

Watershed Resource Paper #1 Farmland Preservation

This Resource Paper is intended to relay possible farmland preservation techniques available through land use planning and zoning and other means available to individual property owners. This menu of options is meant to provide different alternatives to be used either individually or in combination.

The preservation of farmland is a controversial issue. Many rural, non-farm residents want to preserve farmland while many farmers also want to preserve the land while retaining the option to sell. However, as development increases and agricultural commodity prices decline, the challenges to preserving the farmland become greater.



Preserving farmland often draws a fine line between private property rights and the obligation of a community to protect and preserve land resources for future generations. Who has the right to decide what land will be developed, preserved, or utilized? These basic questions have kept many communities from taking aggressive measures to protect farmland from development. As a result, most farmland preservation programs are either voluntary or apply only to limited areas perceived as being very valuable farmland, such as orchards or vineyards.

Farmland Preservation Issues

Farmland and Development Conflicts

State tax assessment guidelines and many local land use regulations are generally not conducive to protecting farmland. In many rural areas this has caused rapid development of single family homes on large lots, land fragmentation, and increased farmland property values (beyond its agricultural worth).

The effects of non-agricultural development on existing farm operations is a particularly troublesome issue. New development can make daily farming operations difficult and sometimes dangerous. New residents in farming areas may not understand basic farming needs, such as manure handling. As a result, farmers are forced to contend with increased traffic and nuisance complaints by new neighbors who object to slow moving vehicles on roadways, noise, dust, odors, and late hours of operation. As development pressures build, so will additional complaints regarding agricultural practices.

In 1981, Michigan passed the Right-to-Farm Law to protect farmers from public or private nuisance suits if the farm operation conforms to generally accepted agricultural management practices. The law states: *A farm or farm operation shall not be found to be a public or private nuisance if the farm or farm operation existed before a change in the land use or occupancy of the land within one mile of the boundaries of the farm, and if before that change in land use or occupancy of land, the farm or farm operation would not have been a nuisance.*"

Citizen complaints against agricultural operations are filed with the Michigan Department of Agriculture's Right-to-Farm Office. Complaints primarily center around flies, odors, and/or manure handling related to livestock operations. According to the Act, farmers are protected as long as they comply with the Best Management Practices for agricultural activities as required by the state of Michigan. This does not, however, eliminate the efforts that farmers have to put forth to defend their actions from nuisance complaints.

Recent amendments to this Act have affected the ability of local governments to control the operational effects that certain agricultural activities may have on surrounding properties. While the implications of this amendment are not yet known, one possibility is that the inability of local governments to control locations and effects from agriculture may lead to additional nuisance problems for farmers.



Measuring the Value of Agricultural Lands

Farming creates jobs, provides a product for sale, and pays taxes. Farmland may also provide substantial environmental benefits, including floodplain protection, groundwater recharge, and wildlife habitat. In addition, the tradition of family owned farms has been passed down from generation to generation; supporting a strong social structure focused on community and family.

In evaluating the value of farmland, there must be a basic assumption that farmland is *worth* saving. Therefore, the basis for farmland protection centers around farming as an economically productive activity which merits protection based on a variety of factors, but especially its quality, location, and economic value.

Quality

Not all farmland is of equal quality or provides equal benefit. The U.S. Department of Agriculture has provided a number of definitions to help classify farmland.

- C** *Prime farmland* is land that has the best combination of physical and chemical characteristics for producing food, feed, forage, fiber, and oilseed crops. Prime farmland has the soil quality, growing season, and moisture supply needed to economically produce sustained high yields of crops when treated and managed according to acceptable farming methods.

- C *Locally important farmland* is land other than prime farmland that is used for the production of specific high value food and fiber crops. Examples of such crops are tree nuts, cranberries, fruits, and vegetables. Locally important farmland can also include “unique” lands; crops common to a county.

- C *Unique farmland* is land other than prime farmland that is used for the production of specific high value food and fiber crops. It has the special combination of soil quality, location, growing season, and moisture supply needed to economically produce sustained high quality and/or high yields of a specific crop when treated and managed according to acceptable farming methods. Examples of such crops are tree, bush and vine fruits, vegetables, and nursery crops.

Other agricultural land may be too small for detailed classification. Also, lands now used for agricultural production may contain soils not generally considered favorable for crop production but still yield a worthwhile return. These properties must also be considered when determining the relative value of farmland.

Certain location factors such as climate, air quality, and water availability and quality also contribute to defining high quality agricultural land - land which achieves that precise combination of water, soil, temperature, and sun to produce high yields or unique crops. For example, proximity to Lake Michigan creates a microclimate which can only be accomplished adjacent to a large body of water. Lands are protected from temperature extremes, and the water contributes to precipitation. Unique microclimates should be recognized for their importance in the production of grapes and apples, for instance, or for the other fruit varieties grown throughout the region.

Location

Some communities view farmlands as holding areas for a future time when fields and pastures will be converted to residential, commercial, or industrial uses. This may be appropriate in areas where public utilities, land prices, property divisions, and growth pressures have made farming difficult. Agricultural lands, even those with considerable value, may be difficult to preserve where urban services and development have been introduced. Extraordinary efforts to preserve farmland in these areas is counterproductive and should only be undertaken in the most unusual circumstances.

In areas where infrastructure is not available, and high quality agricultural lands are present, communities should recognize the substantial benefits of preserving agricultural lands for agricultural uses. These benefits are especially prevalent in those communities which have been traditionally agricultural. These values may be measured in many ways.

The rate and location of farmland loss are critical factors to be considered when assessing the need for local farmland preservation policies and programs. If the rate of loss has accelerated to an uncontrollable degree



as a result of market prices and demand, preservation efforts may be futile. However, if the trend of conversion is recognized early enough, effective preservation efforts may be able to be implemented.

The following should be mapped to illustrate farmland conversion as well as potential areas for preservation:

- C acreage and location of farmlands converted to non-farm uses;
- C parcel distribution and size; and
- C amount and ownership of productive agricultural land.

Special environmental issues, such as agricultural wastes and groundwater quality and quantity, must also be considered. The impacts of agricultural operations, as with any other land use, must be evaluated relative to the environment. Sensitive groundwater recharge areas, for instance, may be highly vulnerable to contamination. Intensive livestock operations in such areas may pose a contamination threat to drinking water and therefore may be subject to reasonable restrictions.

Land development in agricultural areas, as discussed earlier, can be expensive to support and can result in conflicts between new residents and farmers. Community costs to support public services such as roads, schools, sewers, and trash collection can many times outweigh the benefit the community receives in tax dollars. A cost of community services study may be necessary to inform both local decision makers and the public of hidden development costs.

Agricultural lands do not require the extent of services that residential, commercial, and industrial uses do. Farm fields do not send ears of corn to school, require an extensive transportation network, request public water and sewer, or demand police and fire services. For example, a study conducted in Scio Township, near Ann Arbor, revealed that for every tax dollar new non-agricultural development contributed to the community, \$1.40 was required for services. Conversely, agricultural land only required \$0.62 in services for every dollar contributed.



Directing new development into areas which are zoned for development purposes and discouraging the expansion of low-density development into rural agricultural zones can assist in protecting farmland.

Directing new development into areas which are zoned for development purposes and discouraging the expansion of low-density development into rural agricultural zones can assist in protecting farmland. Encouraging higher density development in areas where urban services are available can assist in the protection of farmlands elsewhere. Any community committed to the protection of farmland must encourage new development in areas where it belongs.

Economic Value

The past trend of small, family owned farms is today less common. As advances in technology have been implemented and scales of economy increased, larger farm operations have tended to be more successful than many smaller, less profitable farms. These economic factors must be considered when evaluating the “value” of a piece of farmland:

- C Value of agricultural production, by commodity
- C Value and contribution of agriculture in local and regional economies (e.g. employment data, dollar values)
- C Farming cost factors such as land prices, taxes, and the cost of inputs like water, energy, fertilizers, etc.

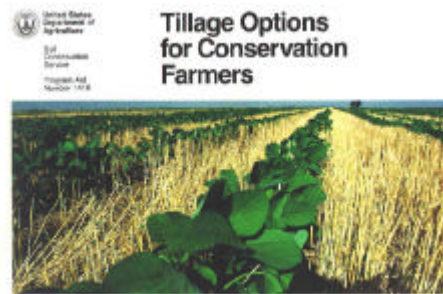
A thorough economic analysis of the agricultural industry should include the range and value of agricultural commodities produced locally, as well as within the county, and historic trends of growth and decline of commodity sales and acreage. Factors that affect the production and marketing of various commodities, such as market access and availability of process and support facilities, can be included in this assessment.

Finally, economic factors well beyond the control of local governments or farmers, including commodity prices, export/import laws, and other factors has a dominant affect on agricultural practices and the ability to continue agriculture use on even productive lands.

Zoning Techniques For Farmland Preservation

Agricultural resources throughout Michigan are generally considered to be in jeopardy within the next twenty years if current development trends continue. The value of farmland, and its accelerating loss has been well documented in other sources. In order to maintain the quality of life which Michigan residents have become accustomed to, regulatory measures to preserve farmland may be necessary.

The following describes regulations that may be implemented through the zoning ordinance which, in combination with other techniques, may be useful in preserving land for agricultural use. It is important to understand that these provisions do not, by themselves, preserve farming in any community; only the farmer can do that. Rather, these techniques are intended to permit larger blocks of land to be set aside for farm use.



Although the following describes techniques for preserving farmland and thus protecting water resources, it is first important to note that there are many agricultural management practices farmers can implement to help protect water quality, including:

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|---|--|
| ' contour strips | ' pest management |
| ' conservation tillage | ' irrigation water conservation |
| ' terraces | ' alternative livestock watering sources |
| ' nutrient/manure management | ' rotational grazing |
| ' vegetative buffer along rivers and drains | |

If interested in these best management practices or other farm planning and incentive farm conservation programs, contact the NRCS District Conservationist at (616) 445-8643 extension 3 for assistance.

Exclusive Use Zoning

Exclusive use zoning, in this case for agriculture, can be an effective way to protect farmland from conversion to other uses. Exclusive use zoning is most appropriate where there is limited pressure for residential development and there are already existing large areas of prime or unique agricultural resources.

The purposes of an exclusive agricultural zone may include:

- C protecting productive farms;
- C avoiding conflicting land uses;
- C maintaining a viable agricultural economic base; and
- C maintaining open space/rural character.

New non-farm residences are often strictly regulated in the Exclusive Use District, including approvals only through a Special Land Use process. Site development standards within the District could include a maximum lot area for non-farm, residential use, and unless otherwise provided for, a large minimum lot area for a farm dwelling unit. Other provisions might include a maximum lot to depth ratio of 1:3 and large minimum lot widths and setbacks.

Sliding Scale Zoning

This technique limits the number of times that a parent parcel (a parcel existing on the date of ordinance adoption) can be split, based on its size, i.e., the larger the parcel the more splits that may occur, up to a maximum number established (as shown on the example chart). A larger minimum parcel size is also established.

Unlike exclusive use zoning, sliding scale zoning

Sliding Scale (Example)	
Area of Lot of Record	Maximum Additional Lots Permitted
1 to 10 acres	1
10.1 to 20 acres	2
20.1 to 40 acres	3
40.1 to 80 acres	4
80.1 to 160 acres	5
160.1 to 320 acres	6
over 320.1 acres	7

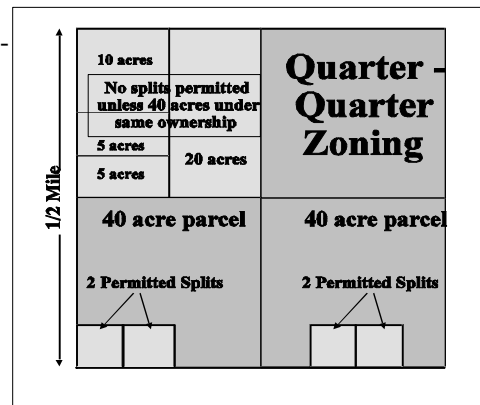
allows some non-farm residential development without special land use or other reviews. Sliding scale zoning can be useful in agricultural areas where there are significant development pressures and land speculation. The use of sliding scale zoning is most effective in areas where a wide range of parcel sizes exist and non-farm residential development has already begun to occur.

Minimum and maximum building lot sizes can be used to encourage the location of non-farm development on less productive farmland and/or in areas where development is more concentrated to direct growth onto already fragmented land. The use of buffer areas (see later discussion) is highly recommended to avoid land use conflicts between new residential development and agriculture fields.

Since this method does permit some use of land for non-agricultural uses, it allows communities to more effectively avoid a claim that land has been "taken" without compensation.

Quarter/Quarter Zoning

Quarter/quarter zoning is a density based zoning technique which is most appropriate in rural areas with large farming operations, moderate growth pressures, and where average parcel sizes generally exceed 40 acres. "Quarter/quarter zoning" refers to a quarter of a quarter section of land (1/16 of 640 acres, or 40 acres) where a limited number of non-farm homes are allowed for every 40-acres of land.



The non-farm splits are usually regulated by minimum and maximum sizes, e.g., no less than 1 acre and not greater than 2 acres. They are often required to be contiguous to one another to avoid breaking up farmland into smaller or odd-shaped sizes.

A variation of this method is to establish a density of homes within each section of land. Once that density is reached, further residential or other development is prohibited.

Large Lot Zoning

This technique simply increases the lot size required in residential zone districts where farming operations exist, except perhaps, where public utilities are/can be provided. Lot sizes are generally greater than 10 acres, depending on the objective (farmland preservation vs. rural character). In areas where farmland preservation is particularly important to the community individual lot sizes of 40 to 160 acres may be applicable.

Large lot zoning, however, is generally not considered to be effective in farmland protection since low density development patterns create parcel sizes which are "too big to mow, but too little to plow." In areas of marginal farming production this technique can have a detrimental effect by requiring large lots for individual homes and taking large parcels out of production for that purpose. This technique may be effective in maintaining rural character, but not farmland.

Open Space (Cluster) Development

Another approach to farmland preservation is to concentrate less on restricting development of property and work instead on the efficient use of land. Open Space Development (or as it is sometimes known, cluster development) provides for a denser concentration of development in a limited area, with no increase in the overall, or "gross density" of the site.

The object of clustering is not to increase the number of units developed, but to regulate the amount of land disturbed by structures, lawns, and drives. The gross density must still fall into the requirements of the Zoning Ordinance.

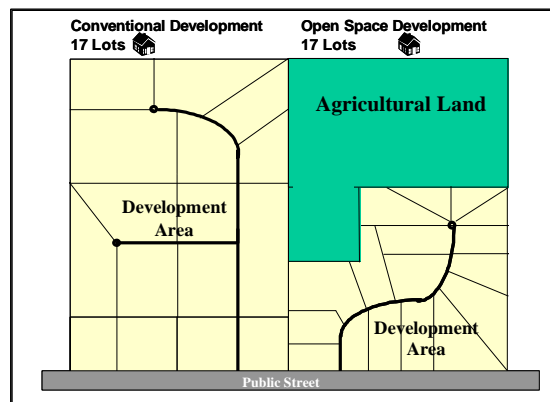
On larger parcels, the acreage not used in the development may be set aside for farming,

The Land Division Act and Zoning

The Land Division Act (LDA) (Public Act 591 of 1996, as amended; formerly known as the Subdivision Control Act) is a procedural statute governing the subdividing (platting) of land. The LDA has two major components.

- ! The LDA provides mandates which trigger the platting process, as opposed to simple land divisions, which are not subject to platting.
- ! The LDA includes regulations governing the platting process once it is determined that a plat is necessary.

Zoning regulates the dimensional and spatial character of the lots or parcels proposed for platting, or created as simple land divisions. The LDA and zoning are intended to be compatible. For example, the LDA permits up to 4 lots to be created from a 10 acre parcel of land. However, if the local zoning ordinance had a minimum lot size of 5 acres, only two lots would be able to be created and still be in compliance with the zoning ordinance.



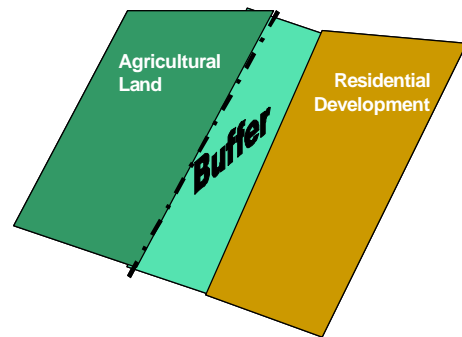
provided that ownership or control of the area to be used for farming is firmly established. This development style permits areas of agricultural lands to remain in production, even as other parts of the property are developed for residential use.

Open space lands provided as part of an Open Space Development could be incorporated in a long-term lease agreement with a local farmer. Farm operators may also take advantage of this option by developing only a portion of the property to gain additional financial resources, while retaining the remainder for agricultural purposes.

Even where Open Space Development may have a limited impact on the preservation of farmland, it can allow for the preservation of many site features, such as wooded areas, steep slopes, wetlands, and other natural amenities.

Agricultural Buffers

Balancing the need to continue agricultural practices and the desire to develop land for non-agricultural purposes can be challenging. Open space buffers between active agricultural areas and other uses, such as residential development, can help reduce land use conflicts, particularly where residential and agricultural conflicts are occurring with greater frequency. The use of buffers can aid in easing land use conflicts and improving the relationship of agricultural uses and new residents.



Buffers are generally imposed on residential developments, rather than on farming operations, principally because the farm was probably the first use in place. Buffers should be sufficiently wide to protect the farming operation from lawn fertilizers, playing children, and other conflicts. At the same time, they cannot be so burdensome as to require excessive land commitments from residential property owners.

Buffers are most effective if a “no-disturb” zone is provided between residential properties and farmland. This requirement should be tied to subdivision, site condominium, planned unit development, or land division approval. It should also be required that the buffer be described in the property deed to alert potential buyers of the need to honor the no-disturb area.

Voluntary Farmland Preservation Techniques

Conservation Easements

A conservation easement is the voluntary donation of land to have restrictions placed on it for the protection of agriculture, open space, and natural resources. The landowner still owns the land and can use it for specific conditions that the landowner and the nonprofit easement

holder have agreed upon. Agricultural easements are designed to benefit the landowner, to assist him in keeping agricultural lands productive and protected from development.

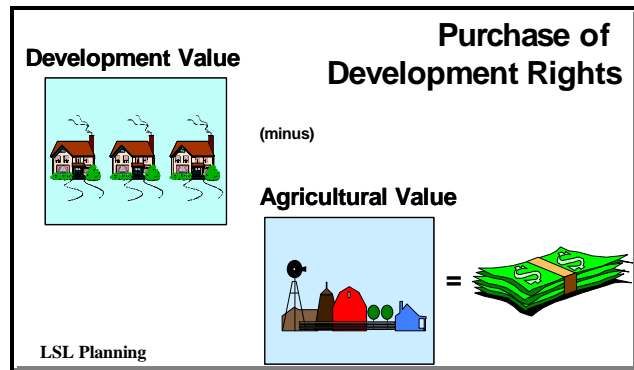
The easement is considered a charitable contribution for which the landowner does not receive direct income benefits from the donation of their land. The landowner benefits from the donation through federal and state income tax deduction, lower property taxes, and reduction in estate and inheritance taxes. The value of the conservation easement is the difference between the fair market value and the value of the land after restrictions have been imposed. These values are determined by a professional surveyor who considers the fair market value based on the development pressures of the land to determine how much the conservation easement is worth. The tax relief that the landowner receives can be used to keep the land productive without having to sell more land and ensure the property for future generations.

Conservation easements are flexible to the landowners needs and may have limited provisions for use and development. Certain rights to use the property can be held such as the right to grow crops, cut timber, construction of new farm buildings, careful location of house for family members, or subdivision of a lot for resale. Requesting to keep these rights will affect the value of what the conservation easement is worth. The easement holder assumes the responsibility to make sure that all the restrictions are enforced.

The length of the easement may be flexible from a few years to permanent preservation. However, federal tax benefits are only available on permanent easements. The conservation easement stays in effect if the property is bought, sold, given or transferred to another owner. The new owner than assumes all responsibility of the conservation easement. When the surrounding areas change to the extent that the restrictions of the conservation easement can no longer be met the easement may be changed or terminated by the courts.

Purchase of Development Rights (PDR)

The purchase of development rights has a similar setup and advantages as conservation easements. The landowner voluntarily sells the development right to his property, for compensation for not developing the land. Like conservation easements the landowner maintains full ownership of their land for agricultural uses and the land can be sold or transferred, but can never be used for non-farm development.



The value for the purchase of the development rights is the difference between the fair market value and the agricultural use value of the land. With the income from the sale of the development rights the landowner has money to expand the farm operation, pay off debt,

college education, inheritance to non-farm related children, retirement, and much more. Besides extra income, the sale of development rights allows the land to be assessed at a lower tax rate, decreasing property tax and inheritance taxes of the land.

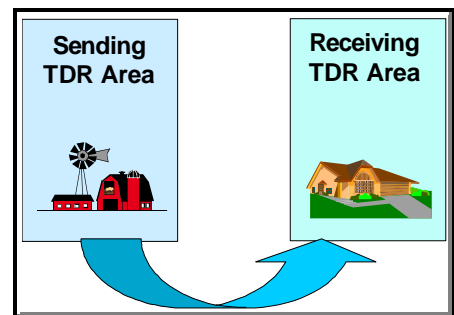
However, none of these programs are entirely permanent and may be designed to allow some way out by proving through stringent test that keeping the land open for productive agriculture is no longer possible in that area. Then most programs allow the landowners to buy back development rights.

One fundamental concern with PDR programs is funding the program. The funds may come from private agencies like American Farmland Trust, state bond referendums, grants, donations, P.A. 116 lien fund, or an increase in other local funding sources like a special tax on building permits. An example of alternative funding can be taken from the state of Pennsylvania who issued an extra 2% sales tax on cigarettes. These programs have passed voter approval and have been largely supported by non-farming communities and urban residents who have witnessed the loss of farmland and open space. Most people may not live in rural communities, but enjoy viewing them on occasion and knowing that they will always be there.

Transfer of Development Rights (TDR)

Transfer of development rights is another voluntary preservation option that compensates the land owner for not developing their land by allowing the development rights to be transferred to a development district. For TDR to work properly two districts need to be established, a preservation, or "Sending" area, where no development will occur, and a "Receiving" area that uses the rights for higher development densities above communities zoning guidelines. The TDR then becomes a tool to redirect growth from one area of the community to another.

TDR has similar characteristics to PDR. Each has as its focus the protection of agricultural land while allowing the landowner to be compensated for not selling and developing their land. Compensation benefits include reduced tax assessments, the right to buy, sell, or transfer the property, and the knowledge that the land will be preserved for future generations to use and enjoy. TDR requires more planning and oversight by local government.



P.A. 116

The Farmland and Open Space Preservation Act, P.A. 116, was established in the 1985 farm bill. P.A. 116 is a founding act for farmland and open space preservation programs which offered tax relief to landowners who enrolled farmland in the program for 10 years or more. Currently 45% of Michigan's farmland is in the P.A. 116 program. In 1996 Michigan's Governor

approved amendments to P.A. 116 in H.B. 4325. These changes are designed to keep P.A. 116 a desirable program for landowners.

P.A. 116 provides the framework for three temporary easement programs and one permanent easement program. The ones that apply to farmland will be discussed here.

Temporary Easement

Farmland Development Rights Agreements

- ' 10-90 year agreements
- ' a parcel of 5-39 acres in size with at least 51% devoted to agricultural use and that earns at least \$200 per cleared and tillable acre
- ' a parcel 40 acres or larger with at least 51% devoted to agricultural use
- ' land may not be developed for any use other than agriculture
- ' landowner is eligible for a property tax credit and special assessment exemption

An owner of farmland and related buildings may claim a credit against the state income tax liability. The credit is the amount by which the property taxes exceed 7% of the household income. (Note: This percentage will drop to 3.5 in tax year 2001).

For example:

- 1) The annual household income of Farmer "A" is \$20,000. Seven percent of the annual household income equals \$1,400.00.
- 2) The state income tax liability for Farmer "A" is \$1,600.00, or \$200.00 greater than the seven percent amount identified under Item 1.
- 3) Based on the above, Farmer "A" may take a credit of \$200.00 against his/her state income tax liability.

In the P.A. 116 program the land is to be left in for the number of years stated in the agreement. However, if the landowner wishes to convert or develop farmland, before the agreement expires, then he/she must repay the past seven (7) years of taxes plus interest compounded annually from the time the credit was received.

Permanent Easement

The State Purchase of Development Rights Program was administered by the Michigan Department of Natural Resources Real Estate Division and authorized by P.A. 116. Landowners were required to submit applications to the State, upon approval of which, the State paid the landowner a cash payment for their development rights and a permanent easement on their property.

Recently, the State adopted Public Act 262, the State Agricultural Preservation Fund. This

Fund, and all other farmland preservation programs, will now be housed and administered by the Michigan Department of Agriculture. This Fund replaces the Purchase of Development Rights Program.

The source of funding will remain the same. The program will continue to be funded by the recapture of P.A. 116 lien funds which are generated when property previously enrolled in a temporary easement through P.A. 116 is converted from farmland. However, the fund will now be used primarily for grants to local communities (probably counties) to receive and evaluate applications for the purchase of conservation easements from farmers.

Local communities may apply for a state grant if they have:

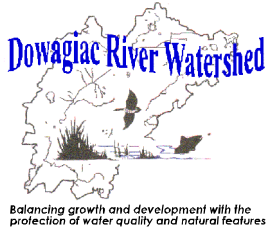
- ' a development rights ordinance providing for a PDR program which contains an application procedure, the criteria for a scoring system for parcel selection, and a method to establish the price to be paid
- ' a comprehensive land use plan, adopted within the past 10 years, that *includes a plan for preserving farmland* (or if included within a regional plan)
- ' completed the State application form

In the event that there is at least \$5 million remaining in the fund after providing grants for local communities, then the State Easement may be available.

The State Purchase of Development Rights Easement has the following characteristics:

- ' in effect in perpetuity
- ' can be placed on a parcel of any size with at least 51% devoted to agricultural use (the parcel must have the support of the local governing body)
- ' land may not be developed for any use other than agriculture
- ' landowner receives cash payment equal to their development rights value (maximum payment is capped at \$5,000/acre)

This is a permanent preservation program. Note that this program is administered by the State of Michigan. A purchase of development rights can be administered locally, as discussed previously in this paper.



ACTION AND IMPLEMENTATION

Community _____

Farmland Preservation	Yes	No	Need to Know More
Exclusive Use Zoning (page 6)			
Sliding Scale Zoning (page 6)			
Quarter/Quarter Zoning (page 7)			
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P.A. 116 Permanent Easement (page 12) - State Agricultural Preservation Fund			