



Farmland Protection

The Role of Local Governments in Protecting Farmland as a Vital Local Resource



Photo by Kimberley Hodgson.

Agricultural lands—both farms and ranches—are vital local and national resources. The foundation of all food systems—from local to global—is the land or space upon which crops and livestock are grown or raised. However, in many areas farmland in the United States is under threat from development pressures, challenging the ability of both established and beginning farmers to access available, suitable, and affordable land. Farmland loss goes beyond development pressures to encompass issues of equity, access, and land ownership, particularly for Black farmers.

Planners have long understood the importance of farmland protection. In 1999, the American Planning Association adopted a [policy guide on agricultural land preservation](#). The policy guide recognizes that farmland is being lost at a steady rate through nonfarm development, especially on the fringes of metropolitan areas, and calls for the need at both state and local levels to link farmland protection incentives to land-use controls preventing its development.¹ A recent APA survey – *The State of Food Systems Planning in the U.S.* – shows that planners are still engaged in farmland protection. According to the survey, this topic represents the primary way in which planners' work intersects with the food system.² To achieve maximum benefit and success in this work however, it is important that planners connect local farmland protection efforts to larger goals of supporting and growing community food systems.

Over the past several decades, many local governments have recognized the threats to their important agricultural lands and have taken steps to protect them. Planners and officials must continue to recognize farmland as a vital local resource in planning and policy documents and develop goals and actions to preserve it. This Planning and Policy Brief provides an overview of a range of regulatory and programmatic approaches that can be used to protect farmland from nonfarm development.

THREATS TO FARMLAND

Between 1982 and 2012, the United States converted 41.3 million acres of rural land to development. Nearly 24.5 million acres of this was agricultural land—an average loss of more than 1 million acres each year. Of this agricultural land lost, 38 percent was prime farmland, with some of the greatest losses in key food producing states such as California and Florida.^{3,4} Though the rate of farmland loss in the U.S. slowed to an average of 365,000 acres between 2007 and 2012, this still represents a permanent loss of a vital national resource.⁵ And as the real estate market recovers from the Great Recession, it is reasonable to expect development pressure to increase again.

Roughly one-quarter of the country's prime agricultural land is located within metropolitan areas.⁶ Close proximity to population centers makes these resources particularly valuable for food production for local markets; 53 percent of farms marketing food directly to consumers, retail outlets, and institutions are located in metropolitan counties, and these farms account for 67 percent of direct food sales.⁷ This same proximity, however, makes these farms especially vulnerable to housing or commercial development. Sprawling development patterns in the urban fringe have multiple impacts on farmland conversion and agricultural economic viability. When farmland is converted to nonfarm uses, both the potential agricultural production of that parcel, as well as its additional open space, environmental,



and aesthetic values, are lost forever.⁸ In addition, conversion of one farmland parcel causes a fragmentation of agricultural lands with accompanying negative impacts on the local farming economy, both increasing the potential for nuisance conflicts between farms and nonfarm uses and moving closer to losing the “critical mass” of productive farmland needed to support a viable agricultural economy.⁹

Another important factor to consider is that farmland owners in the U.S. are aging. Consistent with a 30-year trend, the 2012 Census of Agriculture showed that the average age of those actively farming land had reached 58, with a full third of the county’s farmers 65 years of age or older. This troubling trend is compounded by a lack of young beginning farmers; only six percent of U.S. farmers were less than 35 years old, and the number of new farmers decreased by 20 percent between 2007 and 2012.¹⁰ At least 371 million acres of farmland—more than 40 percent of the land used for agriculture in 2014—was owned by farmers or landlords 65 years of age or older and will likely will change hands during the next twenty or so years.¹¹

Farmland is most vulnerable to conversion when it passes from one generation to the next. The legal and financial complexities of the farmland transfer process—and the costs of the land itself—are serious challenges, whether a farmer intends to pass the family farm on to the next generation or whether non-farming heirs decide by desire or necessity to sell the land.²² Further, nonfarm development pressures, whether from developers seeking to build on greenfield sites or from individuals seeking to purchase recreational or hobby farms, can drive the price of farmland up and increase competition for this valuable resource.²³

Farmland loss in the U.S. is also tied to racial and equity concerns. Between 1910 and 2007, the amount of farmland owned by Black farmers decreased by 81 percent, from 15 million to 2.9 acres, along with an 87 percent loss in the number of Black farmers owning farmland. Between 1982 and 1997, the number of Black farmers in the South declined by 45 percent.²⁴ In many cases, this loss of farmland and farmers has been the result of violence, legal machinations, and discriminatory policies and practices perpetrated at multiple levels, from the local to the federal.^{25, 26} In addition, much historically Black farmland is held as “heirs’ property” that has been informally passed down through generations from landowners who died without wills. Such property has no clear title and is owned “in common” by all heirs. The former issue makes it difficult to obtain loans, grants, or governmental assistance based on property ownership; the latter means decision making among all parties can be difficult and that one owner can force a sale of the property to “cash out.” The USDA reports that eighty percent of land in Black ownership has been lost since 1910 due to heir property issues.²⁷ Organizations such as the **Center for Heirs Property Preservation**, the **Black Family Land Trust**, and the **Federation of Southern Cooperatives** Land Assistance Fund are working to raise awareness of this challenge, prevent land loss, and promote sustainable land use among historically underserved families.^{28, 29, 30} Planners should be aware of any special historical, racial, or socioeconomic conditions posing significant

The Importance of Farmland Access

A key aspect of protecting agricultural lands is ensuring that they remain available and affordable to beginning as well as established farmers and ranchers. Increasingly, access to suitable land has become a challenge. This is especially true of cropland. According to the National Resource Inventory, between 1982 and 2012 the U.S. lost 57.9 million acres of cropland, an area larger than the state of Idaho.¹² As the supply of high quality cropland shrinks, the need for policies and programs to support farmland access grows.

Farmland access refers to the ways in which farmers and ranchers secure arable land for farming. Adequate farmland access requires that farmland be available for farm use, especially to beginning farmers; that it be affordably priced at agricultural values, whether to purchase or to lease (in 2014, 40 percent of U.S. farmland was rented¹³); and that the duration and security of lease arrangements meet farmers’ needs.¹⁴ Beginning farmers and ranchers in particular find it challenging to find available and affordable land to purchase or lease; secure loans to buy it; negotiate appropriate lease arrangements, especially with nonfamily members; and identify technical assistance and support to navigate potential land access options and arrangements.¹⁵

Access to farmland is consistently cited as one of the most serious barriers to beginning farmers. A 2009 USDA Economic Research Service report found that the two primary obstacles faced by beginning farmers and ranchers were high startup costs and a lack of available land for purchase. These findings were backed up by a 2011 study of beginning farmers by the National Young Farmers Coalition.^{16, 17} Access to farmland is one of the most pressing challenges now facing U.S. agriculture.¹⁸

The need to ensure that farmland remains available and accessible to farmers for future food production should be a key component of farmland protection; however, it has thus far been rare that local governments have addressed the issue of farmland access in plans, policies, or programs. Exceptions include Marin County, California, whose comprehensive plan includes a goal of facilitating the intergenerational transfer of agricultural land, and King County, Washington, which addresses access to farmland for new, immigrant, minority, low-income, and socially disadvantaged farmers in its comprehensive plan policies.^{19, 20}

Options exist. Policies that promote the use of government-owned lands and unused private lands for food production, thereby creating new farming opportunities and additional farmland, can help improve access.²¹ Or local governments can establish action steps of partnering with non-profit organizations and other entities that focus on farmland transfer and access work to further support these efforts.



challenges to farmland protection in their jurisdictions. They should work to ensure that both specific and general questions of equity and justice are addressed in local planning, policy, and programmatic approaches to farmland preservation.

PROMISING PRACTICES

Over the past several decades, many local governments have recognized the threats to their important agricultural lands and have taken steps to protect them. Planners and officials must recognize farmland as a vital local resource in planning and policy documents and develop goals and actions to preserve it. Planners can also bring an awareness of racial and equity considerations, previously lacking, to the protection of farmland and to promote stronger community food systems. Based on this foundation, a range of regulatory and programmatic approaches can be used to prevent farmland loss.

Identifying the Importance of Farmland Protection in Comprehensive Plans

To establish a strong foundation for farmland protection and access in a community, planners should ensure that local plans and policies recognize the importance of agricultural land as a natural resource and prioritize its protection and continued access by farmers.

APA's policy guide on agricultural land preservation urges the importance of addressing the protection of important agricultural lands in the comprehensive plan, which historically has regarded farmland simply as land in reserve for future urban development.³¹ Farmland protection has been addressed in a wide range of community's planning and policy documents.

In Cabarrus County, North Carolina, the **Central Area Plan** calls for the recognition of existing agricultural land's value and its protection from development encroachment through the use of voluntary agricultural districts and other strategies.³² In Story County, Iowa, the **Story County Development Plan's** land-use framework establishes protection of the county's agricultural resources as one of the plan's four goals.³³ In Douglas County, Kansas, the **Horizon 2020** plan identifies high quality agricultural land as a finite resource important to the regional economy and encourages its protection for current and future agricultural use.³⁴ Kane County, Illinois, identified "Agriculture: Food and Farms" as one of ten planning goals for its **2040 Comprehensive Plan**; its objectives include protecting farmland as a valuable natural resource and economically productive land use through land-use policy and expanding the purchase of agricultural conservation easements.³⁵ In Sonoma County, California, the protection of agricultural lands is a policy goal in the **land use element** of the county's general plan.³⁶ The county also adopted an **Agricultural Resources Element** to further address farming, with additional policies focusing on stabilizing agricultural uses at the urban fringe.³⁷

Farmland Protection Plans

Rural, agriculturally based communities should consider developing farmland protection plans to establish visions, goals, and strategies for ensuring the protection of this key economic and environmental asset. In New York, the Erie County planning department worked with the county's farmland protection board to create a **farmland preservation plan**. The plan sets ambitious goals of preserving 95 percent of the county's 149,000 acres of agricultural production land and retaining 95 percent of the county's 1,215 farms.³⁸ Burlington County, New Jersey, has a robust farmland protection program anchored by its **Comprehensive Farmland Preservation Plan**. The 2008 plan, an update of the original 1998 plan, sets six specific goals, including preserving 20,000 additional acres of farmland, half through land acquisition and half through zoning tools such as transfer of development rights.³⁹ For more information and examples of language from some of the plans, see the sidebar on page 4.

Agricultural Task Forces

To jumpstart the farmland protection conversation and engage the community and key stakeholders in such initiatives, a number of local governments have convened task forces to study the local agricultural and food production sector and develop recommendations to guide future policy development in supporting its growth. Often a key recommendation of such studies is to protect the area's farmland for current and future food production.

In Lancaster County, Pennsylvania, the Board of County Commissioners created the Lancaster County Blue Ribbon Commission on Agriculture, which distilled input from a series of 18 listening sessions into a series of **recommendations and goals**—including more than twenty **action steps** relating to farmland preservation. This input was sent to the Board to inform future decision making.^{40,41} In Washington, the City of Seattle, King County, and the Pike Place Market Preservation and Development Authority convened 35 farming and food production stakeholders to identify options for farmland preservation and increasing local food markets for small and midsize farmers. In the resulting **report**, recommended policy goals including a long-term goal of preserving all of the county's 55,600 farmable acres through a combination of mechanisms, and to ensure that farmland is well-managed for the greatest public benefit.⁴²

Growth Management to Preserve Farmland

Rural areas facing development pressures are in particular danger of losing farmland to new greenfield development. Establishing a big-picture growth and development policy that focuses new growth to already developed areas while protecting working farmland and open space can help ensure the continuing viability of farming. In Lancaster County, Pennsylvania, the comprehensive plan's growth management element, **Balance**, establishes a growth framework based on the complementary strategies of urban growth area and rural area. The urban



Sample Comprehensive Plan and Policy Language for Protecting Farmland

CENTRAL AREA PLAN, CABARRUS COUNTY, NORTH CAROLINA

5.2 Land Use, Housing and Economic Development

- (LU-1) Recognize the value of existing agricultural land and protect it for future agricultural purposes.
 - Protect existing agricultural operations from encroachment of development, particularly new residential subdivisions.
 - Increase awareness of voluntary agricultural districts and the benefits to increase the number of properties in agricultural use—and increase geographic area—in the program.
 - Protect prime farmland soils and soils of statewide importance in support of efforts to maintain agriculture as a viable component of the county's economy.
 - To enhance the effectiveness of existing regulations that include prime farmland soils and soils of statewide importance in the definition of open space, provide incentives to protect these soils. As a model for this, the Soil and Water Conservation District (SWCD) recommends the LEED certification process provision that gives such credit for protecting such soils.

HORIZON 2040, LAWRENCE-DOUGLAS COUNTY, KANSAS

Policy 2.7 Encourage the protection of High Quality Agricultural Land in Douglas County for current and future agricultural use.

- (a) The protection of High Quality Agricultural Land shall be used as a key assumption in the sector planning process.
- (b) Establish tools to protect High Quality Agricultural Land for farming and make its protection economically feasible for the land owner, such as an agricultural easement program, development incentives that encourage the protection of this resource, public/private partnerships, or other funding mechanisms.
- (c) Maintain an inventory of High Quality Agricultural Land in Douglas County and track the amount lost to urbanization.
- (d) Encourage and develop policies that support agri- and eco-tourism, as well as a sustainable local/regional food system.

PLAN 2040, KANE COUNTY, ILLINOIS

2.6 Planning Issues - Agriculture, Food & Farms

Objectives:

- (1) To protect farmland as a valuable natural resource and economically productive land use through land use policy in both municipal and County land use and transportation decisions.
- (2) To discourage projects that will have a detrimental impact on the preservation of agricultural lands and discourage the use of public funds for such projects.
- (3) To support incentives, policies and programs, along with technical assistance in maintaining agricultural lands and structures to ensure an ongoing food supply and to support those who choose farming as a way of life.
- (4) To support national, state, regional and local policies and programs that promote agriculture as a means to support energy production, food supply and soil conservation goals.
- (5) To encourage and promote agriculture and local food production and their related businesses as a valued element of the Kane County economy through supportive land use and economic development policy, programs and practice.
- (6) To expand the purchase of agricultural conservation easements.



GENERAL PLAN, YOLO COUNTY, CALIFORNIA

GOAL AG-1 Preservation of Agriculture. Preserve and defend agriculture as fundamental to the identity of Yolo County.

- Policy AG-1.2 Maintain parcel sizes outside of the community growth boundaries large enough to sustain viable agriculture and discourage conversion to non-agricultural home sites.
- Policy AG-1.3 Prohibit the division of agricultural land for non-agricultural uses.
- Policy AG-1.4 Prohibit land use activities that are not compatible within agriculturally designated areas.
- Policy AG-1.5 Strongly discourage the conversion of agricultural land for other uses. No lands shall be considered for redesignation from Agricultural or Open Space to another land use designation unless all of the following findings can be made:
 - (A) There is a public need or net community benefit derived from the conversion of the land that outweighs the need to protect the land for long-term agricultural use.
 - (B) There are no feasible alternative locations for the proposed project that are either designated for non-agricultural land uses or are less productive agricultural lands.
 - (C) The use would not have a significant adverse effect on existing or potential agricultural activities on surrounding lands designated Agriculture.
- Policy AG-1.6 Continue to mitigate at a ratio of no less than 1:1 the conversion of farm land and/or the conversion of land designated or zoned for agriculture, to other uses.
- Policy AG-1.7 Locate farm dwellings in a manner that protects both on-site and offsite agricultural practices. All dwellings in agriculturally zoned areas shall be encouraged to be located on portions of the parcel less suitable for agricultural use and in "clustered" configurations.
- Policy AG-1.8 Regulate and encourage removal of incompatible land uses and facilities from agriculturally designated lands.
- Policy AG-1.9 Work with the Local Agency Formation Commission (LAFCO) on issues of mutual concern including agricultural preservation policies and the establishment and maintenance of logical boundaries for service districts that support existing and planned community growth.
- Policy AG-1.10 Protect agricultural lands from urban encroachment by limiting the extension of urban service facilities and infrastructure, particularly sewers.
- Policy AG-1.11 Maintain growth boundaries around existing communities and neighborhoods to encourage urban infill development and protect adjoining agricultural lands.
- Policy AG-1.12 Prohibit new residential or suburban subdivisions in areas designated for agricultural use.
- Policy AG-1.16 Encourage the coordinated acquisition of agricultural conservation easements by local, State and federal agencies and private conservation organizations with established records of responsible stewardship to protect agriculture, from willing sellers or donors.
- Policy AG-1.17 Encourage the coordinated placement of agricultural conservation easements on land most threatened by development, particularly those lands located close to cities and unincorporated communities.

COUNTY DEVELOPMENT PLAN, STORY COUNTY, IOWA

Goal: Protect and preserve Story County's agricultural resources.

- Identify and preserve productive agricultural land for continued agricultural use.
- Implement planning policies to protect farms and farmers from urban influences that inhibit agricultural practices.
- Encourage value-added agricultural practices that support sustainable economics.



Agricultural Conservation Areas

- Principle 1: Conserving agricultural land and practices is a fundamental and enduring principle in Story County. Areas are identified, conserved, and enhanced throughout the county for farming and agricultural production.
- Principle 2: Farm and agricultural operations are vital to the economy of the region. To provide economic opportunities for the agricultural community, accessory home businesses are encouraged and permitted and fair standards for such uses established.
- Principle 3: In cooperation with communities, areas are reserved for future growth of incorporated communities within the two-mile shared planning areas of those communities, balancing the need for growth with conservation of areas for continued agricultural uses.
- Principle 4: Areas for development are designated to limit conflicts between agricultural uses and rural residences and other land uses. Development practices preserve and protect prime agricultural lands and the ability to engage in agricultural practices.

strategy identifies 13 urban growth areas within the county.⁴³ The rural strategy creates four types of rural area designations—Designated Agricultural, Designated Agricultural with Natural Areas, Designated Natural Areas, and Rural Centers. It directs new growth to rural centers to maintain the character and form of rural areas and maintain the viability of the rural economy, including agriculture.⁴⁴ Under Washington’s 1990 Growth Management Act, which directed large cities and counties to manage growth and protect farm and forestlands, King County’s **Countywide Planning Policies** designate all land within the county as urban, rural, or resource lands. New growth is focused and accommodated within the Urban Growth Area. The Rural Area acts as a buffer between the Urban Growth Area and Resource Lands; farming and forestry uses are protected and low-density residential and small-scale nonresidential uses are allowed. Resource Lands are areas comprising designated, permanently protected regionally significant agricultural, forestry, and mining lands.⁴⁵ This framework has been remarkably successful; growth in Rural and Resource lands has diminished, with more than 97 percent of new residential construction since 2010 occurring within Urban Growth Areas.⁴⁶

Agricultural Protection Zoning Regulations

In some areas, undeveloped land used for agricultural production may be designated as “rural residential” or some other nonagricultural designation or an “agricultural” designation may be considered a holding zone until those lands are rezoned for development. Farming parcels may also be converted into residential subdivisions, fragmenting the resource land base and increasing the potential for farmer-neighbor conflicts. Agricultural protection zoning, which reinforces agricultural use of farmland and restricts the occurrence and density of nonagricultural development, is an important tool for local governments in protecting farmland and farming activities.⁴⁷

Agricultural protection zoning ordinances establish agriculture and agriculturally related activities as the primary permitted uses of land in agricultural districts and restrict nonagricultural uses in these areas. These ordinances may also restrict allowable development density to discourage residential conversion, either through large minimum lot sizes (e.g., 40 acres per dwelling unit), area-based allowance formulas based on percentage of parcel (e.g., 10 percent of a parcel may be developed), or sliding scale formulas where the number of dwellings allowed in relation to the total farm area decreases (e.g., 3 dwelling units allowed on a 40-acre tract, and 10 dwelling units allowed on a 300-acre tract).⁴⁸

Paw Paw Township, Michigan, created the **AGR Agricultural (Farmland Protection) District** to implement the farmland preservation goals of its master plan. The district preserves and encourages the continuation of agricultural and related uses to the exclusion of non-agricultural uses to the extent possible, and supports the use of voluntary conservation easements to protect farmland.⁴⁹ In Walworth County, Wisconsin, the **A-1 Prime Agricultural Land District** was established to maintain the best agricultural lands in the county in food and fiber production by limiting encroachment of nonagricultural development; agriculture is designated as the highest and best use in this district.⁵⁰ In Iowa, Scott County’s A-P Agricultural Protection District is intended to protect agricultural operations and preserve agricultural land from encroachment of urban development.⁵¹ Sonoma County, California, has designated four different agricultural districts within its **zoning code**: the Land Intensive Agricultural District, for high-production farmland; the Land Extensive Agricultural District, for farmland of relatively low per-acre production; the Diverse Agricultural District, where small-acreage intensive and part-time farming is predominant; and the Agricultural and Residential District, to allow for livestock and crop production in rural residential areas.⁵²



Agricultural Conservation Subdivision Development

Many counties and municipalities have adopted conservation subdivision design ordinances. In conservation design, the allowable development within a subdivision is clustered together and half or more of the buildable land is set aside as undeveloped open space, typically to protect sensitive environmental features on a site.⁵³ In agricultural conservation subdivision development, this technique is used to maintain or establish farming and food production within these subdivisions, such as community gardens or an organic operation that grows food for subdivision residents and surrounding communities.⁵⁴ Some examples of such developments include **Prairie Crossing** in Grayslake, Illinois; **Tryon Farm** in Michigan City, Indiana; and Farmcolony in Greene County, Virginia.⁵⁵

To allow for the development of agricultural conservation subdivisions, communities that allow conservation subdivision should ensure that agricultural uses are included within their lists of permitted uses for designated open space areas, as is the case in **Marshall Township** in Pennsylvania.⁵⁶ Or they may adopt regulations specifically defining and enabling agricultural conservation subdivisions. The Town of Port Washington, Wisconsin, has established an **agricultural conservation subdivision district**, within which all residential development must meet conservation subdivisions requirements, with the “conservation lot” dedicated to a farmstead, productive agricultural use, or a common lot for productive agricultural or open space use.⁵⁷

In a related concept, the Town of Southampton, New York’s zoning code establishes the **Agricultural PDD** as one of a number of defined and enabled planned development options within the town.⁵⁸ In exchange for the landowner’s agreement to set aside 65 percent of the property for open space and keep the land in active farming operations for 10 years, the town grants specific density and open space set-aside percentages for the remainder of the property, with the intention of preserving up to 80 percent of property through purchases or transfers of development rights before the easement expires.⁵⁹ The town has so far established five Agricultural PDDs.⁶⁰

Farmland Loss Mitigation Requirements

Acknowledging that farmland will continue to be developed, a number of California communities have established farmland loss mitigation regulations requiring permanent protection of farmland to balance out farmland lost to development. In Davis, the city’s **Farmland Preservation ordinance** requires agricultural mitigation for all development projects that change general plan or zoning designations from agricultural land to nonagricultural land as well as discretionary land use approvals that change agricultural uses to nonagricultural uses. For every acre of land lost to nonagricultural designation or use, the developer must permanently protect two acres of comparable farmland.⁶¹ San Joaquin County has a similar **agricultural mitigation program**: for general plan amendments or zoning reclassifications that change land use or designation from agricultural to nonagricultural, farmland conservation easements for at least the same number of affected acres must be obtained; an in-lieu fee option is offered.⁶² The City of Morgan Hill established a **mitigation**



Photo by Kimberley Hodgson.

RESOURCES FOR FARMLAND PROTECTION

The American Farmland Trust, a Growing Food Connections partner, has been working to protect farmland since 1980. In partnership with the USDA’s Natural Resource Conservation Service, AFT’s Farmland Information Center offers a wealth of resources to help communities plan for farmland protection.

Visit www.farmlandinfo.org for more information.



program to protect small-scale farming within its jurisdiction and designated a 650-acre Agricultural Priority Area within its southeastern quadrant. The city requires a one-for-one acreage ratio for agricultural land development, but where less than ten acres of mitigation are required the city charges an in-lieu fee instead. As an alternative, planned development projects may cluster development rights onto a portion of the site so that the rest is preserved for agricultural use, but this arrangement must include commitments to actively farm the land. The city also charges developers an agricultural lands preservation program surcharge fee on a per-acre basis to cover administrative costs.⁶³

Transfer of Development Rights

The transfer of development rights can be a useful tool for farmland preservation. TDR programs allow development rights to be divorced from properties in “sending areas” intended for preservation and purchased by developers to add additional density in “receiving areas” intended for intensification of development.⁶⁴ TDR allows for the preservation of land without the expenditure of government money, it compensates landowners for the loss in land value that results from downzoning, and it accommodates and helps to guide growth within a community.⁶⁵ However, there are many challenges to operating a successful TDR program that actively preserves land, so planners should be sure to evaluate their communities carefully to determine the feasibility of TDR and follow best practices in establishing such programs.⁶⁶ There are a wide range of adopted TDR programs in the U.S., many of which hold farmland preservation as a goal.⁶⁷

The TDR program in Montgomery County, Maryland, was one of the first established in the U.S. and is considered one of the

most successful, establishing protections for more than 49,000 acres of farmland in its 93,000-acre Agricultural Reserve.⁶⁸ In 2008 the County launched another transfer of development rights initiative, the **Building Lot Termination Program**, aimed at reducing the fragmentation of farmland resulting from residential development and further reducing the residential development potential within the Agricultural Reserve. A BLT easement provides additional transferable development rights for a landowner who agrees to forgo approved residential development and terminate the approved waste disposal system associated with the lot. Certain development projects in designated zones require the purchase of BLTs for approval.⁶⁹

King County, Washington, is home to another highly successful **TDR program** that has protected 141,500 acres of rural conservation and resource land.⁷⁰ The county’s Countywide Planning Policies, described above, encourage TDR mechanisms to shift potential development from Rural Areas and designated Resource Lands into cities within the Urban Growth Area.⁷¹ The county maintains a TDR Exchange to facilitate the purchase and sale of TDRs and established a TDR bank in 1999 with a \$1.5 million funding appropriation to purchase TDRs. The bank helps to bridge the time gap between private-market TDR sellers and buyers, acts as a revolving fund for future TDR acquisition, and catalyzes city-county TDR agreements by strategically acquiring development rights in high-priority conservation areas.⁷²

Besides counties, smaller communities have also seen success with TDR programs. Within Lancaster County, Pennsylvania, Warwick Township is a relatively small community that has established a remarkably effective **TDR program**, preserving 1,560 acres of farmland on 24 farms.⁷³ The program assigns one TDR per two gross acres of farmland to each farm within the township’s agricultural zone, which are purchased by developers to increase lot coverage in the township’s Campus Industrial zone from 10 percent to a maximum of 70 percent.⁷⁴ The Township also manages a TDR bank that acts as a revolving fund for future TDR acquisitions.⁷⁵ In Hadley, Massachusetts, the township’s 2000 **Farmland Preservation Bylaw** created one of the first TDR programs in the state. In this program, one acre of developable farmland in the township’s agricultural district is worth an additional 2,000 square feet of development within business and industrial zones on major corridors plus a reduction in parking requirements of 20 spaces.⁷⁶ The code also offers a cash fee-in-lieu option—and thus far all developers participating in the program have chosen this option, generating more than \$338,000 in funds that the township has leveraged to preserve more than 239 acres of farmland.⁷⁷

Purchase of Development Rights/Purchase of Agricultural Conservation Easements (PACE)

A purchase of development rights program (also known as a purchase of agricultural conservation easements, or PACE, program) is similar to TDR in that farmland’s development rights are severed from the property, but in the case of PDR, those development rights are purchased by a local government, public agency, or land trust and permanently extinguished,



Farmland loss to development. Photo by Kimberley Hodgson.



with a conservation easement placed on the property.⁷⁸ Because demand is typically higher than the financial resources available to purchase development rights, it is important to craft a PDR program with carefully considered eligibility requirements and scoring criteria to make the most of limited resources and maximize the effectiveness of these programs.⁷⁹

Though state and federal grants, foundation funding, or private donations may provide some funding resources, in most cases the local government must create a local funding source. In King County, Washington, voters in 1979 approved a \$50 million bond issue to purchase development rights on prime farmland.⁸⁰ The resulting **Farmland Preservation Program** has permanently protected 13,200 acres of high-quality farmland within the county.⁸¹ The Town of Dunn, Wisconsin, population 5,000, adopted the first **PDR program** in the state in when voters approved a property tax increase in 1996 to fund the program. Four years later, town electors approved a \$2.4 million bonding initiative to increase program funding.⁸² The town has leveraged its funds to gain more than \$3.3 million in matching grants and other funds, and has protected 3,173.5 acres on 31 properties — 17.5 percent of its land area.⁸³

In Maryland, Carroll County leverages PDR programs on behalf of new farmers through its **Critical Farms Program**, established in 1992. The program provides up-front funding for new farmland buyers, who then have five years to sell their development rights through state agricultural land conservation programs. If the owner is successful, the county's funds are reimbursed; if not, the county may exercise its option to acquire the easement, or the owner may terminate the option by repaying the county with interest.⁸⁴ The program has been used by at least 45 landowners, resulting in the protection of more than 5,700 acres.⁸⁵ In nearby Frederick County, a **Critical Farms Program** managed by the county's Planning and Permitting Division was launched in 1994. At least 37 farmers have used the program to protect a total of more than 4,600 acres for continued agricultural use.⁸⁶

Farmland preservation can also be combined with other open space conservation initiatives, as is the case in Marin County, California. In 2012, voters approved **Measure A**, a one-quarter cent retail transactions and use tax for parks and open space maintenance and improvement, farmland preservation, and wildfire risk mitigation. More than half of the funds are slated for parks and open space, but 20 percent are dedicated to purchasing agricultural conservation easements on family farms and ranches through a **matching grant program**.⁸⁷

CONCLUSION

Across the country, states as well as local governments are adopting policies and taking actions to preserve the productive farmlands within their jurisdictions. This brief highlights a wide range of strategies that planners and local governments can adopt in seeking to protect this important natural resource.

However, equally important as farmland protection practices are practices that support and promote the equitable access to

farmland and the economic viability of local farms. Statistically, the most important factor linked to farmland loss has been a decline in the number of farms, so farmland preservation efforts that do not address agricultural economic viability will most likely fail.⁸⁸ Planners and local governments must also work to boost the economic viability of existing farm and food production businesses within their jurisdictions, ensure that questions of race and equity are integrated into farmland protection practices, and support and promote the ability of beginning farmers and food producers to access land and other resources needed to develop new businesses. See Growing Food Connections Planning and Policy Briefs **Community Food Systems and Economic Development** and **Community Food Production** for information on how to work towards accomplishing these goals.

METHOD

The information contained in this brief was gathered through Growing Food Connections' Communities of Innovation research, research for *Growing Local: A Community Guide to Planning for Agriculture and Food Systems*, and additional research completed for the writing of this brief. For more information visit: <http://growingfoodconnections.org/research/communities-of-innovation/>.

COMMUNITY GUIDE TO PLANNING FOR AGRICULTURE AND FOOD SYSTEMS

As part of the Growing Food Connections project, the American Farmland Trust has developed a new resource, **Growing Local: A Community Guide to Planning for Agriculture and Food Systems**. The Guide explains the importance of planning for agriculture and food systems, defines key food systems planning terms, establishes important principles and practices for food systems planning and policy making, and provides an extensive implementation toolbox to help achieve food systems goals. The Guide together with the Planning and Policy Briefs series offer helpful guidance for planners and local governments seeking to strengthen their community food systems.



ENDNOTES

¹ American Planning Association. 1999. *Policy Guide on Agricultural Land Preservation*. www.planning.org/policy/guides/adopted/agricultural.htm

² Growing Food Connections. Forthcoming. *State of Food Systems Planning in the US Survey Report*. <http://growingfoodconnections.org/research/state-of-food-systems-planning-in-the-us/>

³ American Farmland Trust. 2015. "National Statistics: 2012 National Resources Inventory." www.farmlandinfo.org/statistics

⁴ U.S. Department of Agriculture. 2015. *Summary Report: 2012 National Resources Inventory*. Natural Resources Conservation Service, Washington, DC, and Center for Survey Statistics and Methodology, Iowa State University, Ames, Iowa. www.nrcs.usda.gov/Internet/FSE_DOCUMENTS/nrcseprd396218.pdf

⁵ AFT 2015.

⁶ APA 1999.

⁷ USDA National Agricultural Statistics Service. 2016. "Direct Farm Sales of Food." *Highlights, 2012 Census of Agriculture*. www.agcensus.usda.gov/Publications/2012/Online_Resources/Highlights/Local_Food/LocalFoodsMarketingPractices_Highlights.pdf

⁸ A.D. Carver and J.E. Yahner. *Defining Prime Agricultural Lands and Methods of Protection*. Purdue University Agronomy Department AY-283. www.extension.purdue.edu/extmedia/AY/AY-283.html

⁹ Janet Carpenter and Lori Lynch. 2002. *Is There a Critical Mass of Agricultural Land Needed to Sustain an Agricultural Economy? Evidence from Six Mid-Atlantic States*. University of Maryland Agricultural and Resource Economics. www.farmlandinfo.org/sites/default/files/Is_There_a_Critical_Mass_of_Ag_Land_Needed_1.pdf

¹⁰ USDA Census of Agriculture. 2014. "2012 Census Highlights: Farm Demographics - U.S. Farmers by Gender, Age, Race, Ethnicity, and More." ACH 12-3. www.agcensus.usda.gov/Publications/2012/Online_Resources/Highlights/Farm_Demographics/

¹¹ USDA National Agricultural Statistics Service. 2015. "Farmland Ownership and Tenure: Results from the 2014 Tenure, Ownership, and Transition of Agricultural Land Survey." *2012 Census of Agriculture Highlights*. www.agcensus.usda.gov/Publications/2012/Online_Resources/Highlights/TOTAL/TOTAL_Highlights.pdf

¹² USDA Natural Resources Conservation Service. 2015. *2012 National Resources Inventory Summary Report*, p. 2-2. www.nrcs.usda.gov/Internet/FSE_DOCUMENTS/nrcseprd396218.pdf

¹³ Julia Freedgood and Jennifer Dempsey. 2014. *Cultivating the Next Generation: Resources and Policies to Help Beginning Farmers Succeed in Agriculture*. American Farmland Trust. https://4aa2dc132bb-150caf1aa-7bb737f4349b47aa42dce777a72d5264.ssl.cf5.rackcdn.com/AFT_BF_06-2014-lo.pdf

¹⁴ Michael Marrapese et al. 2016. *Farmland Access in British Columbia: Four Innovative Approaches*. Farm Folk City Folk, UBC Farm Centre for Sustainable Food Systems, Capital Region Food and Agriculture Initiatives Roundtable (CRFAIR), Young Agrarians, and Deer Crossing the Art Farm. www.farmfolkcityfolk.ca/documents/FarmlandAccess-Booklet.pdf

¹⁵ Julia Freedgood and Jennifer Dempsey. 2014. *Cultivating the Next Generation: Resources and Policies to Help Beginning Farmers Succeed in Agriculture*. American Farmland Trust. https://4aa2dc132bb-150caf1aa-7bb737f4349b47aa42dce777a72d5264.ssl.cf5.rackcdn.com/AFT_BF_06-2014-lo.pdf

¹⁶ Mary Ahearn and Doris Newton. 2009. *Beginning Farmers and Ranchers*. USDA Economic Research Service, Economic Information Bulletin Number 53. www.farmlandinfo.org/sites/default/files/BF5_Ahearn_Beginning%20Farmers%20and%20Ranchers_2009.pdf

¹⁷ Lindsey Lusher Shute. 2011. *Building a Future with Farmers: Challenges Faced by Young, American Farmers and a National Strategy to Help Them Succeed*. Hudson, NY: National Young Farmers' Coalition. www.youngfarmers.org/reports/Building_A_Future_With_Farmers.pdf

¹⁸ Robert Parsons et al., 2010. *Research Report and Recommendations from the FarmLASTS Project*. The FarmLASTS Project, p. 6. www.farmlandinfo.org/sites/default/files/FarmLASTSResearchReport_full.pdf

¹⁹ Marin County, California. 2007. *Marin Countywide Plan*. Section 2.10, Agriculture and Food, Goal AG-2.11. www.marincounty.org/~media/files/departments/cd/planning/currentplanning/publications/county-wide-plan/cwp_2015_update_r.pdf?la=en#page=231

²⁰ King County, Washington. 2016. *2016 Comprehensive Plan*. Chapter 3, Section VI(D), Resource Lands - Agriculture, Policies R-659, R-661, R-661a, R-661b, R-673. www.kingcounty.gov/~media/Council/documents/CompPlan/2016/FullCouncil/adoptedplan/Attachment_A-KingCountyComprehensivePlan-120516.ashx?la=en#page=138

²¹ Maine Farmland Trust. n.d. "Municipal Action: Local Planning - Open Space or Working Lands Planning." www.maine-farmland-trust.org/public-outreach-new/building-farm-friendly-communities/local-planning/

²² Practical Farmers of Iowa. "Farm Transfer." www.practicalfarmers.org/member-priorities/farm-transfer/

²³ Bob Wagner and Kathy Ruhf. 2013. *Farmland Access and Tenure Innovations: Policy and Program Suggestions to Promote Land Access for New England's Beginning Farmers*. Keene, N.H.: Land for Good. <http://land-forgood.org/wp-content/uploads/LFG-Farmland-Access-And-Tenure-Innovations.pdf>

²⁴ Center for Social Inclusion. 2014. *Regaining Ground: Cultivating Community Assets and Preserving Black Land*. www.centerforsocialinclusion.org/wp-content/uploads/2014/07/Regaining-Ground-Cultivating-Community-Assets-and-Preserving-Black-Land.pdf

²⁵ Center for Social Inclusion 2014.

²⁶ Associated Press. 2001. "Torn from the Land." <http://theauthenticvoice.org/mainstories/tornfromtheland/>

²⁷ USDA Office of the Assistant Secretary for Human Rights. n.d. "What You Need to Know About Heir Property." www.fsa.usda.gov/Internet/FSA_File/whatyouneedtoknowheirproperty.pdf

²⁸ Center for Heirs Property Preservation. "What We Do." www.heir-sproperty.org/what-we-do

²⁹ Black Family Land Trust, Inc. n.d. "Our Work." www.bfltr.org/our-work.html

³⁰ Federation of Southern Cooperatives Land Assistance Fund. n.d. "The Federation/LAF Land Retention Project." www.federationsoutherncoop.com/landret.htm

³¹ APA 1999, Item 9.

³² Cabarrus County, North Carolina. 2008. *Cabarrus County Central Area Plan*. Part 5.2, Recommendations and Implementation Strategies - Land Use, Housing and Economic Development. <https://ftp.cabarrus-county.us/Cabarrus%20Public%20Document%20Library/Cabarrus%20Capacity%20Study/Central%20Area%20Plan.pdf>

³³ Story County (Iowa) Planning and Zoning. 2003, revised 2011. *Story County Development Plan: Land Use Framework*. www.storycounty-iowa.gov/DocumentCenter/Home/View/337

³⁴ Lawrence/Douglas County (Kansas) Metropolitan Planning Office. 2016 amendment. *Horizon 2020: The Comprehensive Plan for Lawrence and Unincorporated Douglas County*. Chapter 16, Environment; Land Resources and Management. <https://assets.lawrenceks.org/assets/pds/planning/documents/Horizon2020.pdf>

³⁵ Kane County, Illinois. 2012. *2040 Plan*. Planning Issues 2.6, Agricultural: Food and Farm. www.countyofkane.org/Documents/Quality%20of%20Kane/2040%20Plan/planText.htm

³⁶ Sonoma County, California. 2014. *Sonoma County General Plan*. Land Use Element. www.sonoma-county.org/PRMD/gp2020/index.htm

³⁷ Sonoma County, California. 2014. *Sonoma County General Plan*. Agricultural Resources Element. www.sonoma-county.org/PRMD/gp2020/index.htm

³⁸ Erie County (New York) Department of Environment and Planning and Erie County Agricultural and Farmland Protection Board. 2012. *Erie County Agricultural and Farmland Protection Plan*. October 24. www2.erie.gov/environment/sites/www2.erie.gov/environment/files/uploads/AgFarmlandProtectionPlan.pdf



- ³⁹ Burlington County, New Jersey. 2008. *Burlington County Comprehensive Farmland Preservation Plan* (2009–2018). www.co.burlington.nj.us/DocumentCenter/View/1893
- ⁴⁰ 2005. *Blue Ribbon Commission for Agriculture in Lancaster County Report*. <http://web.co.lancaster.pa.us/DocumentCenter/Home/View/140>, <http://web.co.lancaster.pa.us/DocumentCenter/Home/View/141>
- ⁴¹ Lancaster County Agricultural Council. 2012. "Implementation Strategies and Actions." <http://www.keep Lancaster county farming.com/about-us/operating-documents/implementation-strategies-and-actions>
- ⁴² Cedar River Group. 2015. *Recommendations of the King County Farms and Food Roundtable*. 1., Acquire and Steward Land and Capital. <http://your.kingcounty.gov/dnrp/library/water-and-land/agriculture/farm-food-roundtable-report-june-2014.pdf>
- ⁴³ Lancaster County Planning Commission. n.d. "Balance: Growth Management Plan – Urban Strategy." www.lancastercountypanning.org/129/Urban-Strategy
- ⁴⁴ Lancaster County Planning Commission. n.d. "Balance: Growth Management Plan – Rural Strategy." www.lancastercountypanning.org/128/Rural-Strategy
- ⁴⁵ King County, Washington. 2012, amended 2015. *2012 King County Countywide Planning Policies*. www.kingcounty.gov/~media/depts/executive/performance-strategy-budget/regional-planning/CPPs/2012CPPs-Amended103115.ashx?la=en
- ⁴⁶ King County, Washington. n.d. "Growth Management: 25 Years of Growth Management in King County." www.kingcounty.gov/depts/executive/performance-strategy-budget/regional-planning/Growth-Management.aspx
- ⁴⁷ American Farmland Trust Farmland Information Center. 1998. "Fact Sheet: Agricultural Protection Zoning." www.farmlandinfo.org/sites/default/files/FS_APZ_9-98_1.pdf
- ⁴⁸ Pennsylvania Land Trust Organization. n.d. "Agricultural Protection Zoning." Conservation Tools.org. <http://conservationtools.org/guides/67-agricultural-protection-zoning>
- ⁴⁹ Paw Paw Township, Michigan. 2014. *Code of Ordinances*. Chapter 42, Zoning; Section 42-61, AGR Agricultural (Farmland Preservation) District. [www.municode.com/library/mi/paw_paw_township_\(van_buren_co.\)codes/general_and_zoning?nodeId=G-EZ00R_CH42ZO_ARTIIIZODI_S42-61AGAGFAPRDI](http://www.municode.com/library/mi/paw_paw_township_(van_buren_co.)codes/general_and_zoning?nodeId=G-EZ00R_CH42ZO_ARTIIIZODI_S42-61AGAGFAPRDI)
- ⁵⁰ Walworth County, Wisconsin. 2016. *Code of Ordinances*. Chapter 74, Zoning; Section 74-51, Agricultural Districts. https://www.municode.com/library/wi/walworth_county/codes/code_of_ordinances?nodeId=WACOCOOR_CH74ZO_ARTIIIZOOR_DIV3ZODI_S74-51AGDI
- ⁵¹ Scott County, Iowa. 2016. *Zoning Ordinance for Unincorporated Scott County*. Section 6-9, "A-P" Agricultural-Preservation District. www.scottcountyiowa.us/planning/pub/zoning/ordinance/Scott-County-Zoning-Ordinance.pdf
- ⁵² Sonoma County, California. 2016. *Code of Ordinances*. Chapter 26, Zoning Regulations; Article 04, LIA Land Intensive Agriculture District. Article 06, LEA Land Extensive Agriculture District. Article 08, Diverse Agriculture District. Article 16, AR Agriculture and Residential District. www.municode.com/library/ca/sonoma_county/codes/code_of_ordinances?nodeId=CH26SOCOZORE
- ⁵³ Natural Lands Trust. 2009. *Growing Greener: Conservation by Design*. www.landchoices.org/conservationsubs/consubs_pdfs/ggbrochure2009.pdf
- ⁵⁴ Lynn Markham. 2007. "Farming Subdivisions: Problematic or Promising?" *Land Use Tracker* 7(3): 8–9. www.uwsp.edu/cnr-ap/clue/Documents/Ag/FarmingSubdivisions_TrackerWinter2007.pdf
- ⁵⁵ Center for Natural Capital. 2008. "Farmcolony: One of the First Conservation Subdivisions that Thrives Today." <http://naturalcapital.us/2008/08/31/farmcolony-one-of-the-first-conservation-subdivisions-that-thrives-today/>
- ⁵⁶ Marshall Township, Pennsylvania. 2016. *Zoning Ordinance*. Article 1600, Conservation Subdivision Design. <http://twp.marshall.pa.us/wp-content/uploads/2012/03/ARTICLE-1600-Conservation-Subdivision-Design.pdf>
- ⁵⁷ Town of Port Washington, Wisconsin. n.d. *Zoning Code*. Section 340-20.2, ACS-1 Agricultural/Conservation Subdivision District. www.town.port-washington.wi.us/Codes/Zoning/Zoning%20&%20Subdivision%20-%20203A%20Zoning%20Districts.pdf
- ⁵⁸ Town of Southampton, New York. 2016. *Municipal Code*. Chapter 330, Zoning; Section 330-248, part G. <http://ecode360.com/8703207>
- ⁵⁹ Jennifer Landes. 2005. "Farmland Easements; Southampton Moves on Agricultural Districts." *Easthampton Star*, February 24. <http://easthamptonstar.com/Archive/5/SAGAPONACK-Farmland-Easements-Southampton-moves-agricultural-districts>
- ⁶⁰ Town of Southampton, New York. 2016. *Municipal Code*. Chapter 330, Zoning; Section 330-248, parts J, M, N, P, R, and S. <http://ecode360.com/8703207>
- ⁶¹ City of Davis, California. 2016. *Code of Ordinances*. Article 40A.03, Farmland Preservation. http://qcode.us/codes/davis/view.php?topic=40a-40a_03&showAll=1&frames=off
- ⁶² San Joaquin County, California. 2016. *Development Title*. Chapter 9-1080, Agricultural Mitigation. www.municode.com/library/ca/san_joaquin_county/codes/development_title?nodeId=TI-T9DET_DIV10DERE_CH9-1080AGMI
- ⁶³ City of Morgan Hill, California. 2016. *Code of Ordinances*. Title 18, Zoning; Chapter 18.85, Agricultural Mitigation. www.municode.com/library/ca/morgan_hill/codes/code_of_ordinances?nodeId=TT18ZO_DIVIVREDECO_CH18.85AGMI
- ⁶⁴ Rick Pruetz and Noah Standridge. 2009. "What Makes Transfer of Development Rights Work?" *Journal of the American Planning Association* 75(1):78–87.
- ⁶⁵ Margaret Walls and Virginia McConnell. 2007. *Transfer of Development Rights in U.S. Communities: Evaluating Program Design, Implementation, and Outcomes*. Washington, D.C.: Resources for the Future. www.rff.org/files/sharepoint/WorkImages/Download/Walls_McConnell_Sep_07_TDR_Report.pdf
- ⁶⁶ Rick Pruetz and Noah Standridge. 2009. "Is Your Community TDR-Ready?" *Zoning Practice*, September.
- ⁶⁷ For a listing of U.S. TDR programs and profiles, see "Smart Preservation – TDR Updates." <http://smartpreservation.net/tdr-updates/>
- ⁶⁸ Walls and McConnell 2007, p. 38.
- ⁶⁹ Maryland-National Capital Park and Planning Commission. n.d. "Building Lot Termination Program." www.montgomeryplanning.org/community/building_lot_termination.shtml
- ⁷⁰ King County, Washington. "Transfer of Development Rights (TDR) Program." www.kingcounty.gov/environment/stewardship/sustainable-building/transfer-development-rights.aspx
- ⁷¹ King County 2012 (2015).
- ⁷² King County, Washington. n.d. "Transfer of Development Rights Bank." <http://kingcounty.gov/environment/stewardship/sustainable-building/transfer-development-rights/bank.aspx>
- ⁷³ Arthur C. Nelson, Rick Pruetz, and Doug Woodruff. 2012. *The TDR Handbook*, p. 152. Washington, D.C.: Island Press.
- ⁷⁴ Warwick Township, Pennsylvania. n.d. "Agricultural Preservation – Transferable Development Rights (TDR) Program." www.warwick-township.org/agricultural-security-area/pages/transferable-development-rights-tdr-program
- ⁷⁵ Nelson et al. 2012, p. 154.
- ⁷⁶ Township of Hadley, Massachusetts. 2016. *Zoning Bylaw*. Section XVII, Farmland Preservation Bylaw. <http://ecode360.com/13511544>
- ⁷⁷ Katharine Otto. 2010. *Smart Growth Through the Transfer of Development Rights*. New Jersey Future. www.njfuture.org/wp-content/uploads/2011/07/Case-Studies-in-Transfer-of-Development-Rights-8-10-Intern-report.pdf
- ⁷⁸ Farmland Information Center. 2015. "Purchase of Agricultural Easements." Northampton, MA: American Farmland Trust. www.farmlandinfo.org/purchase-agricultural-conservation-easements
- ⁷⁹ Gayle Miller and Douglas Krieger. 2012. "Purchase of Development Rights: Preserving Farmland and Open Space." *Planning Commissioners Journal*, Article #140. <http://plannersweb.com/wp-content/uploads/2012/08/140.pdf>



⁸⁰ King County Department of Natural Resources and Parks, Water and Land Resources Division. 2009. *FARMS Report*, p. 4. www.farmland-info.org/sites/default/files/farms-report-no-apdx_1.pdf

⁸¹ King County Department of Natural Resources and Parks, Water and Land Resources Division. n.d. "Farmland Preservation Program." www.kingcounty.gov/depts/dnrp/wlr/sections-programs/rural-regional-services-section/agriculture-program/farmland-preservation-program.aspx

⁸² Town of Dunn, Wisconsin. 2009. "Town of Dunn PDR Program Accomplishments." www.town.dunn.wi.us/bmos-resources/town-of-dunn-pdr-program-accomplishments1.pdf

⁸³ Town of Dunn, Wisconsin. n.d. "Purchase of Development Rights Program." www.town.dunn.wi.us/land-use/purchase-of-development-rights-pdr/

⁸⁴ Carroll County, Maryland. n.d. "Preservation Programs: Carroll County Critical Farms Program." <http://ccgoverment.carr.org/ccg/agpres/programs.asp>

⁸⁵ Ralph Robertson. n.d. "The History of the Carroll County, Maryland Agricultural Land Preservation Program: Balancing the Needs of the Community." www.uwsp.edu/cnr-ap/clue/documents/growing-wisconsin/Ralph's%20Presentation%20for%20Wisconsin-with%20pictures.pdf

⁸⁶ Frederick County, Maryland. n.d. "Agricultural Land Preservation—Critical Farms Program." <https://frederickcountymd.gov/1465/Critical-Farms-Program>

⁸⁷ Marin County (California) Parks. 2016. "Measure A: Protect Marin Parks, Open Space, and Farmland." www.marincountyparks.org/depts/pk/about-us/main/measurea

⁸⁸ Max Pfeffer, Joe Francis, and Zec Ross. 2006. "Farmland Change, Urbanization and a Changing Farm Economy." *Occasional Policy Brief Series*, Western Rural Development Center. http://wrwc.usu.edu/files/publications/publication/pub__9134509.pdf

GROWING FOOD CONNECTIONS PARTNERSHIP

PROJECT LEAD



PROJECT CO-LEADS



cultivating
healthy
places



PROJECT PARTNERS



GROWING FOOD CONNECTIONS

Planning & Policy Brief, September 2017

AUTHORS

Ann Dilleuth, AICP, American Planning Association

SERIES EDITORS

Kimberley Hodgson, AICP, Cultivating Healthy Places
Samina Raja, University at Buffalo

CONTRIBUTORS

Kimberley Hodgson, Cultivating Healthy Places
Samina Raja, University at Buffalo
Julia Freedgood, American Farmland Trust
Jill Clark, Ohio State University

DESIGN & PRODUCTION

Brenda Stynes, University at Buffalo
Kimberley Hodgson, Cultivating Healthy Places

Recommended citation: Dilleuth, Ann. 2017. Farmland Protection: The Role of Local Governments in Protecting Farmland as a Vital Local Resource. In Kimberley Hodgson and Samina Raja (Series Editors), *Planning & Policy Briefs. Growing Food Connections*. 12p. Available on-line at: growingfoodconnections.org.