In the past, communities have reaped these benefits “free of charge,” thanks to the owners of undeveloped land. Yet as development pressures and land values have increased, the quantity of undeveloped land has shrunk. As a result, communities are recognizing the importance of preserving farmland and open space.

**Preserving Land by Purchasing Development Rights**

Purchase of development rights (PDR) programs are one viable approach that state and local governments are using to preserve farmland and open space. 3

### PDR Programs Are Becoming Increasingly Popular Because They Offer Substantial Benefits to Both Communities and Landowners.

PDR programs are becoming increasingly popular because they offer substantial benefits to both communities and landowners. 4

In many areas, PDR programs are supported by residents through local ballot measures. In 2003, voters approved an additional 99 measures with a total value of $1.3 billion. Overall, between 75 and 80 percent of initiatives and referendums that raise taxes or fees for land conservation have passed.1

While there are numerous reasons for preserving open space, the main benefits fall into four general categories: environmental (protecting groundwater, wildlife habitat, etc.); agricultural (preserving farming industries and communities); aesthetic (preserving rural character and scenic beauty); and managing growth.2

The specific benefits to any given community depend upon the area’s growth patterns, geography, and economy. Preserving undeveloped land around cities can contain urban growth and direct development towards areas already served by infrastructure. Maintaining floodplains can benefit entire watersheds by reducing flood damage. Preserving woodlots or fallow fields can protect scenic vistas important to tourism. Retaining farmland can help support the local economy by maintaining a viable agricultural base.2

---


3 Agriculture is an important segment of the economy in many areas. To cite just one example, the Dutchess County, New York, “Agriculture and Farmland Protection Plan,” (adopted in 1998) notes that: “The effects of the loss of farmland reach well beyond those farmers who are directly involved. Businesses that supply farm equipment and services suffer and are forced to leave, making it difficult for the remaining farms to maintain their operations. … Farms [in Dutchess County] directly employ 1,500 people. Another 2,000 people are employed providing goods and services to farmers.”

4 PDR programs in some parts of the country are called PACE (purchase of conservation easements) or APR (agricultural preservation restriction) programs. See An Array of Strategies, p.7.
landowners. Many agricultural landowners are cash-poor: that is, they have a great deal of equity in land, but little income. By selling only their development rights, owners can convert some of the wealth tied up in their land into cash, without relinquishing ownership of the land or use of its productive capacity.

Landowners may use proceeds from a sale of development rights in any way they choose – purchasing additional acreage, upgrading equipment, paying taxes, or investing for retirement. While proceeds of a PDR sale are taxable, depending upon state tax laws, selling development rights may offer significant tax savings by reducing the taxable value of the land, or by reducing future inheritance taxes.

For communities, PDR programs are a means to manage growth and provide the benefits of open space without the expense of purchasing, maintaining, and policing publicly-owned land. Preserving land can also save communities money in the long run, since development often costs more in public infrastructure and community services than the tax revenue realized by the growth.

PDR programs recognize that owners of undeveloped land provide valuable amenities to the community. Buying development rights from willing landowners provides a market-driven and compensatory approach to preserving those amenities, and an attractive supplement to other forms of land management, such as zoning.

According to the American Farmland Trust, at least 44 counties and towns have adopted PDR programs for agricultural land preservation purposes. Among the communities establishing programs in the past two years: Kane County, Illinois; Albemarle County, Virginia; and Fayette County, Kentucky.

At least 24 states also have state-level PDR programs. These state programs either allocate funds to counties, cities, and towns to purchase development rights / conservation easements (often on a matching basis), or provide for a state agency or board to purchase and hold development rights.

The American Farmland Trust estimates that approximately 1.3 million acres of land are currently held in conservation easements, with 234,000 acres of this total being held by local programs.

**DEVELOPING A PDR PROGRAM**

While there is no one approach to developing a PDR program, some common “fundamentals” include: conducting background research; having a dedicated group to guide the process; involving the public in the program’s development; establishing eligibility and scoring criteria for potential purchases; and ensuring adequate funding.

**1. Laying the Groundwork**

Before developing a PDR program, doing background research is essential. This includes an awareness of any state requirements, knowledge of relevant local planning policies, and familiarity with a broad range of possible land preservation approaches used elsewhere – including PDRs.

Communities considering a PDR program should have an up-to-date comprehensive land use plan. The PDR program should be consistent with the comprehensive plan’s goals and policies. When built upon this foundation, the PDR program will serve as a tool to implement the plan, rather than an isolated program of its own.

Identifying existing information and resources pertinent to the PDR program should be an integral part of the planning process. This includes an awareness of any state requirements, knowledge of relevant local planning policies, and familiarity with a broad range of possible land preservation approaches used elsewhere – including PDRs.

Communities considering a PDR program should have an up-to-date comprehensive land use plan. The PDR program should be consistent with the comprehensive plan’s goals and policies. When built upon this foundation, the PDR program will serve as a tool to implement the plan, rather than an isolated program of its own.

Identifying existing information and resources pertinent to the PDR program should be an integral part of the planning process. This includes an awareness of any state requirements, knowledge of relevant local planning policies, and familiarity with a broad range of possible land preservation approaches used elsewhere – including PDRs.

**Land Trends**

Nationwide data collected by the U.S. Department of Agriculture, in cooperation with Iowa State University, shows a steady increase in developed land and decrease in farmland (especially cropland) over the past twenty years. Among the key findings reported in the 2001 National Resources Inventory:

- Between 1982 and 2001, about 34 million acres – an area the size of Illinois– was converted to developed land.
- Of this 34 million acres, about 10.4 million was considered prime farmland.
- The rate of farmland development increased from an average of 400,000 acres per year between 1982 and 1992 to 600,000 acres per year between 1992 and 2001.

U.S. Census data also indicates that average per capita land consumption increased by 22.6 percent between 1970 and 1990 in the nation’s 100 largest metropolitan areas, while the total urbanized land area increased by an average of 51.5 percent during this same time period. “Weighing Sprawl Factors in Large U.S. Cities,” by Leon Kolankiewicz and Roy Beck (March 2001), pp. 17-24. Available at:<www.sprawlcity.org/studyUSA/index.html>.
program's development is also important. Mapping of soil types, microclimates, and land cover may be necessary when agricultural productivity is a priority. Having an inventory of historic, cultural, and environmental features may also be important in identifying features such as burial mounds, floodplains, key habitat areas, or scenic vistas of special value.

Designers of local PDR programs should also be aware of existing land preservation initiatives. For example, federal and state agencies buy easements to preserve wildlife habitat, restore wetlands, preserve farmland, and create erosion control buffers. Local or regional non-profit land conservancies also obtain easements to meet their goals.

Easements held by other organizations can provide critical links in meeting overall preservation objectives, particularly if larger tracts of land are desired for agricultural preservation, greenbelts, or wildlife habitat preservation. These organizations may also have valuable expertise to lend to the community's efforts, such as legal services, mapping capabilities, natural features inventories, or experience in monitoring easements.

2. A Guiding Force

The inspiration and "guiding force" behind a local PDR program will vary from community to community. It may come from the local planning commission, the county board of commissioners, a parks and recreation board, a grassroots citizen's organization, or even just one individual with a vision. Regardless of who is the prime mover, early involvement by planning commissioners and planning staff is important, and will help ensure that the PDR program meshes with the community's comprehensive planning efforts.

Having a diverse and dedicated steering committee can be invaluable in developing, and then promoting, a local PDR program. Committee members might include farmers or ranchers, real estate appraisers, bankers, planning commissioners, parks and recreation board members, environmentalists, and local government officials. And it doesn't hurt to have someone skilled at public relations! As with many planning efforts, bringing many diverse interests into the process will increase the likelihood of gaining broad public support.

Based upon their knowledge of the community, steering committee members should be able to establish a draft mission statement and preservation objectives for the PDR program.

While it may seem more expeditious for the committee members to then simply design the PDR program and take it before the public for final comment, this approach could be the program's undoing. Thorough and credible two-way communication between the steering committee and the public is essential to creating a program the community will ultimately support.

3. Public Involvement

Communities need to go beyond minimum public participation requirements to ensure the PDR program proceeds on a firm foundation of public support – and that it appeals to the program's ultimate participants: landowners.

Designing a community-driven land preservation program requires research to determine public preferences, and skill in communicating with the public. Professional assistance with these two related tasks can be a sound investment. Agricultural extension offices, universities or colleges, state agencies, land...
trusts, and independent consultants are all potential sources of expertise, and can be extremely valuable in this critical stage of program development.

At a minimum, the public preferences research should address the following questions:

- How important is the preservation of open space in relation to other spending priorities?
- What are the community’s main motivations for preserving open space?
- How should the community fund the program?
- How much is the public willing to pay?
- How much open space should the program seek to preserve?

Analysis of public preferences and the community’s “willingness to pay” are central to the research process. Pretty brochures and flashy multi-media presentations are worth little if based upon inaccurate data or assumptions about public preferences.

Mail or telephone surveys of residents, focus groups, public forums, and hearings all facilitate public input. Outreach efforts can include press releases, radio talk shows, public presentations, and reports documenting survey results. Also quite helpful are fliers or brochures which clearly and succinctly describe the proposed program and its benefits to the community.

4. Establishing Eligibility and Scoring Criteria

PDR programs are like the “field of dreams” – if you build it, they will come. Once the program is in place, landowners will want to take part.

Eligibility requirements are threshold measures to identify land that would contribute to the program’s goals. For example, a program designed to preserve agricultural productivity might consider only those parcels larger than forty acres which are actively being farmed.

Given that financial resources will likely be limited, scoring criteria allow program administrators to rank applications that meet the basic eligibility

*Peninsula Township, Michigan*

Surrounded by the clear, blue waters of Grand Traverse Bay, Peninsula Township is a spectacular finger of rolling agricultural land in northwest lower Michigan. When development began eating away at the township’s agricultural center – and threatening the peninsula’s world renowned cherry industry – planning officials realized they needed to protect the agricultural and scenic integrity of their community.

During an update of their master land use plan in the late 1980s, the planning commission prepared maps which identified the township’s prime agricultural areas and fourteen critical “viewsheds.” These maps served as the foundation for future land protection activities, including one of the most active PDR programs in the Midwest.

Planning commission members were involved in all aspects of the programs development, including researching other PDR programs, evaluating the financial viability of the planned program, identifying preservation priorities, and overseeing extensive public input and outreach activities (including random surveys, one-on-one interviews with landowners, and community focus groups).

Since the PDR program’s adoption in 1994, Peninsula Township has spent over $6 million to acquire development rights on approximately 2,000 acres. In 2002, voters increased the original 1.25 mil funding to 2 mils for the next 20 years. The township’s next goal is to acquire 9,200 acres by 2008.

For more information contact Township Planner Gordon Hayward at: 231-223-7322, email: planner@peninsulatownship.com

continued on next page
requirements. For example, scoring criteria for a PDR program focused on protecting farmland might include measures of:

- Agricultural productivity (measured by soil types, economic value of crops, etc.).
- Development pressure.
- Contribution of a farm to the local agricultural industry.
- Compatibility of adjacent land to long-term agricultural use of a property.

In contrast, scoring criteria for a program designed to preserve the scenic beauty of a tourist community might take into consideration:

- Proximity of the land to a well-traveled road or scenic corridor.
- The historic or cultural significance of the land.
- Whether the land has accessible views of local water bodies or other vistas.
- Inclusion of the land in important and specifically targeted “viewsheds.”

The eligibility requirements and scoring criteria are the essence of the PDR program. A good understanding of public preferences will ensure that the application and evaluation process for selecting participants meets the program objectives. This, in turn, will help the program gain acceptance – and funding support – from the community.

Paying for the Program

Two of the most important questions about a PDR program are: “How much will it cost?” and “Who is going to pay?” Developing a funding mechanism is often the greatest challenge in designing a PDR program. Many financing options exist, including bonds, property taxes, real estate transfer taxes, sales taxes on certain products or services, general appropriations, and other sources. State law may limit which funding mechanisms are available.

Possible supplemental funding sources include state and federal matching grants, private monetary donations, and foundation grants.

In order to leverage these additional...
dollars, however, local PDR programs generally need a homegrown source of financing that can provide matching funds and sustain the program for the long run.

Promoting and passing a local funding mechanism is no less an undertaking than a new school millage or tax — and in some communities it will be far more controversial. Even in areas where the concept of open space preservation is vigorously supported, funding is almost invariably the most contentious issue.

The research process should identify public preferences for how to fund the program. The more closely the program’s objectives and its related funding efforts align with public preferences, the more likely the funding effort will succeed.

**DEALING WITH OPPOSITION**

No matter how laudable its goals, a PDR program will have its detractors. One of the most common objections is that it will interfere with private property rights. Quite the contrary is true. While a purchase of development rights does restrict future uses of a parcel, it is essential to make clear to potential participants that a PDR program is completely voluntary and provides fair compensation to those who participate. In fact, PDR programs give landowners a new ability to exercise their property rights by providing a means to sell a partial interest in their land.

General opposition over funding the program is a more challenging objection. The public involvement process should reveal whether or not a community has such pressing funding needs as to make the purchase of development rights unrealistic. However, a growing body of research has documented that land preservation programs, especially in rural areas, often end up costing taxpayers less than the conversion of farmland into low-density residential development.

One of the most ironic objections to PDR programs is the claim that buying development rights is “too permanent,”

---

**Community Costs**

Land in purchase of development rights programs will likely be assessed at lower rates since the use of the land is restricted. In most cases, a lower assessed value will reduce property taxes. Indeed, this reduction in property taxes is a large part of what makes PDR programs attractive to farmers. Like other programs which limit assessments on farmland, this property tax reduction makes it more feasible to continue farming, especially in areas where development pressures are causing land values to rise.

While the municipality will receive less tax revenue, this needs to be balanced against the substantial cost savings when farmland and open space is preserved. A number of “cost of community services” studies have found that these cost savings often exceed lost property tax revenue.

For example, in 1999 the Minnesota Department of Agriculture examined this question.

The Minnesota study found through an in-depth analysis of five counties (and the cities and townships in these counties) that: “For two of the four largest non-utility operating expenditure categories (public safety and general government), a strong agricultural sector correlates with lower per capita costs. … When viewed from the perspective of the combined impact on county and municipal budgets, the net fiscal impact of new residential development is negative in all five case studies for development in the townships, and negative in four of the five case studies for development in the cities.”

… *Cost of Public Services Study* (Duncan Associates for the Minnesota Dept. of Agriculture, 1999).

**State & Local Funding**

A wide variety of funding mechanisms are being used by states and localities to support PDR programs. Some examples:

* Douglas County, Colorado — Approved a $25-million revenue bond backed by a sales/use tax to preserve open space in 1996.

* Missoula and Helena, Montana — Each approved $5 million in bonds backed by property tax increases to fund parks, recreation, and open space programs.

* Davis, California — Developers pay for PDR programs through a unique farmland mitigation program. They are allowed to develop properties in appropriate areas if they help pay for open space mitigation by funding PDR on properties in other areas.

* Bernalillo County, New Mexico — Voters approved a two-year 1/2 of 1 percent sales tax increase to fund open space preservation in 1998.

* Carson City, Nevada — Voters passed a 1/2 of 1 percent “quality of life” sales/use tax for parks, trails, and open space acquisition in 1996.

* Kentucky — Counties may fund their PDR programs by: an ad valorem tax; a license fee on franchises, trades and professions, or room taxes; or a combination of those options, chosen by local referendum.

* Maryland — Several counties use local real-estate transfer taxes supplemented by general fund appropriations to finance their PDR programs.

* Virginia Beach, Virginia — raises approximately $450,000 annually for its PDR program from a cellular phone tax; a dedicated 1.5 percent increase in local property taxes; and county appropriations. The funds have been used to leverage an additional $3.2 million from a variety of granting agencies.

and that future options may be limited by restrictions against development. While most purchases of development rights are permanent, so is urbanization, whether in the form of new subdivisions, malls, or industrial parks.9

Summing Up:

PDR programs can help implement local land use plans by preserving farmland and other important open space for future generations. When used in conjunction with other land preservation techniques, PDR programs can be highly effective. While significant effort is often required to establish a PDR program, the long-term benefits to the community can be substantial. ◆

Gayle Miller works for the Michigan Sierra Club on issues of sprawl, air and water pollution, and solid waste. She previously served for twelve years as a county solid waste coordinator. Miller is a graduate of Central Michigan University.

Douglas Krieger is a natural resource/agricultural economist. He consults with local governments and non-profits to determine public preferences for land preservation, estimate willingness to pay for preservation, and design preservation programs consistent with preferences. Krieger earned his Ph.D. from Michigan State University’s Department of Agricultural Economics. He can be reached at 989-834-0146 or edkrieger@gocougs.wsu.edu

Editor’s Note:

An Array of Strategies:

As Gayle Miller and Douglas Krieger note at the start of this article, purchase of development rights is one of several tools planners can use to facilitate land preservation. Various strategies are often used in combination. For example, farmland preservation might be encouraged through a combination of purchase of development rights, agricultural zoning, and clustering of development.

Tom Daniels and Deborah Bowers note in their fine book, Holding Our Ground: Protecting America’s Farms and Farmland (Island Press 1997), “The nation’s best farmland preservation programs combine PDR with growth-management techniques … The danger occurs when a purchase-of-development rights program is not backed up with effective agricultural zoning, and building rights are too numerous and therefore land values too high to make the purchase of development rights financially possible.” p. 167.

Subdivision Regulation. Another important land preservation tool is subdivision regulation. Randall Arendt has focused on the principles of conservation subdivision design in his article, “Growing Greener: Conservation Subdivision Design,” in PCJ #33 (Winter 1999). Arendt explains how conservation-oriented subdivision regulations, when integrated with the comprehensive plan and zoning provisions, can promote “an interconnected network of conservation lands.”

It is important to note that Arendt stresses the need for local plans to map out areas most important to preserve, laying the groundwork for the subdivision design process. This is similar to Gayle Miller and Douglas Krieger’s emphasis on linking purchase of development rights programs to comprehensive plan goals and policies.

Transfer of Development Rights. A more complicated, though sometimes quite effective, tool for land preservation is transfer of development rights, or TDRs. Please keep in mind that transfer of development rights is quite different than purchase of development rights.

In a nutshell, TDR programs delineate “receiving” areas where development is desired and “sending” areas prioritized for preservation. Developers can purchase development rights from landowners in the sending areas, and then “transfer” those rights to land in designated receiving areas (allowing them to develop this land at a higher density than would otherwise be permitted).

For TDR programs to work there must be enough development to create an active market in transferable development rights. An excellent overview of TDRs can be found in Rick Pruetz’s article, “Putting Growth In Its Place With Transfer of Development Rights,” in PCJ #31 (Summer 1998).

Land Trusts. One final aspect of land conservation deserves mention. That is the critically important role that private land trusts play in land preservation. While Miller and Krieger focus on the public acquisition of development rights, comparable efforts by non-profit land trusts are being carried out across the country. In fact, private and public land preservation efforts often work in tandem. The role of land trusts is explored in Joel Russell’s “Land Trusts and Planning Commissions: Forging Strategic Alliances,” in PCJ #34 (Spring 1999).

Resources

American Farmland Trust
1200 18th Street NW
Washington, D.C. 20036
202-331-7300
email: info@farmland.org
www.farmland.org

Trust for Public Land
116 New Montgomery St.,
4th Floor
San Francisco, CA 94105
415-493-4014
email: info@tpl.org
www.tpl.org

Land Trust Alliance
1331 H Street NW,
Suite 400
Washington DC
20005-4734
202-638-4725
email: lta@lta.org
www.lta.org

8 While unlikely, a local government holding a development right could, if it chose to, sell it back to the landowner.