

Emerging Tools and Institutions to Conserve Oak Woodlands: Integrating Public Trust and Private Benefits, or Can We Ever Get Paid for Doing the Right Thing?¹

Laurie A. Wayburn²

Introduction

This conference on “Oaks in California's Changing Landscape” is a most timely and important conference at a critical time in California. Having been born and raised in California, I have never known a time when this landscape was not changing. And, usually not for the better if you care about our natural environment, as I do. But, today it is changing at an ever-increasing rate and scale, and the forces of restoration and conservation of that natural landscape seem even more outpaced by those of development and degradation.

The facts speak for themselves. Perhaps 45 million acres of California was in forest at the time of settlement, and, of those, some 40 percent or just under 18 million acres were broadleaf, oak and hardwood woodlands (Küchler 1977). By World War II, California had lost one-third of its forests—mostly oak woodlands and hardwood riparian forests—to agriculture and urban development (Wieslander and Jensen 1946).

Today, we have half that number of oak woodland acres, roughly 9.5 million. Perhaps 45 percent of that is so heavily disturbed, built upon, and fragmented with roads, that it cannot function well ecologically, though it may have oaks on it.³ In fact, California continues to lose forestlands, and at an increasing rate. Every year, California is losing over 60,000 acres of forestland. These are all private forests, with holdings broken up and converted to non-forest. In the five years 1992-1997 we doubled the rate at which we were losing forests compared to the period 1982-1992 (Best and Wayburn 2001, NRI 2001). As documented in the book *America's Private Forests*, which I co-authored with Connie Best (Best and Wayburn 2001), nationwide we are losing roughly one million acres of private forest a year. There is no doubt that, if these trends continue, we will continue to have a rapidly vanishing landscape and a daunting challenge for those who love that landscape and seek to conserve it.

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² President, The Pacific Forest Trust, 416 Aviation Boulevard, Suite A, Santa Rosa, CA 95403 (e-mail: lwayburn@pacificforest.org)

³ Unpublished data on file at The Pacific Forest Trust, Santa Rosa, California.

How to Promote Oak Woodland Conservation

How do we change these trends? An essential step is to leverage the love that people have of this landscape with new tools and institutions to conserve oak woodlands and all the values they provide. Effectively, we must integrate the public trust values of these critical habitats with private interest benefits, so that we make conservation and sustainable management competitive with degradation and conversion.

This is what my organization—The Pacific Forest Trust or PFT—seeks to do and, in fact, does, in order to increase conservation of private forestlands. We have directly conserved over 30,000 acres of productive, managed forest, both oak woodlands and conifer forests, and provided conservation planning services on many thousands more acres. Of course, all forests are productive, whether it is productive of habitat or firewood, watershed or residential development, open recreational space or vineyards. But, rather like women, and men, too, who manage households rather than banks, while all are productive, only some get paid for what they produce. And, rather like those household managers who provide great societal and private internal family benefit, those forests producing watersheds, open space, and habitat have great societal and personal benefit, but are not paid for this benefit. In fact, generally the only things which oak woodlands produce that are paid for are those which degrade or destroy them: agricultural conversion and residential development.

So, the things for which we as a society value oak woodlands for are generally not those for which we have an economic value. In the market place, conservation is not currently the driving force for the management of oak woodlands—conversion is. Ecosystem services economies, which theoretically provide trillions of dollars in value, are indirect. They broadly benefit society, but do not directly benefit any individual.

The challenge for us is, therefore, to somehow transform these socially and ecologically essential, but non-economically producing, services of oak woodlands (and, in fact, all forests) into ones which are also economically productive for landowners. This is the nub of the problem: what we as a society want landowners to manage oak woodlands for is not what we as a market pay them for, rather the complete opposite. We want the landowners to do the right thing for oak woodlands, but we pay them to degrade and destroy them.

So, perhaps the real title for my short speech is “can we ever get paid for doing the right thing?”

How can we pay landowners for the intrinsic values and services of oak woodlands—the symbolic values, the scenic, recreational and open space values, the habitat, carbon storing and watershed values of oak forests? Further, can we do so in ways that are compatible with other economic uses such as sustainable ranching or recreation? Collectively, I will term such intrinsic values and ecosystems services as conservation values. Can we create markets for these conservation values such that we can compete with converted oak values such as new residential developments, agricultural row crops, and specialty crops such as vineyards?

There are four reasons to think we can:

1. The substantially increased public concern that we see that led to a greatly increased conservation financing with Propositions 12 and 13 of 2000, and, we hope will give us another in 2002.
2. The increasing development of both public policy and private institutions to work with landowners to restore and conserve working landscapes, ones which work for both private return and public benefit.
3. The increasing awareness of the potential values of forest ecosystems services as watersheds, habitats and carbon storehouses; and
4. The greatly increasing awareness of the risks that global environmental change pose, specifically global warming and intensified water shortages and declines in water quality.

Put together, these four forces are building markets to help pay landowners for the functions that oak woodlands and other forests provide simply through virtue of being oak woodlands: providing watersheds, habitat, climate stabilization and carbon storehouses, and places of recreation.

I am going to discuss these points, including the growing conservation market that public dollars support; government programs that partner with private institutions; and the emerging market values of ecosystems services that will support direct conservation.

Let us look at some examples.

Bond Acts Supporting Conservation

Taken together, the two California bond acts of 2000, Propositions 12 and 13, provided \$4.1 billion, with hundreds of millions of dollars in them for land conservation. Much of this money has gone into acquisition of easements for watershed and habitat values held by agencies and land trusts. This coming year, 2002, another Bond Act, AB 1602—the California Clean Water, Clean Air, Safe Neighborhood Parks, and Coastal Protection Act of 2002—is being proposed for \$2.6 billion. This new financing is driven by the public's greatly increased desire for open space, clean water, recreation and habitat. These conservation values do not necessarily require a fee-title purchase to be protected; easements are a highly effective tool for this purpose.

As discussed above, many millions of these dollars from Propositions 12 and 13 have gone into land acquisition and the acquisition of interests in land held by agencies and land trusts. You are all familiar with various resource management agencies, but may not be with land trusts, especially those for managed lands, such as the PFT. Land trusts are non-governmental partners in sustainability with private landowners. They are charitable non-profits whose work is private and confidential. They are selected by a landowner to be a guardian of that landowner's vision of forest stewardship.

Conservation Easements

The tool that land trusts commonly use for the acquisition of an interest in land is a conservation easement. I call conservation easements tools for sustainability because they guarantee the future of forestland as forestland. Conservation easements have been in use since the early 1930s, but greatly expanded during the 1990s. Millions of acres are currently being managed under conservation easements. They are an effective alternative to public acquisition in two ways. The public provides compensation to the landowner for a commitment to keep the land in a natural, functioning state; and the forest stays in productive use.

Legally, what is a conservation easement? It is a permanent deed restriction created by a landowner that defines and limits the kind of development and uses for a property. In the cases that I am speaking about, properties are dedicated to forestland purposes—that is, to remain forever as forest or woodland. The easement is voluntarily granted to a non-profit conservation organization, land trust, or government agency selected by the landowner to monitor and enforce the terms.

Why would a landowner create a conservation easement? There are many different landowners and as many different reasons. There is often a strong love of the land and the desire to create a legacy for future generations. They may also want to exercise their rights not to develop, subdivide or over-use their land. Others desire keeping the land in forest while sustaining compatible forest uses. Some want to ensure that future, potentially less well-motivated owners are unable to liquidate the forestland. Some wish to realize financial gains from their stewardship, as the conservation easement can be bought or donated. Further, a gift of conservation easement is the only partial interest gift in real property which is tax deductible. Thus, the government, through this policy enacted in the late 1970s, has promoted nonprofit, private partnerships in conservation.

Now, many of you may think you already know all there is to know about easements, but, unfortunately, a lot of what appears to be known is not, in fact, true.

- *Myth: Restrictions limit future options.* Fact: Only options for houses and asphalt are limited. Options for forests increase.
- *Myth: Sustainable resource management is prohibited.* Fact: Sustainable use is guaranteed.
- *Myth: Environmental activists or state agencies will take over my land.* Fact: No public access is required. Access is by permission and is limited to the monitoring of the conservation easement.

How do conservation easements create financial gain for conservation and sustainable use? In fact, conservation easements are the only partial interest gift in real property that is tax deductible and can reduce the estate valuation, so it is very significant. When valuing a conservation easement, a qualified appraisal of the fair market value of the property is required for a tax deductible gift or below-market sale. Conservation easements provide a means to gain from exercising the right not to develop. The value of the conservation easement is based upon its “before” and “after” valuations, i.e., full market value before the conservation easement restrictions, and a reduced value after the deed restrictions. As conversion and break-up value is so high, eliminating these values has a high reward. Typically we have found that conservation easements reduce values by 30 percent to 70 percent. We will look at an example shortly.

There are costs to creating a conservation easement, including legal and accounting advice; forestry advice; possible forest and other resource inventories; the services of the land trust for the development of the conservation easement and baseline; appraisal; and the stewardship endowment. The stewardship endowment can be a tax deductible gift, or it may be supported by other funding. This stewardship endowment ensures that the Grantee (and Trust) has the means to monitor and enforce the easement through time. A stewardship endowment typically costs less than five percent of the value of the easement, and often as little as 0.01 percent, so it is an excellent investment. Our costs to a landowner, in total, for services and the tax-deductible gift of a stewardship endowment are often \$45,000.

Conservation Easement Case Study

So, these are the facts of conservation easements. How are they practiced in real life? A sample easement vignette is the Twining and Oracle Ranches in Mendocino County. These ranches cover 1,524 acres of oak woodland and mixed conifer forest in Talmage, which is in the viewshed of Ukiah. Ukiah is the most rapidly growing city in Mendocino County. It was ranked as one of the ten most livable midsize cities in the United States five year ago, and it has been trying to get rid of that designation ever since by building into the lands that made it attractive in the first place! The primary income source on these ranches is sustainable cattle ranching. The lands are surrounded by vineyards and subdivisions. The Twining and Oracle ranches were donated by Olive Twining with the agreement of her three daughters. Most of the costs of this conservation easement were covered through a grant of financial assistance from the Forest Legacy Program, which is administered by California Department of Forestry and Fire Protection.

The conservation goals on the Twining and Oracle Ranches are to: maintain and enhance the oak woodland and mixed conifer ecosystems; maintain and enhance the native grasslands; maintain and enhance the fish and wildlife habitat and water resources (including a vernal pool and Howell Creek and other tributaries of the Russian River); protect the scenic viewshed for the Highway 101 corridor—the heavily traveled main north/south coastal state highway; and permit sustainable resource uses. These conservation goals are, in fact, constraints on the sources of future economic return. Achieving them without an easement would have meant less available economic return in the short term. Without compensation for that conservation, the Twining family was faced with the unacceptable choice of selling off parts of the ranch. PFT created a conservation easement which allowed them to do what they wanted, yet still compensated them for protecting the Ranch.

The Twining conservation easement is structured to recognize two zones of activity: the Oak Woodland Zone (1,324 acres) and the Development Zone (200 acres). These zones each have different restrictions and permitted uses. The Twinings also reserved the right to keep the property as two ranches, allowing for family control in two pieces, yet treating the land as a whole from a management perspective. They also reserved the right to sell off two small parcels, comprising less than 25 acres located close to the road, if they have to. Within the Development Zone a lot of activity can happen. There can be up to four personal residences; various buildings related to livestock management; the growing of food and crops; cottage industries, transient hospitality, scientific research, and education related to the property's natural resources. Within the Oak Woodland Zone, only grazing and non-

motorized recreation rights are retained, essentially keeping this area as natural habitat.

The Twinings developed the following restrictions on the land to ensure their vision. Overall, commercial uses not derived from, or compatible with, maintaining oak woodlands are not allowed. Roads are to be constructed using the Resource Conservation District's Best Management Practices. Activities that pollute water are prohibited. Manipulation of watercourses, except for habitat restoration or conservation, is not permitted. Within the Oak Woodland Zone, there may be no residential nor other building, and the impact of grazing is controlled by Residual Dry Matter requirements. We are also exploring another approach to ensure that overgrazing does not occur—stubble height limitations.

The management of the woodlands has several goals. The first is to manage the lands to maintain the native forest types on the ranches, especially the blue and oracle oak woodlands. There is a maximum commercial harvest of three cords of wood per year, as the Twinings did not want firewood harvest to ever be a motivation to cut the trees. In addition, they allowed trees to be cut for disease control, fire prevention, personal safety, and salvage after a catastrophe. Non-commercial vegetation management is also permitted.

The easement created considerable value and compensation to the Twinings in tax benefits, in addition to the comfort of seeing their vision ensured. Using a third party appraiser, the unrestricted value of the ranches before the conservation easement was \$3,100,000. Under the appraisal with the conservation easement restrictions, the value was reduced to \$1,250,000. Thus, the conservation easement value is \$1,850,000, or 60 percent of the entire value. Doing what they wanted to do, and benefiting the public with conservation, gained the Twinings a 60 percent reduction of taxable value.

Government Programs that Partner with Private Institutions

In addition, the Twining's costs were largely paid for by a new government program, the California Forest Legacy Program, which was signed into law in 2000. Created initially in the 1990 federal Farm Bill, this is a new state program really designed to help private landowners who manage sustainably to stay in business. The California Forest Legacy Program provides funding for acquisition of conservation easements on private productive forestlands. Its goal is to prevent forest and woodland conversion and to protect wildlife habitat, biodiversity, watersheds, fisheries, natural ecosystem functions, and long-term sustainable uses. The California Department of Forestry and Fire Protection is doing an excellent job building the program with the USDA Forest Service.

Another significant new public program is the California Natural Heritage Preservation Tax Credit Act. Under this program, \$100 million is available in state tax credits for donations of qualified lands and water for permanent preservation. This is a big incentive for the donation of a conservation easement, as this allows a tax credit of 55 percent of the contribution value, to make up the difference between the tax deduction and its gift value. However, it does require a public hearing for approval of the donation, which other transactions do not. This is another excellent tool for landowners with whom you work to consider.

Private Conservation Markets

These are some examples of a growing public conservation market and public and private institutions to help implement it. What about private markets for conservation? This is the holy grail of conservationists—to harness the power of private capital to promote and benefit ecosystem health. Well, I suggest there are some real market possibilities relating to carbon storage or sequestration by forest ecosystems. By reducing emissions of carbon dioxide, the primary greenhouse gas, forests can help mitigate the risks of global warming. However, no market exists in a vacuum. Buyers need a reason to buy and sellers need a reason to sell. The carbon market has evolved out of the 1992 Earth Summit in Rio de Janeiro. That created a global partnership for economic progress and environmental protection under the United Nations Framework Convention on Climate Change (UNFCCC). The goal is to stabilize greenhouse gasses to sustainable levels and, to date, is the most complex, far-reaching international treaty ever created.

After a series of meetings following the Rio Summit in 1997, the Kyoto Protocol was proposed to implement the UNFCCC. The Protocol was to reduce greenhouse gasses, especially committing developed countries to reductions in carbon dioxide emissions. The Protocol is not in force; the US has signed but not ratified it. Starting in 1999, negotiations began to determine how to implement the Protocol. The negotiations in November 2000, the so-called Sixth Conference of the parties to UNFCCC, were continued into July and October 2001 as countries continued to discuss modalities of implementation. For the U.S., it is very difficult to see implementation without new rules as the Senate, essential for treaty ratification, passed the “Byrd/Hagel” Amendment (sponsored by Senators Byrd and Hagel) 98-0, which states that there will not be ratification until: 1) costs are “feasible;” and 2) developing countries like China, which have very rapidly rising carbon dioxide emissions, join. Then, in the summer of 2001, the Administration withdrew from Protocol negotiations.

Thus, while the Protocol is unlikely to be realized in anything like its current form in the United States, its substance is likely to be used again. This includes a number of Protocol Articles which concern forests: Article 2, which states the importance of forests; Article 3, which concerns forests and direct domestic reductions; Article 6, which concerns both intersectoral and intercountry carbon trading; Article 4, concerning Joint Implementation; and Articles 12 and 16, which concern the Clean Development Mechanism.

These Articles underscore the importance of forests not only as “carbon sinks,” but also as carbon sources. Forests are the second largest source of carbon dioxide emissions globally as a result of forest conversion and degradation. Sixty thousand acres of forest per year, with concomitant carbon dioxide emissions, are lost in California alone. Forests store carbon as they grow, and emit carbon dioxide when disturbed. So, if you prevent oak woodland and other forest loss and conversion, you prevent carbon dioxide emissions and continue to store carbon dioxide. How much carbon can oak woodlands store? This will vary depending on stocking and conditions. Stores can range from 8 to 40 tons of carbon (24 to 120 tons of carbon dioxide) per acre for forests with 40 to 100 percent canopy.

Depending on the price of carbon, this represents potential income to landowners who conserve forests. These values, at \$20 per ton of carbon, can pay for the per acre value of a conservation easement. Thus, a forest carbon market provides

private financial incentives to reduce forest emissions, undertake conservation measures, and promote sustainable forestland use and economies. So, effectively, a forest carbon market could provide potentially ongoing incremental payments to landowners for conservation and for sustaining their lands. The Pacific Forest Trust completed the first transaction of this nature last year. We sold carbon credits to help acquire a conservation easement on managed forestland in California.

Why a conservation easement? It is an existing legal tool; we know how to use it; and it ensures monitoring and reporting. Conservation easements put restrictions on land use. The carbon market is a good source of private capital as it pays to sequester carbon and reduce forest emissions. Thus, it pays landowners to keep forest as forest and pays to increase the average age of forest. In essence, the carbon market helps pay for conservation.

While very small today, the carbon market is likely to grow because of legislation driven by concern over global warming and air pollution. This will help create the legal framework for the market. As any new market, the carbon market does not like risk. Legislation is needed to help the new market work by establishing “rules of the game.” Bills are being introduced at both the state and federal levels. At the federal level, these bills are coming through many committees, especially the Environment and Public Works, Agriculture, and Commerce committees. The State of California is also taking a lead here, where we have a voluntary Carbon Registry, signed into law in 2000. Internationally, the Bush Administration continues to have a presence at the Kyoto Protocol negotiations, though not officially. Further, this Administration has clearly signaled its intent to use sequestration as a primary tool to facilitate carbon dioxide reductions.

The “carbon market” is an emerging market. There are, to date, only a few pilot projects that businesses are sponsoring. These include Green Mountain Energy Company's landmark project with PFT to prevent and reduce forest carbon dioxide emissions in California. PFT is also establishing regional forest “carbon banks,” such as the one we are developing in the Wallowa region in Oregon. A third example is the Illinova project (not PFT) with the U.S. Fish and Wildlife Service which is restoring and preserving bottomland hardwoods along the Mississippi River. A similar project could be undertaken in California to restore our riparian gallery forests. At settlement, California had 45 million acres of forest—and some of the best in the world for carbon stocks. While we will not get all of that back, reforestation for carbon can help us restore many forests and conserve what we still have.

Conclusions

In conclusion, while we are in a very challenging and potentially extremely depressing time for oaks in California, we are also in a tremendously exciting time. The tide of public concern and political understanding of the unacceptability of environmental degradation can and should continue to rise. We have opportunities to build new markets for conservation. We have to think differently about how we create economic value for conservation, and work with new partners, integrating and harnessing economies to promote conservation.

Population experts talk about the world population cresting in 2050. We can envision a world 50 years from now if we do not act, and it is not a pretty picture. However, knowing that we can see a light at the end of the tunnel, that we can see a

time when resource pressures from population growth will diminish, we can also plan a very different future for 50 years from now—one where we pay for what we truly value and need, such as a healthy, beautiful place to live based on native, diverse ecosystems. And, with help from people such as yourselves, I look forward to a future where we all benefit from doing the right thing, for ourselves, and for coming generations.

Thank you very much.

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