



# Trading Spaces

Conservation efforts get a boost from the market

BY BETTY JOYCE NASH

*Old pine trees: Home of the endangered red-cockaded woodpecker*

**R**ed-cockaded woodpeckers choose real estate carefully. They prefer drilling cavities in old pine trees — longleaf if they can get it — amid open space. A golf course, for instance. They're picky, territorial, and because they're endangered, they influence private land transactions in a big way. They live in 10 Southeastern states on a sliver (3 percent) of their original longleaf pine habitat.

Even after federal protection in 1973, their numbers continued to slide, in part because frustrated landowners tried to deter or get rid of the birds. Some cut forests before maturity to avoid woodpecker cavities or allowed dense hardwood growth to spoil foraging area under the pines. All this to avoid future limitations on how property owners could use their land.

Something was very wrong with the incentives here: Habitat and species preservation demanded a truce. Owners of the preferred pine tracts needed encouragement to manage forests in a woodpecker-friendly way without liability. A conservation tool called Safe Harbor does that. Landowners voluntarily agree to restore woodpecker habitat; in return, the U.S. Fish and Wildlife Service frees them from regulatory limits should those management practices attract additional groups of birds beyond the original "baseline." Voila — incentive.

"It removes regulatory risk and allows landowners to engage in practices beneficial to them and the woodpecker," says Michael Bean, an attorney at Environmental Defense, the nonprofit environmental group that has pioneered Safe Harbor and other conservation incentives.

## Natural Remedy

Conservation increasingly pits private interests against public. Conflicts will only intensify as development continues to chop up open land and species habitat.

Incentives, however, have demonstrated over the past decade that they can turn environmental liabilities into assets. Under some programs, farmers can sever and sell development rights. In others, developer obligations can be transferred to "mitigation banks" that sell credits from private, certified-restored natural areas. Both create tradable commodities. Both achieve social goals through market enterprises.

Such incentives can inspire landowners to maintain land and correct the negative consequences of development. Now, red-cockaded woodpeckers are multiplying in the Southeast, with the help of incentive-based agreements like Safe Harbor. The Sustainable Land Fund is ironing out details for a mitigation bank near Elkins, W.Va., for the threatened Cheat Mountain salamander and West Virginia northern flying squirrel. And a market for transferable development rights in Maryland has preserved 17,500 acres of farmland in Calvert County.

"We know incentives inform what landowners decide to do with their properties, so the idea of now turning those around and saying, 'How can we use that same technology, that same financial set of tools to create a longer-term, sustainable future?' is by my way of thinking just an appropriate new mechanism we need to adopt to do more than we can possibly do with the old tools," says William Ginn. He directs the Global Forest Partnership at

The Nature Conservancy and wrote the 2005 book, *Investing in Nature*.

Using market tools to achieve conservation goals isn't a new idea, but it is gaining currency as preservation funds dwindle and regulation proves inadequate.

Environmental regulation tries to make up for costs that affect society, costs that aren't borne by firms or landowners, called externalities. Like pollution. Or doing in the last red-cockaded woodpecker. But a one-size-fits-all standard may not work as envisioned. (Economists John List, Michael Margolis, and Daniel Osgood have written a paper suggesting that the U.S. Endangered Species Act has accelerated development, leading to habitat and even species decline. Property owners, the authors argue, are forward-looking and when they see the "act as a threat to their development rights," they may respond "by developing preemptively" that is, before restrictions imposed by the act are applied to them.)

### The Birdie

Pinehurst, a resort in the Sandhills of south central North Carolina, was in on Safe Harbor from the get-go, says Brad Kocher, vice president of grounds and golf course management. His interest dates back to 1995, when the resort's No. 8 golf course was under construction. A shame, he recalls thinking, that the resort couldn't do something to attract more birds. "But if I did something to encourage the species on No. 8, I [would have] encumbered anybody within a half-mile radius of that tree, and they were not going to be very happy with me."

Safe Harbor will protect landowners from future restrictions once the original group of birds is documented. Owners also must enhance the habitat. Pinehurst has about 11 families of red-cockaded woodpeckers, and has won awards for stewardship. The agreement extends to neighboring properties affected if new woodpeckers are drawn by Pinehurst habitat.

Incentives can prompt improbable acts: After Hurricane Fran in 1996, a

landowner reported a downed cavity tree and insisted that a biologist drill an artificial cavity ASAP so the woodpeckers would stay. Today, about 100 Safe Harbor agreements cover about 50,000 acres, according to Susan Ladd Miller of the U.S. Fish and Wildlife Service. And six new groups of red-cockaded woodpeckers have settled in the North Carolina Sandhills.

"What it did was allow us to not just be the bad guy, the regulatory guy, but allowed us to have positive relationships with these landowners," Miller says. Safe Harbor and other conservation plans have inspired some private landowners to put land in conservation easements, one adjacent to Ft. Bragg, desperate for noise buffers and critter habitat. (By law, federal lands must recover endangered species.)

### Banking on Conservation

Birds can be "banked." Two elderly women in North Carolina needed to sell timber to pay medical expenses but were hindered by the discovery of three red-cockaded woodpeckers. Those birds were moved to Nature Conservancy land in Sussex County, Va. The Piney Grove Preserve, 2,700 acres of primo foraging habitat, has twice been a mitigation bank for the woodpeckers.

Ralph Costa of the U.S. Fish and Wildlife Service brokered the deal. He tracks the red-cockaded woodpeckers' progress and works out agreements with landowners all over the Southeast — public and private. Between 100 and 200 groups of birds are growing annually throughout the region on public and private land, Costa says. Landowners must pay the mitigation costs.

Costa explains: "I get a phone call ... 'Got two groups to get off my property — I need the money.' I give them the names of all the mitigation banks and contacts within their recovery unit and that's the end of my involvement. At that point, they call the bank and negotiate the price. I don't care if it's free or a million dollars."

One cluster of birds sold for \$100,000 and went to a conservation easement owned by the University of South Carolina, Costa says. The birds came from property being developed on the coast of South Carolina. "What drives the price [is the] value of the timber and/or the dirt for development on the mitigation property," he says. "We have some prices floating around right now approaching \$250,000 for a developer who has a group they want to get rid of and it's because the land could be used for timber." Few high-dollar groups of woodpeckers remain on coastal high-dollar dirt, Costa says, making such transactions rare.

While such informal trades don't constitute a true conservation or mitigation bank with active trading, that concept is gaining ground. California established rules for the first endangered species banks in 1995, and in 2003, the U.S. Department of the Interior issued guidelines. Under a command and control system, if an endangered species were found during development, a protracted process ensued that often led to piecemeal preservation. Using endangered species mitigation banks, an "enviropreneur" may buy and manage land, gaining appropriate agency approvals. (Those in the business say that, for now, they're overregulated but expect that to diminish as the banks prove themselves.)

A California firm, Wildlands, Inc., has opened seven mitigation banks since November; the latest one preserves habitat for the giant garter snake in an eight-county area near Sacramento, Calif. Wayne White works as a consultant for mitigation banks, having learned the ropes during his career with the U.S. Fish and Wildlife Service.

A new mitigation bank carries risk just like any other business. You need to know your market and how many credits you'll have to sell to break even or to make a profit, White says. The bank improves, monitors, and establishes an endowment to ensure management in perpetuity. And here's



*Red-cockaded woodpeckers average about eight inches in length and feed mostly on insects. Landowners face fewer restrictions on property use in return for habitat maintenance.*

the trickiest part, he says: “Can you sell the credits?”

Conservation banks seem sound, but they need tweaking. California’s first bank, formed in 1995, went bankrupt in 2005. “Agencies and bankers learned you have to have a good financial portfolio,” White says. Since then, state and federal wildlife agencies have developed tools to monitor financial performance.

### **Flexible Farmland in Calvert County**

Perhaps the oldest conservation incentive tool comes in the form of “rights” that can be sold off farm properties to offset additional density elsewhere.

From the top half of Calvert County, Md., you can commute to Washington, D.C., in about 35 minutes. This Eastern Shore county has been a prime bedroom community even as far back as the early 1980s. Between 1990 and 2000, Calvert was the fastest-growing county in Maryland.

“We were one of the first to feel the effect of the concept of a bedroom community,” says Susan Hance-Wells. Her family has lived on Calvert farmland since it was established some 300 years ago. Today, she grows corn, soybeans, and oats, and she breeds Friesian horses.

Worried about disappearing farmland, Hance-Wells and her father, Maryland’s first secretary of agriculture, enrolled in Calvert County’s transferable development rights (TDR) program back in 1979. Their fears illustrate the externality that isn’t accounted for by a builder — in this case, the reduction of open space and loss of farmland.

In a TDR market, development potential transfers from one parcel to another. It can be used to preserve natural or historic areas as well as species habitat. Zoning, a typical regulatory response, often doesn’t work the way it’s supposed to because of what economists call “rent-seeking.” If owners feel a classification

deprives them of income, they’ll pressure local authorities for change.

Paul Thorsnes of the University of Otago in New Zealand and Gerald Simons of Grand Valley State University in Michigan have studied the issue and written: “In short, however efficient the allocation of land, the inequitable distribution of costs and benefits plagues open-space zoning.” But creating a market for development rights is preserving land, particularly in Calvert and Montgomery counties.

Prices are determined through supply and demand, not appraisals. “If the builders are building, and they need those rights to increase density in the subdivisions, then the price goes up,” Hance-Wells explains.

### **The Power of Prices**

Channeling development through a TDR market draws on the same principles as free market environmentalism. In theory, people choose based on self-interest and everybody benefits. “Regulation to a standard means forcing some people to be at a position they’d rather not be,” says Margaret Walls, an economist at Resources for the Future, a Washington, D.C., think tank. “Whether it has to do with acres of land or power plant emissions, market-based instruments tend to have more flexibility.”

Walls, with co-authors Virginia McConnell and Elizabeth Kopits, has studied the market for development rights in Calvert County. “It creates a price for selling these rights, an incentive for people to preserve this land permanently,” McConnell notes.

One measure of a TDR program’s success lies in trading activity, McConnell says. “So often the programs are on the books but nobody makes transactions; supply and demand are out of whack. If the market works in the sense that people are participating, then you know land is being preserved.”

In Calvert County, any landowner with productive soil may enroll

and sell TDRs. Owners also can develop their land or buy rights and develop beyond base zoning limits. A single TDR preserves one land parcel. McConnell points out that one of the downsides to TDR programs is adverse selection. Conceivably, some owners sell rights who may never have intended to sell or develop their property in the first place. That could lead to more density than would occur under a straight zoning regime.

About 142 TDR programs are ongoing in the United States, some more successful than others. Getting supply and demand in sync is critical. If people don’t know who is selling development rights, there are problems matching willing buyers and sellers. To remedy a thin market and price fluctuation, Calvert County began in 1993 to buy TDRs annually at announced prices. They also now publish a newsletter to keep information flowing.

With the uncertainty reduced, McConnell says, trading increased. A recent study of TDR programs found that market stimulation through such public purchases helps balance supply and demand and is characteristic of successful TDR markets.

Purchases vary from year to year and prices have increased from an average of \$2,500 in 2001 to \$7,500 in 2005. Maryland’s TDR program has preserved 12,000 acres, and Calvert County has bought 5,500 acres to retire permanently. Separately, the state has bought easements that have preserved 7,000 acres.

### **Not Perfect**

Critics point out, though, that development in Calvert County sprouted in the rural communities anyway, demonstrating low demand for dense residential development. While the development pattern isn’t perfect, flexibility may have worked to the county’s advantage.

“A lot of programs try to dictate that the sales go into more high-density areas; as a result it sometimes limits the demand for them,” Walls says. “TDRs are not a growth

limiting tool but a growth allocation, spatial allocation tool.”

High land prices have brought new owners to TDRs, says Susan Hance-Wells, but many are “farmettes” rather than large-tract farms. “Some of the land that will get in is not what we originally intended, but they preserve farm communities. It’s insulating the farms in that community against increased density,” she says. “You’re going to have

cases that don’t suit what you’re looking for or don’t accomplish the goals, but they’re not going to be in the majority.”

OK, so maybe the development isn’t ideally situated. And perhaps it isn’t a true market, as Thorsnes points out, because the zones are predetermined by planners. But the fact remains that farmland is being preserved.

Likewise, maybe Safe Harbor won’t

satisfy everybody, but it’s increasing populations of the red-cockaded woodpecker. And mitigation banks are criticized for “enabling” development. Yet the private banks, the successful ones, are preserving larger sites and providing permanent management for endangered animals. As markets for endangered species and open land mature and go mainstream, they may reveal nature’s true value. **RF**

## READINGS

Balsdon, Ed. “Incentives for Resource Conservation through the Capitalization of Environmental Value: An Evaluation of Open Space Mitigation Requirements.” Discussion Paper 03-04, Center for Public Economics, San Diego State University, January 2003.

Boyd, James, Kathryn Caballero, and R. David Simpson. “The Law and Economics of Habitat Conservation: Lessons from an Analysis of Easement Acquisitions.” Discussion Paper 99-32, April 1999, Resources for the Future.

Dehart, Grant H., and Rob Etgen. “The Feasibility of Successful TDR Programs for Maryland’s Eastern Shore.” The Maryland Center for Agro-Ecology, Inc. January 2007.

Ginn, William. *Investing in Nature: Case Studies of Land Conservation in Collaboration with Business*. Washington, D.C.: Island Press, 2005.

List, John A., Michael Margolis, and Daniel E. Osgood. “Is the Endangered Species Act Endangering Species?” NBER Working Paper no. 12777, December 2006.

McConnell, Virginia, Elizabeth Kopits, and Margaret Walls. “Using Markets for Land Preservation: Results of a TDR Program.” *Journal of Environmental Planning and Management*, September 2006, vol. 49, no. 5, pp. 631-651.

Shogren, Jason F., et al. “Why Economics Matters for Endangered Species Protection.” *Conservation Biology*, December 1999, vol.13, no.6, pp. 1257-1261.

Thorsnes, Paul, and Gerald P. W. Simons. “Letting the Market Preserve Land: The Case for a Market-Driven Transfer of Development Rights Program.” *Contemporary Economic Policy*, April 1999, vol. 17, no. 2, pp. 256-266.

## GRINDING GEARS • continued from page 27

year, while Ford lost \$2,015 per vehicle and GM lost \$335 per vehicle.

Some industry observers argue that if it weren’t for the cost of the jobs bank, mass layoffs would have been more common in the automotive industry. Sean McAlinden, chief economist at the Center for Automotive Research in Ann Arbor, Mich., agreed with this argument in a June 2004 report.

If the Big Three held firm on prices

during the onset of the 2001 recession, McAlinden noted, they would have laid off tens of thousands of workers who would have collected supplementary unemployment benefits and, eventually, full pay and benefits in the jobs bank. “The companies, already facing pension shortfalls, and remembering the disastrous cash drain of such layoffs in 1992 for GM, cut prices instead of

production and employment.”

This overcapacity has been partially masked by strong sales of high-margin trucks and sport-utility vehicles. But continued poor sales of the Big Three’s cars are forcing automakers to make more drastic changes. With or without the jobs bank, it’s a more challenging environment for both American automakers and the people they employ. **RF**

## READINGS

Fahey, Jonathan, and Joann Muller. “Idling.” *Forbes*, Oct. 17, 2005, pp. 110-112.

Farber, Henry S. “Job Loss in the United States, 1981-2001.” Princeton University Industrial Relations Section Working Paper no. 471, January 2003.

Harbour, Jim, and Laurie Harbour-Felax. “Automotive Competitive Challenges: Going Beyond Lean.” Harbour-Felax Group, October 2006.

Katz, Harry C. “The Restructuring of Industrial Relations in the United States.” Cornell University Center for Advanced Human Resource Studies Working Paper no. 91-20, May 1991.

—. “Industrial Relations in the U.S. Automobile Industry: An Illustration of Increased Decentralization and Diversity.” *Economic and Labour Relations Review*, December 1997, vol. 8, no. 2, pp. 192-220.

McAlinden, Sean P. “The Meaning of the 2003 UAW-Automotive Pattern Agreement.” Center for Automotive Research, June 2004.