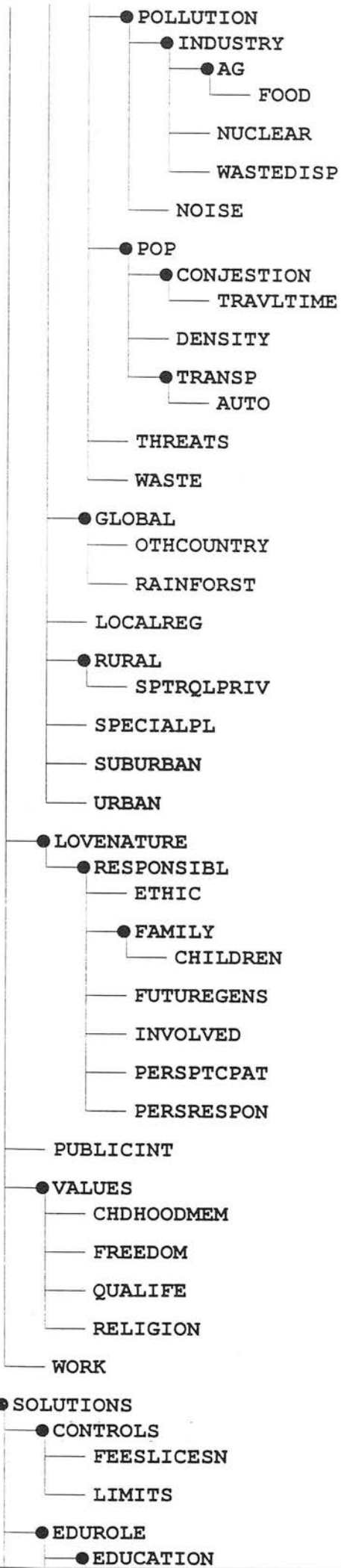
**“Family Tree”**

**Sample from US Focus Group Project Files**

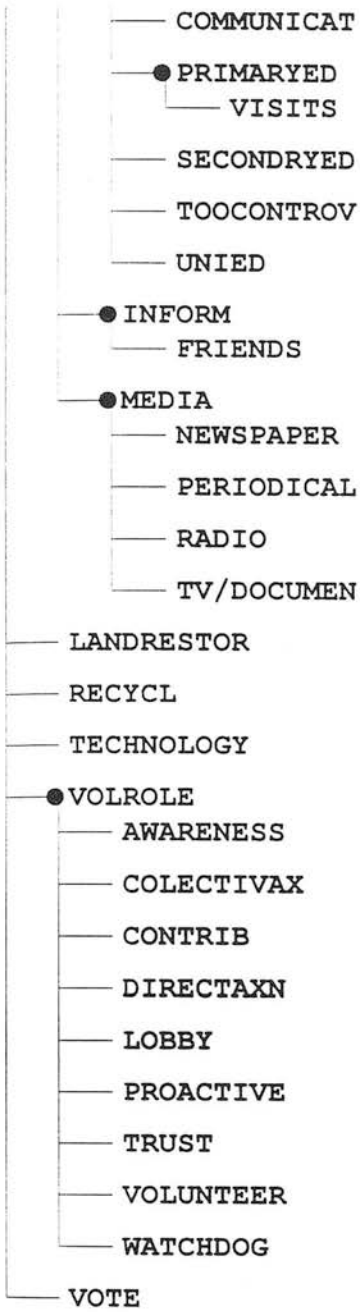
## ● Code Families











**APPENDIX 5-2**

**PHASE I Focus Groups**

**Codebook & Frequency Count  
(Sample from US Focus Group Project Files)**

Code Word	Count	Code Word	Count	Code Word	Count	Code Word	Count
ACCESS	4	EDUROLE	4	LOVENATURE	1	SOIL	9
AESTHETICS	2	ENVIRON	15	MANAGE	3	SOLUTIONS	11
AG	2	ESTABCNX	1	MEDIA	1	SOMUCHLAND	4
AGLAND	12	ETHIC	1	MYLAND	2	SPRAWL	13
AIR	1	EXPERIENCE	1	NATURE	3	SPTRQLPRIV	4
APATHY	5	EXTRACTIVE	1	NOISE	2	SUBURBAN	3
ATTITUDE	13	FAMILY	4	OPENSOURCE	5	SUSTAINABL	3
AUTO	2	FOOD	1	OTHCCOUNTRY	4	TAX	6
AWARENESS	8	FORESTLAND	3	PERIODICAL	2	TECHNOLOGY	3
BALANCE	9	FREEDOM	3	PERSRESPON	20	THREATS	11
BETRPLNG	2	FRIENDS	1	PLAN	5	TRANSP	5
BIODIVERS	4	FRSTCLRCUT	2	PLCYREFORM	1	TRAVLTIME	5
CHDHOODMEM	2	FUTUREGENS	3	POLITICIAN	1	TRUST	3
CHGCOMNTY	3	GLOBALVIEW	4	POLITICS	5	TV/DOCUMEN	1
CHILDREN	4	GOVTROLE	13	POLLUTION	4	UNIED	1
CMNTYINPUT	4	GREED	6	POP	13	URBAN	5
CNXNS	4	GRWTHBOUND	1	PRESERV	9	VALUES	9
COLECTIVAX	11	H2O	3	PROACTIVE	3	VISITS	3
COMMUNICAT	2	HOPELESS	2	PROGRESS	1	VOLROLE	11
COMMUNITY	8	IMPORTANCE	7	PUBHEALTH	2	VOLUNTEER	10
CONCERNS	16	INFORM	6	PUBLICINT	3	VOTE	9
CONJESTION	1	INVOLVED	12	QUALIFE	13	WASTEDISP	8
CONSERV	1	KEYLANDS	13	RADIO	1	WATCHDOG	4
CONSRESOUR	3	LACKPLNG	9	RAINFORST	1	WETLANDS	2
CONSUM	7	LAND	4	RECYCL	2	WILDLIFE	9
CONTRIB	3	LANDCONVER	5	RELATION	7	WLHABITAT	6
CONTROLS	6	LANDRESTOR	1	RELIGION	6	WORK	2
DENSITY	2	LANDVALU	1	RESPONSIBL	12		
DESTRUCT	5	LAWSPOLCY	1	RIVERLAKES	2		
DEVELOP	13	LIMITS	1	RURAL	13		
DIRECTAXN	2	LOBBY	3	SCENIC	2		
ECOSYST	4	LOCALVIEW	4	SELFISH	4		
EDUCATION	14	LOSTCNXN	3	SOCIALISSU	7		

Code Word	Count	Code Word	Count	Code Word	Count	Code Word	Count
ACCESS	6	ESTABCNX	3	MARKETPROC	2	SELFISH	4
AESTHETICS	4	ETHIC	4	MEDIA	3	SOCIALISSU	12
AG	10	EXPERIENCE	10	MENTLHLTH	1	SOIL	6
AGLAND	25	EXTRACTIVE	1	MYLAND	2	SOLUTIONS	2
AIR	7	FAMILY	15	NATLAND	7	SOMUCHLAND	3
APATHY	16	FEESLICESN	2	NATURE	12	SPRAWL	19
ATTITUDE	25	FOOD	7	NEWPOLPEP	1	SPTRQLPRIV	4
AUTO	3	FORESTLAND	11	NEWSPAPER	3	SUBSIDY	1
AWARENESS	21	FREEDOM	3	NOISE	5	SUBURBAN	2
BALANCE	16	FRIENDS	3	OPENSOURCE	8	SUSTAINABL	5
BETRPLNG	7	FRSTCLRCUT	6	OTHCOUNTRY	7	TAX	8
BIODIVERS	6	FUTUREGENS	12	OUTDOORSMN	1	TECHNOLOGY	5
CHDHOODMEM	13	GLOBAL	1	PARKS	7	THREATS	3
CHGCOMNTY	11	GOVT	5	PERIODICAL	4	TIMBER	1
CHILDREN	14	GREED	8	PERSPTCPAT	5	TOOCONTROV	2
CMNTYINPUT	5	H2O	19	PERSRESPON	30	TRANSP	3
CNXNS	7	HEALTH	4	PLAN	6	TRAVLTIME	4
COLECTIVAX	7	HIST	3	POLITICIAN	1	TV/DOCUMEN	1
COMMUNICAT	2	HOPE	4	POLITICS	1	UNIED	4
COMMUNITY	17	IMPORTANCE	4	POLLUTION	12	URBAN	9
CONCERNS	8	INDUSTRY	8	POP	18	VALUES	16
CONJESTION	1	INFORM	7	PRAIRIE	1	VISITS	2
CONSERV	3	INVOLVED	15	PRESERV	15	VOLROLE	7
CONSUM	7	KEYLANDS	4	PRIMARYED	5	VOLUNTEER	8
CONTRIB	2	LACKPLNG	12	PROACTIVE	3	VOTE	4
CONTROLS	13	LAND	10	PROGRESS	2	WASTE	2
DECMAKE	3	LANDCONVER	6	PUBLICINT	3	WASTEDISP	12
DEFOREST	1	LANDRESTOR	5	QUALIFE	13	WATCHDOG	2
DENSITY	1	LANDTENURE	2	RAINFORST	1	WETLANDS	7
DESTRUCT	13	LANDVALU	2	RECREATION	5	WILDLIFE	13
DEVELOP	26	LAWSPOLCY	16	RECYCL	9	WLHABITAT	5
DEVELOPER	3	LIMITS	4	RELATION	5	WORK	2
DIRECTAXN	2	LNGTERMPLG	4	RELIGION	1		
ECONINCENT	3	LOBBY	2	RESPONSIBL	26		
ECOSYST	6	LOCALREG	7	RIVERLAKES	8		
EDUCATION	33	LOSTCNXN	6	RURAL	17		
EDUROLE	4	LOVENATURE	2	SCENIC	2		
ENVIRON	13	MANAGE	7	SECONDRYED	2		

Code Word	Count	Code Word	Count	Code Word	Count
COMMUNITY	2	INFORM	3	SOLUTIONS	3
CONCERNS	3	KEYLANDS	3	THREATS	2
EDROLE	3	QUALIFE	4	VOLROLE	3
GOVTROLE	3	RESPONSIBL	3		

Code Word	Count	Code Word	Count	Code Word	Count	Code Word	Count
ACCESS	2	EXPERIENCE	5	MEDIA	1	RIVERLAKES	7
AESTHETICS	3	EXPLOIT	3	MENTLHLTH	3	RURAL	6
AG	17	EXTRACTIVE	2	MINING	5	SCENIC	4
AGLAND	27	FAMILY	4	MYLAND	2	SECONDRYED	5
AIR	5	FEESLICESN	1	NATLAND	9	SELFISH	1
APATHY	5	FOOD	7	NATLPARKS	2	SELLOUT	3
ATTITUDE	7	FORESTLAND	13	NATNLPOLCY	4	SOCIALISSU	7
AUTO	1	FREEDOM	2	NATURE	5	SOIL	9
AWARENESS	9	FRIENDS	2	NEWPOLPEP	2	SOLUTIONS	3
BALANCE	8	FRSTCLRCUT	5	NEWSPAPER	2	SOMUCHLAND	1
BETRPLNG	3	FUTUREGENS	18	NOISE	2	SPECIALPL	2
BIODIVERS	6	GLOBAL	4	NOT ALL	1	SPRAWL	7
CHDHOODMEM	8	GOVT	5	OPENSACE	8	SUBSIDY	4
CHGCOMNTY	1	GREED	10	OTHCOUNTRY	10	SUBURBAN	4
CHILDREN	15	GRWTHBOUND	2	OUTDOORSMN	1	SUSTAINABL	1
CMNTYINPUT	1	H2O	10	OVRDEV	4	TAX	6
CNXNS	2	HEALTH	2	PARKS	9	TECHNOLOGY	7
COLECTIVAX	4	HIST	6	PERIODICAL	6	THREATS	2
COMMUNICAT	3	HOPE	2	PERSPTCPAT	3	TIMBER	5
COMMUNITY	11	HOPELESS	6	PERSRESPON	19	TOOCONTROV	4
CONCERNS	5	IMPORTANCE	10	PLAN	9	TRANSP	6
CONJESTION	3	INDIFF	3	PLCYREFORM	1	TRUST	2
CONSERV	4	INDUSTRY	11	POLITICIAN	9	TV/DOCUMEN	4
CONSRESOUR	3	INFORM	3	POLITICS	9	UNIED	3
CONSUM	5	INVOLVED	5	POLLUTION	15	URBAN	6
CONTRIB	6	KEYLANDS	5	POP	18	VALUES	2
CONTROLS	6	LACKPLNG	2	PRAIRIE	2	VISITS	5
DECMAKE	4	LAND	7	PRESERV	17	VOLROLE	8
DENSITY	8	LANDCONVER	3	PRIMARYED	5	VOLUNTEER	2
DESERT	1	LANDRESTOR	3	PRIORITIZ	3	VOTE	12
DESTRUCT	6	LANDTENURE	2	PROACTIVE	2	WASTE	2
DEVELOP	18	LANDVALU	5	PROGRESS	1	WETLANDS	8
DEVELOPER	4	LAWSPOLCY	6	PUBLICINT	1	WILDLIFE	11
DIRECTAXN	4	LIMITS	8	QUALIFE	8	WLHABITAT	9
ECONINCENT	1	LNGTERMPLG	1	RADIO	1	WORK	2
ECOSYST	6	LOBBY	6	RAINFORST	4		
EDUCATION	18	LOCALREG	3	RECREATION	8		
EDUROLE	4	LOSTCNXN	4	RECYCL	12		
ENVIRON	35	LOVENATURE	1	RELATION	7		
ESTABCNX	1	MANAGE	8	RELIGION	8		
ETHIC	4	MARKETPROC	3	RESPONSIBL	8		



Code Word	Parent	Text	Level	Added	Modified
ACCESS	RECREATION	YES	5	01/08/99	05/08/99
		ability to use or access land or water courses for recreational purposes (hiking, walking, canoeing, birwatching, etc)			
AESTHETICS	ENVIRON	YES	2	01/08/99	07/08/99
		refs to aesthetic qualities of various landscapes; scenic, beauty, etc.			
AG	INDUSTRY	YES	6	30/07/99	07/08/99
		agriculture and related			
AGLAND	KEYLANDS	YES	4	31/07/99	05/08/99
		farm land			
AIR	ENVIRON	YES	2	31/07/99	01/08/99
		in regard to air quality			
APATHY	ATTITUDE	YES	3	31/07/99	01/08/99
		human attitude towards environmental issues			
ATTITUDE	SOCIALISSU	YES	2	31/07/99	05/08/99
		those view exhibited toward land, environment, nature			
AUTO	TRANSP	YES	6	02/08/99	03/08/99
		car; refs to relaince on			
AWARENESS	VOLROLE	YES	3	01/08/99	05/08/99
		general awareness of issues			
BALANCE	RELATION	YES	4	02/08/99	03/08/99
		general "balance" between human and natural systems			
BETRPLNG	PLAN	YES	4	31/07/99	01/08/99
		better planning - seen as way forward/solution to land use problems			

Code Word	Parent	Text	Level	Added	Modified
BIODIVERS	ENVIRON	YES	2	31/07/99	01/08/99
		biodiversity			
CHDHOODMEM	VALUES	YES	3	30/07/99	05/08/99
		child hood memory or reflection on land, community, environment in childhood			
CHGCOMNTY	DEVELOP	YES	5	02/08/99	03/08/99
		changes to community as a result of growth/sprawl/development			
CHILDREN	FAMILY	YES	5	31/07/99	01/08/99
		references to children, next generation			
CMNTYINPUT	COMMUNITY	YES	3	30/07/99	01/08/99
		community input			
CNXNS	ENVIRON	YES	2	01/08/99	05/08/99
		connections between environment and humans			
COLECTIVAX	VOLROLE	YES	3	31/07/99	01/08/99
		collective action by interest/non-profit/voluntary groups			
COMMUNICAT	EDUCATION	YES	4	31/07/99	01/08/99
		communication of information			
COMMUNITY	SOCIALISSU	YES	2	30/07/99	07/08/99
		collective reference to area where people live			
CONCERNS	COMMUNITY	YES	3	30/07/99	07/08/99
		ref to practices threatening environment and or sustainability			
CONJESTION	POP	YES	5	31/07/99	05/08/99
		refers to density and issues of sprawl, traffic, etc.			

Code Word	Parent	Text	Level	Added	Modified
CONSERV	MANAGE	YES	4	01/08/99	05/08/99
		act of conserving natural resource			
CONSRESOUR	ENVIRON	YES	2	31/07/99	05/08/99
		consumption of natural resources			
CONSUM	MARKETPROC	YES	2	31/07/99	05/08/99
		rate of consumption			
CONTRIB	VOLROLE	YES	3	01/08/99	03/08/99
		financial contributions made to voluntary/non-profit conservation orgs.			
CONTROLS	SOLUTIONS	YES	2	01/08/99	05/08/99
		various methods of controlling behaviour and attitudes			
DECMAKE	ENVIRON	YES	2	30/07/99	05/08/99
		decision-making, decision makers			
DEFOREST	DESTRUCT	YES	6	01/08/99	05/08/99
		deforestation			
DENSITY	POP	YES	5	31/07/99	01/08/99
		number of people across geographical area			
DESERT	KEYLANDS	YES	4	31/07/99	05/08/99
		arid lands			
DESTRUCT	EXPLOIT	YES	5	31/07/99	05/08/99
		destruction or process of destroying			
DEVELOP	CONCERNS	YES	4	31/07/99	01/08/99
		development and related			
DEVELOPER	DEVELOP	YES	5	01/08/99	05/08/99

Code Word	Parent	Text	Level	Added	Modified
DIRECTAXN	VOLROLE	YES	3	31/07/99	01/08/99
		direct action			
ECONINCENT	MARKETPROC	YES	2	01/08/99	05/08/99
		tax, rebate, licenses, etc. incentives to encourage better land use and environmental practices			
ECOSYST	ENVIRON	YES	2	31/07/99	01/08/99
		ecosystem			
EDUCATION	EDUROLE	YES	3	31/07/99	05/08/99
		conveying new idea, information to people at all levels			
EDUROLE	SOLUTIONS	YES	2	30/07/99	05/08/99
		role of education or system			
ENVIRON	None	YES	1	31/07/99	01/08/99
		all inclusive term to describe whole of air, land, water, built, natural environment where people and other species live.			
ESTABCNX	CNXNS	YES	3	31/07/99	05/08/99
		establish connection to			
ETHIC	RESPONSIBL	YES	4	01/08/99	03/08/99
		sense of moral responsibility			
EXPERIENCE	ATTITUDE	YES	3	31/07/99	05/08/99
		personal experiences			
EXPLOIT	CONCERNS	YES	4	01/08/99	05/08/99
		practices exploiting natural resources			
EXTRACTIVE	CONCERNS	YES	4	01/08/99	05/08/99
		industries as mining and timber			

Code Word	Parent	Text	Level	Added	Modified
FAMILY	RESPONSIBL	YES	4	30/07/99	05/08/99
		refers to common interpretation of family			
FEESLICESN	CONTROLS	YES	3	02/08/99	07/08/99
		fees, licences, impact fees, etc. paid for access, permits, etc. associated with various land and related uses			
FOOD	AG	YES	7	31/07/99	05/08/99
		relation of agriculture and production of food			
FORESTLAND	KEYLANDS	YES	4	31/07/99	05/08/99
		forests, woodlands and related			
FREEDOM	VALUES	YES	3	31/07/99	05/08/99
		freedom related to land and ownership			
FRIENDS	INFORM	YES	4	01/08/99	03/08/99
		as source of information on current issues			
FRSTCLR CUT	DEFOREST	YES	7	01/08/99	05/08/99
		practices if clear cutting forests			
FUTUREGENS	RESPONSIBL	YES	4	31/07/99	05/08/99
		future generations			
GLOBAL	COMMUNITY	YES	3	31/07/99	07/08/99
		discussion of larger view (national, international)			
GOVT	None	Yes	1	05/08/99	07/08/99
		refs to government and various related roles and responsibilities			
GREED	ATTITUDE	YES	3	31/07/99	01/08/99
		expressed as cause for sprawl and other environmental problems			

Code Word	Parent	Text	Level	Added	Modified
GRWTHBOUND	BETRPLNG	YES	5	31/07/99	01/08/99
		growth boundaries or UGBs, a planning technique			
H2O	ENVIRON	YES	2	31/07/99	01/08/99
		water			
HEALTH	CONCERNS	YES	4	31/07/99	05/08/99
		general refernce to public health			
HIST	KEYLANDS	YES	4	30/07/99	05/08/99
		historical landscapes or related to history			
HOPE	ATTITUDE	YES	3	31/07/99	01/08/99
		expression of			
HOPELESS	APATHY	YES	4	31/07/99	05/08/99
		expression of general hopelessness			
IMPORTANCE	ATTITUDE	YES	3	31/07/99	05/08/99
		inportant or importance of various			
INDIFF	APATHY	YES	4	30/07/99	05/08/99
		indifference towards			
INDUSTRY	POLLUTION	YES	5	01/08/99	05/08/99
		general ref to industry pratices, pollution, etc.			
INFORM	EDUROLE	YES	3	30/07/99	05/08/99
		to inform or distribution of information			
INVOLVED	RESPONSIBL	YES	4	31/07/99	05/08/99
		process of being involved, taking aaction			
KEYLANDS	LAND	YES	3	30/07/99	01/08/99
		important or key landscapes for protection			



Code Word	Parent	Text	Level	Added	Modified
LACKPLNG	PLAN	YES	4	31/07/99	02/08/99
		bad, ill-conceived planning, connection to sprawl			
LAND	ENVIRON	YES	2	31/07/99	05/08/99
		all land forms			
LANDCONVER	CHGCOMNTY	YES	6	31/07/99	05/08/99
		loss of land to			
LANDRESTOR	SOLUTIONS	YES	2	31/07/99	05/08/99
		restoration of land from degraded state or built use			
LANDTENURE	GOVT	YES	2	01/08/99	07/08/99
		act of owning land; land tenure			
LANDVALU	MARKETPROC	YES	2	01/08/99	05/08/99
		increase in land values; incentive to sell-out			
LAWSPOLCY	GOVT	YES	2	01/08/99	07/08/99
		enacting legislation to achieve policy			
LIMITS	CONTROLS	YES	3	30/07/99	01/08/99
		imposition of control techniques/policies, etc.			
LNGTERMPLG	PLAN	YES	4	31/07/99	01/08/99
		long-term or long-range planning; in consideration of future			
LOBBY	VOLROLE	YES	3	31/07/99	01/08/99
		act of lobbying or to lobby			
LOCALREG	COMMUNITY	YES	3	31/07/99	05/08/99
		thoughts expressed on local or regional situation			
LOSTCNXN	CNXNS	YES	3	31/07/99	05/08/99
		sense of lost connection with natural or agrarian roots			

Code Word	Parent	Text	Level	Added	Modified
LOVENATURE	SOCIALISSU	YES	2	01/08/99	07/08/99
		various refs to love of nature and related outdoor activities tied to concepts of nature-environment			
MANAGE	LAND	YES	3	01/08/99	03/08/99
		act of managing land for particular purposes or derivation of products			
MARKETPROC	None	YES	1	01/08/99	07/08/99
		market processes - refs to various aspects of markets in relation to land use.			
MEDIA	EDUROLE	YES	3	01/08/99	05/08/99
		as tool for delivering information and creating public awareness			
MENTLHLTH	HEALTH	YES	5	31/07/99	05/08/99
		mental health and related issues			
MINING	EXTRACTIVE	YES	5	01/08/99	03/08/99
		excavation of minerals			
MYLAND	LANDTENURE	YES	3	31/07/99	05/08/99
		expression of attitude of landowners			
NATLAND	KEYLANDS	YES	4	30/07/99	05/08/99
		natural lands and related landscapes			
NATLPARKS	PARKS	YES	5	31/07/99	01/08/99
		national parks			
NATNLPOLCY	LAWSPOLCY	YES	3	31/07/99	01/08/99
		national policy			
NATURE	ENVIRON	YES	2	31/07/99	01/08/99
		in reference to nature and natural			

Code Word	Parent	Text	Level	Added	Modified
NEWPOLPEP	POLITICIAN	YES	3	31/07/99	05/08/99
		new policies			
NEWSPAPER	MEDIA	YES	4	01/08/99	03/08/99
		source of information			
NOISE	POLLUTION	YES	5	31/07/99	01/08/99
		in ref to levels of			
NOT ALL	PRESERV	YES	5	30/07/99	05/08/99
		not all lands should be protected			
NUCLEAR	INDUSTRY		6	01/08/99	00/00/00
		ref to nuclear and power generation			
OPENSACE	KEYLANDS	YES	4	01/08/99	05/08/99
		general ref to open lands			
OTHCOUNTRY	GLOBAL	YES	4	31/07/99	05/08/99
		refs to what is happening in other countries			
OUTDOORSMN	RECREATION	YES	5	01/08/99	07/08/99
		outdoorsman - refs to those who consider themselves or others as outdoor recreationists.			
OVRDEV	DEVELOP	YES	5	01/08/99	03/08/99
		over developed			
PARKS	KEYLANDS	YES	4	31/07/99	05/08/99
		general refs to parks and outdoor recreational areas			
PERIODICAL	MEDIA	YES	4	31/07/99	01/08/99
		source of information			

Code Word	Parent	Text	Level	Added	Modified
PERSPTCPAT	RESPONSIBL	YES	4	31/07/99	01/08/99
		personal participation			
PERSRESPON	RESPONSIBL	YES	4	30/07/99	01/08/99
		personal resonsibility			
PLAN	LAND	YES	3	30/07/99	07/08/99
		act of land use planning			
PLCYREFORM	LAWSPOLCY	YES	3	31/07/99	01/08/99
		policy reform or need for			
POLITICIAN	GOVT	YES	2	01/08/99	05/08/99
		political persons			
POLITICS	GOVT	YES	2	31/07/99	05/08/99
		general ref to political framwork and obstruction to achieving objectives			
POLLUTION	CONCERNS	YES	4	31/07/99	01/08/99
		general ref to all forms of			
POP	CONCERNS	YES	4	31/07/99	01/08/99
		population; lac of population control			
PRAIRIE	KEYLANDS	YES	4	02/08/99	07/08/99
		refs. to prairie lands of the central/grainbelt US.			
PRESERV	MANAGE	YES	4	30/07/99	05/08/99
		act of preserving or protecting			
PRIMARYED	EDUCATION	YES	4	31/07/99	01/08/99
		primary education			
PRIORITIZ	PRESERV	YES	5	30/07/99	05/08/99
		prioritise; rank lands for conservation purposes			

Code Word	Parent	Text	Level	Added	Modified
PROACTIVE	VOLROLE	YES	3	01/08/99	03/08/99
		voice of proactive efforts to guide use of natural resources			
PROGRESS	ATTITUDE	YES	3	31/07/99	01/08/99
		general feeling of			
PUBLICINT	SOCIALISSU	YES	2	31/07/99	05/08/99
		public interest or process of generating			
QUALIFE	VALUES	YES	3	30/07/99	05/08/99
		quality of life			
RADIO	MEDIA	YES	4	31/07/99	01/08/99
		as tool for delivering information; and, shifting public attitudes			
RAINFORST	GLOBAL	YES	4	31/07/99	05/08/99
		rain forests			
RECREATION	KEYLANDS	YES	4	01/08/99	05/08/99
		recreational areas; or to recreate			
RECYCL	SOLUTIONS	YES	2	31/07/99	05/08/99
		to recycle or act of recycling; also education			
RELATION	CNXNS	YES	3	31/07/99	05/08/99
		relationship to/with environment, ecosystem and other other living species			
RELIGION	VALUES	YES	3	31/07/99	05/08/99
		general ref to in cnx with educating people on relationship to the environment			

Code Word	Parent	Text	Level	Added	Modified
RESPONSIBL	LOVENATURE	YES	3	30/07/99	05/08/99
		responsibility to conservation of land and related natural resources			
RIVERLAKES	KEYLANDS	YES	4	01/08/99	05/08/99
		bodies of water			
RURAL	COMMUNITY	YES	3	01/08/99	03/08/99
		ref to rural community			
SCENIC	KEYLANDS	YES	4	01/08/99	05/08/99
		scenic vistas or lands of unique beauty			
SECONDRYED	EDUCATION	YES	4	31/07/99	01/08/99
		secondary education; middle or high school			
SELFISH	ATTITUDE	YES	3	02/08/99	07/08/99
		refs. relating to feelings of selfishness or acknowledgement of selfish attitudes toward land and personal situation.			
SELLOUT	LANDTENURE	YES	3	01/08/99	05/08/99
		increased value of land and incentive to cash-in on agricultural land			
SOCIALISSU	None	YES	1	31/07/99	01/08/99
		social issue - related to issues of poverty and class			
SOIL	ENVIRON	YES	2	31/07/99	01/08/99
		soil substrate			
SOLUTIONS	None	YES	1	30/07/99	01/08/99
		proposed solutions to current issues, concerns			
SOMUCHLAND	LAND	YES	3	01/08/99	07/08/99
		expression of feelings that there is "so much land"			



Code Word	Parent	Text	Level	Added	Modified
SPECIALPL	COMMUNITY	YES	3	30/07/99	01/08/99
		ladns or areas special to a particular community			
SPRAWL	LANDCONVER	YES	7	01/08/99	05/08/99
		form of consumptive land use; usually in ref to suburban/urban			
SPTRQLPRIV	RURAL	YES	4	02/08/99	03/08/99
		space, tranquility & privacy			
SUBSIDY	GOVT	YES	2	02/08/99	07/08/99
		refs to various government subsidies paid or perceived as necessary.			
SUBURBAN	COMMUNITY	YES	3	01/08/99	03/08/99
		reference to the suburbs, suburbia etc.			
SUSTAINABL	ENVIRON	YES	2	31/07/99	05/08/99
		general ref to sustainability or sustainable			
TAX	GOVT	YES	2	01/08/99	05/08/99
		inheirittance and income tax incentives to protect envr.			
TECHNOLOGY	SOLUTIONS	YES	2	31/07/99	01/08/99
		seen as potential for providing solutions; or not			
THREATS	CONCERNS	YES	4	30/07/99	05/08/99
		issues or pratices viewd as threats to environmental well being			
TIMBER	EXTRACTIVE	YES	5	01/08/99	03/08/99
		industry			
TOOCONTROV	EDUCATION	YES	4	31/07/99	01/08/99
		issues too controversial not given coverage in schools			

Code Word	Parent	Text	Level	Added	Modified
TRANSP	POP	YES	5	31/07/99	05/08/99
		transportation - congestion on roads; related to density, sprawl and population control			
TRAVLTIME	CONJESTION	YES	6	01/08/99	03/08/99
		increased travel time			
TRUST	VOLROLE	YES	3	31/07/99	01/08/99
		sense of trust			
TV/DOCUMENT	MEDIA	YES	4	31/07/99	01/08/99
		as tool for delivering information			
UNIED	EDUCATION	YES	4	31/07/99	01/08/99
		Higher education at university, college, vo-cational level			
URBAN	COMMUNITY	YES	3	01/08/99	03/08/99
		ref to urban, built up area			
VALUES	SOCIALISSU	YES	2	01/08/99	07/08/99
		general expression of thoughts on ethics, or desires with regard to land use/environment			
VISITS	PRIMARYED	YES	5	31/07/99	05/08/99
		in ref to education and establishing connections to environment			
VOLROLE	SOLUTIONS	YES	2	30/07/99	05/08/99
		role of/for voluntary/non-profit organisations			
VOLUNTEER	VOLROLE	YES	3	01/08/99	03/08/99
		giving time to voluntary/non-profit orgs. or community efforts			
VOTE	SOLUTIONS	YES	2	31/07/99	01/08/99
		act of voting; changing political power			

Code Word	Parent	Text	Level	Added	Modified
WASTE	CONCERNS	YES	4	02/08/99	07/08/99
		refs. to waste of various types (household, toxic, hazardous, industrial, etc.)			
WASTEDISP	INDUSTRY	YES	6	01/08/99	03/08/99
		disposal of hshld and hazardous wastse			
WATCHDOG	VOLROLE	YES	3	01/08/99	03/08/99
		resonsibility as a government watch-dog			
WETLANDS	KEYLANDS	YES	4	01/08/99	05/08/99
		lands related to wetland areas (lakes, marsh, bog, river, swamp, etc)			
WILDLIFE	WLHABITAT	YES	5	01/08/99	05/08/99
		animal species existing in the wild			
WLHABITAT	KEYLANDS	YES	4	31/07/99	05/08/99
		wild life habitat and those lands required for			
WORK	SOCIALISSU	YES	2	31/07/99	05/08/99
		traffic, transpotation issues; changing attitudes			

Sort By: Code Order: Normal

Code Word	Count	Code Word	Count	Code Word	Count	Code Word	Count
ACCESS	3	ETHIC	5	MYLAND	6	SCENIC	1
AESTHETICS	5	EXPERIENCE	15	NATLAND	25	SECONDRYED	1
AG	21	FAMILY	12	NATLPARKS	1	SELFISH	4
AGLAND	43	FOOD	10	NATNLPOLCY	6	SOCIALISSU	13
AIR	15	FORESTLAND	19	NATURE	17	SOIL	6
APATHY	12	FREEDOM	11	NEWPOLPEP	5	SOLUTIONS	23
ATTITUDE	23	FRIENDS	4	NEWSPAPER	5	SOMUCHLAND	3
AUTO	5	FRSTCLRCUT	6	NOISE	12	SPECIALPL	2
AWARENESS	25	FUTUREGENS	25	OPENSOURCE	7	SPRAWL	22
BALANCE	12	GLOBALVIEW	9	OTHCOUNTRY	16	SPTRQLPRIV	11
BETRPLNG	13	GOVTROLE	34	OUTDOORSMN	4	SUBSIDY	1
BIODIVERS	13	GREED	8	PARKS	5	SUBURBAN	1
CHDHOODMEM	26	GRWTHBOUND	4	PERIODICAL	7	SUSTAINABL	9
CHGCOMNTY	24	H2O	21	PERSPTCPAT	8	TAX	12
CHILDREN	22	HIST	7	PERSRESPON	41	TECHNOLOGY	10
CMNTYINPUT	7	HOPE	14	PLAN	18	THREATS	38
CNXNS	15	HOPELESS	7	PLCYREFORM	2	TIMBER	2
COLECTIVAX	14	IMPORTANCE	16	POLITICIAN	2	TOOCONTROV	2
COMMUNICAT	5	INDUSTRY	10	POLITICS	2	TRANSP	10
COMMUNITY	56	INFORM	25	POLLUTION	19	TRAVLTIME	3
CONCERNS	46	INVOLVED	15	POP	43	TV/DOCUMEN	3
CONJESTION	4	KEYLANDS	53	PRAIRIE	1	UNIED	3
CONSERV	9	LACKPLNG	17	PRESERV	17	URBAN	11
CONSRESOUR	8	LAND	25	PRIMARYED	2	VALUES	12
CONSUM	12	LANDCONVER	15	PRIORITIZ	2	VISITS	3
CONTRIB	1	LANDOWNER	4	PROACTIVE	1	VOLROLE	21
CONTROLS	18	LANDRESTOR	7	PROGRESS	4	VOLUNTEER	6
DECMAKE	5	LANDVALU	1	PUBHEALTH	10	VOTE	6
DENSITY	6	LAWSPOLCY	18	PUBLICINT	3	WASTEDISP	10
DESERT	1	LIMITS	6	QUALIFE	57	WETLANDS	8
DESTRUCT	14	LNGTERMLG	6	RADIO	1	WILDLIFE	14
DEVELOP	40	LOBBY	5	RAINFORST	2	WLHABITAT	7
DIRECTAXN	4	LOCALVIEW	8	RECREATION	5	WORK	1
ECONINCENT	5	LOSTCNXN	10	RECYCL	9		
ECOSYST	17	LOVENATURE	3	RELATION	26		
EDUCATION	45	MANAGE	5	RELIGION	8		
EDUROLE	42	MARKETPROC	3	RESPONSIBL	70		
ENVIRON	49	MEDIA	4	RIVERLAKES	6		
ESTABCNX	4	MENTLHLTH	11	RURAL	17		

(Top PCT is % across files. Bottom PCT is % within the file.)

CODE WORD	COUNT	PCT	CODE WORD	COUNT	PCT	CODE WORD	COUNT	PCT
File:1COMBUSF								
ACCESS	3	0.20 0.00	AESTHETICS	5	0.36 0.00	AG	21	0.42 0.01
AGLAND	43	0.40 0.02	AIR	15	0.54 0.01	APATHY	12	0.32 0.01
ATTITUDE	23	0.34 0.01	AUTO	5	0.45 0.00	AWARENESS	25	0.40 0.01
BALANCE	12	0.27 0.01	BETRPLNG	13	0.52 0.01	BIODIVERS	13	0.45 0.01
CHDHOODMEM	26	0.53 0.01	CHGCOMNTY	24	0.62 0.01	CHILDREN	22	0.40 0.01
CMNTYINPUT	7	0.41 0.00	CNKNS	15	0.54 0.01	COLECTIVAX	14	0.39 0.01
COMMUNICAT	5	0.42 0.00	COMMUNITY	56	0.60 0.03	CONCERNS	46	0.59 0.02
CONJESTION	4	0.44 0.00	CONSERV	9	0.53 0.00	CONSRESOUR	8	0.57 0.00
CONSUM	12	0.39 0.01	CONTRIB	1	0.08 0.00	CONTROLS	18	0.42 0.01
DECMAKE	5	0.42 0.00	DEFOREST	0	0.00 0.00	DENSITY	6	0.35 0.00
DESERT	1	0.50 0.00	DESTRUCT	14	0.37 0.01	DEVELOP	40	0.41 0.02
DEVELOPER	0	0.00 0.00	DIRECTAXN	4	0.33 0.00	ECONINCENT	5	0.56 0.00
ECOSYST	17	0.52 0.01	EDUCATION	45	0.41 0.02	EDUROLE	42	0.78 0.02
ENVIRON	49	0.44 0.03	ESTABCNX	4	0.44 0.00	ETHIC	5	0.36 0.00
EXPERIENCE	15	0.48 0.01	EXPLOIT	0	0.00 0.00	EXTRACTIVE	0	0.00 0.00
FAMILY	12	0.34 0.01	FEESLICESN	0	0.00 0.00	FOOD	10	0.40 0.01
FORESTLAND	19	0.41 0.01	FREEDOM	11	0.58 0.01	FRIENDS	4	0.40 0.00
FRSTCLRCUT	6	0.32 0.00	FUTUREGENS	25	0.43 0.01	GLOBAL	0	0.00 0.00
GOVT	0	0.00 0.00	GREED	8	0.25 0.00	GRWTHBOUND	4	0.57 0.00

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CODE WORD	COUNT	PCT	CODE WORD	COUNT	PCT	CODE WORD	COUNT	PCT
H2O	21	0.40 0.01	HEALTH	0	0.00 0.00	HIST	7	0.44 0.00
HOPE	14	0.70 0.01	HOPELESS	7	0.47 0.00	IMPORTANCE	16	0.43 0.01
INDIFF	0	0.00 0.00	INDUSTRY	10	0.34 0.01	INFORM	25	0.57 0.01
INVOLVED	15	0.32 0.01	KEYLANDS	53	0.68 0.03	LACKPLNG	17	0.43 0.01
LAND	25	0.54 0.01	LANDCONVER	15	0.52 0.01	LANDRESTOR	7	0.44 0.00
LANDTENURE	0	0.00 0.00	LANDVALU	1	0.11 0.00	LAWSPOLCY	18	0.44 0.01
LIMITS	6	0.32 0.00	LNGTERMLG	6	0.55 0.00	LOBBY	5	0.31 0.00
LOCALREG	0	0.00 0.00	LOSTCNXN	10	0.43 0.01	LOVENATURE	3	0.43 0.00
MANAGE	5	0.22 0.00	MARKETPROC	3	0.38 0.00	MEDIA	4	0.44 0.00
MENTLHLTH	11	0.73 0.01	MINING	0	0.00 0.00	MYLAND	6	0.50 0.00
NATLAND	25	0.61 0.01	NATLPARKS	1	0.33 0.00	NATNLPOLCY	6	0.60 0.00
NATURE	17	0.46 0.01	NEWPOLPEP	5	0.63 0.00	NEWSPAPER	5	0.50 0.00
NOISE	12	0.57 0.01	NOT ALL	0	0.00 0.00	NUCLEAR	0	0.00 0.00
OPENSACE	7	0.26 0.00	OTHCOUNTRY	16	0.43 0.01	OUTDOORSMN	4	0.67 0.00
OVRDEV	0	0.00 0.00	PARKS	5	0.24 0.00	PERIODICAL	7	0.37 0.00
PERSPTCPAT	8	0.50 0.00	PERSRESPON	41	0.37 0.02	PLAN	18	0.47 0.01
PLCYREFORM	2	0.50 0.00	POLITICIAN	2	0.15 0.00	POLITICS	2	0.12 0.00
POLLUTION	19	0.38 0.01	POP	43	0.47 0.02	PRAIRIE	1	0.25 0.00
PRESERV	17	0.29 0.01	PRIMARYED	2	0.17 0.00	PRIORITIZ	2	0.40 0.00
PROACTIVE	1	0.11 0.00	PROGRESS	4	0.50 0.00	PUBLICINT	3	0.30 0.00



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CODE WORD	COUNT	PCT	CODE WORD	COUNT	PCT	CODE WORD	COUNT	PCT
QUALIFE	57	0.60 0.03	RADIO	1	0.33 0.00	RAINFORST	2	0.25 0.00
RECREATION	5	0.28 0.00	RECYCL	9	0.28 0.00	RELATION	26	0.58 0.01
RELIGION	8	0.35 0.00	RESPONSIBL	70	0.59 0.04	RIVERLAKES	6	0.26 0.00
RURAL	17	0.32 0.01	SCENIC	1	0.11 0.00	SECONDRYED	1	0.13 0.00
SELFISH	4	0.31 0.00	SELLOUT	0	0.00 0.00	SOCIALISSU	13	0.33 0.01
SOIL	6	0.20 0.00	SOLUTIONS	23	0.55 0.01	SOMUCHLAND	3	0.27 0.00
SPECIALPL	2	0.50 0.00	SPRAWL	22	0.36 0.01	SPTRQLPRIV	11	0.58 0.01
SUBSIDY	1	0.17 0.00	SUBURBAN	1	0.10 0.00	SUSTAINABL	9	0.50 0.00
TAX	12	0.38 0.01	TECHNOLOGY	10	0.40 0.01	THREATS	38	0.68 0.02
TIMBER	2	0.25 0.00	TOOCONTROV	2	0.25 0.00	TRANSP	10	0.42 0.01
TRAVLTIME	3	0.25 0.00	TRUST	0	0.00 0.00	TV/DOCUMEN	3	0.33 0.00
UNIED	3	0.27 0.00	URBAN	11	0.35 0.01	VALUES	12	0.31 0.01
VISITS	3	0.23 0.00	VOLROLE	21	0.42 0.01	VOLUNTEER	6	0.23 0.00
VOTE	6	0.19 0.00	WASTE	0	0.00 0.00	WASTEDISP	10	0.33 0.01
WATCHDOG	0	0.00 0.00	WETLANDS	8	0.32 0.00	WILDLIFE	14	0.30 0.01
WLHABITAT	7	0.26 0.00	WORK	1	0.14 0.00			
File:1COMBU~1								
ACCESS	4	0.27 0.01	AESTHETICS	2	0.14 0.00	AG	2	0.04 0.00
AGLAND	12	0.11 0.02	AIR	1	0.04 0.00	APATHY	5	0.13 0.01
ATTITUDE	13	0.19 0.02	AUTO	2	0.18 0.00	AWARENESS	8	0.13 0.01

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CODE WORD	COUNT	PCT	CODE WORD	COUNT	PCT	CODE WORD	COUNT	PCT
BALANCE	9	0.20 0.01	BETRPLNG	2	0.08 0.00	BIODIVERS	4	0.14 0.01
CHDHOODMEM	2	0.04 0.00	CHGCOMNTY	3	0.08 0.00	CHILDREN	4	0.07 0.01
CMNTYINPUT	4	0.24 0.01	CNXNS	4	0.14 0.01	COLECTIVAX	11	0.31 0.02
COMMUNICAT	2	0.17 0.00	COMMUNITY	8	0.09 0.01	CONCERNS	16	0.21 0.03
CONJESTION	1	0.11 0.00	CONSERV	1	0.06 0.00	CONGRESOUR	3	0.21 0.00
CONSUM	7	0.23 0.01	CONTRIB	3	0.25 0.00	CONTROLS	6	0.14 0.01
DECMAKE	0	0.00 0.00	DEFOREST	0	0.00 0.00	DENSITY	2	0.12 0.00
DESERT	0	0.00 0.00	DESTRUCT	5	0.13 0.01	DEVELOP	13	0.13 0.02
DEVELOPER	0	0.00 0.00	DIRECTAXN	2	0.17 0.00	ECONINCENT	0	0.00 0.00
ECOSYST	4	0.12 0.01	EDUCATION	14	0.13 0.02	EDUROLE	4	0.07 0.01
ENVIRON	15	0.13 0.02	ESTABCNX	1	0.11 0.00	ETHIC	1	0.07 0.00
EXPERIENCE	1	0.03 0.00	EXPLOIT	0	0.00 0.00	EXTRACTIVE	1	0.25 0.00
FAMILY	4	0.11 0.01	FEESLICESN	0	0.00 0.00	FOOD	1	0.04 0.00
FORESTLAND	3	0.07 0.00	FREEDOM	3	0.16 0.00	FRIENDS	1	0.10 0.00
FRSTCLRCUT	2	0.11 0.00	FUTUREGENS	3	0.05 0.00	GLOBAL	0	0.00 0.00
GOVT	0	0.00 0.00	GREED	6	0.19 0.01	GRWTHBOUND	1	0.14 0.00
H2O	3	0.06 0.00	HEALTH	0	0.00 0.00	HIST	0	0.00 0.00
HOPE	0	0.00 0.00	HOPELESS	2	0.13 0.00	IMPORTANCE	7	0.19 0.01
INDIFF	0	0.00 0.00	INDUSTRY	0	0.00 0.00	INFORM	6	0.14 0.01
INVOLVED	12	0.26	KEYLANDS	13	0.17	LACKPLNG	9	0.22

(Top PCT is % across files. Bottom PCT is % within the file.)

CODE WORD	COUNT	PCT	CODE WORD	COUNT	PCT	CODE WORD	COUNT	PCT
		0.02			0.02			0.01
LAND	4	0.09 0.01	LANDCONVER	5	0.17 0.01	LANDRESTOR	1	0.06 0.00
LANDTENURE	0	0.00 0.00	LANDVALU	1	0.11 0.00	LAWSPOLCY	1	0.02 0.00
LIMITS	1	0.05 0.00	LNGTERMPLG	0	0.00 0.00	LOBBY	3	0.19 0.00
LOCALREG	0	0.00 0.00	LOSTCNXN	3	0.13 0.00	LOVENATURE	1	0.14 0.00
MANAGE	3	0.13 0.00	MARKETPROC	0	0.00 0.00	MEDIA	1	0.11 0.00
MENTLHLTH	0	0.00 0.00	MINING	0	0.00 0.00	MYLAND	2	0.17 0.00
NATLAND	0	0.00 0.00	NATLPARKS	0	0.00 0.00	NATNLPOLCY	0	0.00 0.00
NATURE	3	0.08 0.00	NEWPOLPEP	0	0.00 0.00	NEWSPAPER	0	0.00 0.00
NOISE	2	0.10 0.00	NOT ALL	0	0.00 0.00	NUCLEAR	0	0.00 0.00
OPENSACE	5	0.19 0.01	OTHCOUNTRY	4	0.11 0.01	OUTDOORSMN	0	0.00 0.00
OVRDEV	0	0.00 0.00	PARKS	0	0.00 0.00	PERIODICAL	2	0.11 0.00
PERSPTCPAT	0	0.00 0.00	PERSRESPON	20	0.18 0.03	PLAN	5	0.13 0.01
PLCYREFORM	1	0.25 0.00	POLITICIAN	1	0.08 0.00	POLITICS	5	0.29 0.01
POLLUTION	4	0.08 0.01	POP	13	0.14 0.02	PRAIRIE	0	0.00 0.00
PRESERV	9	0.16 0.01	PRIMARYED	0	0.00 0.00	PRIORITIZ	0	0.00 0.00
PROACTIVE	3	0.33 0.00	PROGRESS	1	0.13 0.00	PUBLICINT	3	0.30 0.00
QUALIFE	13	0.14 0.02	RADIO	1	0.33 0.00	RAINFORST	1	0.13 0.00
RECREATION	0	0.00 0.00	RECYCL	2	0.06 0.00	RELATION	7	0.16 0.01
RELIGION	6	0.26 0.01	RESPONSIBL	12	0.10 0.02	RIVERLAKES	2	0.09 0.00

(Top PCT is % across files. Bottom PCT is % within the file.)

CODE WORD	COUNT	PCT	CODE WORD	COUNT	PCT	CODE WORD	COUNT	PCT
RURAL	13	0.25 0.02	SCENIC	2	0.22 0.00	SECONDRYED	0	0.00 0.00
SELFISH	4	0.31 0.01	SELLOUT	0	0.00 0.00	SOCIALISSU	7	0.18 0.01
SOIL	9	0.30 0.01	SOLUTIONS	11	0.26 0.02	SOMUCHLAND	4	0.36 0.01
SPECIALPL	0	0.00 0.00	SPRAWL	13	0.21 0.02	SPTRQLPRIV	4	0.21 0.01
SUBSIDY	0	0.00 0.00	SUBURBAN	3	0.30 0.00	SUSTAINABL	3	0.17 0.00
TAX	6	0.19 0.01	TECHNOLOGY	3	0.12 0.00	THREATS	11	0.20 0.02
TIMBER	0	0.00 0.00	TOOCONTROV	0	0.00 0.00	TRANSP	5	0.21 0.01
TRAVLTIME	5	0.42 0.01	TRUST	3	0.60 0.00	TV/DOCUMEN	1	0.11 0.00
UNIED	1	0.09 0.00	URBAN	5	0.16 0.01	VALUES	9	0.23 0.01
VISITS	3	0.23 0.00	VOLROLE	11	0.22 0.02	VOLUNTEER	10	0.38 0.02
VOTE	9	0.29 0.01	WASTE	0	0.00 0.00	WASTEDISP	8	0.27 0.01
WATCHDOG	4	0.67 0.01	WETLANDS	2	0.08 0.00	WILDLIFE	9	0.19 0.01
WLHABITAT	6	0.22 0.01	WORK	2	0.29 0.00			

File:RURALUS

CODE WORD	COUNT	PCT	CODE WORD	COUNT	PCT	CODE WORD	COUNT	PCT
ACCESS	6	0.40 0.01	AESTHETICS	4	0.29 0.00	AG	10	0.20 0.01
AGLAND	25	0.23 0.02	AIR	7	0.25 0.01	APATHY	16	0.42 0.02
ATTITUDE	25	0.37 0.02	AUTO	3	0.27 0.00	AWARENESS	21	0.33 0.02
BALANCE	16	0.36 0.02	BETRPLNG	7	0.28 0.01	BIODIVERS	6	0.21 0.01
CHDHOODMEM	13	0.27 0.01	CHGCOMNTY	11	0.28 0.01	CHILDREN	14	0.25 0.01
CMNTYINPUT	5	0.29 0.00	CNXNS	7	0.25 0.01	COLECTIVAX	7	0.19 0.01

(Top PCT is % across files. Bottom PCT is % within the file.)

CODE WORD	COUNT	PCT	CODE WORD	COUNT	PCT	CODE WORD	COUNT	PCT
COMMUNICAT	2	0.17 0.00	COMMUNITY	17	0.18 0.02	CONCERNS	8	0.10 0.01
CONJESTION	1	0.11 0.00	CONSERV	3	0.18 0.00	CONSRESOUR	0	0.00 0.00
CONSUM	7	0.23 0.01	CONTRIB	2	0.17 0.00	CONTROLS	13	0.30 0.01
DECMAKE	3	0.25 0.00	DEFOREST	1	1.00 0.00	DENSITY	1	0.06 0.00
DESERT	0	0.00 0.00	DESTRUCT	13	0.34 0.01	DEVELOP	26	0.27 0.03
DEVELOPER	3	0.43 0.00	DIRECTAXN	2	0.17 0.00	ECONINCENT	3	0.33 0.00
ECOSYST	6	0.18 0.01	EDUCATION	33	0.30 0.03	EDUROLE	4	0.07 0.00
ENVIRON	13	0.12 0.01	ESTABCNX	3	0.33 0.00	ETHIC	4	0.29 0.00
EXPERIENCE	10	0.32 0.01	EXPLOIT	0	0.00 0.00	EXTRACTIVE	1	0.25 0.00
FAMILY	15	0.43 0.01	FEESLICESN	2	0.67 0.00	FOOD	7	0.28 0.01
FORESTLAND	11	0.24 0.01	FREEDOM	3	0.16 0.00	FRIENDS	3	0.30 0.00
FRSTCLRCUT	6	0.32 0.01	FUTUREGENS	12	0.21 0.01	GLOBAL	1	0.20 0.00
GOVT	5	0.50 0.00	GREED	8	0.25 0.01	GRWTHBOUND	0	0.00 0.00
H2O	19	0.36 0.02	HEALTH	4	0.67 0.00	HIST	3	0.19 0.00
HOPE	4	0.20 0.00	HOPELESS	0	0.00 0.00	IMPORTANCE	4	0.11 0.00
INDIFF	0	0.00 0.00	INDUSTRY	8	0.28 0.01	INFORM	7	0.16 0.01
INVOLVED	15	0.32 0.01	KEYLANDS	4	0.05 0.00	LACKPLNG	12	0.30 0.01
LAND	10	0.22 0.01	LANDCONVER	6	0.21 0.01	LANDRESTOR	5	0.31 0.00
LANDTENURE	2	0.50 0.00	LANDVALU	2	0.22 0.00	LAWSPOLCY	16	0.39 0.02
LIMITS	4	0.21 0.00	LNGTERMPLG	4	0.36 0.00	LOBBY	2	0.13 0.00

(Top PCT is % across files. Bottom PCT is % within the file.)

CODE WORD	COUNT	PCT	CODE WORD	COUNT	PCT	CODE WORD	COUNT	PCT
LOCALREG	7	0.70 0.01	LOSTCNKN	6	0.26 0.01	LOVENATURE	2	0.29 0.00
MANAGE	7	0.30 0.01	MARKETPROC	2	0.25 0.00	MEDIA	3	0.33 0.00
MENTLHLTH	1	0.07 0.00	MINING	0	0.00 0.00	MYLAND	2	0.17 0.00
NATLAND	7	0.17 0.01	NATLPARKS	0	0.00 0.00	NATNLPOLCY	0	0.00 0.00
NATURE	12	0.32 0.01	NEWPOLPEP	1	0.13 0.00	NEWSPAPER	3	0.30 0.00
NOISE	5	0.24 0.00	NOT ALL	0	0.00 0.00	NUCLEAR	0	0.00 0.00
OPENSACE	8	0.30 0.01	OTHCCOUNTRY	7	0.19 0.01	OUTDOORSMN	1	0.17 0.00
OVRDEV	0	0.00 0.00	PARKS	7	0.33 0.01	PERIODICAL	4	0.21 0.00
PERSPTCPAT	5	0.31 0.00	PERSRESPON	30	0.27 0.03	PLAN	6	0.16 0.01
PLCYREFORM	0	0.00 0.00	POLITICIAN	1	0.08 0.00	POLITICS	1	0.06 0.00
POLLUTION	12	0.24 0.01	POP	18	0.20 0.02	PRAIRIE	1	0.25 0.00
PRESERV	15	0.26 0.01	PRIMARYED	5	0.42 0.00	PRIORITIZ	0	0.00 0.00
PROACTIVE	3	0.33 0.00	PROGRESS	2	0.25 0.00	PUBLICINT	3	0.30 0.00
QUALIFE	13	0.14 0.01	RADIO	0	0.00 0.00	RAINFORST	1	0.13 0.00
RECREATION	5	0.28 0.00	RECYCL	9	0.28 0.01	RELATION	5	0.11 0.00
RELIGION	1	0.04 0.00	RESPONSIBL	26	0.22 0.03	RIVERLAKES	8	0.35 0.01
RURAL	17	0.32 0.02	SCENIC	2	0.22 0.00	SECONDRYED	2	0.25 0.00
SELFISH	4	0.31 0.00	SELLOUT	0	0.00 0.00	SOCIALISSU	12	0.31 0.01
SOIL	6	0.20 0.01	SOLUTIONS	2	0.05 0.00	SOMUCHLAND	3	0.27 0.00
SPECIALPL	0	0.00	SPRAWL	19	0.31	SPTRQLPRIV	4	0.21



(Top PCT is % across files. Bottom PCT is % within the file.)

CODE WORD	COUNT	PCT	CODE WORD	COUNT	PCT	CODE WORD	COUNT	PCT
		0.00			0.02			0.00
SUBSIDY	1	0.17 0.00	SUBURBAN	2	0.20 0.00	SUSTAINABL	5	0.28 0.00
TAX	8	0.25 0.01	TECHNOLOGY	5	0.20 0.00	THREATS	3	0.05 0.00
TIMBER	1	0.13 0.00	TOOCONTROV	2	0.25 0.00	TRANSP	3	0.13 0.00
TRAVLTIME	4	0.33 0.00	TRUST	0	0.00 0.00	TV/DOCUMEN	1	0.11 0.00
UNIED	4	0.36 0.00	URBAN	9	0.29 0.01	VALUES	16	0.41 0.02
VISITS	2	0.15 0.00	VOLROLE	7	0.14 0.01	VOLUNTEER	8	0.31 0.01
VOTE	4	0.13 0.00	WASTE	2	0.50 0.00	WASTEDISP	12	0.40 0.01
WATCHDOG	2	0.33 0.00	WETLANDS	7	0.28 0.01	WILDLIFE	13	0.28 0.01
WLHABITAT	5	0.19 0.00	WORK	2	0.29 0.00			

File:USURBA2

CODE WORD	COUNT	PCT	CODE WORD	COUNT	PCT	CODE WORD	COUNT	PCT
ACCESS	0	0.00 0.00	AESTHETICS	0	0.00 0.00	AG	0	0.00 0.00
AGLAND	0	0.00 0.00	AIR	0	0.00 0.00	APATHY	0	0.00 0.00
ATTITUDE	0	0.00 0.00	AUTO	0	0.00 0.00	AWARENESS	0	0.00 0.00
BALANCE	0	0.00 0.00	BETRPLNG	0	0.00 0.00	BIODIVERS	0	0.00 0.00
CHDHOODMEM	0	0.00 0.00	CHGCOMNTY	0	0.00 0.00	CHILDREN	0	0.00 0.00
CMNTYINPUT	0	0.00 0.00	CNXNS	0	0.00 0.00	COLECTIVAX	0	0.00 0.00
COMMUNICAT	0	0.00 0.00	COMMUNITY	2	0.02 0.08	CONCERNS	3	0.04 0.12
CONJESTION	0	0.00 0.00	CONSERV	0	0.00 0.00	CONSRESOUR	0	0.00 0.00
CONSUM	0	0.00 0.00	CONTRIB	0	0.00 0.00	CONTROLS	0	0.00 0.00
DECMAKE	0	0.00	DEFOREST	0	0.00	DENSITY	0	0.00

(Top PCT is % across files. Bottom PCT is % within the file.)

CODE WORD	COUNT	PCT	CODE WORD	COUNT	PCT	CODE WORD	COUNT	PCT
		0.00			0.00			0.00
DESERT	0	0.00	DESTRUCT	0	0.00	DEVELOP	0	0.00
		0.00			0.00			0.00
DEVELOPER	0	0.00	DIRECTAXN	0	0.00	ECONINCENT	0	0.00
		0.00			0.00			0.00
ECOSYST	0	0.00	EDUCATION	0	0.00	EDUROLE	0	0.00
		0.00			0.00			0.00
ENVIRON	0	0.00	ESTABCNX	0	0.00	ETHIC	0	0.00
		0.00			0.00			0.00
EXPERIENCE	0	0.00	EXPLOIT	0	0.00	EXTRACTIVE	0	0.00
		0.00			0.00			0.00
FAMILY	0	0.00	FEESLICESN	0	0.00	FOOD	0	0.00
		0.00			0.00			0.00
FORESTLAND	0	0.00	FREEDOM	0	0.00	FRIENDS	0	0.00
		0.00			0.00			0.00
FRSTCLRCUT	0	0.00	FUTUREGENS	0	0.00	GLOBAL	0	0.00
		0.00			0.00			0.00
GOVT	0	0.00	GREED	0	0.00	GRWTHBOUND	0	0.00
		0.00			0.00			0.00
H2O	0	0.00	HEALTH	0	0.00	HIST	0	0.00
		0.00			0.00			0.00
HOPE	0	0.00	HOPELESS	0	0.00	IMPORTANCE	0	0.00
		0.00			0.00			0.00
INDIFF	0	0.00	INDUSTRY	0	0.00	INFORM	3	0.07
		0.00			0.00			0.12
INVOLVED	0	0.00	KEYLANDS	3	0.04	LACKPLNG	0	0.00
		0.00			0.12			0.00
LAND	0	0.00	LANDCONVER	0	0.00	LANDRESTOR	0	0.00
		0.00			0.00			0.00
LANDTENURE	0	0.00	LANDVALU	0	0.00	LAWSPOLCY	0	0.00
		0.00			0.00			0.00
LIMITS	0	0.00	LNGTERMPLG	0	0.00	LOBBY	0	0.00
		0.00			0.00			0.00
LOCALREG	0	0.00	LOSTCNXN	0	0.00	LOVENATURE	0	0.00
		0.00			0.00			0.00
MANAGE	0	0.00	MARKETPROC	0	0.00	MEDIA	0	0.00
		0.00			0.00			0.00
MENTLHLTH	0	0.00	MINING	0	0.00	MYLAND	0	0.00
		0.00			0.00			0.00

(Top PCT is % across files. Bottom PCT is % within the file.)

CODE WORD	COUNT	PCT	CODE WORD	COUNT	PCT	CODE WORD	COUNT	PCT
NATLAND	0	0.00 0.00	NATLPARKS	0	0.00 0.00	NATNLPOLCY	0	0.00 0.00
NATURE	0	0.00 0.00	NEWPOLPEP	0	0.00 0.00	NEWSPAPER	0	0.00 0.00
NOISE	0	0.00 0.00	NOT ALL	0	0.00 0.00	NUCLEAR	0	0.00 0.00
OPENSACE	0	0.00 0.00	OTHCOUNTRY	0	0.00 0.00	OUTDOORSMN	0	0.00 0.00
OVRDEV	0	0.00 0.00	PARKS	0	0.00 0.00	PERIODICAL	0	0.00 0.00
PERSPTCPAT	0	0.00 0.00	PERSRESPON	0	0.00 0.00	PLAN	0	0.00 0.00
PLCYREFORM	0	0.00 0.00	POLITICIAN	0	0.00 0.00	POLITICS	0	0.00 0.00
POLLUTION	0	0.00 0.00	POP	0	0.00 0.00	PRAIRIE	0	0.00 0.00
PRESERV	0	0.00 0.00	PRIMARYED	0	0.00 0.00	PRIORITIZ	0	0.00 0.00
PROACTIVE	0	0.00 0.00	PROGRESS	0	0.00 0.00	PUBLICINT	0	0.00 0.00
QUALIFE	4	0.04 0.15	RADIO	0	0.00 0.00	RAINFORST	0	0.00 0.00
RECREATION	0	0.00 0.00	RECYCL	0	0.00 0.00	RELATION	0	0.00 0.00
RELIGION	0	0.00 0.00	RESPONSIBL	3	0.03 0.12	RIVERLAKES	0	0.00 0.00
RURAL	0	0.00 0.00	SCENIC	0	0.00 0.00	SECONDRYED	0	0.00 0.00
SELFISH	0	0.00 0.00	SELLOUT	0	0.00 0.00	SOCIALISSU	0	0.00 0.00
SOIL	0	0.00 0.00	SOLUTIONS	3	0.07 0.12	SOMUCHLAND	0	0.00 0.00
SPECIALPL	0	0.00 0.00	SPRAWL	0	0.00 0.00	SPTRQLPRIV	0	0.00 0.00
SUBSIDY	0	0.00 0.00	SUBURBAN	0	0.00 0.00	SUSTAINABL	0	0.00 0.00
TAX	0	0.00 0.00	TECHNOLOGY	0	0.00 0.00	THREATS	2	0.04 0.08
TIMBER	0	0.00 0.00	TOOCONTROV	0	0.00 0.00	TRANSP	0	0.00 0.00

(Top PCT is % across files. Bottom PCT is % within the file.)

CODE WORD	COUNT	PCT	CODE WORD	COUNT	PCT	CODE WORD	COUNT	PCT
TRAVLTIME	0	0.00 0.00	TRUST	0	0.00 0.00	TV/DOCUMEN	0	0.00 0.00
UNIED	0	0.00 0.00	URBAN	0	0.00 0.00	VALUES	0	0.00 0.00
VISITS	0	0.00 0.00	VOLROLE	3	0.06 0.12	VOLUNTEER	0	0.00 0.00
VOTE	0	0.00 0.00	WASTE	0	0.00 0.00	WASTEDISP	0	0.00 0.00
WATCHDOG	0	0.00 0.00	WETLANDS	0	0.00 0.00	WILDLIFE	0	0.00 0.00
WLHABITAT	0	0.00 0.00	WORK	0	0.00 0.00			
File:USURBAN								
ACCESS	2	0.13 0.00	AESTHETICS	3	0.21 0.00	AG	17	0.34 0.02
AGLAND	27	0.25 0.03	AIR	5	0.18 0.01	APATHY	5	0.13 0.01
ATTITUDE	7	0.10 0.01	AUTO	1	0.09 0.00	AWARENESS	9	0.14 0.01
BALANCE	8	0.18 0.01	BETRPLNG	3	0.12 0.00	BIODIVERS	6	0.21 0.01
CHDHOODMEM	8	0.16 0.01	CHGCOMNTY	1	0.03 0.00	CHILDREN	15	0.27 0.02
CMNTYINPUT	1	0.06 0.00	CNXNS	2	0.07 0.00	COLECTIVAX	4	0.11 0.00
COMMUNICAT	3	0.25 0.00	COMMUNITY	11	0.12 0.01	CONCERNS	5	0.06 0.01
CONJESTION	3	0.33 0.00	CONSERV	4	0.24 0.00	CONSRESOUR	3	0.21 0.00
CONSUM	5	0.16 0.01	CONTRIB	6	0.50 0.01	CONTROLS	6	0.14 0.01
DECMAKE	4	0.33 0.00	DEFOREST	0	0.00 0.00	DENSITY	8	0.47 0.01
DESERT	1	0.50 0.00	DESTRUCT	6	0.16 0.01	DEVELOP	18	0.19 0.02
DEVELOPER	4	0.57 0.00	DIRECTAXN	4	0.33 0.00	ECONINCENT	1	0.11 0.00
ECOSYST	6	0.18 0.01	EDUCATION	18	0.16 0.02	EDUROLE	4	0.07 0.00

(Top PCT is % across files. Bottom PCT is % within the file.)

CODE WORD	COUNT	PCT	CODE WORD	COUNT	PCT	CODE WORD	COUNT	PCT
ENVIRON	35	0.31 0.04	ESTABCNX	1	0.11 0.00	ETHIC	4	0.29 0.00
EXPERIENCE	5	0.16 0.01	EXPLOIT	3	1.00 0.00	EXTRACTIVE	2	0.50 0.00
FAMILY	4	0.11 0.00	FEESSLICESN	1	0.33 0.00	FOOD	7	0.28 0.01
FORESTLAND	13	0.28 0.01	FREEDOM	2	0.11 0.00	FRIENDS	2	0.20 0.00
FRSTCLRCUT	5	0.26 0.01	FUTUREGENS	18	0.31 0.02	GLOBAL	4	0.80 0.00
GOVT	5	0.50 0.01	GREED	10	0.31 0.01	GRWTHBOUND	2	0.29 0.00
H2O	10	0.19 0.01	HEALTH	2	0.33 0.00	HIST	6	0.38 0.01
HOPE	2	0.10 0.00	HOPELESS	6	0.40 0.01	IMPORTANCE	10	0.27 0.01
INDIFF	3	1.00 0.00	INDUSTRY	11	0.38 0.01	INFORM	3	0.07 0.00
INVOLVED	5	0.11 0.01	KEYLANDS	5	0.06 0.01	LACKPLNG	2	0.05 0.00
LAND	7	0.15 0.01	LANDCONVER	3	0.10 0.00	LANDRESTOR	3	0.19 0.00
LANDTENURE	2	0.50 0.00	LANDVALU	5	0.56 0.01	LAWSPOLCY	6	0.15 0.01
LIMITS	8	0.42 0.01	LNGTERMPLG	1	0.09 0.00	LOBBY	6	0.38 0.01
LOCALREG	3	0.30 0.00	LOSTCNXN	4	0.17 0.00	LOVENATURE	1	0.14 0.00
MANAGE	8	0.35 0.01	MARKETPROC	3	0.38 0.00	MEDIA	1	0.11 0.00
MENTLHLTH	3	0.20 0.00	MINING	5	1.00 0.01	MYLAND	2	0.17 0.00
NATLAND	9	0.22 0.01	NATLPARKS	2	0.67 0.00	NATNLPOLCY	4	0.40 0.00
NATURE	5	0.14 0.01	NEWPOLPEP	2	0.25 0.00	NEWSPAPER	2	0.20 0.00
NOISE	2	0.10 0.00	NOT ALL	1	1.00 0.00	NUCLEAR	0	0.00 0.00
OPENSOURCE	7	0.26	OTHCOUNTRY	10	0.27	OUTDOORSMN	1	0.17

(Top PCT is % across files. Bottom PCT is % within the file.)

CODE WORD	COUNT	PCT	CODE WORD	COUNT	PCT	CODE WORD	COUNT	PCT
		0.01			0.01			0.00
OVORDEV	4	1.00 0.00	PARKS	9	0.43 0.01	PERIODICAL	6	0.32 0.01
PERSPTCPAT	3	0.19 0.00	PERSRESPON	19	0.17 0.02	PLAN	9	0.24 0.01
PLCYREFORM	1	0.25 0.00	POLITICIAN	9	0.69 0.01	POLITICS	9	0.53 0.01
POLLUTION	15	0.30 0.02	POP	18	0.20 0.02	PRAIRIE	2	0.50 0.00
PRESERV	17	0.29 0.02	PRIMARYED	5	0.42 0.01	PRIORITIZ	3	0.60 0.00
PROACTIVE	2	0.22 0.00	PROGRESS	1	0.13 0.00	PUBLICINT	1	0.10 0.00
QUALIFE	8	0.08 0.01	RADIO	1	0.33 0.00	RAINFORST	4	0.50 0.00
RECREATION	8	0.44 0.01	RECYCL	12	0.38 0.01	RELATION	7	0.16 0.01
RELIGION	8	0.35 0.01	RESPONSIBL	8	0.07 0.01	RIVERLAKES	7	0.30 0.01
RURAL	6	0.11 0.01	SCENIC	4	0.44 0.00	SECONDRYED	5	0.63 0.01
SELFISH	1	0.08 0.00	SELLOUT	3	1.00 0.00	SOCIALISSU	7	0.18 0.01
SOIL	9	0.30 0.01	SOLUTIONS	3	0.07 0.00	SOMUCHLAND	1	0.09 0.00
SPECIALPL	2	0.50 0.00	SPRAWL	7	0.11 0.01	SPTRQLPRIV	0	0.00 0.00
SUBSIDY	4	0.67 0.00	SUBURBAN	4	0.40 0.00	SUSTAINABL	1	0.06 0.00
TAX	6	0.19 0.01	TECHNOLOGY	7	0.28 0.01	THREATS	2	0.04 0.00
TIMBER	5	0.63 0.01	TOOCONTROV	4	0.50 0.00	TRANSP	6	0.25 0.01
TRAVLTIME	0	0.00 0.00	TRUST	2	0.40 0.00	TV/DOCUMEN	4	0.44 0.00
UNIED	3	0.27 0.00	URBAN	6	0.19 0.01	VALUES	2	0.05 0.00
VISITS	5	0.38 0.01	VOLROLE	8	0.16 0.01	VOLUNTEER	2	0.08 0.00



(Top PCT is % across files. Bottom PCT is % within the file.)

CODE WORD	COUNT	PCT	CODE WORD	COUNT	PCT	CODE WORD	COUNT	PCT
VOTE	12	0.39	WASTE	2	0.50	WASTEDISP	0	0.00
		0.01			0.00			0.00
WATCHDOG	0	0.00	WETLANDS	8	0.32	WILDLIFE	11	0.23
		0.00			0.01			0.01
WLHABITAT	9	0.33	WORK	2	0.29			
		0.01			0.00			

**APPENDIX 7-1**

**Phase III Expert Interviews  
Codebook and Family Tree for UK and US**

## ●Code Families

## ●CONSTOOLS

— AQUISITION

— BARGAINS

— BROKERS

— CE

— CONSULTANT

— CONS\_EDU

— DR

— ESTATE

— FEEOWNRSH

— FORSTMGT

## ●INDIRECT

— ADVOCLOBBY

## ●EDUAWARE

— COMMUNIC

— LEASE

— MA

— MANAGPLNS

## ●NATRESRV

— TANGIBLE

— OS

— PDR

## ●PLNG

— CMNTYPOLS

— POLICY

— PREACQUIR

## ●PROTECTED

— ACCESS

— BIODIV

— BIRDS

— CONSPLANS

— CONTRYSIDE

— ECOLOGIC

— FARM

— FORESTRY

— H20LANDSHD

— HABITAT

— HIST

— MANAGCOSTS

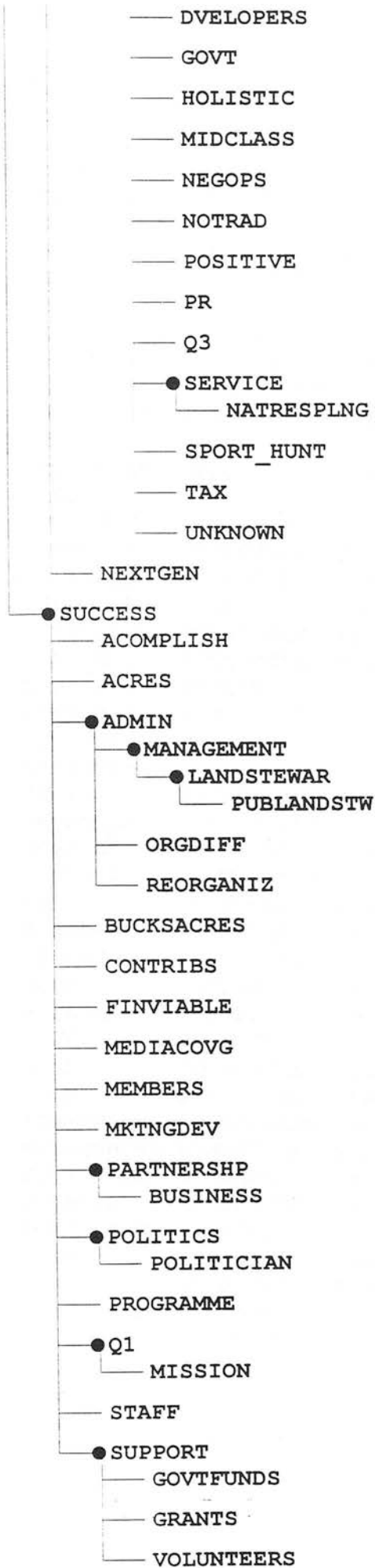
— NATLANDS

## ●RESTOR

— COSTEFFECT

— RIVERLAKE

- SCENIC
- SCIENTRES
- SPPROTECT
- SPRAWL
- STREAM
- SUSTDEV
  - ENVRN
- URBAN
- USERS
- WILDLIFE
- Q2
- RESALE
- SPECDESIG
- TRANSFERS
- VLNTRYLDR
- CRITERIA
  - CASEBYCASE
  - GEOG
  - NOCRIT
  - OPORTUNITS
  - Q4
  - RAP
  - REACTPROAC
- ILCDSM
  - ECON
    - COCS
  - HELPFUL
  - IMPACT
  - IMPORTANT
  - NEWUNDRSTD
  - Q5
    - REFERAL
    - SIMINTRST
- SOCIAL
  - ATUDVALPRP
    - CROFTS
    - LANDOWNERS
      - FARMERS
    - URB\_RURTEN
    - VIEWSVALUS
      - COMMUNITY
      - DEVPRESS
      - DOINGOOD
      - DONTSEE



Code Word	Parent	Text	Definition	Modified	Added
ACCESS	PROTECTED	Yes	Access to recreational lands, or	21/08/99	05/09/99
ACOMPLISH	SUCCESS	Yes	Accomplishments, achievements,	21/08/99	05/09/99
ACRES	SUCCESS	Yes	As a measure of success or lands	21/08/99	05/09/99
ADMIN	SUCCESS	Yes	Organisational administration as	21/08/99	05/09/99
ADVOCLOBBY	INDIRECT	Yes	Advocacy - Lobby: involvment in	04/09/99	05/09/99
AQUISITION	CONSTOOLS	Yes	acquisition of interests in land,	21/08/99	05/09/99
ATUDVALPRP	SOCIAL	Yes	Attitudes, values, perceptions	22/08/99	05/09/99
BARGAINS	CONSTOOLS	Yes	Bargain sale/purchase of lands	04/09/99	05/09/99
BIODIV	PROTECTED	Yes	As primary efforts for seeking	21/08/99	05/09/99
BIRDS	PROTECTED	Yes	As primary reason for land	21/08/99	05/09/99
BROKERS	CONSTOOLS	Yes	Intermediary roles played by	04/09/99	05/09/99
BUCKSACRES	SUCCESS	Yes	"Buck & Acres" as tradtional	26/08/99	05/09/99
BUSINESS	PARTNERSHP	Yes	Local/regional business community	21/08/99	05/09/99
CASEBYCASE	CRITERIA	Yes	Generally does not involve a	22/08/99	05/09/99
CE	CONSTOOLS	Yes	Conservation easements as a land	26/08/99	05/09/99
CMNTYPOLS	PLNG	Yes	Community policies related to	21/08/99	05/09/99
COCS	ECON	Yes	Cost of Community Services	26/08/99	05/09/99
COMMUNIC	EDUAWARE	Yes	Communication - generally in the	21/08/99	05/09/99
COMMUNITY	VIEWSVALUS	Yes	General views and attitudes	21/08/99	05/09/99
CONSPANS	PROTECTED	Yes	Conservation plans or planning as	21/08/99	05/09/99
CONSTOOLS	None	Yes	"Tool Kit" of land conservation	21/08/99	05/09/99
CONSULTANT	CONSTOOLS	Yes	Land trusts providing consultancy	22/08/99	05/09/99
CONS_EDU	CONSTOOLS	Yes	Conservation education as focus	21/08/99	05/09/99
CONTRIBS	SUCCESS	Yes	Contributions/donations of land,	21/08/99	05/09/99
CONTRYSIDE	PROTECTED	Yes	Countryside as seen in connection	21/08/99	05/09/99
COSTEFFECT	RESTOR	Yes	Reference to economics of	21/08/99	05/09/99
CRITERIA	None	Yes	Variables used in either the form	21/08/99	05/09/99
CROFTS	ATUDVALPRP	Yes	UK/Scotland specific reference.	21/08/99	05/09/99
DEVPRESS	VIEWSVALUS	Yes	Development pressures being	21/08/99	05/09/99
DOINGOOD	VIEWSVALUS	Yes	Attitudes expressed by community	21/08/99	05/09/99
DONTSEE	VIEWSVALUS	Yes	Attitudes towards land	21/08/99	05/09/99
DR	CONSTOOLS	Yes	Deed restrictions as tool for	26/08/99	05/09/99
DVELOPERS	VIEWSVALUS	Yes	attitudes expressed by	21/08/99	05/09/99
ECOLOGIC	PROTECTED	Yes	As primary focus of land	21/08/99	05/09/99
ECON	ILCDSM	Yes	Economics - of land conservation	21/08/99	05/09/99
EDUAWARE	INDIRECT	Yes	Educational and awareness -	21/08/99	05/09/99
ENVRN	SUSTDEV	Yes	Reference to health of overall	21/08/99	05/09/99
ESTATE	CONSTOOLS	Yes	Estate and tax planning as a land	26/08/99	05/09/99
FARM	PROTECTED	Yes	As primary focus of land	21/08/99	05/09/99
FARMERS	LANDOWNERS	Yes	As group of land owners and	21/08/99	05/09/99
FEEOWNRSH	CONSTOOLS	Yes	Fee ownership of land - Ownership	21/08/99	05/09/99
FINVIABLE	SUCCESS	Yes	Fianancially viable - as measure	21/08/99	05/09/99
FORESTRY	PROTECTED	Yes	Forest, woodlands, as primary	21/08/99	05/09/99
FORSTMGMT	CONSTOOLS	Yes	Management of forest lands as	21/08/99	05/09/99
GEOG	CRITERIA	Yes	Geographically defined regions of	20/08/99	05/09/99
GOVT	VIEWSVALUS	Yes	General discussion references to	21/08/99	05/09/99
GOVTFUNDS	SUPPORT	Yes	Discussion of funding sources	21/08/99	05/09/99
GRANTS	SUPPORT	Yes	Discussion of primary funding	21/08/99	05/09/99
H20LANDSHD	PROTECTED	Yes	As primary land conservation	04/09/99	05/09/99
HABITAT	PROTECTED	Yes	As primary land conservation	21/08/99	05/09/99
HELPFUL	ILCDSM	Yes	Views as expressed in relation to	21/08/99	05/09/99
HIST	PROTECTED	Yes	As primary focus of land	20/08/99	05/09/99
HOLISTIC	VIEWSVALUS	Yes	General expression of holistic	22/08/99	05/09/99
ILCDSM	None	Yes	Integrated Land Conservation	21/08/99	05/09/99
IMPACT	ILCDSM	Yes	As related to views on the	21/08/99	05/09/99
IMPORTANT	ILCDSM	Yes	As related to the "importance" of	21/08/99	05/09/99
INDIRECT	CONSTOOLS	Yes	Various indirect land	21/08/99	05/09/99
LANDOWNERS	ATUDVALPRP	Yes	Group in control / ownership of	21/08/99	05/09/99
LANDSTEWAR	MANAGEMENT	Yes	Land stewardship - management of	05/09/99	05/09/99



Code Word	Parent	Text	Definition	Modified	Added
LEASE	CONSTOOLS	Yes	Term Lease agreements on	21/08/99	05/09/9
MA	CONSTOOLS	Yes	Management agreement as a tool	21/08/99	05/09/9
MANAGCOSTS	PROTECTED	Yes	Costs of managing lands.	22/08/99	05/09/9
MANAGEMENT	ADMIN	Yes	Discussion of organisational	21/08/99	05/09/9
MANAGPLNS	CONSTOOLS	Yes	Management plans - as tool for	22/08/99	05/09/9
MEDIACOVG	SUCCESS	Yes	Media coverage - as measure of	21/08/99	05/09/9
MEMBERS	SUCCESS	Yes	Membership - in reference to	26/08/99	05/09/9
MIDCLASS	VIEWSVALUS	Yes	Middle-class - in reference to	21/08/99	05/09/9
MISSION	Q1	Yes	Mission of specific land trust in	20/08/99	05/09/9
MKTNGDEV	SUCCESS	Yes	Marketing & development of	21/08/99	05/09/9
NATLANDS	PROTECTED	Yes	Natural lands - as primary focus	04/09/99	05/09/9
NATRESPLNG	SERVICE	Yes	Natural resource planning as a	22/08/99	05/09/9
NATRESRV	CONSTOOLS	Yes	Nature reserve - as a primary	21/08/99	05/09/9
NEGOPS	VIEWSVALUS	Yes	Negative opinions regarding land	21/08/99	05/09/9
NEWUNDRSTD	ILCDSM	Yes	New understanding - in	21/08/99	05/09/9
NEXTGEN	SOCIAL	Yes	Next generation - referring to	04/09/99	05/09/9
NOCRIT	CRITERIA	Yes	No exisiting criteria being used	21/08/99	05/09/9
NOTRAD	VIEWSVALUS	Yes	Not radicals, referring to the	21/08/99	05/09/9
OPORTUNITS	CRITERIA	Yes	Reference to act of operating in	04/09/99	05/09/9
ORGDIFF	ADMIN	Yes	Refers to difference in	20/08/99	05/09/9
OS	CONSTOOLS	Yes	Open space as a focus of	04/09/99	05/09/9
PARTNERSHP	SUCCESS	Yes	Inter-organisation - government	21/08/99	05/09/9
PDR	CONSTOOLS	Yes	Purchase of Development Rights	26/08/99	05/09/9
PLNG	CONSTOOLS	Yes	Planning and involvement in land	21/08/99	05/09/9
POLICY	CONSTOOLS	Yes	Invovlement in policy process as	21/08/99	05/09/9
POLITICIAN	POLITICS	Yes	Referring to current general	21/08/99	05/09/9
POLITICS	SUCCESS	Yes	Reference to organisations	21/08/99	05/09/9
POSITIVE	VIEWSVALUS	Yes	Positive attitudes towards land	21/08/99	05/09/9
PR	VIEWSVALUS	Yes	"private property rights" and	26/08/99	05/09/9
PREACQUIR	CONSTOOLS	Yes	Pre-acquisition as a tool and	26/08/99	05/09/9
PROGRAMME	SUCCESS	Yes	Discussion referenceing succes of	22/08/99	05/09/9
PROTECTED	CONSTOOLS	Yes	Principle landscapes and land	21/08/99	05/09/9
PUBLANDSTW	LANDSTEWAR	Yes	Discussion of public land and	21/08/99	05/09/9
Q1	SUCCESS	Yes	Interviewee reply (internal and	20/08/99	05/09/9
Q2	CONSTOOLS	Yes	Interviewee relpy to Question 2;	20/08/99	05/09/9
Q3	VIEWSVALUS	Yes	Interviewee reply to Question 3	20/08/99	05/09/9
Q4	CRITERIA	Yes	Interviewee reply to Question 4	20/08/99	05/09/9
Q5	ILCDSM	Yes	Interviewee reponses to Questions	20/08/99	05/09/9
RAP	CRITERIA	Yes	Reserve Aquisition Policy -	21/08/99	05/09/9
REACTPROAC	CRITERIA	Yes	Reference to organisation either	22/08/99	05/09/9
REFERAL	Q5	Yes	Reference and referral contact for	21/08/99	05/09/9
REORGANIZ	ADMIN	Yes	Organisational reorganisation to	21/08/99	05/09/9
RESALE	CONSTOOLS	Yes	Resale - generall of "trade"	04/09/99	05/09/9
RESTOR	PROTECTED	Yes	Restoration / reclamation as a	21/08/99	05/09/9
RIVERLAKE	PROTECTED	Yes	Rivers and lakes / surrounding	04/09/99	05/09/9
SCENIC	PROTECTED	Yes	Scenic views or scenic roads as	04/09/99	05/09/9
SCIENRES	PROTECTED	Yes	Scientific research as a primary	22/08/99	05/09/9
SERVICE	VIEWSVALUS	Yes	Vives held regarding land trusts	21/08/99	05/09/9
SIMINTRST	Q5	Yes	Reference to others known by	21/08/99	05/09/9
SOCIAL	None	Yes	Discussion about lands as being	21/08/99	05/09/9
SPECDESIG	CONSTOOLS	Yes	Special designation as a	21/08/99	05/09/9
SPORT_HUNT	VIEWSVALUS	Yes	Attitudes held/expressed by sport	21/08/99	05/09/9
SPPROTECT	PROTECTED	Yes	Species protection as primary	21/08/99	05/09/9
SPRAWL	PROTECTED	Yes	Sprawl as mentioned in connection	04/09/99	05/09/9
STAFF	SUCCESS	Yes	Ability to hire professional	20/08/99	05/09/9
STREAM	PROTECTED	Yes	As primary focus of land	21/08/99	05/09/9
SUCCESS	None	Yes	as viewed by experts / land trust	20/08/99	05/09/9
SUPPORT	SUCCESS	Yes	Includes both monetary, physical	21/08/99	05/09/9
SUSTDEV	PROTECTED	Yes	Sustainable development as	21/08/99	05/09/9

Code Word	Parent	Text	Definition	Modified	Added
TANGIBLE	NATRESRV	Yes	Discussion regarding nature	21/08/99	05/09/99
TAX	VIEWSVALUS	Yes	Refers generally to comments	26/08/99	05/09/99
TRANSFERS	CONSTOOLS	Yes	Transfer of land from land trust,	26/08/99	05/09/99
UNKNOWN	VIEWSVALUS	Yes	Refers to little knowledge of	21/08/99	05/09/99
URBAN	PROTECTED	Yes	Urban lands as focus of	04/09/99	05/09/99
URB_RURTEN	ATUDVALPRP	Yes	Urban - Rural tensions. Reference	21/08/99	05/09/99
USERS	PROTECTED	Yes	Particular referring to users of	21/08/99	05/09/99
VIEWSVALUS	ATUDVALPRP	Yes	Community views of land trust and	21/08/99	05/09/99
VLNTRYLDR	CONSTOOLS	Yes	Voluntary land restrictions	20/08/99	05/09/99
VOLUNTEERS	SUPPORT	Yes	Volunteers - donation of time and	21/08/99	05/09/99
WILDLIFE	PROTECTED	Yes	As a primary land conservation	21/08/99	05/09/99

**APPENDIX 7-2**

**PHASE III EXPERT INTERVIEWS:**

**US Land Trusts**

Appendix 7.2 US Land Trusts Interviewed

CASE	ORGANISATIONS INTERVIEWED	REGION	TIER	AGE	LAND RESOURCES PROTECTED	METHODS
01	Potomac Appalachian Trail Club	S	2	68	E, F, Wo, OS, Tr, MTS, GW	purchase, preacquisition
02	Columbia Land Conservancy	MA	3	10	F, Wo, OS, Sc	CE donation, LD
03	Catskill Center for Conservation & Development	MA	3	27	F, FI, MTS, OS, Tr, H	donation, purchase, CE donation
04	Dutchess Land Conservancy	MA	3	11	E, F, Wo, OS, Ha, WL, H	CE donation/purchase
05	Scenic Hudson	MA	3	33	Co, E, Wo, F, OS, Sc, Ha	purchase, CE purchase, preacquisition
06	Adirondak Land Trust/Nature Conservancy	MA	3	12	E, F, Wo, OS, Ha, WL, H	purchase, CE donation, preacquisition
07	Trust for Appalachian Trail Lands	S	2	14	GW, Sc views, Tr	donation, purchase, preacquisition
08	Virginia Outdoors Foundation	S	3	30	F, FI, Wo, MTS, H, RL C, Ha	CE donation
09	Vermont Land Trust	NE	2	19	F, FI, Wo, OS, MTS, Sc, Ha	CE donation/purchase, agreements
10	Delaware Nature Society	MA	3	32	E, Wo, WL, OS, Wshed, Ha	donation, purchase, CE donation
11	Delaware Wild Lands	MA	2	35	Co, Wo, OS, E, Rec, Sc, Ha	donation, purchase, preacquisition
12	Lancaster Farmland Trust	MA	3	8	F, OS, H	CE donation/purchase
13	Lancaster County Agricultural Land Preserve Bd.	MA	3	10	F	CE purchase
14	Berks County Conservancy	MA	2	23	F, OS, GW, H, Wshed, Ha	donation, purchase, CE donation
15	Wildlands Conservancy	MA	2	24	E, F, FI, Wo, OS, Ha, WL	purchase, CE donation, preacquisition
16	Wissahickon Valley Wshed Association	MA	3	40	E, F, Wshed, Wo, OS, Ha, WL	donation, purchase
17	Brandywine Conservancy	MA	2	30	Ar, E, H, F, Rec	CE donation, LD, 3rd party negotiation
18	Susquehanna Piedmont Preservation Council	MA	3	3	Ha, E, BD, NL, 585 acres nature reserve	donation, purchase, CE donation
19	Green Horizon Land Trust	S	3	7	Wo, Ha, WL, GW	CE donation/purchase, purchase, donation
20	Accokeek Foundation	MA	3	40	Ar, E, H, F, Rec	donation, purchase, CE donation
21	Maryland Environmental Trust	MA	2	28	Ar, E, H, F, Co, Sc	purchase, CE donation/purchase
22	Bay Ridge Trust	MA	3	9	Wo, RL	purchase
23	Williamstown Rural Lands Foundation	NE	3	9	E, F, Wo, OS, Ha, WL, GW	purchase, CE donation, preacquisition
24	Save the Redwoods Foundation	WC	3	75	Wo, E, Sc	purchase, preacquisition, donation
25	American Rivers Conservancy	WC	2	9	RL C, WL, GW	donation, purchase, CE donation/purchase
26	Sempivirens Fund	WC	2	96	E, Wo, OS, MTS, Rec, Wshed, Ha	purchase, CE purchase, preacquisition
27	Oregon Water Trust	WC	3	4	Wshed, WL, Wo, Ha	purchase, donation, CE purchase/donation
28	Greenbelt Land Trust	WC	3	7	OS, GW, HS, H, Rec, Sc, Ha	donation, purchase, CE donation, option
29	Seven Generations Land Trust	WC	3	7	D, E, Wo, Rn, RL C, Ha, Wshed	donation, purchase, CE donation, lease
30	San Juan Preservation Trust	WC	3	17	E, F, Wo, OS, Is, Rn, WL, Ha	donation, purchase, CE donation
31	Iowa River Greenbelt Trust	PL	3	9	E, Wo, GW, H, RL, Sc, T, Wshed	preacquisition, negotiation, advocacy, education
32	Dubuque County Conservation Society	PL	3	63	E, Wo, Wshed	donation, trade lands, preacquis.
33	Four Mounds Foundation	PL	3	8	F, Wo, Pr	donation, purchase, CE donation
34	Citizens for Conservation	GL	3	25	GW, Pr, Wshed, Ha, WL	donation, purchase, management
35	Open Lands Project	GL	1	33	OS, Rec	donation, purchase, CE donation
36	Cor Lands	GL	3	33	OS, Rec	donation, purchase, CE donation
37	ACRES Land Trust	GL	3	26	Wo, FI, Sc, Ha, Wshed, F	donation, purchase, CE
38	Natural Lands Trust	MA	2	35	F, FI, Wo, OS, Tr, H	donation, purchase, CE donation, manage
39	The Nature Conservancy (MI)	N	1	35	Ha, E, BD, NL, reserves	purchase, preacquisition, 3rd party negotiation, donation, CE donations/purchase, bequests
40	Grand Traverse Regional Land Conservancy	GL	3	5	E, Wo, OS, RL, Rec, Ha	donation, purchase, CE donation

Appendix 7.2 US Land Trusts Interviewed

CASE	ORGANISATIONS INTERVIEWED	REGION	TIER	AGE	LAND RESOURCES PROTECTED	METHODS
41	Little Traverse Conservancy	GL	3	25	Co, Wo, OS, E, Rec, Sc, Ha	donation, purchase, CE donation, option
42	Superior Land Conservancy	GL	3	5	E, F, Wo, OS, Ha, WL, H	donation, CE donation
43	Grass River Natural Area	GL	3	27	E, GW, RL, Wshed, WL, Ha	donation, purchase, preacquisition, education, RFOR
44	Southeast Michigan Land Conservancy	GL	3	8	E, F, Wo, OS, Ha, Sc, WL	donation, purchase, CE donation
45	Leelanau Conservancy	GL	3	8	Co, Wo, OS, Is, Rec, Sc, Ha	donation, purchase, CE donation
46	Michigan Nature Association	GL	2	45	Co, Wo, Pr, WL, OS, E, Ha	donation, purchase
47	Friends of Minnesota Valley	GL	3	3	Wo, F, Ha, WL, OS, Pr	advocacy, education
48	Minnesota Land Trust	PL	2	5	F, Fi, Wo, OS, Pr, RL C	CE donation
49	The Land Stewardship Project	GL	3	4	F, OS, Ha, Wo, E, Sc	education, advocacy, preacquisition
50	Iowa Natural Heritage Foundation	PL	2	17	F, Fi, Wo, OS, GW, RL C	donation, purchase, preacquisition, options
51	Blufflands Alliance	GL	3	2	OS, F, RL, HS, NL	CE donation/purchase, donations
52	Sand County Foundation	GL	3	36	E, Wo, WL, OS, Wshed, Ha	CE donation, purchase, deed restrictions
53	Natural Land Institute	GL	2	38	Wo, Pr, RL C, WL, Ha	purchase, CE donation, preacquisition
54	Cedar Lakes Conservation foundation	GL	3	18	Wo, Fi, OS, Ha, Wshed, F	purchase, testamentary
55	Kinnickinnic Land Trust	GL	3	3	Wo, Fi, OS, Ha, Wshed	donation, CE donation/purchase
56	Ice Age Park & Trail Foundation of Wisconsin	GL	2	38	GW, Tr, Rec (along terminal moraine)	purchase, CE donation
57	Wisconsin Farmland Conservancy	GL	3	10	F, Fi, OS, Wo, Wshed, Sc	CE donation, options, ROFR
58	Geneva Lake Conservancy	GL	3	14	F, OS, RL, Wshed, Sc	donation, purchase, CE donation
59	Pacific Forest Trust	WC	2	3	E, Wo, OS, MTS, Wshed, Ha	donation, CE donation/purchase
60	Center for Natural Lands Management	WC	3	6	D, E, Fi, Wo, RL, U	donation, CE donation, land exchanges
61	Peninsula Open Space Trust	WC	3	19	Co, E, F, Wo, OS, Wshed, Rn, Sc	donation, purchase, options, land lease
62	Marin Agricultural Land Trust	WC	3	8	F, OS, Wshed, Rn	CE donation/purchase
63	Sanctuary Forest	WC	3	9	E, Wo, Sc, Wshed, RL C, Ha	donation, CE donation, preacq., option
64	Mountains Restoration Trust	WC	3	15	E, Wshed, Ha, Santa Monica Mtns.	donation, purchase
65	Bolsa Chica Land Conservancy	WC	3	6	Co, Wshed	donation, CE donation, land exchanges
66	Southern CA Agricultural Land Foundation	WC	3	6	F, Rn	donation, purchase, CE donation
67	Housatonic Valley Association	NE	3	52	F, Fi, OS, Wo, Wshed, Sc, Ha	donation, LD, 3rd party negotiation
68	Farm & Natural Lands Trust	MA	2	7	F, Wo, NL	CE donation, donations, deed restrictions, trade lands, conservation planning
69	Bay Area Ridge Trail Council	WC	3	4	E, OS, GW, MTS, Tr, U, Wshed	raise funds to assist other organizations
70	Land Conservancy of San Luis Obispo County	WC	3	12	Co, E, F, Wo, Wshed, Sc, Ha, H	purchase, CE donation, land exchanges
71	Napa County Land Trust	WC	3	20	F, OS, Rn, Wshed, WL, Ha	donation, CE donation/purchase
72	San Joaquin River Parkway & Conservancy Trust	WC	3	8	E, Tr, WL, Ha	donation, purchase, CE donation
73	Land Trust of Santa Cruz County	WC	3	14	Fi, Wo, OS, GW, Rec, Sc, Ha	donation, purchase, CE donation, option
74	McDowell Sonoran	SW	3	7	Ar, D, E, OS, HS, MTS, Rec, Sc, T, U, Ha	donation, restricted resale, CE donation
75	Forest Trust	SW	2	12	Wo, H, MTS, Rn, Sc	donation, CE donation
76	Redwood Coast Land Conservancy	WC	3	4	Co, OS, Rec, Wshed, RL C, Sc, Ha	donation, CE donation
77	Solano County Farmlands & Open Space Fdn.	WC	3	10	Co, F, Wo, OS, HS, Rn, WL, Ha	donation, purchase, CE donation
78	Big Sur Land Trust	WC	3	18	Co, E, F, Wo, Wshed, Sc, Ha, H	donation, CE donation, preacquisition
79	Tecumseh Land Trust	GL	3	7	OS, F, H, Sc, E	CE purchase/donation, purchase, donation, trade lands
80	Foothills Land Conservancy	S	3	12	E, F, Wo, OS, MTS, Rec, Ha, Sc, Wshed	CE donation/purchase, bargain purchase, donations, ROFR, LD
81	Land Trust of Huntsville & No. Alabama	S	2	10	Ha, Wo, WL, E	CE donation/purchase, donations, CE

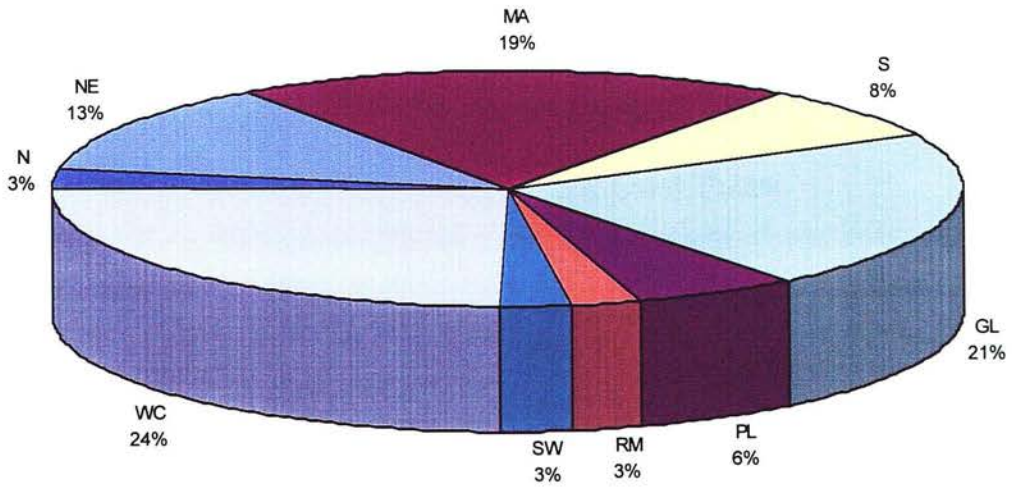


Appendix 7.2 US Land Trusts Interviewed

CASE	ORGANISATIONS INTERVIEWED	REGION	TIER	AGE	LAND RESOURCES PROTECTED	METHODS
82	Desert Foothills Land Trust	SW	3	5	Ar, D, E, OS, Ha, Tr, MTS	donation, CE donation
83	New Jersey Conservation Foundation	MA	3	36	F, FI, OS, Wo, Wshed, Sc, Ha	donation, purchase, preacquisition
84	Ozark Regional Land Trust	PL	2	13	E, F, FI, Wo, OS, Ha, RL, WL, GW	CE donations, donations, bequest, trade lands, education
85	Quail Ridge Wilderness Conservancy	WC	3	7	F, Wo, MTS, Rec, Sc, Wshed, Ha	donation, purchase, preacquisition, options, education
86	Central Indiana Land Trust	GL	2	7	NL, Wo, Ha, F, FI, OS	CE donation/purchase, donation, education, planning
87	Sycamore Land Trust	GL	3	7	E, F, FI, Wo, OS, GW, HS, H, WL, Wshed	CE donation, donation, testamentary
88	The Great Outdoors Land Conservancy	S	3	4	Wo, WL, NL, Ha, Pr	purchase, donation, CE purchase/donation, nature preserve, environmental education
89	McKenzie River Land Trust	WC	3	8	E, FI, OS, HS, Is, Rec, Sc, T, Wshed, WL, F	CE donation, donations, preacquisition
90	Three Rivers Land Conservancy	WC	3	8	Co, E, FI, Wo, GW, RL, WL, Ha	donation, purchase, CE donation, manage
91	Rocky Mountain Elk Foundation	RM	2	12	E, Wo, OS, MTS, Rn, Ha, Rec	purchase, CE donation, land exchanges
92	Catabwa Land Conservancy	S	3	7	RL, Wshed, WL, Ha	donation, purchase, CE donation
93	Conservation trust for North Carolina	NE	2	6	F, Wo, MTS, Rec, Sc, Wshed, Ha	CE donation, donation, bargain purchase, testamentary
94	Southern Appalachian Highlands Conservancy	S	3	22	E, F, Wo, HS, H, MTS, Rn, Sc, T, Ha	donation, purchase, CE donation
95	Nevada County Land Trust	WC	3	7	OS, GW, Rec, T, WL, Ha	donation, CE donation, land exchanges
96	Palos Verdes/Peninsula Land Conservancy	WC	3	10	Co, OS, Rec, Ha	purchase, CE donation/purchase
97	Sierra Foothills Land Conservancy	WC	3	3	Ha, H, Ar	education, donation, reserve, purchase, bargain, CE
98	Middle Mountain foundation	NE	3	12	Ha, Wo, F, Rn, Ar, Wo, H	CE donation/purchase, donations, reserves
99	Kachemack Heritage Land trust	WC	2	8	F, Wo, OS, Is, RL, Rn, Rec, Sc, U, WL, Ha	donation, CE donation
100	Mattole Restoration Council	WC	3	13	E, FI, Wo, OS, Pr, Rn, WL, Ha	manage 300 A Wshed & others land
101	Colorado Trail Foundation	RM	2	22	Rec, T, GW	purchase, donation, CE donation/purchase
102	Society for the Protection of NH Forests	NE	2	86	Wo, Ha, E, BD, OS	purchase, bargain purchase, CE donation/purchase, lease & manage
103	Lake Forest Open Lands Association	GL	3	30	E, Wo, OS, RL, Rec, Ha	purchase, CE donation, LD
104	Liberty Prairie Foundation	PL	3	4	RL C, WL	donation, CE donation/purchase
105	Western PA Conservancy	MA	2	65	Ha, Wo, F, CG, Arc, GW, Wshed, H	donation, purchase, CE purchase/donation, management agreements, testamentary, preacquisition
106	The Conservation Foundation	GL	2	25	E, Wo, F, OS, Sc, Ha	advocacy, grants, donation, purchase, CE donation, ROFR
107	Boothbay Regional Land Trust	NE	3	9	Co, Rec, RL C, Wshed	donation, CE donation, education
108	Kennebec River Land Trust	NE	3	11	Wo, RL, OS, H, F, Sc	donation, purchase, CE donation
109	Land Trust Alliance	N	1	12	n/a	advocacy, education, information, public policy
110	American Farmland Trust	N	1	17	F, RL, agriculture	agriculture & related policy, advocacy, education
111	Trustee of Reservations	NE	2	105	Ar, Co, E, Wo, H, F, Sc	donation, purchase, preacquisition, CE
112	American Chestnut Land Trust	MA	3	12	Wshed, WL, Ha	donation, purchase, CE donation
113	Fairfax Land Preservation Trust	MA	3	5	E, Wo, F, OS, Sc, Ha	donation, purchase, CE donation
114	Sudbury Valley Trustees	NE	3	43	E, F, Wo, OS, Ha, WL, GW	donation, purchase, preacquisition
115	Jackson Hole Land Trust	RM	3	16	E, FI, OS, MTS, Rn, Ha	purchase, CE donation/purchase
116	Washtenaw County & Potawatomi Land Trust	PL	2	8	Wo, OS, HS, Pr, Rec, Ha, WL	purchase, CE donation, preacquisition, LD, options, lease
117	Inland Northwest Land Trust	WC	3	6	Co, D, Wo, GW, MTS, Rn, WL	donation, CE donation
118	Methow Conservancy	WC	3	6	E, F, FI, Wo, OS, Rn, Ha	CE donation
119	Tennessee River Gorge Trust	S	3	9	E, Wshed, Wo, WL, Ha	donation, purchase, CE donation
120	Chattowa Open Lands Trust	S	3	3	F, FI, Wo, OS, H, RL C, Ha	CE donation, education



US Land Trusts Interviewed by Regions



**APPENDIX 7-3**

**PHASE III EXPERT INTERVIEWS:**

**UK Land Trusts**

Appendix 7.1 UK Organisations Interviewed

Case	Organization Interviewed	Post Codes	Region	Age	Tier	Size	Land Resources Protected	Methods
01	BBONT - the Wildlife Trust for Kent Wildlife Trust	OX4 3BR ME14 3BD	Berks, Bucks & Oxes Kent	35 35	3 3	M M	Wo, WL, F, Me, He Wo, Ha, WL, Co, Du, Me	R, Own, MA, LA, Ed R, Own, Ed, MA, LA
02	The Wildlife Trust for Bath, Bristol & Avon Groundwork Trusts	BS8 1DR B3 3BY	Bath Bristol & Avon England, Wales, N. Ireland	17 16	3 1	S L	Ha, U, Wo, WL, H U, D	MA, R, Own, LA, Ed CP, Ptn, Ed, MA
03	The Woodland Trust	PH3 1DP	Scot/Eng/Wales/NI	25	1	L	Wo, E	R, Own, Rf, Ed, Ptn
04	Urban Wildlife Trust	B5 6ND	B'Ham & Black Country	16	3	M	U, D, Wo, WL, Ha, G	Ed, MA, LA
05	North Wales Wildlife Trust	LL57 1YE	North Wales	35	3	M	Ha, Wo, Sb, Co, G	R, Own, Ed, MA
06	Wildlife Trust West Wales (Dyfed W. T.)	SA61 1NF	Pembs, Ceredigion & Camarthenshire	60	3	M	Wo, WL, Me, Is, Ha	R, Own, Ed, Ptn, LA
07	Manx Wildlife Trust	IM4 3AE	Isle of Mann	24	2	M	Ha, Wo, WL, E, Co, Du, G	R, Own, LA, Ed
08	Manx Natural Heritage		Isle of Mann	145	2	L	H, Wo, Me, Co, Ha	Own, R, Ed
09	John Muir Trust	EH6 6JD	Scot/Eng/Wales	15	2	M	Ha, Mtn, Is, Wo, Co, WL	Own, R, MA, Ed
10	The Wildlife Trust Partnership	NG24 1WT	National (Scot, Eng, Wales, IOM)	85	1	L	Umbrella organisation	Info & policy guidance
11	The National Trust	SW1H 9AS	Eng/Wales/N.Ireland	102	1	L	Wo, H, Me, G, Ha, F	Own, RC, MA, Ptn, Ed, Lo
12	Durham Wildlife Trust	DH4 6PU	Durham	31	3	S	G, Wo, Pb, U, Me, H	R, Own, MA, Ed, Ptn
13	Northumberland Wildlife Trust	NE3 3BR	N'castle & North Tyneside	27	3	M	U, Pb, He, Wo, Ha, D	R, Own, Ed, LA, Ptn
14	Montgomeryshire Wildlife Trust	SY21 7AD	Montgomeryshire	16	3	S	RL, Wo, WL, Ha, G	R, Own, LA, Ed
15	Cornwall Wildlife Trust	TR1 3BN	Cornwall	35	3	M	Co, Rb, Pb, Wo, WL, Ha, Me	R, Own, Ed, MA, L, D
16	Lincolnshire Trust for Nature Conservation	LN9 5HF	Lincolnshire	49	3	M	Wo, WL, Ha, Co, G	R, Own, LA, MA
17	Scottish Wildlife Trust	EH4 6NS	Scot	16	2	M	Ha, Wo, G, WL, Is, F, Mtn	Own, R, MA, LA, Ed
18	BCNP Wildlife Trust	MK41 9SH	Bedts., Cambs., N'hamppts., P'boro	35	3	M	Me, Wo, F, WL	Own, R, MA, LA, Ed

Median for age of land trusts 33

Harmonic mean 27.014

## Key to Appendix Codes for Land Resources Protected

Land Resources Protected Code	Definition
Bd	Biodiversity
Co	Coastal
D	Derelict
Du	Dunes
E	Ecosystems
F	Farm, pastureland
G	Grassland – Chalk lands
H	Historical lands
Ha	Habitat
He	Heathlands
Is	Islands
LA	Lease agreements
Me	Meadows
Mtn	Mountains
Pb	Peat-bogs
Rb	Reed-beds
RL	Rivers, Lakes
Sb	Scrubland
U	Urban land
WL	Wetlands
Wo	Forest / Woodlands

## Key to Appendix Codes for Conservation Methods Used

Land Resources Protected Code	Definition
D	Donations of land
Ed	Education
LA	Lease agreements
Lo	Lobby - advocacy
MA	Management Agreement
Own	Fee simple ownership
Ptn	Partnerships / Community projects
R	Reserves
RC	Restrictive Covenants
Rf	Reforestation