

Markets for Partial Interests in Land

Markets take a wide variety of forms, from highly centralized exchanges to individually negotiated transactions. The form a particular market takes depends on many factors, including the characteristics of the asset being traded. In the case of homogeneous commodities like gold, buyers and sellers will be indifferent about the particular lot they actually receive. Land represents the opposite case: it is not easily standardized and buyers and sellers are very interested in the particular characteristics of the specific parcel being traded.

Markets do not emerge fully developed. Instead, markets evolve over time, generally beginning with individually negotiated contracts, proceeding to the use of brokers and intermediaries, and finally developing into more transparent markets with even wider participation. Most security and commodity markets evolved in this manner. Might a market in partial interests in land be expected to undergo a similar evolution?

Conservation easements are typically transferred by two principal techniques: donation (or bargain sale) and exchange at fair market value. The two strategies may attract different types of participants, both among landowners who wish to convey easements (the “supply side” of the market) and among organizations that wish to acquire easements (the “demand side” of the market). Next, we examine the various participants in markets for conservation easements, the incentives that motivate them to participate, and the ways in which transactions are conducted.

Participants

Markets for conservation easements are made up primarily of landowners interested in conveying easements, and by public agencies and nonprofit organizations interested in facilitating easement acquisition or in acquiring easements themselves. In a broader sense, however, the market also includes developers, since they represent the demand for land conversion, which gives land value above and beyond the value it has in its current use. Each participant’s behavior is guided by different objectives and constraints.

Landowners

From time to time landowners must make implicit or explicit decisions about the interests in land that they

hold. For many landowners such decisions are forced by tax considerations related to estate planning (Small, 1992). Federal income and estate tax benefits for conservation easement donation may have a significant effect on whether, and how, landowners choose to dispose of interests in land. Specific strategies will prove more or less attractive depending on individual landowners’ circumstances, but several general alternatives are available. First, a landowner could retain the full fee interest in his or her land and then bequeath it to his or her heirs. Inheritance would trigger estate tax liability against the heirs for the fair market value of the property.

A second alternative would be for the landowner to sell the property. Sale of the fee would trigger capital gains taxes. Furthermore, since the net returns to a fair-market-value sale would remain part of the landowner’s financial estate even after the land itself was sold, the heirs would still be liable for estate taxes on any portion of that value that remains unspent at the time of the landowner’s death.

A third alternative would be for the landowner to sell an easement on the property at fair market value, and subsequently to sell the residual interest or bequeath it to his or her heirs. As far as tax treatment is concerned, this alternative is basically equivalent to the second, since no savings on capital gains or estate taxes would be realized.

A fourth alternative would be for the landowner to donate an easement (or sell it at a bargain price) to a qualified government or nonprofit organization, and then sell or bequeath the residual interest at a later date. This would generate income tax benefits during the landowner’s lifetime as well as estate tax benefits for his or her heirs. These benefits may be substantial, but they do not generally approach the financial value of a market-value easement sale. Thus, this strategy generally requires other incentives on the part of the donor, such as a wish (for example, when faced with the prospect of a sale forced by estate tax liability) to see his or her land preserved intact, in its current condition, within the family. Purchase of easements at market value is considerably more expensive to the acquiring agency, but expands the pool of landowners who might be interested in participating to include those who do not wish (or cannot afford) to donate.

Since the magnitude of income and estate tax benefits depends on the landowner’s financial status, some

landowners may realize larger benefits than others. This suggests that some landowners may require a stronger “conservation ethic” than do others to motivate an easement donation, while other landowners may be unable to afford to donate an interest, and be able to convey an easement only via sale at fair market value.

Developers

While landowners represent the “supply side” of the market for conservation easements, developers represent one component of the “demand side” of the market. Developers are not typically interested in acquiring conservation easements *per se*, although they may be in those cases where preserved open space enhances the value of adjacent residential lots. More generally, however, developers are interested in acquiring the right to develop a property. As we noted earlier, the right to develop a property is made up of the development rights on a property (those rights extinguished by a conservation easement) *together with* the residual rights retained by the landowner. It is this interest in development (or in any other use more profitable than current use), in competition with the interest in conservation on the part of public agencies and nonprofit organizations, that helps determine the price of conservation easements.

Public Agencies

Public agencies generally purchase conservation easements at their fair market value. On the one hand, this makes participation possible for landowners who may not be in a position to benefit sufficiently from income and estate tax incentives. On the other hand, it also limits participation to the number that can be accommodated by public funding. In Pennsylvania, for example, the Lancaster County Agricultural Preserve Board currently has a waiting list of 5 to 10 years for farmland owners interested in selling easements (Daniels, 1994), while the WRP and the EWRP have attracted offers of three times as many acres as funding levels have permitted to be enrolled.

While many landowners may not realize significant tax benefits from easement donation, for other landowners these benefits may be significant. In combination with other objectives, such as a desire to see a property preserved in its undeveloped condition, these benefits may be sufficient to motivate an easement donation or bargain sale. It is precisely these

cases where nonprofit organizations focus their attention and enjoy their greatest successes.

Nonprofit Organizations

Nonprofit organizations are private agencies that perform a variety of private and public functions. While they may not receive public revenue, those that serve qualifying religious, scientific, educational, charitable or other purposes are publicly supported in the sense that they are exempted from Federal income taxation (26 USC 501). Nonprofit conservation and environmental organizations help create and participate in markets for conservation easements at both the local and national levels.

Land trusts are nonprofit conservation organizations that protect land with valuable habitat, scenic, and other environmental characteristics through involvement in voluntary land transaction activities. Due to financial constraints, land trusts generally seek to acquire conservation easements from landowners by donation or bargain sale, often relying on the incentives offered by the Federal income and estate tax code.

The number of land trusts and the area they protect have increased rapidly in recent years. Nationwide, 1,145 local, State, and regional land trusts were identified by the Land Trust Alliance in 1994, an increase of 30 percent over 1990 (Wiebe, 1995). California, Massachusetts, and Connecticut had the greatest number of land trusts in 1994, with 166, 122, and 112, respectively (table 5). All but three States (Arkansas, Oklahoma, and South Dakota) had at least one land trust. New Hampshire had the greatest total acreage protected (1.1 million acres), followed by Montana (0.8 million) and California (0.5 million). New Hampshire also had the greatest acreage protected by ownership as well as the highest proportion of State area protected. Montana had the greatest acreage protected by easement, while California had the greatest acreage protected by acquisition and transfer to a third party (such as a government agency). Total acreage protected by local, State, and regional land trusts was 4 million acres, or 0.18 percent of U.S. land area, with 772,296 acres under conservation easement. Nationwide, 46 percent of land trusts listed habitat among their three highest priorities in 1990, followed by open space with 38 percent and wetlands with 28 percent (Wiebe, 1994). About 14 percent reported active involvement in farmland protection.

Table 5—Land protected by local, State, and regional land trust in the United States as of 1994

State	Land trusts		Acres protected ¹		Means of land protection ²				Total as a percent of State area
	Number	Change since 1990	Total	Change since 1990	Owned	Transferred	Under easement	Other	
	<i>Number</i>	<i>Percent</i>	<i>Acres</i>	<i>Percent</i>	<i>-----Acres protected-----</i>				<i>Percent</i>
Alabama	3	-25.0	22,077	2.5	19,154	538	0	2,385	0.07
Alaska	1	0.0	737	21.9	17	0	720	0	0.00
Arizona	6	50.0	1	*	1	0	0	0	0.00
Arkansas	0	*	0	*	0	0	0	0	0.00
California	166	112.8	484,070	24.5	68,544	305,325	50,387	59,813	0.48
Colorado	24	50.0	31,297	26.6	7,225	2,188	11,779	10,105	0.05
Connecticut	112	-1.8	42,575	19.9	26,175	2,605	10,829	2,967	1.37
Delaware	3	0.0	33,816	11.7	19,791	2,139	1,050	10,836	2.73
Florida	27	50.0	103,397	345.8	27,163	48,854	18,270	9,110	0.30
Georgia	14	366.7	988	585.8	204	0	774	10	0.00
Hawaii	4	100.0	78	*	75	0	3	0	0.00
Idaho	6	100.0	2,672	8.4	673	1,537	362	100	0.01
Illinois	27	-10.0	44,288	2.7	8,253	25,948	2,443	7,645	0.12
Indiana	6	20.0	1,982	1,357.6	1,954	3	10	16	0.01
Iowa	5	-16.7	27,457	36.0	5,478	110	490	21,379	0.08
Kansas	1	-50.0	16	*	0	0	16	0	0.00
Kentucky	8	60.0	9,144	2,566.0	557	25	264	8,298	0.04
Louisiana	1	0.0	1,423	-5.1	0	0	1,423	0	0.00
Maine	76	22.6	94,125	74.2	9,430	4,457	28,732	51,507	0.47
Maryland	36	16.1	64,949	57.8	6,992	4,484	51,646	1,827	1.03
Massachusetts	122	6.1	160,782	12.4	94,425	20,715	29,851	15,791	3.21
Michigan	28	33.3	27,325	56.4	18,480	3,140	5,371	334	0.07
Minnesota	6	50.0	3,812	108.9	3,012	0	800	0	0.01
Mississippi	1	0.0	14,693	165.2	0	0	14,693	0	0.05
Missouri	8	33.3	5,254	-1.6	4,054	1,198	2	0	0.01
Montana	6	0.0	838,120	423.1	10,232	130,832	134,973	562,083	0.90
Nebraska	4	33.3	15,665	48.3	13,955	0	1,710	0	0.03
Nevada	1	0.0	120	605.9	0	100	20	0	0.00
New Hampshire	24	-11.1	1,087,127	5.4	102,286	49,451	115,271	820,119	18.89
New Jersey	36	100.0	65,789	5.1	10,368	51,429	2,539	1,453	1.38
New Mexico	8	100.0	16,187	3.2	301	0	3,569	12,317	0.02
New York	69	11.3	125,248	76.5	31,934	17,062	41,319	34,933	0.41
North Carolina	20	33.3	35,364	15.0	6,949	2,851	2,179	23,386	0.11
North Dakota	1	0.0	3,980	*	3,980	0	0	0	0.01
Ohio	30	57.9	12,757	18.7	9,510	500	2,070	677	0.05
Oklahoma	0	*	0	*	0	0	0	0	0.00
Oregon	17	41.7	2,358	39.2	540	213	1,401	204	0.00
Pennsylvania	55	44.7	326,836	31.5	36,042	157,899	52,281	80,615	1.14
Rhode Island	29	0.0	9,999	21.9	6,633	205	2,437	723	1.48
South Carolina	12	50.0	47,484	321.3	3,393	38,103	5,733	256	0.25
South Dakota	0	-100.0	0	-100.0	0	0	0	0	0.00
Tennessee	14	55.6	18,928	34.0	5,877	630	2,525	9,896	0.07
Texas	12	20.0	7,115	-28.0	1,110	165	4,566	1,275	0.00
Utah	4	*	922	*	10	12	900	0	0.00
Vermont	28	40.0	91,155	87.9	11,111	8,685	62,728	8,631	1.54
Virginia	14	27.3	105,628	50.5	12,285	3,518	89,825	0	0.42
Washington	34	30.8	22,586	38.7	7,612	1,737	8,939	4,298	0.05
Wisconsin	27	42.1	12,990	60.8	7,462	3,739	1,356	433	0.04
West Virginia	2	0.0	0	-100.0	0	0	0	0	0.00
Wyoming	2	0.0	7,504	22.3	1,761	85	5,658	0	0.01
District of Columbia	4	300.0	294	2,572.7	56	65	173	0	n.a.
Puerto Rico	1	0.0	13,227	132.1	1,716	0	209	11,302	n.a.
U.S. total	1,145	30.0	4,044,339	49.1	606,778	890,544	772,296	1,774,722	0.18

Note: Regional totals are presented in the summary table on page iv. n.a. = not available. * = Land trusts or acres protected were 0 in 1990.

¹Acres reported by location of land trust (not necessarily by location of acreage). Some acreage may be protected by more than one land

trust. ²"Transferred" refers to acreage acquired and transferred to a third party for conservation purposes. "Other" includes management agreements, negotiation, and other means. Source: Land Trust Alliance.

While land trusts are generally local in origin and focus, similar land transaction activities are carried out by a number of national nonprofit conservation organizations as well. Foremost among these is The Nature Conservancy, which has protected over 8 million acres of land in North America over the past four decades, including 585,000 acres under conservation easement (Wiebe, 1995). The Nature Conservancy focuses specifically on the preservation of biodiversity; other groups such as the National Audubon Society and the American Farmland Trust have their own special interests as well.

Transactions

Due to characteristics specific to individual landowners, public agencies, nonprofits, and parcels of land, conservation easements require case-by-case negotiation, appraisal, monitoring, and enforcement. Each easement is individually negotiated and tailored to the particular circumstances of the two parties and of the parcel of land in question. In this section, we provide an overview of the complex steps involved in the decentralized markets in which conservation easements and other partial interests in land are usually transferred.

Brokerage

The conveyance of a conservation easement requires a convergence of goals between a landowner and an organization interested in seeing that land is used at some level less than its highest intensity. In many cases, this convergence arises in response to a particular sequence of events in a particular location, such as the prospect of a new residential development in an environmentally sensitive area. Many of the smaller land trusts, for example, evolved to counter a particular land conversion project, and had as their principal or sole objective the preservation of a specific parcel of land. In other cases, a nonprofit or government agency may be interested in broader objectives, such as the maintenance of water quality on a watershed basis or the preservation of biodiversity on a national scale.

In either case, a number of services are required before an easement can be conveyed. Suitable parcels must be identified in relation to specific conservation objectives. There is as yet no widespread public dissemination of the details of conservation easements. Of course, easements are recorded in State and county

offices like other real estate transactions. In this sense, the details are public information, but that information is not readily available the way organized market prices are. In the case of easements, the widespread dissemination of price information would facilitate the price negotiation process.

Likewise, there is as yet no widespread, public dissemination of the details of individual CRP contracts or WRP easements. Government agencies do provide information on program participation and average contract values (see, for example, Osborn, 1994b), but it is distributed to inform potential participants and policymakers, not to facilitate secondary trading in these contracts.

Negotiation, Appraisal, Settlement, and Recording

Once an appropriate parcel has been identified and the relevant parties have agreed to discuss terms, a number of complex steps remain. Ownership of all interests in selected parcels must be clearly established. A baseline survey of the condition of the property should be conducted, and specific provisions to accomplish desired conservation objectives must be drafted into the easement (Diehl and Barrett, 1988). Many conservation easements restrict particular uses that are deemed incompatible with the easement's conservation purposes, but reserve all other uses to the landowner. Some critics argue that such easements are vulnerable to violations, since incompatible uses that are unanticipated at the time of easement conveyance may become feasible for the landowner in the future. An example cited by the Forest Service involves the installation of large satellite dishes to improve television reception on easement-encumbered land along a Wild and Scenic River administered by the Forest Service. Such satellite dishes were unforeseen and thus not prohibited at the time the scenic easements were drafted in the 1970's, but incompatible with the purposes for which the easements were acquired (Snow, 1992). Snow and others have suggested increased reliance on the use of "reserved-interest" easements, which convey to the easement holder all rights and interests except those specifically reserved by the landowner. Reserved-interest easements can be drafted to allow landowners to continue to use their land in ways they wish, while reducing the risk of unanticipated future uses by giving control over such uses to the easement holder. In fact, as noted earlier, the easements acquired in the Wetlands Reserve Program are reserved-interest easements.

Although easements are necessarily parcel-specific by nature, the benefits of organized trading and liquid markets derive from the use of standardized, generic contracts (Houthakker, 1969). The tradeoff is between specialized contracts that exactly meet each participant's requirements and standardized contracts that allow low transaction costs and liquid markets. A particular easement agreement may be a perfect fit for the two parties, but the transaction costs are generally high. Standardized easement formats (but not necessarily terms) can reduce the costs and time needed to negotiate an easement. The Land Trust Alliance's annual National Rally is one forum in which draft easement contracts are circulated. The primary goal of circulating sample easement contracts may be to educate new members of land trusts on the technical intricacies of easement drafting, but a concomitant benefit is standardization of easement formats.

Once specific easement provisions are agreed upon, an appraisal must be conducted to determine the value of the property before and after conveyance of the easement. The appraisal determines the fair market value of the easement, and is necessary to establish the purchase price (in the case of a fair-market-value sale) or the magnitude of income or estate tax deductions (in the case of a bargain sale or donation). Specific guidelines that Federal agencies must follow are outlined in *Uniform Appraisal Standards for Federal Land Acquisitions*, as revised by the Interagency Land Acquisition Conference (1992). These guidelines call for appraisal of the value of the underlying land in its highest and best uses before and after conveyance of the conservation easement. It is critical that nonprofit organizations seeking to work with Federal agencies be aware of these guidelines.

The landowner, the party acquiring the easement, and their legal and financial advisors must also consider alternative conveyance strategies. After selecting a conveyance strategy and arranging compensation, the final (and critical) step in the conveyance of the easement is to record the easement in the office of the local recorder of deeds.

Monitoring and Enforcement

Although an easement has been conveyed and recorded, it will not be effective in the long run without ongoing attention on the part of the easement holder.

This involves periodic monitoring of the property, ensuring that heirs or subsequent landowners are fully informed as to the existence and implications of the easement, and, if necessary, enforcement actions against a landowner who has violated an easement. Enforcement costs can be substantial, depending on landowner challenges and on the way in which the easement was drafted, and may in some cases outweigh the savings realized by acquisition of less-than-fee interest in the first place. When considering policy alternatives, it is essential that policymakers and administrators of easement-acquisition programs include the potential long-term costs of monitoring and enforcing easements, and not limit cost comparisons with fee acquisition to initial easement acquisition costs alone.

Secondary Trading

Secondary trading refers to the trading of assets after they are first created and conveyed. Most trading on the New York Stock Exchange, for example, is secondary trading. Conservation easements, on the other hand, do not frequently change hands once they are acquired by a nonprofit or public agency. A land trust might decide that its conservation goals would be better served by altering its portfolio of easements, and it might wish to sell easements in one location in order to acquire easements in another. Conservation easements are occasionally transferred, usually to another conservation organization or public agency, but such interests are generally transferred via individually negotiated contracts rather than in organized markets. (Examples of such partnerships follow.)

Properties encumbered by conservation easements are also sold, and the frequency of such transactions may rise as the use of conservation easements increases. The sale of easement-encumbered land is perhaps most common in the case of preserved farmland or open space, where the residual interests remain sufficiently attractive to individual users—for example, for agriculture or limited residential purposes. In Lancaster County, Pennsylvania, for example, seven easement-encumbered farms were sold in 1995, for an average price of \$4,960 per acre (LCAPB, 1996). The average price of all 112 farms sold in the county in 1995 was \$5,613 per acre. Land subject to CRP contracts or WRP easements may also change hands, though generally as part of a larger operating farm rather than as a preserved parcel alone.

Perpetuity

While most conservation easements are binding in perpetuity, perpetual easements have become common only in recent decades. On the broadest level, the durability of a perpetual conservation easement will depend on the long-term resolve and financial resources of the easement holder (who is responsible for enforcing easement provisions), as well as on the constancy of the legal system. In practice, it is unclear how well perpetual easements will stand up over time to legal challenges and the financial demands of monitoring and enforcement, particularly as landowners who voluntarily conveyed easements (whether through sale or donation) are replaced by subsequent owners who may be less inclined to abide by easement restrictions.

The restrictive capacity of an easement may be terminated through a variety of legal means, including eminent domain (if the government decides a property is needed for some other public purpose). Alternatively, if conditions on adjacent or other land have changed in such a way that the easement restrictions no longer serve their original purpose, the property owner may be permitted to prevent enforcement of the restrictions (Ginsberg, 1988). This might be the case, for example, if a property had been restricted to provide habitat for a migratory species that subsequently became extinct because of habitat loss elsewhere.

Some easements may also be terminated, or bought back by the landowner, at the mutual consent of the landowner and the easement holder. Farmland preservation programs in Maryland and Pennsylvania include such provisions (Daniels, 1994), as does the WRP (16 USC 3837). In other easements this option, called merger, is explicitly prohibited. An easement might also be terminated if an easement holder fails to bring an enforcement action against a violator within a certain period of time (Ginsberg, 1988).

In general, these alternatives reinforce the point that the market value, legal strength, and environmental impact of conservation easements will vary from case to case according to the particular characteristics of the property and the specific provisions of the easement itself.

Partnerships

Partial interests in land may offer the advantage of balancing public and private interests in land at less

cost than fee acquisition and with less potential for legal or political challenges than regulatory mechanisms. As we have seen, however, the price at which these advantages are acquired is that they require case-by-case negotiation, appraisal, monitoring, and enforcement, all potentially costly activities.

Federal, State, and local government agencies may be able to reduce these transactions costs by enlisting nonprofit conservation groups as partners in acquiring, managing, and monitoring easements. Nonprofit groups such as land trusts offer flexibility and agility, the ability to mobilize private financial and political support, and the capacity to provide local knowledge and insights. Local knowledge and support may also be acquired through the participation of organizations such as soil and water conservation districts.

Public and private nonprofit organizations working in partnership also offer access to a larger pool of landowners potentially willing to convey conservation easements. Public easement-acquisition programs reach a wide range of landowners, regardless of their ability to benefit from tax incentives, but such programs are limited by the availability of public funding. While qualified nonprofit organizations can offer tax advantages in exchange for easement donations, public programs generally require that easements be acquired at fair market value (or at least, as in the case of the WRP, that landowners be *offered* fair market value). For example, the implementing regulations of the Uniform Relocation Assistance and Real Property Acquisition Policy Act of 1970 require Federal agencies to offer not less than fair market value when they seek to acquire land (U.S. GAO, June 1994). Neither CRP nor WRP are required to *pay* full fair market value for the partial interests they acquire, however (Buland, 1995), and landowners may increase their chances of selection to participate by offering to accept less than fair market value. Nonprofit programs surmount the funding constraint by emphasizing the tax advantages of easement donation or bargain sale, but may be unable to attract landowners for whom tax benefits are insufficient. The two approaches together may attract a larger pool of interested landowners than either approach can alone.

These two potential advantages—cost savings and an expanded pool of interested landowners—justify a closer look at the role of partnerships between Federal agencies and nonprofit organizations in resource conservation policy. Four Federal agencies administer

619 million of the 650 million acres owned by the Federal Government (U.S. General Services Administration, 1995): the Forest Service (184 million acres), the Bureau of Land Management (BLM) (271 million acres), the Fish and Wildlife Service (FWS) (90 million acres), and the National Park Service (NPS) (73 million acres). In fiscal year 1994, land acquisition funding under the Land and Water Conservation Fund totalled \$254 million for the Forest Service, BLM, FWS, and NPS—down 10 percent from a year earlier (*Common Ground*, November/December 1993). Continuing budget pressures make it likely that funding for Federal land acquisition will remain tightly constrained in coming years. This reality, combined with concerns about balancing land-related resource conservation and private property rights, makes it especially important to consider the role of partnerships in conservation easement acquisition.

Nonprofit organizations play an active role in acquiring land and partial interests in land for the Forest Service, BLM, FWS, and NPS. Land trusts and other nonprofit groups increasingly perform a brokerage function with regard to conservation easements, both in transactions between private parties and in transactions involving private parties and government agencies. The Forest Service and FWS, for example, often rely on nonprofit organizations to help negotiate or acquire and transfer interests in land for conservation purposes. In the WRP, land trusts may participate in easement monitoring and management, and may acquire residual interests from landowners, but are effectively precluded from a brokerage function by program rules that prohibit enrollment of land that has been sold within the past 12 months (Arnold, 1993).

Partnerships between Federal agencies and conservation organizations have already been successful in a variety of contexts. For example, WRP regulations provide that NRCS can delegate wetland management and monitoring responsibilities to qualified private organizations (Arnold, 1993; *Federal Register*, 1995b). The Farm Service Agency (FSA) (including the former Farmers' Home Administration) seeks land trusts' help in educating farmers about FSA's program to reduce debts in exchange for conservation easements, and in monitoring those easements (*Land Exchange*, Spring 1994). The White House noted the achievements of land trusts in the 1996 *Economic Report of the President* (Council of Economic Advisers, 1996). The administration's Interagency

Floodplain Management Review Committee (IFMRC) recognized the role of nonprofits in acquiring land interests after the Midwestern floods of 1993 (IFMRC, 1994; see box 3). The Nature Conservancy, for example, helped negotiate floodplain easements and even acquired residual rights from Missouri farmers who had placed their farms in Federal wetland reserve programs (Tenenbaum, 1994), and numerous Federal, State, local, and private organizations are working together to restore a mix of floodplain-sensitive land uses in the Iowa River Corridor Project. The Forest Service and BLM are also seeking to work more closely with land trusts in activities relating to land acquisition and management (USDA, Forest Service, 1994; *LTA Landscape*, 1993; see box 4). With increased understanding of the nature of easements and the role of nonprofit conservation groups, the scope for partnerships in conservation will also increase.

Forest Service officials caution that land trusts must be well informed of Federal standards and practices regarding appraisal and land acquisition, such as the guidelines in *Uniform Appraisal Standards for Federal Land Acquisitions* (Interagency Land Acquisition Conference, 1992), and must work closely with the Federal Government from the beginning of any easement acquisition process if such partnerships are to be successful (Sherman, 1995).

Two recent reports have examined the role of nonprofit organizations in Federal land acquisition. An audit in May 1992 by the Office of Inspector General at the Department of the Interior found that between 1986 and 1991 BLM, FWS, and NPS spent \$222 million (about 22 percent of their land acquisition expenditures) on properties involving nonprofit organizations (U.S. Dept. of the Interior, Office of Inspector General (OIG), 1992, as summarized in U.S. GAO, June 1994). That report found that Interior agencies generally paid nonprofit organizations the appraised fair market value of the land acquired, resulting in financial gains to the nonprofit organizations in some cases (for example, when they had originally acquired the land for less than fair market value). Interior's Assistant Secretaries for Land and Minerals Management and for Fish and Wildlife and Parks disagreed with the Office of Inspector General's conclusion that these gains were unduly large, prompting debate about the appropriate role of nonprofit organizations in Federal land acquisition.

In 1994, the General Accounting Office (GAO) issued a second report on the role of nonprofit organizations,

Box 4—USDA's Forest Legacy Program

Recognizing that the majority of the Nation's productive forest lands are privately owned, and that private landowners face increasing pressures to convert their forest lands to other uses, the 1990 Farm Bill established the Forest Legacy Program to help private landowners maintain forest lands in traditional forest uses, including the production of forest products and the provision of wildlife habitat and recreational opportunities (USDA, Forest Service, 1992). New York, New Hampshire, Vermont, Maine, and Washington are the first States to participate.

In cooperation with State, local, and private agencies, the Secretary of Agriculture is authorized to acquire perpetual interests in land, especially conservation easements, from willing landowners. Implementation guidelines specifically authorize use of the services of land trusts in identifying and assessing areas for inclusion in the Forest Legacy Program. Land trusts may not execute contracts for acquisition of interests in land on behalf of the Federal Government, but they may mediate Federal easement acquisition, monitor federally held easements, and count their own easements toward the non-Federal cost-share contribution required for Federal participation.

which focused on land acquisitions by the Forest Service and the Department of Energy (U.S. GAO, June 1994). In contrast to the Interior study, GAO found that the Government's interests were adequately safeguarded in both cases. Between 1988 and 1992, the Forest Service's land acquisitions totaled about \$337 million, of which about 41 percent was spent on acquisitions involving nonprofit organizations (U.S. GAO, June 1994). A total of 249 acquisitions involved nonprofit organizations over the 5-year period, all but three of them made by the Forest Service. Six nonprofit organizations (the Trust for Public Land, The Nature Conservancy, The Conservation Fund, the Rocky Mountain Elk Foundation, the River Network, and the American Land Conservancy) accounted for over 95 percent of acres sold and value transferred (U.S. GAO, June 1994). In most transactions, the Federal agencies based their offers on fair market value as determined by timely appraisals. Even in cases where nonprofit organizations sold land to the Government for more than they paid for it (as when nonprofit organizations acquired land at less than fair market value), the nonprofit organizations were found to incur net losses when all direct and indirect costs associated with land acquisition and transfer were considered. The GAO report concluded that Forest Service and Department of Energy relationships with nonprofit organizations have been positive, allowing the Federal Government to take advantage of opportunities to acquire desirable properties that might otherwise have been missed due to landowner unwillingness to deal directly with Federal agencies or to agencies' inability to act sufficiently quickly.

Mitigation Banking

In general, the importance of case-specific circumstances will continue to make decentralized trading the most reasonable market structure in most easement situations. However, features of more centralized markets have begun to appear with the emergence of mitigation banking in a variety of resource conservation policy contexts.

Mitigation

Mitigation involves the compensatory creation or restoration of substitute land with particular environmental characteristics, such as wetlands, to make up for unavoidable losses of environmentally sensitive land due to agricultural conversion or development. Some regulatory programs, such as Section 404 of the Clean Water Act, require compensatory mitigation if wetland losses cannot be avoided or sufficiently minimized. The swampbuster provisions of the 1985 Farm Bill, which deny farm program benefits to farmers who convert wetlands or produce a crop on wetlands converted after December 1985, allow continued program participation if the wetland loss is mitigated through restoration of a prior-converted wetland in the same general area of the local watershed (16 USC 3822).

Compensatory wetland mitigation has historically required creation, restoration, or enhancement of replacement wetlands on or adjacent to the site of the wetland conversion (Environmental Law Institute,

1993). This on-site, project-specific focus has tended to result in small-scale, high-cost compensatory wetlands yielding poor ecological benefits in areas that may not reflect broader wetland priorities. Concern about these results has led to the emergence of an alternative mitigation approach over the last decade: wetland mitigation banking.

Wetland Mitigation Banking

Wetland mitigation banking involves a centralized mitigation function carried out by an approved mitigation agency that may or may not be involved in wetland conversion itself. The bank works on the principle of “compensation credits” that are acquired by public works agencies, private developers, or other parties that need to convert wetlands for various purposes. Rather than mitigating on-site, these parties can purchase and “bank” compensation credits in a larger, centralized wetland mitigation project. The wetland mitigation bank itself may be operated for the exclusive use of a particular developer or public agency, or it may also serve other parties, or it may be altogether independent of conversion activities.

The Environmental Law Institute (ELI) identified 46 existing wetland mitigation banks in the United States as of July 31, 1992 (ELI, 1993). Banks were located in 17 States, but concentrated in California (with 11 banks) and Florida (with 8). Nearly 75 percent of the 46 banks were operated by State highway departments, port authorities, or local governments to provide mitigation for public works projects. Six more banks were controlled by private developers for advance mitigation of their own projects. Only four banks offered compensation credits for commercial sale to the general public, one of them a privately owned bank and the other three owned by public agencies or nonprofit organizations.

ELI also identified 64 proposed mitigation banks at various stages of review and authorization. Of the 64, 32 propose to offer credits for commercial sale to the

general public, in contrast with 9 percent of existing banks.

On November 28, 1995, NRCS and other Federal agencies published final policy guidance for the establishment, use, and operation of mitigation banks to satisfy the wetland mitigation requirements of the Clean Water Act’s Section 404 permit program and the “swampbuster” provisions of the 1985 Food Security Act (*Federal Register*, 1995a). The guidelines state that banks may be sited on public or private lands, but that mitigation credits may not be generated by federally funded wetland conservation projects such as the WRP or the Fish and Wildlife Service’s Partners for Wildlife Program. Preservation of existing wetlands may not generally be used as the sole basis for generating credits. The guidelines state the agencies’ preference for mitigation within the same geographic area and of the same kind of wetland as that being degraded or lost. Compensatory mitigation is to be assured prior to any debiting of mitigation credits from the bank. Finally, wetlands created, restored, or enhanced by the mitigation bank are to be protected in perpetuity with appropriate real estate arrangements, such as conservation easements or transfer of title to an appropriate Federal or State agency or to a nonprofit conservation organization.

Mitigation banking schemes essentially make transferable a developer’s obligation to mitigate when wetland losses are unavoidable. In so doing, they offer potential advantages of a wider market in conservation interests. Specifically, mitigation banking schemes can realize economies of scale in wetland creation, restoration, or enhancement, as well as flexibility in locating compensatory wetlands in sites that offer greater or higher priority ecological benefits. Given the relatively recent emergence of wetland mitigation banking, it remains to be seen whether this will prove a viable market institution over time, and whether it might eventually prove promising in other conservation contexts as well.