

## **Conservation Easements as Encumbered Ownership: Issues at Hand**

*by* Nelson Bills, Charles Geisler,  
Al Sokolow and David Kay  
December, 2004

**Rural Development Paper No. 25**

©2004 The Northeast Regional Center for Rural Development

Located at: The Pennsylvania State University

7 Armsby Building, University Park, PA 16802-5602

Phone: 814-863-4656 FAX: 814-863-0586

E-mail: [nercrd@psu.edu](mailto:nercrd@psu.edu) URL: <http://www.cas.nercrd.psu.edu>

*“Contributing to the well-being of small towns and rural communities.”*

# **Conservation Easements as Encumbered Ownership: Issues at Hand**

Nelson Bills, Cornell University

Charles Geisler, Cornell University

Al Sokolow, University of California-Davis

David Kay, Cornell University

**NERCRD Rural Development Paper No. 25**

**Prepared for The Northeast Regional Center for Rural Development  
The Pennsylvania State University**

December 2004

Rural Development Papers are circulated for the purpose of discussion and they are generally not peer reviewed.

# Conservation Easements as Encumbered Ownership: The Issues at Hand

*"The earth belongs in usufruct to the living."  
--Thomas Jefferson*

## Introduction

Conservation of resource or open space lands is a widely shared societal value in the United States. These shared values are expressed in numerous ways, most importantly in the design of Federal, state, and local public policy. Most commonly, conservation is carried out through (1) public regulation (zoning, planning, growth boundaries, etc.) of the uses of privately-owned land, and (2) public ownership and management of land for recreation, preservation, and other purposes. A more subtle but well recognized conservation effort plays out in manipulation of tax law or direct public subsidy for conservation purposes. Less understood is a third approach to land conservation – encumbrances that limit current and future uses of open land without changing its underlying private ownership. In the United States, where records on/claims to land are meticulously maintained, a visit to any county courthouse in the land allows one to see how encumbrances might impact any single landholding and, cumulatively, how they thread through landownership in any single community.

But there are thousands of county courthouses and no comprehensive regional, national, or even representative community-based summaries of land encumbrances exists. The conventional wisdom rushes in to fill this information void, telling us that conservation easements are the most important technique in the encumbrance category.<sup>1</sup> Today's preoccupation with conservation easements largely reflects the emergence of a whole generation of public officials, planners, academics, and agency personnel who are aware of and energized by the growing application of easements to a variety of natural resource objectives.

An easement is created when the landowner gives up a portion of his or her property rights in exchange for economic value, cash and/or tax benefits. In the realm of land conservation, easements center on extinguishing the land development option. Restrictions on the use of the land are legally recorded and usually run with the land in perpetuity, even when the underlying ownership changes through later sale, gift or inheritance. With a public agency or nonprofit conservation group such as a land trust holding the easement and responsible for its enforcement, an ongoing relationship – indeed a perpetual relationship in most cases – involving shared property interests is established between the agency (or a not-for-profit land trust) and the private landowner.

---

<sup>1</sup> The assumed primacy of conservation easements overlooks the versatility of the easement tool and the countless times that easements are used in the United States to help insure orderly, regular access to private property. For example, easements allow electric power transmission across multiple ownerships; an easement can allow an abutting property owner the right to use a neighbor's land parcel.

And, though public bodies acquire easements with tax dollars and tax incentives, “eased lands”, parcels with development rights severed, are not considered public lands.

The complexities of creating and maintaining conservation easements, including the nuances and consequences of shared property interests, beg for clarification and interpretation. Ownership is encumbered by easements and other actions when interests contained within its title are restricted or removed. A title may be “free and clear” in terms of debt and “unclouded” in terms of competing ownership claims and unregulated by government, but it still may be encumbered. This is because a title includes separable use rights that an owner may treat differently. Thus, within a given “ownership,” some rights may be wholly intact, whereas other rights may be wholly or partially extinguished. Consider a parcel of land containing a pristine spring. If its owner is a public body, it could assign special status to the area through law or administrative action, encumbering the public title with “forever wild” or wilderness status. If the owner is a private entity, the elimination of development rights around the spring would occur through sale or donation of an easement, thus preventing disturbance to the amenity.

While the evidence is piecemeal, it is clear that encumbrances intended for conservation are rapidly evolving in both the types of application and their geographical spread across the US. This brief paper advances research needs pertaining to conservation easements and situates them in a larger map of encumbered ownerships in the United States. We focus on the use of encumbrances to achieve conservation on public as well as private lands. Our intent is to highlight differences in application and, predicated on them, to suggest research that might follow. At one level, it suffices to say that the difference comes down to whether market or nonmarket methods are used to achieve conservation. Though helpful in some ways, this bifurcation obscures derivative questions, such as spatial location, approximate size, duration, revocability, and accountability. These are the early questions on a long list of research concerns this paper will identify in hopes of stimulating further investigation into encumbered ownership as a conservation tool.

### **Public Land Encumbrances**

Many Americans know that so-called “public lands” are something of a misnomer. In fact, private interests occupy Federal and other public lands to harvest timber, graze cattle, recreate, perform research, bioprospect, extract minerals, enjoy commercial concessions, lease space for cell phone and transmission towers, store pollution, and have a long list of private access rights (Laitos and Westfall, 1987; Wiebe, et al., 1996). Fewer people are aware that public lands are “not created equal.” This applies not only to the differences between Federal and non-Federal public lands but to the categories of Federal lands as defined by their public agency landlords. Thus, lands held by National Park Service and NASA are in highly restricted uses, whereas those held by the U.S. Corps of Engineers and the Bureau of Land Management avail a broad palette of permitted uses. Also generally overlooked is the ability to impose easements and other encumbrances on public lands to enhance and upgrade their conservation protection.

For perspective, it is useful to broadly characterize land ownership, both public and private, in the United States. In gross terms, there is roughly one acre of Federal land for every two acres of private land in the United States (Table 1). The government periodically produces maps representing public and private land ownership. Though

informative, such maps typically do not show encumbrances. Because the basic title remains unchanged, encumbrances are invisible in virtually all spatial representations of ownership.

**Table 1. United States landownership, 1997**

	<i>Acreage (Bil.)</i>	<i>Percent</i>
Total US area (w/Alaska & Hawaii)	2.263	100.0
Total private land	1.364	60.3
Total Federal land	0.647	28.6
Indian land	0.055	0.2
State land	0.174	7.7
Local government land	0.022	0.1

*Source:* Hoppe and Wiebe, 2002.

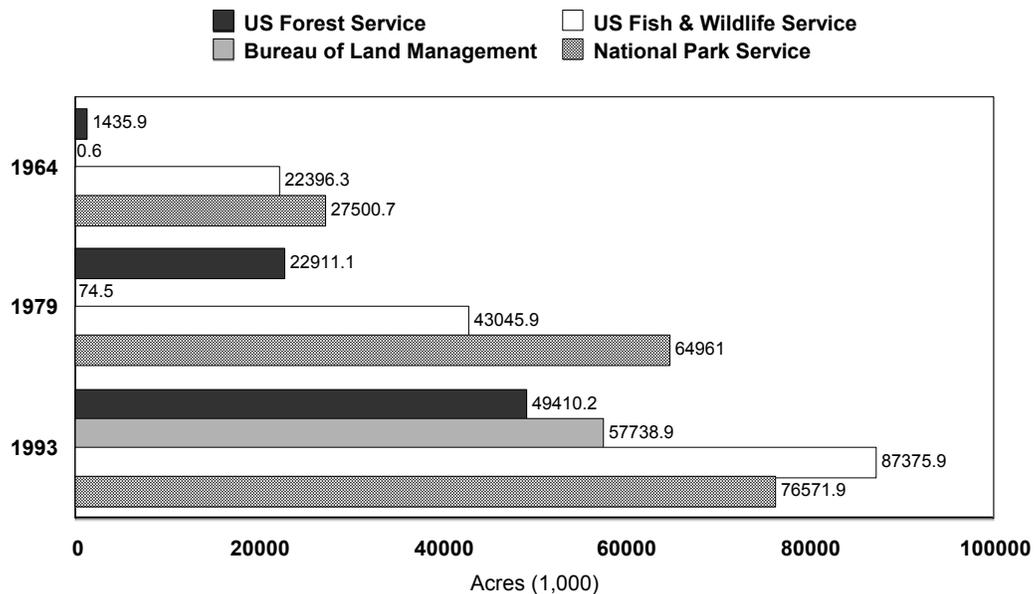
This does not diminish the importance of encumbered ownership. The Federal lands privileged with special conservation status were the object of a General Accounting Office study in 1994 (GAO, 1995). The study traced the growth in Federal lands encumbered with conservation restrictions for the four largest Federal land agencies between 1964 and 1993 – the Forest Service, Bureau of Land Management, Fish and Wildlife Service, and the National Park Service. Federally encumbered lands among the four grew by more than 270 million acres in the three decades – see Panel 1. In relative terms, acres encumbered for conservation purposes went from 7 percent to 45 percent of total Federal lands and have continued to grow since.<sup>2</sup> This nonmarket approach to encumbering public land is the equivalent to a broad “deed restriction” which the Federal government has placed on nearly half of its holdings.

In effect, all lands managed by the National Park Service or the Fish and Wildlife Service are encumbered for conservation purposes. Small portions of the holdings of other Federal agencies enjoy in the same status, and new laws (e.g., the Wild and Scenic Rivers Act as amended) are encumbering additional conservation acreage every year. The Federal conservation deed restriction is not, in all cases, bullet-proof however. Periodically, national leaders and their operatives in the U.S. Congress seek to declassify Federal lands encumbered for conservation. Moreover:

“The fact that land has a restriction that sets it aside for conservation does not preclude all activities within the designated area. For example, although the Wilderness Act restricts access to, and the development of, a given wilderness area, the ‘wilderness’ designation generally allows,

<sup>2</sup> In the 29-year period under study by the GAO, Federal land holding actually decreased by approximately 11 percent due to transfers of Federal lands in Alaska to the State of Alaska (GAO, 1995). If Alaskan transfers from this period are ignored, there was a gradual gain in Federal ownership throughout the country.

## Panel 1. Acres managed with conservation restrictions, four Federal agencies, 1964, 1979, and 1993



Source: US General Accounting Office (GAO).

among other things, the existence of administrative structures, the development of minerals and grazing of livestock in those instances where valid existing uses have already been established, access to private lands inside the wilderness, and the use of nonmotorized recreational vehicles.” (GAO, 1995:31).

Similar development and use exceptions are made along Wild and Scenic Rivers on occasion, and the newer national parks (such as Great Basin in the Intermountain West) have a distinctive multiple-use character. As for the geographic distribution of Federal encumbrances, the majority are situated in 13 western states where Federal lands are concentrated. Various states east of the Mississippi have encumbered state lands with “forever wild” status, most notably New York in the Adirondack Park.

### Private Land Encumbrances

Private encumbrances are also deed restrictions. But the fundamental difference with public lands, where only one party – the government – is involved, is that the market enters the picture in the form of willing sellers and buyers negotiating the transfer of rights. Some analysts might argue that private lands are subject to two tiers of encumbrance, one public and one private. The former are residual, the ever-present powers of a sovereign state (e.g., the powers of taxation, regulation, condemnation, escheat, and protection from foreign seizure). This tier may or may not be used for

conservation and will not occupy us here.<sup>3</sup> The other level pertains to acquired rights. Roughly paralleling permits and rights-of-way on public lands, private owners can sell or lease rights of access and use to other parties. But they can also sell away and extinguish development rights with intent to conserve their land – the functional equivalent of a public land agency’s nonmarket “deed restriction.”<sup>4</sup> In either case, their title is now encumbered.

Technically speaking, a private ownership title can be encumbered in ways that facilitate development (as with rights-of-way) or inhibit it (deed restrictions, restrictive covenants, options, and easements) (Fairfax and Guenzler, 2001). All encumbrances on private land have in common the presence of an amendment to the owner’s deed that creates partial interests with legal standing (Wiebe, et al., 1996). To use a familiar language, ownership and control undergo mutually agreed-upon separation. The identity of the title remains unchanged but assumes provisos as to what the owner can and cannot do with the land. The provisos may be temporary, as with a mortgage or lease, or they may be permanent and “run with the land,” regardless of owner, as is often the case with conservation easements. A rough analogy would be a perpetual lease wherein the lessee’s intent – and responsibility – is land conservation.

From a public policy perspective, the most interesting recent trend in encumbrances as a land use tool has been the proliferation of local, state, regional, and national programs dedicated to using the easement to acquire, through purchase (or transfer in a few limited cases) the development rights to open land for conservation purposes.<sup>5</sup> Though small compared to lands Federally encumbered for conservation, the ballooning privately held land acreage encumbered by conservation easements is remarkable. The technique is more than a century old, but its application to a variety of environmental, historical, and natural resource objectives rapidly accelerated in the last third of the 20th century. Today this application is every bit as impressive as the public-sector encumbrances described above.

To illustrate this point, we turn to the use of easements to protect agricultural land (“working landscapes”) from urban development which began in Suffolk County, New York, nearly 30 years ago. Since that time, about 1.8 million agricultural acres nationwide have been brought under this form of easement, at an estimated cost of about \$2 billion (a great deal more if expressed in present value terms). This effort has been fueled primarily with public funds. Nonprofit organizations (land trusts, in many cases) and public agencies (about 100 state and local governments) have used these resources in 18 states, each with 1,000 or more acres acquired. The dozen top programs, mostly in the Northeastern U.S., have accumulated more than 20,000 easement acres each (Sokolow and Zurbrugg, 2003). These farmland protection

---

<sup>3</sup> A rich literature describes the array of police-power regulations that apply to much so-called fee-simple private ownership in the United States (see Whyte (1968) or Diamond and Noonan (1996) for typical inventories). Whereas in the public land case ownership may be vested in local, state, or Federal units of government – and tends to be concentrated in the last of these – in the private land domain ownership remains in private hands but is encumbered by regulations most often legislated at the local level, particularly in home rule states (Moss, 1977).

<sup>4</sup> In addition, private property can be encumbered by liens and mortgages, probably the most recognized way someone other than the owner attains a legal right or interest.

<sup>5</sup> An easement is a limited right, granted by the owner of real property, to use all or part of his property for specific purposes (Small, 1990:2-5 cited in Wiebe, et al., 1996:4).

easements have received an enormous amount of attention from academic, planning, and lay audiences; a huge and rapidly evolving literature has accumulated on agricultural development rights and the techniques used to encumber them (e.g., Daniels, 1991; Daniels and Bowers, 1997; Farmland Preservation Report; Gutanski and Squires, 2002; Hellerstein et. al., 2002; Lapping, 2004; Rilla and Sokolow, 2002; Sokolow and Zurbrugg, 2003; Wiebe, et al., 1993).

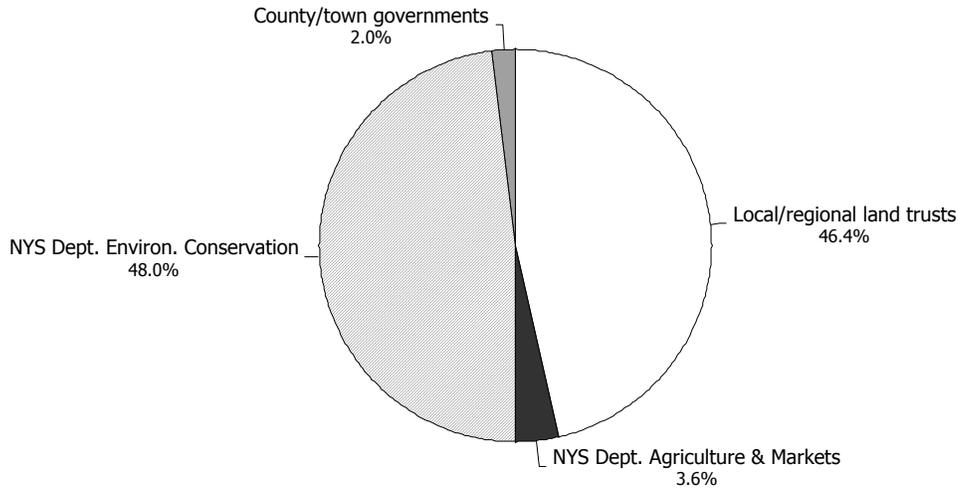
Conservation easements involving farmland, especially in the Northeastern U.S., are high profile because they play into a more than half century old conversation about the interplay between population growth, land use, and structural change in farming. Beginning in the 1950s, a whole suite of state and locally legislated efforts to protect farmland from urban encroachment has been established and institutionalized; after decades of discussion and debate, direct Federal support arrived with appropriations first authorized in 1996 Federal farm legislation. Despite the notoriety, however, agricultural easements represent only one (and not the dominant) type of open space resource targeted by conservation easements. These targets have multiplied over the years and now include wildlife habitat, riparian zones, and wetlands, along with many other natural resources.

Since no comprehensive reporting system for easements is in place, we can only offer examples of conservation easements from two states well known to the authors. In New York State, a preliminary estimate suggests that conservation restrictions on open space lands exceed 600,000 acres (Panel 2). Two state agencies account for about 52 percent of total easement holdings. The overwhelming majority of the affected acreage is in nonfarm, open space uses and is controlled by the New York State Department of Environmental Conservation.

A broader context for conservation lands encumbered by easements is found in a crude estimate of the total acreage presently “protected” in New York through full or partial ownership interests. These are held by a combination of Federal, state, and local governments and nonprofit third parties and total about 5.4 million acres (Panel 3). This acreage is nearly 20 percent of New York’s total land area. Recall that in Panel 2 just over 1 of every 10 acres (or 600,000) of this 5.4 million acre protected area are encumbered though partial ownership interests.

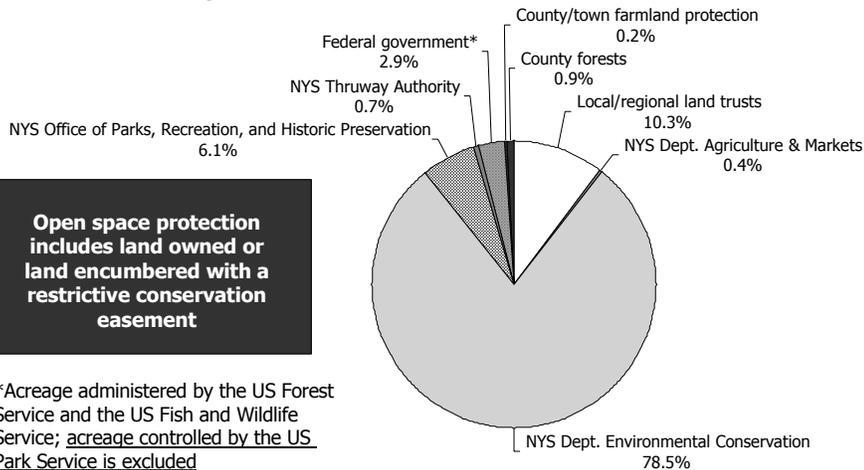
In California, rough estimates by knowledgeable persons indicate that there are between 1 and 2 million acres under conservation easement, or between 1 and 2 percent of the total land area. Leaving aside the half of the state’s area contained in Federal public lands, easements constitute between 2 and 4 percent of California’s acres under private ownership. Efforts by the state to generate more precise numbers have met with minimal success, in large part because of the numerous groups – many of them rather small with poor records – involved in easement activities. Some of these organizations are reluctant to publicize their easement holdings and location, fearing that publicity would increase prices for subsequent transactions or encourage speculation on adjacent properties. Table 2 identifies the major types of organizations, both public agencies and nonprofits, that acquire and hold easements in California.

**Panel 2. Estimated distribution of conservation easements on 604,300 acres of open space land in New York State, circa 2002**



Source: NYS Open Space Plan, Land Trust Alliance, and the American Farmland Trust.

**Panel 3. Estimated distribution of 5,384,400 acres under open space protection in New York State, circa 2002**



**Open space protection includes land owned or land encumbered with a restrictive conservation easement**

\*Acreage administered by the US Forest Service and the US Fish and Wildlife Service; acreage controlled by the US Park Service is excluded

Source: NYS Open Space Plan, Land Trust Alliance, and the American Farmland Trust.

## **Table 2. Organizations in California that hold conservation easements on privately-owned land**

State Government Conservation Agencies  
 Department of Fish and Game  
 Department of Parks and Recreation  
 Wildlife Conservation Board

State Regional Conservancies (semi-independent parts of state government)

U.S. Fish and Wildlife Service

USDA Conservation Agencies (*mostly 10- to 30-year term easements*)  
 Natural Resources Conservation Service  
 Farm Security Agency

National land trusts operating in California  
 The Nature Conservancy  
 Trust for Public Lands  
 American Farmland Trust  
 Others

California Rangeland Trust – statewide land trust, a spin-off of the Cattlemen’s Association

County-level and local land trusts

Open space districts – single-purpose public agencies at the county level

Resource conservation districts – formerly soil conservation districts

County and city governments

Encumbrances on privately owned land differ from public land encumbrances in still other ways, for example in the brokering and funding role of nonprofit land trusts operating at local, regional, or national levels. In purchasing easements, these land trusts frequently depend on acquisition funds from private sources, including foundations and individual owners.<sup>6</sup> Other funds come from public dollars of local, state, and Federal sources. Additionally, landowners may contribute all or part of the easement value in exchange for the opportunity to manipulate their state and Federal income tax liabilities. To note further complexity, the entity negotiating with a landowner and acquiring the conservation easement does not necessarily represent the final resting place for the encumbrance. That is, the entity that acquires the easement will not hold and monitor the easement in the long term. Rather, that easement interest can be transferred to yet another party to the transaction. The final recipients are some nonprofit land trusts that specialize in brokering landowner deals, turning easements over to other nonprofits or governmental agencies for holding and management. Or, the chain of easement control can move in the opposite direction, with a public agency handing off an easement to a long-term caretaker nonprofit organization.

---

<sup>6</sup> While they generally share a common agenda as conservation-oriented organizations, land trusts vary greatly in size, organizational sophistication, funding, and visibility. Most are grass-roots operations led by citizen volunteers and confined to an ecological locality such as a watershed or ridgeline. But the list also includes major statewide entities and well-known national organizations such as The Nature Conservancy and The Trust for Public Land.

Our two-state illustration of private encumbrances begs for refinement as well as expansion across political boundaries. These state summaries serve, however, as a basis for an initial comparison between public and private conservation encumbrances stated as our goal at the outset. Among the more important comparative features are the following:

- *Authorization:* Public acts, laws, and administrative rules are the basis for encumbering public lands, whereas private conservation easements result from formal (deed-based) contracts between a paramount owner and a part-interest owner. Aside from indirect influence through political lobbying over policy and use of tax dollars, private interests have little direct say in the creation or expansion of publicly encumbered lands. Public bodies are frequent funders and facilitators of private easements, however, blurring the public/private distinction with which we began.

- *Size and geography:* Since the four largest Federal landholding agencies hold nearly all Federal lands, nearly half of the Federal lands may be listed as encumbered for conservation purposes. A very small portion of the 1.36 billion acres of private land is encumbered for conservation purposes. The ratio of total privately owned land to encumbered private land is roughly 300:1 for the nation, though the variation across states is dramatic due to the clustering of encumbered Federal lands in the West. Privately encumbered conservation lands occur in almost all states and are expanding rapidly through the initiatives of land trusts and facilitating state agencies.

- *Monitoring and enforcement:* Federal Park Service and Fish and Wildlife employees monitor and enforce conservation behaviors on their lands, work that is principally a matter of Federal budgets, policy judgments, and politics (Rogers, 1993). Similar factors define and limit the capacities and priorities of other public entities that have traditionally been considered the “superior” holders of protected land (Bay Area Open Space Council, 1999). In the case of private encumbrances, the same enforcement functions fall largely to citizen volunteers (Fairfax and Guenzler, 2001). As a practical matter, both forms of monitoring experience performance gaps between mandate and management. In the vernacular, there are “paper park” syndromes for the former and monitoring fatigue for the latter. Though private encumbrances may enjoy higher monitoring and enforcement standards in the current heyday of private conservation, it is not clear that volunteer corps can sustain this record as the easement acres for which they are responsible rapidly expand.

- *Exemptions and exceptions:* Political pressures color what gets included and excluded from publicly encumbered land status. Prior use permits on public land get grandfathered, in-holdings and rights-of-way continue, and powerful interests redraw the lines around what is/is not protected to suit themselves (GAO, 1995). One president will augment wilderness or scenic corridor acreage while another will slash them. Although politics and ideologies are also restive in the private sphere, easements as private encumbrances are less vulnerable to caprice and categorical shifts.<sup>7</sup> They are legally recorded, becoming in most cases permanent restrictions on land that can be

---

<sup>7</sup> Politics affecting easements and other partial-interest encumbrances often play out indirectly. For example, funding for the Wetland Reserve (not to mention reauthorization) depends on the political composition of Congress; whether conservation easements constitute an unconstitutional taking of property is likely to hinge on court appointments.

extinguished only through extraordinary court actions. Or, perhaps because they are typically negotiated between a willing seller and buyer, political negotiations are eclipsed by market negotiations and personal landowner circumstances. Every easement is potentially “an exception unto itself.”

- *Funding*: Compared with private encumbrances, funding for Federally encumbered lands seems semi-automatic. Though state, local, and Federal budgets change, political scientists often remind us that budgets are highly inertial. Even contested bond acts and special taxes would seem easier in the public sphere than the private fund raising that nonprofit organizations confront via their members, foundations, and other donors. Private donations are at the behest of stock market trends; family trusts, capital gains, and inheritance laws; income and property taxes, both state and Federal; and of course the opportunity costs of capital, among other things. This said, the market/nonmarket distinction with which we began this paper is only partially relevant in so far as many “private” easement acquisitions are helped by state and Federal incentive programs (e.g., the U.S. Forest Service’s Forest Legacy Program).

- *Temporality*: Mindful of the political environment just noted, it would appear that, at least on paper, public encumbrance status is impermanent whereas, at least on paper, private easements are a perpetual contractual agreement. (Interestingly, according to GAO (1995), when the Federal government speaks of perpetuity it is in reference to multiple use and a flow of needed resources from public lands.) It would seem, then, that until and unless more states authorize term-easements and conservation groups subscribe to them, private encumbrances guarantee a greater degree of permanent protection than do public ones.<sup>8</sup>

- *Accountability*: Accountability is surely the thorniest issue in the present comparison, in part because the term itself is problematic. As well as implying responsibility to voters in the broad public, accountability may also refer to funders, donors, members, and future generations, as well as partial interest holders. By definition, the accountability of resource management in the public sphere should trump any other model. This assumes transparency and system integrity as well as superior record keeping and information access. Whereas the two state cases referred to earlier support such assumptions, the variation across states — and indeed across Federal agencies — is worthy of reflection. Despite some critical press coverage over the past two years (itself a form of public accountability), mostly concerning conflict-of-interest issues, private conservation groups dedicated to encumbering private land for resource protection have yet to fall from grace, and enjoy respect among many constituencies.

## A Research Pathway

Many intriguing questions surround the emergence of encumbered lands as a “new estate.” Some are factual, looking into the scope, dimensions, and distribution of easements and other encumbrances – activities that are not systematically tracked by public or other data systems. Other questions are more interpretive and analytical,

---

<sup>8</sup> Readers may wonder where, if at all, the public trust doctrine and public trust lands fall among long-term state and Federal commitments to conservation. The former is powerful but rarely invoked in the United States (see the ruling by Wisconsin’s Supreme Court, *Just vs. Marinette* (1972) for an exception) (Jacobs, 2003).

inquiring into the multiple meanings of the encumbered lands syndrome. Here we offer examples of each in an effort to set the scene for further research and discussion:

### Factual Questions

1. How do easements and other encumbrances originate? In land conservation or other terms, what are the purposes of their initiators – particularly as expressed in public policy terms? What are the rationale and historical explanations for the emphasis on maintaining such arrangements in perpetuity?
2. Through what institutional and funding mechanisms do encumbrances come into existence? In particular, what is the division of the number, types, and other characteristics of these land arrangements between public agencies and nonprofit (land trusts, etc.) institutions?
3. How much of the national landscape is accounted for by encumbrances? What regional and state variations are noteworthy? What variations exist by type of land use and what are the public benefits or services thereby provided?
4. What has been the public investment, nationwide, in the creation of encumbrances, as measured both by direct public dollars and tax benefits? How and by whom has this investment in land been authorized?
5. What is the history of the evolution of encumbrances? How does one explain the apparent surge in their numbers in the last decade or two?
6. What performance expectations accompany the creation of encumbrances? How are they tracked and enforced over time? How do tracking and enforcement capacities vary across the public and private entities that bear this responsibility? If there are weaknesses in either tracking or enforcement capacity over time, what are the implications for cost, equity, policy, transferability, and land use?
7. How are “shared ownerships” maintained over time? As easements mature and the private landowners who were party to the original deals are succeeded by later generations who may lack the sentiments and interests of the first owners, what happens – if anything – to the sustainability and even awareness of the arrangements?

### Interpretive Questions

1. To what extent do encumbrances constitute a “new” form of property with implications for future changes in the nature of land ownership? Does the spread of encumbrances suggest a convergence of American with European notions of property, cutting into our embedded private property culture and the sharp public/private dichotomy that follows?
2. How do encumbrances interact with – and possibly change – conventional land use policies and practices in the American states? Are they a substitute in some cases for stronger or more efficient land use policies?

3. How do we measure the distribution of public benefits and costs generated by encumbered land arrangements? In particular, what is the distribution of benefits/costs between taxpayers and private landowners who participate in “shared interests”? More specifically, how are costs and benefits distributed between taxpayers nationwide and statewide and local communities, when local encumbrance acquisitions are funded by national and statewide tax sources? And how do benefits and costs align for residents of rural, suburban, and urban communities? And lastly, distributional issues should be couched in terms of other standard societal categories, such as class and race.
4. What types of future scenarios can be reasonably projected for the sustainability of encumbrances, as affected by various contingencies, especially the future prospects of encumbrances intended to endure in perpetuity?

### **Conclusion**

The era is past when conservation of natural resources and amenities is strictly a matter of public land policy. The widening use of conservation, open space, and farmland easements gives new importance to private encumbrances and facilitates their comparison with encumbrances used by public land agencies. In this paper, we characterize encumbrances of both public and private origin and find them different in such things as definition, spatial dimension, and duration. Our analysis is merely an initial probe. We construed “public” to mean Federal land, bypassing many millions of acres held by other governments and Indian tribes. We inspected “private” land in only two states, leaving a vast landscape for later inquiry. We conclude that the wider family of encumbrances used for conservation purposes has escaped critical academic and policy attention. We offer a list of research questions to further clarify and interpret encumbrances in the belief that such mechanisms are undergoing rapid evolution and may influence how we think of conservation-landownership interface in the future.

## References

- Bay Area Open Space Council. May 14, 1999. "Ensuring the Promise of Conservation Easements: Report on the Use and Management of Conservation Easements by San Francisco Bay Area Organizations." San Francisco, California. (<http://www.openspacecouncil.org/Documents/Easements/EnsuringThePromise.pdf>)
- Daniels, T. 1991. "The Purchase of Development Rights: Preserving Agricultural Land and Open Space." *Journal of the American Planning Association*, 57(4): 421-431.
- Daniels, T. and D. Bowers. 1997. *Holding Our Ground*. Island Press.
- Diamond, H.L. and P.F. Noonan. 1996. *Land Use in America: The Report of the Sustainable Use of Land Project*. Washington, D.C.: Island Press.
- Fairfax, S. and D. Guenzler. 2001. *Conservation Trusts*. Lawrence, KS: University Press of Kansas.
- Farmland Preservation Report*. Monthly. Street, Maryland: Bowers Publishing, Inc.,.
- Government Accounting Office (GAO). 1995. "Federal Lands: Information on Land Owned and On Acreage with Conservation Restrictions." GAO/RCED 95 73FS. U.S. Government Accounting Office, Washington, D.C.
- Gutanski, J. and R. Squires, eds. 2002. *Protecting the Land: Conservation Easements Past, Present and Future*. Washington D.C.: Island Press.
- Hellerstein, D., C. Nickerson, J. Cooper, P. Feather, D. Gadsby, D. Mullarkey, A. Tegene, and C. Barnard. 2002. "Farmland Protection: The Role of Public Preferences for Rural Amenities." ERS Report No. 815, USDA-ERS. Washington, D.C.
- Hoppe, R. and K. Wiebe. 2002. "Agricultural Resources and Environmental Indicators." AH 722, USDA-ERS, Washington, D.C. ([http://www.ers.usda.gov/publications/arei/ah722/arei1\\_3/DBGen.htm](http://www.ers.usda.gov/publications/arei/ah722/arei1_3/DBGen.htm))
- Jacobs, H.M. (ed.) 2003. *Private Property in the 21<sup>st</sup> Century: The Future of an American Ideal*. Cheltenham: Edward Elgar.
- Laitos, J.G. and R.A. Westfall. 1987. Government Interference with Private Interest in Public Resources. *Harvard Environmental Law Review*, 11:1-28.
- Lapping, M. Forthcoming 2004. "Rural Planning & Policy: An International Overview." In Marsden, T., P. Cloke and P. Mooney (eds.), *Sage Handbook on Rural Studies*. London: Thousand Oaks.
- Moss, E. (ed.). 1997. *Land Use Controls in the United States: A Handbook on the Legal Rights of Citizens*. Natural Resources Defense Council, Inc. New York: Diall Press.

- Rilla, E. and A. Sokolow. 2002. "California Farmers and Conservation Easements." Agricultural Issues Center, University of California, Davis.
- Rogers, W.H. 1993. "Setting Priorities for Land Conservation." National Research Council, Washington, D.C.
- Small, S.J. 1990. The Federal Tax Law of Conservation Easements. The Land Trust Alliance, Alexandria, VA.
- Sokolow, A.D. and A. Zurbrugg (eds.). 2003. "A National View of Agricultural Easement Programs. Profiles and Maps—Report 1." American Farmland Trust, Washington, DC.
- Whyte, W.H. 1968. *The Last Landscape*. New York: Doubleday Anchor.
- Wiebe, K., A. Tenene, and B. Kuhn. 1993. "Partial Interests in Land: Policy Tools for Resource Use and Conservation." ERS Report No. 744, USDA-ERS, Washington, D.C.