

Living in the Country:

A Guidebook for Rural Living in Washtenaw County

PREPARED BY THE MICHIGAN STATE UNIVERSITY EXTENSION ADVISORY
COUNCIL IN WASHTENAW COUNTY, MSU EXTENSION STAFF, WASHTENAW
COUNTY STAFF, AND COMMUNITY VOLUNTEERS

Visit the Washtenaw County website, <http://www.ewashtenaw.org>

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MICHIGAN STATE
UNIVERSITY
EXTENSION

“Bringing Knowledge to Life”

MISSION: Helping people improve their lives through an educational
process that applies knowledge to critical needs, issues, and
opportunities.

This guidebook is meant to provide general information about laws and
regulations affecting rural residents. However, it is not an authoritative legal
guide. Please contact the indicated agencies or your attorney for precise
information on specific issues.

Printed on recycled paper

Contents

SECTION 1: INTRODUCTION	5
SECTION 2: BEFORE YOU MOVE OR BUILD	5
A. BUYING LAND.....	5
Know Your Soils.....	5
Land Descriptions.....	6
Land Divisions	7
Master Plans	7
Zoning.....	8
B. BEFORE YOU BUILD	8
Sewage Systems	9
Earth Moving or Grading	9
Building Permits	10
Drain Crossings or Structures.....	10
Driveways and Roads	10
SECTION 3: GOVERNMENT SERVICES IN RURAL AREAS.....	10
A. TOWNSHIP INFORMATION	11
What Do Townships Do?.....	11
How are Townships Governed?.....	11
Charter Townships	12
Washtenaw County Township Listing	13
B. PROPERTY ASSESSMENT AND TAX INFORMATION.....	16
C. RURAL ROADS AND TRAVEL	17
PUBLIC ROAD RIGHTS-OF-WAY.....	17
Hazards and Special Conditions in Driving	17
D. COUNTY DRAINS	19
Easements	20
Floodplains	20
Drainage Law and Property Rights	20
New or Improved County Drains	21
Wildlife Habitats in County Drain Rights-of-Way	21
SECTION 4: RURAL LIFE	22
A. EMERGENCIES	22
Police and Fire Emergencies	22
Medical Emergencies	23
Severe Weather Emergencies	23
Power Outages	24

B. HOW TO BE A GOOD NEIGHBOR	27
No Trespassing!	27
Public Hunting on Private Lands	27
The Family Dog	28
Patience, Please	28
Farm Odors and Practices	28
Wild Animals	29
C. COLD WEATHER PREPARATION	29
D. WATER AND WELLHEAD PROTECTION	30
Pollution Prevention	30
Water Conservation	31
E. MAINTAINING SEWAGE SYSTEMS	32
Signs of a Failed System	34
F. TRASH, RECYCLING, AND ILLEGAL DUMPING	35
SECTION 5: MANAGING YOUR LAND	36
A. VEGETABLE GARDENING	36
B. LAWNS AND LANDSCAPES	38
C. WATER AND WET AREAS IN THE LANDSCAPE	40
D. MANAGING FARMLAND	41
Renting Your Land to Others	42
Tips For Hobby Farmers	42
Livestock	43
SECTION 6: IT'S THE LAW	44
TOWNSHIP	44
County	44
State and Federal	44
SECTION 7: MSU EXTENSION	44
Agriculture, Horticulture and Natural Resources	45
Children, Youth and Family Programs	45
Community Development	46
SECTION 8: ACKNOWLEDGMENTS	46
SECTION 9: RESOURCES	47
Emergency Phone Numbers	47
Washtenaw County Departments	47
Other Agencies	47
On The Internet	48
MSU Resources for Home Grounds Planning & Maint.	48
ADDRESSES ASSIGNMENT BY TOWNSHIP	50

SECTION 1: INTRODUCTION

Rural living often presents a new and unfamiliar set of challenges to urban dwellers who move to the country. Many services customarily found in urban areas are delivered by different means or are the responsibility of the individual rural homeowner. There are legal and environmental implications to the management of rural property. Emergencies may require more individual preparation. This book provides information about the laws, customs, and everyday necessary skills important for rural life.

This guidebook was prepared by members of the Washtenaw County MSU Extension Council and the staff of Washtenaw County MSU Extension (please see **Section 8, Acknowledgments**) to offer assistance to new rural residents in learning to live under these new circumstances. This is a revised edition of the 1999 Rural Living Guide. Information has been updated to describe Washtenaw County Communities entering Summer, 2003. This updating process will continue as substantial changes in local policies and issues warrant. Telephone numbers for help in many aspects of rural life are included in relevant sections and at the end (see **Section 9, Resources**).

Information about many helpful county programs is also available at the Washtenaw County website, <http://www.ewashtenaw.org>.

SECTION 2: BEFORE YOU MOVE OR BUILD

A. BUYING LAND

Many people begin a move to a rural area by buying a plot of land with the intention of building on it. This section tells you how to get a description of a plot of land, and some of the legal requirements for building.

Know Your Soils

Many people assume that soils are all more or less alike. They are unaware that great differences in soil properties can occur within short distances. They may be seasonally wet or subject to flooding. They may be too unstable to be used as a foundation for a building or a road.

Soil surveys are available from the Washtenaw County Conservation District and are intended for many different users. For example, they can help a person like your self, who is considering purchasing land and or buying/building a house.

Soil properties are a major consideration for all building construction. The

range of potential soil related problems is great. Swelling and shrinking of certain clay soils can crack walls and foundations. Flooding or high water tables may flood basements or damage buildings and other installations. Soils that have too much clay or are too wet are not suitable for septic tank absorption fields. These and other soil related problems can be anticipated through the use of soil surveys.

Soil properties are also a major consideration in selecting and planting trees, shrubs and grasses for beautification and erosion control. Soil surveys describe soil properties that affect the growth of such plants. Specific plants are recommended for the different soil mapping units. Many of these can even be purchased through the Conservation District.

Land suitability for developing wildlife habitat, hunting areas, fishponds and other recreational facilities can also be selected through the use of the soil survey.

Did you know that soil surveys were completed by the USDA Natural Resources Conservation Service (NRCS), and are available for most counties in the United States? For information on soil surveys stop by the USDA Service Center/ Washtenaw County Conservation District and USDA Natural Resources Conservation Service at 7203 Jackson Road, Ann Arbor. Phone: (734) 761-6722 x 5.

Information on the Washtenaw Conservation District and the USDA NRCS is available on the internet at the following websites: www.washtenawcd.org and www.mi.nrcs.usda.gov.

Land Descriptions

The *1999 Washtenaw County Michigan Land Atlas and Plat Book*, compiled and published by Rockford Map Publishers, Inc., Rockford, Illinois contains information which explains land descriptions and contains helpful facts about land measurements and surveys. It also shows the location of individual parcels in relation to those around them. A Plat Book is available for most Michigan Counties and various organizations sell them. In Washtenaw County, contact the Farm Bureau, (734) 944-1469, 5095 Ann Arbor Saline Road (near the Farm Council grounds). You may also purchase a Plat Book directly from the publisher by calling 1-800-321-1MAP (1627).

To locate property in the Plat Book, simply turn to the page describing the specific township and locate the property by finding the proper section number and last property owner name.

The County Equalization Department, 200 N. Main Street, Ann Arbor, also

provides graphic property line maps to the public for a fee. In addition, they have aerial photographs of all parts of the County and can supply millage and tax information. Call (734) 994-2511 for more information or go to <http://equalization.ewashtenaw.org>

The County GIS program located at 705 N. Zeeb Road, Ann Arbor, provides services to the public for a fee. Contact them at (734) 222-6551 or go to <http://gis.ewashtenaw.org>.

Land Divisions

The three most commonly used ways to divide land in Washtenaw County are subdivision, site condominium, and land division. Subdivisions and site condominiums are subject to in-depth review by many local, county and state departments (i.e. Drain Commissioner, Road Commission, Environmental Health, Planning) which help ensure that the lots created can be developed according to local (Township, City or Village), County and State laws. (See **Section 2B, Before You Build.**) Once the subdivision or site condominium is approved, purchasers of lots can be reasonably certain that sewage disposal and water supply are possible on the lot, that the lot is not entirely covered by a wetland, and that the lot has adequate drainage.

In most communities, land divisions are not subject to the same level of review as subdivisions and site condominiums. *The mere creation of the lot does not ensure that the lot will have proper drainage, that the lot is not covered by a wetland, or that sewage disposal and water supply are possible on the lot.* Purchasers of lots created by land division should be aware of this, and should research the history and current conditions of the lot prior to purchasing it. This may require contacting several local and county agencies for information.

For more information regarding land division, please contact the Washtenaw County Department of Planning and Environment or your Township, City or Village Office.

Master Plans

Every community (Township, City and Village) in Washtenaw County has a Master Plan, also known as a General Development Plan, Growth Management Plan, and Comprehensive Plan. The Master Plan is an official document. It serves as a general statement of the land use goals and policies of the community. It sets forth strategies for the growth and development of the community, as well as policies regarding implementation of those strategies. The Master Plan provides a vision for the future of the community, and serves as a guide for making future land use decisions.

For example, if the master plan recommends residential use for a particular location, a proposal for a subdivision development for that location is likely to

be approved, as long as it meets other regulations and requirements. On the other hand, a proposal for a shopping center development for that location is likely to be denied approval because it is not a residential use.

A master plan covers the entire geographic area of the community. It is a mixture of text and graphic materials (i.e., maps, photographs, etc.) and generally includes information concerning past trends, current conditions, community goals and objectives, and recommendations. Some examples of subject matter normally covered are agriculture, residential, commercial, transportation, open space, natural features (i.e. wetlands, floodplains, etc.) and public utilities (i.e. water, sewer, etc.).

A master plan is a public document. If you would like to view a copy of one or several Township Master Plans, please contact the **Washtenaw County Department of Planning and Environment**, (734) 994-2435. If you would like to purchase a copy of a Township Master Plan, please contact the Township Office directly (see **Section 3A, Township Information**). To view and/or purchase a City or Village Master Plan, please contact the City or Village Office directly.

Zoning

In addition to a Master Plan, each township or municipality has adopted a Zoning Ordinance. The ordinance lists and defines the permitted, special, and accessory uses for each zoning classification. The township zoning map will indicate the zoning classification for each parcel. In addition to consulting the Master Plan before acquiring a parcel with the intention of building a home, it is prudent to verify that the zoning classification for the parcel permits the use you intend to make of it. Residential zoning for many townships indicates a minimum lot size, such as one dwelling unit permitted per 5 acres or 10 acres. Zoning ordinances also contain important information such as required setbacks, how wetlands are to be buffered, etc. An application for rezoning may be made to the township Planning Commission (often via the Township Clerk). This may be a simple process if the desired zoning is compatible with the Master Plan. Township zoning ordinances and Township zoning maps are kept on file within the Washtenaw County Department of Planning and Environment (734/994-2435)

B. BEFORE YOU BUILD

Before you plan a new house or an addition to an existing house, to clear a lot, to install a septic field or driveway, or other earth-moving activity, it is important that you involve the following governmental agencies as early as possible to avoid any unnecessary delays or costs. Requirements vary in jurisdictions.

Sewage Systems

Prior to any new construction, including a home addition, your property must be approved for any on-site sewage system. (Please note that soil conditions in some areas may not be suitable for septic system installation.) If approved, a permit is required prior to sewage system installation. County code also requires permits for expansion or relocation of existing sewage systems. Water quality and quantity is variable throughout the County. Permits are also required for all new or replacement wells. *The Washtenaw County Regulation for Inspection of Residential Onsite Water and Sewage Disposal Systems at Time of Property Transfer* requires evaluation of on-site wells and sewage systems at the time of property ownership transfer or change in use. If you are buying an existing home, ask to see the inspection report by a Washtenaw County certified inspector. A copy of the inspection requirements at point of sale may be obtained at the Environmental Health office, 705 N. Zeeb Road, Ann Arbor or call (734) 222-3800.

For any questions or for permit information, contact a Washtenaw County Environmental Health Sanitarian at (734) 222-3800, or stop by Washtenaw County Environmental Health, 705 N. Zeeb Rd., Ann Arbor. Office hours are 8:30 a.m. – 5:00 p.m. Monday through Friday.

Earth Moving or Grading

Prior to **ANY** earth-moving activities a grading permit or a grading waiver is required. A *grading permit* is required when earth moving activities are within 500 ft. of surface water (lakes, streams, creeks, rivers, ponds, storm drains, ditches) **OR** earth moving activities disturb one (1) or more acres. In addition, all commercially zoned projects require a permit regardless of size or proximity to water. Otherwise a *grading waiver* is required. Both of these are forms which are available as detailed below.

The Michigan Department of Environmental Quality (DEQ) has jurisdiction over the whole county for construction or earth-moving activities located within or that pose a potential threat to floodplains, wetlands, streams or creeks. This includes crossings, dams, or fill within these areas. Applications for permits or questions may be directed to **Michigan Department of Environmental Quality, 301 E. Louis Glick Hwy., Jackson, MI 49201: (517) 780-7915 or (517) 780-7910.** See also **Section 5C, Water and Wet Areas in the Landscape.**

Grading permits and grading waivers for work to be performed in the jurisdictions listed below may be obtained from the **Washtenaw County Department of Building Services, Soil Erosion Division, 705 N. Zeeb Road:** Hours: 8:00 a.m. – 4:30 p.m. (734)222-3888. Pittsfield Township, City of Ann

Arbor, City of Milan, and Ypsilanti Township provide their own permits and waivers.

Townships: Ann Arbor, Augusta, Bridgewater, Dexter, Freedom, Lima, Lodi, Lyndon, Manchester, Northfield, Salem, Saline, Scio, Sharon, Superior, Sylvan, Webster, York

Villages and Cities: Chelsea, Dexter, Manchester, Saline, and Ypsilanti.

Building Permits

Building, mechanical, electrical and plumbing permits are required prior to any structural change or new construction. Zoning approval is required prior to applying for building permits. Zoning approval is obtained at your local jurisdiction. The Washtenaw County Department of Building Services, Building Inspection Division provides service to the following jurisdictions. Other local jurisdictions provide their own building inspection activities.

Townships: Augusta, Lodi, Saline, Scio, and Webster

Villages: Dexter

To obtain building, mechanical, electrical and plumbing permits for work to be performed in these jurisdictions contact the **Washtenaw County Department of Building Services, Building Inspection Division, 705 N. Zeeb Road:**
Hours: 8:00 a.m. – 4:30 p.m. (734) 222-3900.

Drain Crossings or Structures

A permit must be obtained when installing a culvert, crossing, bridge or other modification of a County drain or locating structure such as a fence in a drain easement. For questions on drain designations or to obtain permits contact the **Washtenaw County Office of the Drain Commissioner, 705 N. Zeeb Road in Scio Township.** Hours: 8:30 a.m. – 5:00 p.m., (734) 994-2525. See also **Section 3D, County Drains.**

Driveways and Roads

For driveway permits or County road-related questions, contact: **The Washtenaw County Road Commission, P.O. Box 1528, 555 N. Zeeb Road, Ann Arbor, MI 48103,** Hours: 6:00 a.m. to 4:30 p.m., (734) 761-1500. See also **Section 3C, Rural Roads and Travel.**

SECTION 3: GOVERNMENT SERVICES IN RURAL AREAS

Rural areas are usually considered to be areas outside city limits. Most of these areas are governed by Township governments. In some cases, a relatively “rural” subdivision may be within Village limits. Office locations and phone numbers for Townships are listed in the following section. More information on

all levels of governments and government service providers in Washtenaw County is available from the *Washtenaw County Directory*, produced by the Washtenaw County Clerk/Register. This directory may be obtained from the **Elections/Administration Division of the Clerk/Register's Office, 200 N. Main, Ann Arbor**, or call (734) 222-6730 or go to the County website at www.ewashtenaw.org. Washtenaw County will also be publishing a Directory of Services in the summer of 2003. It will be available in your Township offices, local libraries and from your Commissioner. It will also be on line at the County web site, www.ewashtenaw.org. The idea is to provide you with a comprehensive source for all County services.

A. TOWNSHIP INFORMATION

This section is reprinted with the permission of the Michigan Township Association.

What Do Townships Do?

Your township government ensures that the community's health and safety needs are adequately addressed. Either through its own police, fire and emergency medical services departments or in cooperation with other governmental and private organizations, townships have evolved as the primary provider for essential public safety services.

Balancing private property rights and the impact on the community resulting from land use decisions is a very important township responsibility. Each township has a local planning commission whose role is to guide community change and formulate a plan for the future physical development of the community. Township governments also make communities more pleasant places to live by providing leisure and recreational activities.

Townships do not have direct responsibility for roads and drains, but they cooperate with county agencies that have direct responsibility for those services. The County also provides most social services and our court system.

How are Townships Governed?

The township board consists of the supervisor, clerk, treasurer and—depending on the township's population—two or four trustees. Each of these officials have specific duties that contribute to effective township governance.

The elected members of the township board adopt an annual budget that determines the scope and character of township services. They also adopt ordinances to protect the community's health, safety and welfare. The township board oversees township programs and services.

Elected township board members also oversee administration of important township functions. The township supervisor, besides moderating meetings, also ensures that assessments on taxable property conform to state laws or delegates this function to a properly certified assessor. The township clerk has custody of records, accounts for township finances, and oversees elections conducted by the township. The township treasurer collects property taxes for the township, schools, the county and other tax levying entities. Board members also perform other duties as directed by the township board. Some townships also employ a manager or superintendent to oversee day-to-day operations. Township boards frequently delegate managerial responsibilities to the supervisor. Other full-time or part-time department heads provide technical and managerial expertise for township programs and services.

Your township government welcomes citizen involvement. Many township programs and services rely on volunteers. Citizens serve on appointed boards or commissions that decide important public issues. Some townships hold Annual Meetings where electors directly participate in decisions allowed by law. Contact your office if you would like to be involved.

Democracy is government by the people. While township boards are lawfully responsible for township governance, the township board needs to hear the perspective and views of residents on many issues. Keeping abreast of township issues and providing your viewpoint on issues is essential to township success.

Contact your township office for information on:

- Township Master Plan
- Recycling
- Trash disposal
- Dog licenses (December 1 - March 1)
- Site plan review prior to building permits
- Where you vote
- Ways for newcomers to become involved
- Local ordinances
- Utility companies
- Burning permits
- Tax information
- Programs/services for senior citizens

Charter Townships

Some Washtenaw County township halls proudly bear the sign “Charter Township”. Under the Charter Township Act, P.A. 359 of 1947, townships with a population of 2,000 or more may incorporate as a charter township with a vote of the electorate. Charter townships have the same basic authority as general law townships and have the same organization of the board and officers. In addition, they gain the authority to provide more services and to levy a general

tax of up to 5 mills to pay for these services. They may also appoint a township superintendent with specified optional powers. Charter townships are substantially immune from annexation by a city.

Washtenaw County Township Listing

Not all township offices have telephones or regular office hours. See the *Washtenaw County Directory*, available from the Washtenaw County Clerk/Register, for telephone numbers for township clerks.

Ann Arbor Charter Township

3792 Pontiac Trail
Ann Arbor, MI 48105
734-663-3418
Fax: 734-663-6678
Web site: <http://www.aatwp.org>

Augusta Charter Township

8021 Talladay Road
Whittaker, MI 48190-0100
734-461-6117
Fax: 734-461-6379

Bridgewater Township

P.O. Box 0469, 10990 Clinton Road
Clinton, MI 49236-0469
517-456-7728
Fax: 517-456-7069

Dexter Township

6880 Dexter-Pinckney Road
Dexter, MI 48130
734-426-3767
Fax: 734-426-3833

Freedom Township

11508 Pleasant Lake Road
Manchester, MI 48158

Lima Township

11452 Jackson Road, P. O. Box 59
Chelsea, MI 48118
734-475-2246
Fax: 734-475-6967
email: limatownship@voyager.net
Web Site: <http://www.twp-lima.org>

Lodi Township

3755 Pleasant Lake Road
Ann Arbor, MI 48103
734-665-7583
Fax: 734-665-3212
Web Site: <http://www.twp-lodi.org>

Lyndon Township

17751 N. Territorial Road
Chelsea, MI 48118
734-475-2401
Fax: 734-475-2251

Manchester Township

275 South Macomb
PO Box 668
Manchester, MI 48158
734-428-7090
Fax: 734-428-0935

Northfield Township

75 Barker Road
P.O. Box 576
Whitmore Lake, MI 48189
734-449-2880
Fax: 734-449-0123
Web Site: <http://www.twp-northfield.org>

Pittsfield Charter Township

6201 West Michigan Ave.
Ann Arbor, MI 48108
734-822-3101
Fax: 734-944-6103
Web Site: <http://www.twp-pittsfield.org>

Salem Township

9600 Six Mile Road
P.O. Box 75002
Salem, MI 48175
248-349-1690
FAX 248-349-9350
Web Site: <http://www.salem-mi.org>

Saline Township

5731 Braun Road
Saline, MI 48176
(Mailing address: 4725 Willow Road, Saline, MI 48176)
734-429-5637
Fax: 734-944-4506

Scio Township

827 N. Zeeb Road
Ann Arbor, MI 48103
734-665-2123
Fax: 734-665-0825
email: general@twp.Scio.mi.us
Web Site: <http://www.twp.scio.mi.us>

Sharon Township

18010 Pleasant Lake Road
Manchester, MI 48158

Superior Charter Township

3040 N. Prospect Rd.
Ypsilanti, MI 48198
734-482-6099
Fax: 734-482-3842
Website: <http://www.superior-twp.org>

Sylvan Township

18027 Old US 12
Chelsea, MI 48118
734-475-8890
Fax: 734-475-8905

Webster Township

5665 Webster Church Road
Dexter, MI 48130
734-426-5103
Fax: 734-426-6267
Website: <http://www.twp.webster.mi.us>

York Charter Township

11560 Stoney Creek Road
Milan, MI 48160-9577
734-439-8842 Fax: 734-439-0903
Website: <http://www.twp-york.org>

Ypsilanti Charter Township

Civic Center

7200 S. Huron River Dr.

Ypsilanti, MI 48197

734-484-4700

Fax: 734-484-5156

Website: <http://www.twp.ypsilanti.mi.us>

B. PROPERTY ASSESSMENT AND TAX INFORMATION

Property tax is based on the *taxable value*, which is determined by the local assessor. Your township or city office will have a record of the assessed value of your property, which is described by the following two terms. *State Equalized Value* (SEV) is 50% of the market value, determined by the assessor. *Taxable Value* (TV) is calculated by adding 5% or the percentage of the previous year's CPI (Consumer Price Index), whichever is less, to the previous year's TV. In the year after a transfer of property has taken place, the Taxable Value (TV) and the State Equalized Value (SEV) are the same. The millage rate for your municipality or township is multiplied by the TV to calculate the annual property taxes.

The municipality will also have your Property Record Card, which includes your property tax identification number, name and address, lot (acreage) and building measurements.

A portion of your tax rate is determined based on *Homestead Status*. If you own and occupy a property by May 1, you can qualify for a homestead exemption on some of your school taxes. You must fill out a *homestead exemption form*, available at your local municipal or township office, to qualify.

Michigan State law requires you to file a *Property Transfer Affidavit* (form also available at your municipal or township office) within 45 days of the transfer. This form is used by the Assessor to update name and address changes on the property record cards and for tax billing purposes. If the form is not filed in a timely manner, a penalty of \$5 per day (maximum \$200) applies. Please note that failure to receive a tax bill will not negate penalties accrued for late payment of taxes. Public Act 260 of 2000 provides for agricultural land on which ownership is transferred to remain at taxable value when the land remains in agricultural use. Land buyers must sign an affidavit that guarantees the land will remain in agriculture for a minimum of seven years.

Assessment change notices are mailed to you each year. If you believe that the SEV overstates the market value, you have the right to appeal to the local Board of Review in March of each year.

Tax bills are mailed about the 1st of July and the 1st of December. A tax bill may contain special assessments for specific services such as fire protection, storm drainage, roads and others. Be sure to check your bill as to when payments must be paid to avoid penalty and interest.

C. RURAL ROADS AND TRAVEL

Public Road Rights-of-Way

Most rural roads, except for state and federal highways, are under the jurisdiction of the County Road Commission. The Road Commission has its own web site, separate from the Washtenaw County web site: www.wcroads.org. The Road Commission is responsible for construction and maintenance of these roads, and has authority over the right-of-way. Most rural roads have 66 feet of public right-of-way, with 33 feet on each side of the road centerline. Homeowners should be aware that the actual centerline of the road and the centerline of the road right-of-way may vary, since many roads tend to wander within the right-of-way to avoid trees, hills, wetlands, etc. Property owners need a permit from the Washtenaw County Road Commission for any work which takes place within the road right-of-way, including installation of a driveway.

No fences or other encroachments may be placed within the right-of-way without approval of the County Road Commission. The only exceptions are mail and newspaper boxes which must be placed on breakaway posts. Property owners are not permitted to fill in roadside drainage ditches or make other changes to the drainage pattern without approval of the County Road Commission. For more information, or for a Washtenaw County road map, visit **The Washtenaw County Road Commission, 555 N. Zeeb Road.** Hours: 6:00 a.m. to 4:30 p.m., (734) 761-1500 or (734) 761-3239.

Snow removal on County public roads is performed by the County Road Commission, with the first priority to those major highways and emergency routes serving the greatest population. During a major winter storm, many rural roads may remain unplowed for several days or more. Residents should plan for this contingency during the winter months by having adequate food and medicine on hand for a minimum of one week.

Private Roads: Some roads are private and are the responsibility of individual residents or neighborhood associations. Please check with your local association before contacting the Washtenaw County Road Commission about issues related to roadway maintenance or snow removal.

Hazards and Special Conditions in Driving

Residents new to rural living often need to adjust not only to increased commuting time to work and greater distances between home, schools, and

shopping, but to a few driving situations unique to rural areas.

Non-posted Speed Limits: Many rural two-lane improved roads, as well as many gravel roads, do not have posted speed limits. As a general rule, roads where the speed limit is not posted are limited to 55 mph. However, the rural driver is still responsible for maintaining a speed suitable for existing road conditions.

Gravel Roads: These roads are not as stable as paved roads. High-speed travel can result in significant risks to the driver. Encountering washouts, “washboard” conditions, or “chuck-holes” can result in vehicles unexpectedly losing control. Drivers should maintain appropriate speeds.

Winter Conditions: Gravel roads do not absorb solar radiation at the same rate as paved surfaces. These roads tend to build up and maintain significant amounts of ice during the winter season. Beware of icy conditions when approaching an intersection or stop sign.

Dust: Even at speeds as low as 35 mph, significant amounts of dust can become airborne during dry conditions. Dust can obscure vision and can be an irritant to both people and livestock. Travel slowly on gravel roads when conditions warrant.

Slow-moving Farm Implements: Vehicles such as farm tractors, agricultural trucks and other agricultural equipment are a common sight throughout the year on Washtenaw County’s rural roads. Remember that many family farms have been in operation since long before the advent of the automobile. In addition, farm implements have the **right of way without exception!** Many farming activities must be performed within a narrow window of opportunity when conditions are correct to bring crops in or to perform other agricultural functions. This means the presence of farm machinery on the road at random times from early morning to well after sunset. Be **patient** when following any farm implement and keep in mind that such vehicles may not be equipped with brake lights and turn directional indicators. Be sure to keep a safe distance. There are nearly 300 tractor-implement crashes annually in Michigan. Farmers remember that, for tractors and equipment manufactured before December, 1993, if gross vehicle weight exceeds 10,000 pounds they must be marked with reflective tape. Reflective markings must cover 50% of a trailer’s sides, have a continuous reflective strap running across the bottom of the trailer’s rear, and two feet of white material on each top corner of the trailer’s rear.

Horses: When you encounter someone riding horseback on or near the road, please approach and overtake the horse and rider slowly to avoid “spooking” the horse. Horses are occasionally unpredictable. Even the most experienced rider may not be able to prevent a horse from suddenly going off in the wrong

direction. Be sure to keep a safe distance away from the horse and rider. Riders must ride single file near the right side of the road edge.

Bicycles, Children, and Pedestrians: Since the rural environment often lacks such amenities as sidewalks, stop signs, and 25 MPH speed zones, special attention should be paid to the presence of children, pedestrians, and bicycles.

Deer and Other Wildlife: Hundreds of car/deer accidents occur each year in Washtenaw County. These accidents can cause substantial damage to vehicles and can result in injuries and fatalities to drivers and passengers. Drivers should be aware of potential danger of deer and other wildlife crossing the road, particularly at dawn and dusk, and during the fall mating season. Deer also tend to travel in groups. If you see a deer, look carefully before proceeding to see if any of their friends are around. If you do hit a deer, approach with caution—they can inflict serious injuries with their hooves.

Using Roads with Other Means of Transport: Be considerate of drivers and watch for your own safety by following simple rules if you are traveling on roads by means other than the automobile. Cyclists and horseback riders should proceed in single file, with the direction of automobile traffic. Pedestrians should walk against the direction of the traffic. In all cases, be watchful and leave space for automobiles to pass safely.

D. COUNTY DRAINS

Some natural creeks and waterways, as well as constructed systems, have been designated as “County drains” for stormwater management. The County Drain Commissioner is responsible for maintaining these systems.

A portion of the cost of maintenance of County drains is assessed to all property owners whose lands drain into them.

Never deposit leaves or other debris in a County drain. Remove fallen branches or other obstructions that may impede flow. If the object is too large for you to manage, call the Washtenaw County Drain Commissioner’s office at (734) 994-2525. If the storm drainage system is enclosed in an underground pipe, keep leaves, litter and other debris cleared from catch basins and manholes. This will allow stormwater to enter, and will help to prevent flooding.

Planting of native vegetation is encouraged along the banks of open county drains. Maintaining vegetation protects the creek and minimizes erosion. It is important to plant species and manage them so they will stabilize streambanks, but not obstruct stream flow. It is recommended that property owners avoid use of landscape chemicals within 50 feet (or more if possible) of surface waters.

No obstruction should be placed in a County drain or creek. Any proposed modification to a county drain, drain crossings such as driveway culverts, bridges, and structures placed within a drain easement, such as fences, require a permit from the drain commissioner. If a fence within drain easements must be removed to accomplish maintenance, it will be taken down and left on the property. Reinstallation is the property owner's responsibility.

Easements

Check property titles for County Drain easements (or "right of way"). They are usually between 33 feet and 66 feet on either side of center line of a designated County drain. Call the Drain Commissioner at (734) 994-2525 for this information. No permanent structures may be built within the easement. Also, because the purpose of an easement is to allow the Drain Commissioner's staff access for maintenance, landscaping that may be disrupted or destroyed should not be planted within an easement. The Drain Commissioner's staff will attempt to work with property owners to access creeks from one side and to minimize disruption.

Floodplains

Before building, if your property is near a surface waterway, check to determine if it is in a floodplain. Federal Emergency Management Agency (FEMA) floodplain maps are available for reference at the County Drain Commissioner's and County Planning offices. Note that not all floodplain areas have been mapped. Construction within a floodplain is regulated both locally— by townships, cities, villages—and at the State level by MDEQ. Check with your local Township to determine if it participates in the Federal Flood Insurance program. See also discussion of building permits in **Section 2B, Before You Build**.

Drainage Law and Property Rights

Before altering grades or changing the natural flow of water over land, property owners should be aware of drainage law. What does the law say about property rights and responsibilities as they are affected by drainage? If a conflict arises in the disposal of excess water, what will the courts interpret as a legal and reasonable action and what is illegal and unreasonable? Much of the law in this area has been developed over the years by the courts as they have settled specific disputes. The following summarization concerning drainage law is not written in the statute books and is called common law. These common law rules and responsibilities generally apply whether drain improvements are carried out by individuals, private groups, or by landowners organized into public county drainage districts.

The Michigan courts have accepted the general "rule of natural flow". This

means that natural surface water runoff created by rain or snow must be allowed to flow unrestricted from uplands on to lower land holdings. As a general rule, upland landowners may not artificially concentrate or increase the velocity of runoff in a way that causes damage to lower land holdings. Likewise, owners of lower lying land may not dam up a water course or the natural flow of water over land and force natural water flows to back up and to flood other land holdings. A farmer may, however, use normal farming methods which presumably include practices such as terracing, contour farming and filling in sag holes. Landowners have the responsibility of managing abnormal flows of water produced by their actions.

The natural flow rights may be lost in certain cases. A “prescriptive right” to change the natural flow may be recognized by the courts if the artificial drainage has not been protested by the affected landowners for a period of 15 years. This then may become a permanent right to continue the artificial drainage in the manner it occurred during this 15 year period.

This is a summary of general rules governing disputes between landowners over the disposal of excess surface water. For information on a specific case, legal assistance may be necessary.

New or Improved County Drains

When significant drainage improvements involving more than one property are needed, property owners may petition the County Drain Commissioner to establish a new County drain or to improve an existing one. The procedures for this process may be initiated by land owners or by a resolution of the local governing body (township board or city or village council). Contact the Drain Commissioner’s Office for more information.

Wildlife Habitats in County Drain Rights-of-way

Management of County drains can enhance wildlife habitats. The following are some critical wildlife habitat management objectives in Michigan.

- Restoration and enhancement of wetlands.
- Restoration of native prairies and other permanent grasslands.
- Providing essential habitat components (e.g., undisturbed bird nesting cover), especially in areas of intensive land use.
- Providing natural linkages (habitat corridors) between important cover types.

Many detention basins, drain rights-of-way, and excess private land blocks associated with County drains can be managed to help meet these management objectives, with the importance of each managed area depending strongly on the nature of adjacent lands as well as on site features. Contact the Drain

Commissioner's office, (734) 994-2525, Michigan Wildlife Habitat Foundation, (517) 865-6701, the Washtenaw County Conservation District and USDA Natural Resources Conservation Service, (734) 761-6721 ext 5 (web: www.washtenawcd.org), or Washtenaw County MSU Extension, (734) 997-1678, for more information. Before considering any alteration of a County drain or easement, contact the County Drain Commissioner's office.

SECTION 4: RURAL LIFE

A. EMERGENCIES

Police and Fire Emergencies

Unlike urban areas, rural areas are often served by public safety facilities located a considerable distance away. This means a longer response time for police, fire, and medical assistance, including the response to 911 calls. In many cases, rural townships do not have a police department but rather rely on law enforcement services from the Washtenaw County Sheriff's Department or, in some cases, the Michigan State Police. Those entities that have a contract with the Sheriff Department are Augusta, Bridgewater, Dexter Township and Dexter Village, Lodi, Manchester, Salem, Scio, Superior, Washtenaw Parks & Recreation, Webster, York and Ypsilanti Township.

Because law enforcement resources are limited in rural areas, crime prevention, to a larger extent, becomes the responsibility of the resident. Rural residents are sometimes victims of such crimes as burglary because the false assumption is made that such crimes only occur "in the city". Be sure to equip your home with deadbolt locks, security lighting, and make sure your neighbors are aware of who belongs on your property when you are not at home. It is important that your house number is easily visible so that emergency services can identify your location. Place a number on your mailbox and check with your local fire department to purchase a reflective house number sign especially designed for use in rural areas.

Emergency phone numbers:

Police, Fire and Ambulance	911
Miss Dig (Michcon)	(800) 482-7171
Detroit Edison	(800) 477-4747
Poison Control	(800) 764-7661
Suicide/Emotional Crisis	(734) 996-4747

Many rural areas are served by a volunteer fire department. It is important to remember that response times for volunteer departments tend to be slower than with city departments. This is primarily due to the need for fire fighters to travel

from home or work directly to the fire scene. Fire prevention takes on added significance in the rural home. Be sure to take steps to prevent fires and injury whenever possible. Such steps may include:

- Installing smoke detectors (and keeping the batteries replaced).
- Purchasing a fire extinguisher for those areas where flammable materials are present (e.g. kitchen, garage, basement, barn).
- Replace any electrical equipment which shows signs of potential failure (frayed wiring, etc.)
- Have an evacuation plan in place. Make sure all family members know how to get out in the event of a fire and where to meet!

Many new rural residents are surprised when their homeowners insurance policy premium rises significantly for the same level of coverage. These increases simply reflect the reality of risk associated with slower public safety response times in rural communities and the lack of such infrastructure as water mains and hydrants. Keep in mind that these increases in cost can often be offset by taking the safety precautions mentioned above (make sure you let your underwriter know!).

Medical Emergencies

As mentioned earlier, Emergency Medical Services also have a slower response time in rural areas due to the distances which must be covered. Because the difference between life and death is often measured in minutes, it is especially important for rural residents to have some knowledge of First Aid and CPR. Classes on basic first aid and CPR are available through the Washtenaw County Chapter of the American Red Cross, (734) 971-5300.

Severe Weather Emergencies

The following definitions used by the National Weather Service may be helpful:

Tornado Watch: Conditions are favorable for the development of tornadoes and severe thunderstorms.

Tornado Warning: A tornado has been sighted or indicated by weather radar. If a tornado warning is issued for your area and the sky becomes threatening, move to your pre-designated place of safety.

Severe Thunderstorm Watch: Conditions are favorable for the development of severe thunderstorms.

Severe Thunderstorm Warning: A severe thunderstorm is occurring in the area for which the warning is issued. If a severe thunderstorm warning is issued for your area and the sky becomes threatening, move to your pre-designated place of safety.

Winter Storm Watch: Severe winter conditions, such as heavy snow and/or

ice, are possible within the next day or two. Prepare now!

Winter Storm Warning: Severe winter conditions have begun or are about to begin in your area. Stay home and do not travel unless absolutely necessary.

Winter Weather Advisory: Winter weather conditions are expected to cause significant inconveniences and may be hazardous. If caution is exercised, these situations should not become life threatening. The greatest hazard is often to motorists.

Frost/Freeze Warning: Below-freezing temperatures are expected and may cause significant damage to plants, crops, or fruit trees.

Blizzard Warning: Snow and strong winds will combine to produce a blinding snow (near zero visibility), deep drifts, and life-threatening wind chill temperatures.

If a Tornado Warning is issued, take the following steps:

- In a home or building, move to a pre-designated shelter, such as a basement. Stay away from windows and, if possible, get under a heavy piece of furniture.
- If an underground shelter is not available, move to an interior room or hallway on the lowest possible floor and get under a sturdy piece of furniture. Smaller rooms located nearest the center of the home are typically best.
- Stay out of automobiles!
- Never, never, try to outrun a tornado in your car, instead, leave it immediately and seek the best available shelter.
- If caught outside, lie flat in a nearby ditch or depression.

Additional information on severe weather preparedness is available from the Washtenaw County Office of Emergency Management, (734) 973-4900, or the Washtenaw County Chapter of the American Red Cross, (734) 971-5300.

Power Outages

Severe weather emergencies such as severe thunderstorms, tornadoes, ice and snow storms present additional risks for rural residents. In addition to potential slower public safety response times, severe weather events often disrupt electrical power and utility service for longer periods of time. In some cases, rural residents can be without electrical power for a week or more! This can mean loss of water as well as heat and light. Also, roads may be temporarily impassable. It is therefore important for rural residents to consider the following precautions:

- Report power outages to your utility company. Avoid unnecessary usage of the phone. DO NOT call 911 unless you have an emergency

and need response from the police, fire, or emergency medical personnel.

- If your home is the only one without power, check the fuse box or circuit breaker panel. Turn off large appliances before replacing fuses or resetting circuits. If the power is out in the neighborhood, disconnect all electric heaters and appliances to reduce the initial demand and protect the motors from possible low voltage damage. Leave on one light to alert you when the power is back on.
- If your home is equipped with a well, it is likely that you will lose running water should a power outage occur. When severe weather threatens, be sure to have spare bottled water on hand for such purposes as drinking and cooking. In addition, a tub full of water can be used to flush toilets or to store water for washing.
- Be sure to have sufficient heating fuel oil or LP gas (if applicable) on hand should a snowstorm be forecast. In some cases, fuel delivery trucks will be unable to reach you for a week or more in case of a major winter storm!
- If your home is equipped with an electric stove and oven, be sure to have an alternative source of heat for cooking available. Be sure to have the proper fuel on hand and **never** use fuel that was not intended for use with the stove. Likewise, never use camp stoves in an unventilated area.
- It is advisable to have five to seven days of food supplies available in case of emergency. This is especially important during the winter months when significant snowstorms are possible in Washtenaw County. The same rule also applies to prescription medications and drinking water.
- It is advisable for rural residents to keep the automobile gasoline tank at least half full in case you become stranded while traveling during a significant snow storm. A “winter storm survival” kit is recommended for each vehicle. In addition to information on such subjects as tornado safety and first aid, information on how to assemble a winter storm survival kit is available from the Washtenaw County Chapter of the American Red Cross.
- Have a corded or battery-powered phone available (cordless phones do not work without power).

Because electrical power tends to be less reliable in rural areas, be sure to have a battery-operated radio on hand for receiving important emergency bulletins. In Washtenaw County, the primary Emergency Alert Stations are WEMU (89.1 FM) and WUOM (91.7 FM). Another useful source for severe weather information is WAAM (1600 AM).

Keep doors, windows, and draperies closed to retain heat in your home. Keep the refrigerator and freezer doors closed. If the door remains closed, a fully

loaded freezer can keep foods frozen for two days.

Be extremely careful of fire hazards from candles or other flammable light sources.

Many rural residents keep on hand a small gasoline powered generator for use in case of electrical power disruptions. While it is recommended that you seek the advice of a professional on how to set up and use your generator, some basic safety rules apply:

Never operate a generator indoors. To do so may cause carbon monoxide poisoning.

Always turn off a portable generator before refilling the gasoline tank. This will prevent explosion and fire as well as possibly severe burns.

If your generator is interfaced with the home's electrical system, be sure to turn off the main circuit breaker or remove the main fuse from the service panel to prevent the generator from feeding back through the power lines. If this precaution is not taken, you may be responsible for the death of a lineman! For more information on portable generators, pick up a copy of the **MSU Safety News Fact Sheet, "Portable Electric Generator Safety Considerations"** from the MSU Extension office.

Note: If you have livestock, special measures may be needed to safeguard the health of the stock. Electric fences will not be working. Contact MSU Extension for more information.

Mobile Homes (manufactured housing) present a unique safety concern during severe weather. Mobile homes offer no significant protection from tornadoes or straight-line wind damage often associated with severe thunderstorms. Leave the home and proceed to shelter. If the mobile home park does not provide a public tornado shelter area, it is recommended that residents of mobile homes stay elsewhere when severe weather threatens. A friend's home with a basement or a public facility with suitable tornado shelter areas are excellent options.

Residents of mobile homes should pay special attention to severe weather bulletins and forecasts issued by the National Weather Service. An excellent investment for residents of mobile homes is a special type of radio receiver called a "NOAA Weather Radio Receiver", available from major electronic retailers. These radios can be turned on automatically by the National Weather Service in case of possible or imminent severe weather to alert listeners to dangerous weather conditions.

B. HOW TO BE A GOOD NEIGHBOR

No Trespassing!

While property in rural areas looks open and inviting to exploration, farm land is private property. Even woodlots that look unoccupied are probably privately owned. Unless land is posted as public property, you are legally required to ask for permission if you want to enter. Private property owners are entitled to their privacy. They also are entitled to grant or deny access to property in order to manage their liabilities in case of an accident. You will find that rural land owners will often grant access to those who ask.

Use of recreational vehicles on private land without asking is a particular problem. This includes riding off-road vehicles, motorcycles, snowmobiles, or even bicycles anywhere other than on public roadways or trails.

Asking for permission is important to you because of personal safety issues. Landowners may have applied pesticides that you are unaware of. It is also possible that livestock is being raised on the property. Cutting across a field without permission could put you in danger of being attacked and injured by farm animals.

Public Hunting on Private Lands

State law requires verbal permission for hunting on private lands, even if the land is not posted against hunting or trespassing. If you hunt on private land, remember that you are a guest and respect your host's property; leave gates the way you found them, respect crop fields, leave no trash.

Never shoot near farm buildings where people and livestock are living. Observe all safety zone areas (450 feet).

Sunday Hunting Closures: There is legally no hunting on lands of another person on Sundays in Washtenaw County. State lands are open.

Any questions or complaints regarding the Hunting Access Program may be directed to

Management Unit Supervisor
Department of Natural Resources
8562 E. Stoll Road
East Lansing, MI 48823
517-641-4903

The Family Dog

You are not the only one that is excited about moving to a rural community. Your dog will find a new energy level on the first day in your new home. It is not uncommon for dogs to take off running to explore fence rows and woodlots. There are risks that justify setting limits to your dog's new territory. Perhaps the most costly to you is if your dog discovers the neighbor's flock of sheep in the pasture next door and chases or harms them. A playful dog can lead to health problems or death of farm animals. If your dog damages your neighbor's livestock you are liable.

It is also possible for harm to come to your dog. A well-directed hoof could end your dog's life. If your dog becomes a regular pest in your neighbor's flock, he may be shot.

The best solution is to create a dog run by tethering your dog, or by fencing in an area that allows for adequate exercise and exploration. Remember that all dogs must be vaccinated and must be licensed annually (call your township or municipal office). Be a good neighbor and master—keep your dog at home or on a leash.

Patience, Please

Rural roads require patience, both for safety and as a courtesy. Traveling too rapidly on dusty roads will create poor visibility, potential breathing problems, and place layers of dust on roadside property (a hardship for those property owners). You also run a greater risk of hitting a pedestrian or cyclist. Farm implements or slow-moving vehicles have a right to use the roads (the Michigan Right to Farm Law and Michigan Motor Vehicle Code). Accept this consequence of living in the country, and don't honk or tailgate.

Farm Odors and Practices

Farmers try to minimize offensive farm odors. Most farmers are very careful to avoid manure use around high school graduation dates, holidays, and special occasions of neighboring families. However, when you chose to move to the country the smell of active farming was part of the package. By developing a good relationship with neighboring livestock producers you can help them develop strategies that will reduce inconveniences for you and your family, and avoid unpleasant experiences on days that otherwise would be very special occasions.

There may also be times when other farm practices can be annoying to nearby residents. The Michigan Right-to-Farm Law protects the right of farmers to carry on standard farming practices, including night-time harvesting, operation of machinery, application of agricultural chemicals, and manure application. It is important for other rural residents to understand and accept these practices.

Information can be obtained from the Michigan Department of Agriculture website at www.michigan.gov/mda.

Wild Animals

Wild animals can make wonderful neighbors. However, even the most attractive of such animals can cause serious problems. Rural development encroaches on the traditional habitat of coyotes, deer, ticks, raccoon, opossum and other animals that can be dangerous and you need to learn how to deal with them. In general, it is best to enjoy wildlife from a distance.

Wild animals can pose serious threats to pets, livestock, vegetation, and people. Waterfowl can be particularly damaging to vegetation along flyways. Fox and coyote can be serious threats to livestock and pets. Raccoon have little fear of human surroundings and are insistent visitors to anything that resembles food -- no matter how close to your home or well protected. Snakes, opossum, field mice, groundhogs and skunks are some of nature's other inhabitants. Do not try to cage wild animals for pets and remember that bats, skunks, and raccoon can all carry rabies.

C. COLD WEATHER PREPARATION

Homeowners everywhere are advised to take steps to prepare their homes for cold weather. However, since homes in rural areas are more isolated and emergency or repair services may be longer in arriving, it is even more important to take these precautions.

Roof Drainage System: Clean out leaves from gutter and downspout to help prevent ice dams. Icicles grow during freeze and thaw cycles and begin to form a wall of ice along the roof edge. This creates an ice dam, which holds back the water that would otherwise run off the roof. As it backs up behind the dam, the water begins to seep back under the shingles and down into the house. The main cause of an ice dam is an insufficiently insulated roof. Make sure your roof is well insulated and check to make sure your gutters allow the runoff.

Exterior Plumbing: Winterize all outside plumbing facilities. Piping and plumbing connections can be insulated by wrapping with insulation or enclosing in insulated boxes, conduits, or other containers, or by wrapping with thermostatically controlled heat tapes, which is plugged into the nearest electrical outlet.

Storm Doors and Windows: Use weather-stripping to maintain the seal. It comes in many different forms, from common felt to springy metal strips and plastic tubing, all of which place a resilient material against glass or frame.

Caulking: The many seams and joints in a house's exterior are all possible sources of heat leaks. Many kinds of caulking materials are now available, designed to be used in specific places and for specific purposes. Carefully read the labels for the best product for your purpose.

Vents: Proper ventilation beneath the house is important, but during the winter months all basement and crawlspace vents must be closed.

Heating: Heating systems should be inspected by a qualified professional on an annual basis, right before the start of the heating season. The inspection can identify potential problems that can cause a heating failure and carbon monoxide poisoning. Chimneys and fireplaces should also be considered for a cleaning by a professional chimney sweep. Many house fires are caused by built-up residues in the fireplace chimney. The frequency of needed cleaning will depend on the type of wood or other fuel being burned.

Radon Testing: It is a good idea to test your home for radon. Results from home radon tests in Washtenaw County indicate that over 80 percent of the homes tested above the national average for radon, and over 40 percent are above the 4.0 picocuries per liter "action level" as determined by the US Environmental Protection Agency. Washtenaw County Environmental Health (734/222-3869) and many local hardware stores sell home radon test kits.

D. WATER AND WELLHEAD PROTECTION

Most rural residents are dependent on wells located on their own property for their water. To guarantee the purity and safety of this water source, it is important to manage the entire water seepage and recharge system. This includes water conservation and preventing pollution from reaching the water source from sewage or other sources.

Pollution Prevention

Prevention of pollution is our most effective tool in protecting our water resources. Polluted home water wells cost thousands of dollars to fix, if they can be repaired at all. Excessive weed growth in lakes, ponds, drains and streams caused by nutrient enrichment from leaky sewage systems often means costly weed control measures paid for by you and your neighbors. You can take these simple steps to reduce or prevent contamination of water resources:

Wellhead Management and Conditions: Is your well more than 40 years old? Have it inspected and make any necessary repairs or enhancements. Make sure that any abandoned wells are properly capped and sealed.

Household Wastewater Treatment: Is your septic tank less than 50 feet from

water well? Have you noticed wet or smelly areas in your yard? The life expectancy of an on-site sewage disposal system is 20–30 years. Again, have your system inspected and make any necessary repairs or enhancements.

Petroleum Product Storage: Do you store petroleum products below ground on your property? Do you have any storage tanks that are no longer in use? Have these tanks inspected and make any necessary repairs, removals or enhancements. There are state and federal rules and regulations governing these tanks.

Contact the Washtenaw County Environmental Health Department, (734) 222-3800, for more information.

Hazardous Waste Management: Do not burn household trash. Never dispose of used motor oil, antifreeze or *any* toxic material in your sewage system or in the soil on your property. Let the Washtenaw County Home Toxics Program, at (734) 222-3950, assist you in the disposal of any household hazardous waste.

Pesticide and Fertilizer Storage and Handling: Never fill the sprayer tank directly from water well. Always read labels *first* before mixing or applying pesticides. Never dispose of or burn pesticide or fertilizer containers on your property. Contact MSU Extension, (734) 997-1678, for more information.

Water Conservation

Conserving water saves money. If you depend on your own well and sewage system, the hundreds of gallons of water released each day will, over a period of years, saturate the soil near the sewage system absorption field to the point where extensive repair or replacement is necessary. Replacing a sewage system can be very expensive. Conserving water can extend the life of the system and delay the need for repair.

In addition to saving money, water conservation helps tremendously in preventing water pollution. Old, leaky or poorly designed sewage systems may cause nutrient and bacterial contamination of nearby lakes, streams and drinking water, even the water from your own well. Overloading municipal sewer systems can also cause untreated sewage to flow to lakes and rivers. The smaller the amounts of water flowing through these systems, the lower the likelihood of pollution.

Most residences use 50 to 75 gallons of water indoors each day per person and as much as the same amount outdoors, depending on the season.

Some methods for indoor water conservation:

Toilet dams or rock-filled containers: These reduce the amount of water flowing

out of the toilet by up to 25 percent. They do not affect its flushing ability. Don't use a brick; particles from it could harm your plumbing. Be sure that at least 3 gallons of water remain in the tank so it will flush properly. If your toilet is older than 10 years, you may want to consider replacing it with a newer model that conserves water. (*See below)

Low flow, water-saving shower heads: These reduce the amount of water flowing through your shower by up to 50 percent while increasing its velocity so the shower feels the same. This also saves hot water costs.

Faucet aerators: These restrict the amount of water going through your faucet by up to 50 percent, but add bubbles so the flow of water appears the same. They can be installed on all of your faucets, not just the ones in your bathroom.

Repairing leaks in faucets and toilets: A leaky faucet can waste 20 gallons or more per day. Leaky toilets, although they are usually silent, can waste hundreds of gallons per day. To find out if your toilet has leaks, put a little food coloring in the tank. If, without flushing, color appears in the bowl, you have a leak that needs repair. Adjusting the float arm or plunger ball can often fix leaky toilets.

Use the dishwasher and clothes washer only with a full load. If you are purchasing a new clothes washer consider a front-loading model. These washers can save water. (Choose one with variable load or suds-saver options. Many dishwashers are also now available with water-saving options.)

**When building or remodeling, install "low flush" toilets which use 1 to 2 gallons per flush instead of the 3 to 5 gallons used by conventional ones. It is the law.*

Methods for outdoor water conservation:

Avoid watering the lawn. Water only when *absolutely* necessary. It takes 660 gallons of water to supply 1,000 square feet of lawn with 1 inch of water. This is nearly the same amount of water as you use inside the house in an entire week! Water your lawn only when it begins to show signs of wilting, rather than on a regular schedule.

Use mulch around trees and shrubs and in garden beds. This greatly reduces the amount of water lost through evaporation and reduces the need for watering.

E. MAINTAINING SEWAGE SYSTEMS

Most rural residences are serviced by on-site sewage systems, rather than by municipal sewer. These systems depend on proper maintenance, as they are

vulnerable to failure if not properly maintained!

A sewage system has two basic parts: a septic tank (or tanks), and a soil absorption field (drainfield). Wastes flow from the house to the septic tank, which is a basic storage unit where sewage is digested by bacteria. This process turns most of the solids and scum into liquid and gas. The liquid is carried out into the drainfield, and indigestible solids remain in the tank as sludge.

Each time raw sewage enters the septic tank, an equal amount of fluid is forced out of the tank into the drainfield. The fluid leaving the tank, called *effluent*, contains small amounts of solid matter, liquid wastes, and microorganisms.

In the drainfield, the effluent trickles into the soil, where further digestion is carried out by bacteria, and nutrients are absorbed by soil particles. The liquid continues to percolate through the soil, being gradually cleaned and absorbed until it eventually reaches surface water or groundwater. The characteristics of the soil in the drainfield affect the rate of this percolation. Heavy soils do not support percolation well, and thus are said not to “perk”.

Routine maintenance is critical to prevent sewage system failure. Over time, sludge and *scum* (floating solids) accumulate in the tank and eventually will pass through and clog the drainfield. With ordinary use and care, a septic tank usually requires pumping every three years. The number of people using the system, the amount of waste generated and the size and design of the system will determine how often the tank will have to be pumped.

Some basic do’s and don’ts can help to maintain the sewage system on a daily basis:

Do know the location of your tank and drainfield. If you don’t know where it is, check your yard after a light snowfall. They are probably located in those square areas where the snow melts off first.

Do limit the volume of water entering your tank by using water conservation measures. Spread laundry over the entire week. Fix all leaking fixtures and toilets immediately. A constant small flow to the system will significantly shorten its life.

Do direct all surface drainage, roof drains and other such discharges away from the area of your yard where the drainfield is located. Keep the soil over your system slightly mounded to direct surface runoff away from the drainfield.

Do keep automobiles, all heavy vehicles and livestock off the septic tanks and drainfield.

Do allow one side of your field to “rest” at one-year intervals if your system is equipped with a diverter valve between the septic tank and the drainfield.

If your system is equipped with a dosing chamber, be sure the submersible pump is operating and properly maintained for uniform discharge of effluent into the drainfield at the required frequency.

Don’t dispose of plastics, diapers (even disposable ones), cloth or other non-biodegradable articles in the sewage system.

Don’t put grease or oil down the drain. Avoid overuse of kitchen garbage disposal units. This adds large quantities of solids and shortens the time between pumpings.

Don’t connect clear water wastes, such as from dehumidifiers, footing drains, or water softeners to the system.

Don’t place impermeable materials such as landscape plastic mulches over the drainfield. These reduce evaporation and limit the supply of oxygen to the soil for proper effluent treatment. The best groundcover for your drainfield is grass. Don’t fertilize the soil over the drainfield.

Don’t use special additives in the system. Some will actually shorten the life of the system. Some, which claim they eliminate the need for pumping, do so by emulsifying solids and causing them to flow out where they clog the drainfield.

If your home is on a lake or stream, or adjacent to a wetland, plant a greenbelt or filter strip between your drainfield and the shoreline. Grass roots are not deep enough to intercept and absorb some of the nutrients before they reach the shoreline. Select deep-rooted trees and shrubs.

Signs of a Failed System

A failed sewage system can be a health hazard to you and your family, your neighbors and your environment. Be alert for these obvious signs of trouble:

- Toilets back up and drains don’t work.
- Excessive moisture or waste water on the surface of the drainfield.
- Foul odors from the drainfield or the septic tank.

Contact Washtenaw County Environmental Health, 705 N. Zeeb Road, Ann Arbor, MI 48107 (Western County Service Center), (734) 222-3800, for remedial assistance at the first sign of system failure. Also call this number for information on the Washtenaw County Regulation for Inspection of Residential

Onsite Water and Sewage Disposal Systems At Time of Property Transfer, which now requires evaluation of on-site sewage disposal systems (septic systems) at the time of property ownership transfer or change in use.

Never enter a dosing chamber or a septic tank. Poisonous gases or the lack of oxygen can be fatal. Any work on the system should be done from the outside.

F. TRASH, RECYCLING, AND ILLEGAL DUMPING

The *Washtenaw County Recycling Guide* and *Turning Trash into Treasure* are both available on line. You can find out the exact details of recycling services in the area where you live by clicking on your city, township, or village. To obtain these handbooks in hard copy, call (734) 222-6865, the Washtenaw County Solid Waste Program. They can also help you with any special waste materials, and how to handle them. Information on solid waste disposal, including trash pickup, yard waste disposal, and recycling services, can be provided by your local township government; call the township office to determine what services are offered locally. There are also some services offered on a regional basis or by the Washtenaw County Solid Waste Program.

Trash Disposal: Residents of many townships contract with commercial solid waste disposal providers for trash pickup. These providers will designate the proper containers for trash disposal. Trash does not legally include hazardous substances or yard waste. Many materials can be recycled, which is environmentally friendly and may also reduce your waste pickup costs.

Recycling has become a way of life for the residents of Washtenaw County. Over 28 drop-off sites and 14 curbside collection programs make recycling convenient and accessible to County residents. Although all communities have a recycling program, not all programs are the same. The types of materials accepted, preparation procedures and methods of collection vary by community. Information on what to reuse, how to recycle, where to reduce, and local recycling programs is located on the Internet at http://www.ewashtenaw.org/living/lv_eh_index.html.

Home Toxics: All Washtenaw County residents can take their household toxic products to the Home Toxics Reduction Center for proper disposal. The county web site (see above) includes the center's location, hours open, acceptable materials and non-toxic alternatives to common household products. Information on upcoming "satellite" home toxics collections throughout the county are also posted. Information can also be obtained by calling the Home Toxics Program at (734) 222-3950.

Composting yard waste is easier on large rural lots, and provides valuable

compost for gardening activities. Composting can be as simple as piling yard waste in a remote corner of your property, or can be done in one of several more organized methods. A publication on composting methods is available from the Washtenaw County Solid Waste program.

Illegal Dumping: The remoteness of the rural area makes it a prime target for illegal dumping of both solid and hazardous waste. This can create human health and safety hazards and environmental problems. If you witness an incident of illegal dumping, try to get a description of the vehicle involved. This should include license number, vehicle make, model and color. Also, try to get a description of the person or persons in the vehicle. Call 911 and report the incident.

If you see barrels or suspicious containers dumped by the side of the road, DO NOT APPROACH. Stay upwind, uphill, and upstream. Do not touch. Identification and handling of hazardous materials takes special equipment. Exposure to hazardous materials can affect you for the rest of your life. Children should be taught not to touch suspicious unidentified materials along the road, but to tell a parent or other adult immediately.

While keeping yourself safe, be prepared to give as much information as possible to the 911 dispatcher. Let them know the exact location, if the material is leaking, the shape and color of the container(s), and whether there are visible markings.

Hazardous Materials On Your Property: Under Michigan law, property owners are considered liable for the cost of cleanup of hazardous materials found on their property unless the responsible party can be located. Be sure that your homeowner's insurance policy covers such contingencies. Note that Washtenaw County operates a Home Toxics program. Small quantities of old pesticides and other chemicals can be disposed of through this program. Call the Home Toxics hotline, (734) 222-3950.

SECTION 5: MANAGING YOUR LAND

Rural residential parcels are typically larger than urban parcels. They provide both an opportunity and a responsibility. Perhaps this is your chance to grow a really large garden, to have a pond, or to keep some livestock. Meanwhile, there are legal and environmental issues to keep in mind, as well as the physical effort involved of maintaining a large lot. (See **Section 2A, Know Your Soil**)

A. VEGETABLE GARDENING

Growing a vegetable garden can be a very rewarding experience. The following

guidelines will help you get started. There are also many publications available from MSU Extension (see **Section 9, Resources**). In Washtenaw County, **Master Gardener** volunteers are available on the garden hotline to answer questions by phone. They can be reached at (734) 997-1819. Dial-A-Garden is a resource on monthly updated garden topics, presented as messages, which can be accessed by phoning (734) 971-1129.

Location: Although most vegetable plants will grow with a minimum of eight hours of direct sunlight per day, more sunlight is better. Planting away from trees will increase the amount of sunlight, and will also reduce competition from tree roots. Avoid black walnut trees, which are toxic to many plants. A location with access to water is more likely to get watered on a regular basis.

Rotating the planting location to different areas of the garden helps to control diseases which overwinter in the soil. Do not grow the same vegetable in one location more often than once every three years.

Soils: Many soils need to be improved before they are productive. Adding organic matter to any soil improves its structure. Organic matter added to sandy soils increases the water retention of the soil, and when added to clay soils helps to improve drainage. Examples of organic matter include compost, peat, manure, leaves, grass clippings, and straw. Rototilling or digging the soil helps to loosen the soil for plant roots, but it is important not to till the soil when it is wet. Tilling the soil when it is wet can actually damage the soil by destroying its structure. Getting the soil tested through MSU Extension is a good way to determine the current nutrient level of the soil and the soil pH. Using fertilizers based on soil testing provides the nutrients the plants need and prevents runoff and leaching of nutrients into wells, ponds and lakes. Do not ever add lime without a soil test.

Cleaning up plant debris in the fall helps to reduce the amount of diseases and insects in the garden next year. The old stems and fruit can be put in a compost pile, or turned under the soil. A cover crop such as annual rye or clover planted in September will protect the soil from erosion in the winter months, and add organic matter to the soil when it is turned under in the spring. Using leaves in garden beds also helps to prevent soil erosion and can improve drainage and the ability of the soil to retain nutrients.

Pests: Rural gardeners are more likely to experience problems with animal pests than urban dwellers. Deer, raccoons, and woodchucks can reduce a garden to stubble in no time. Electric fencing is one of the most effective means of keeping animals out of an area, but it is not always practical. Non-electric fences should be 8 feet tall to keep deer out. Deer are less likely to jump a solid fence that can't be seen through, or a double row of fences 5 feet apart. Repellents are sometimes effective against deer. Commercial sprays are

available, but are not labeled for use on edible plants. Some people report success with hanging bars of deodorant soap around areas they wish to protect.

B. LAWNS AND LANDSCAPES

Part of the charm of living in a rural setting is the natural landscape and wildlife nearby. On the other hand, areas immediately adjacent to dwellings may seem to call for more formal landscaping. These are some guidelines for lower-impact landscaping and methods to avoid negative effects on the ecosystem and nearby natural landscape. Soils information, conservation tree and shrub species, and assistance with forestry and wildlife habitat management are available from the Washtenaw County Conservation District, phone: (734) 761-6721 ext. 5 (web: www.washtenawcd.org). **See Section 2A, Know Your Soils.**

Construction: Two of the major problems introduced during construction are soil compaction and soil erosion. Clearly define areas where you will allow deliveries, excavating equipment, etc. Fences need to be placed around valuable trees to prevent equipment from damaging the roots and compacting soils under the trees. Also the grade around existing trees should never be changed. Roots buried under fill will die due to change in oxygen in the soil causing damage or death to the plant. Often, the entire construction site is needlessly torn up by workers. Try to maintain as much vegetative cover on the lot as possible, to minimize erosion. Insist on the use of proper sediment barriers around disturbed soils throughout the construction phase. (This is also legally required by the Washtenaw County Soil Erosion Ordinance.) A grading permit or waiver is required for earth-moving activities. **See Section 2B, Before You Build.**

Water Runoff: Runoff of stormwater can cause soil erosion and flooding. It also pollutes surface waters and causes siltation of drains and streams. Good practice increases absorption and infiltration by soil surfaces. Paved surfaces increase runoff. Wherever possible, consider alternatives, including interlocking pavers, wood patios, wood chips, etc. Where pavement is essential, use berms to reduce the velocity of runoff and direct the flow of runoff to areas where it can soak into the ground. Water infiltration improves with good coverage from plants, such as ground covers, turf, mulched flower beds, and plantings of trees and shrubs.

Consider changing the layout of your landscape to reduce runoff. Buffer streets and neighboring properties with low areas, landscaped with shrubs and wetland flowers, where water is encouraged to soak into the ground. Use berms or terraces as appropriate to slow the flow of water, and give more of it a chance to soak into the soil. Direct downspouts to areas where soil infiltration is good.

Native Plant Landscaping: Consider using native grasses, herbaceous wild flowers, trees and shrubs in place of or intermixed with traditional garden

selections. As well as helping with erosion control, native plants add beauty and stability to the landscape. They have developed over hundreds of years of ruggedness, and tolerance to our local weather patterns as well as a resistance to many insects and diseases. This not only saves homeowners plant material replacement costs, it saves maintenance costs when you consider they will demand less water, fertilizer, insecticides, fungicides and power equipment for their on-going care.

Landscape Maintenance: If you have natural or wild areas on your property, think twice before you decide to convert them to more formal landscapes, especially to lawn. Lawn areas (turf) require more maintenance; fertilizing, mowing, and watering. Improper use of fertilizers leads to pollution of water areas. Lawns that are not maintained can become an unsightly tangle of weeds. Natural areas are more cost-effective, provide habitat for wildlife, and are attractive.

If a lawn is created by laying sod, be sure that the underlying soil has been prepared. Interfaces between two soil layers (sod and subsoil) can create problems for the turf later.

If seeding a lawn, consider athletic field mixes with several types of grasses, or even mixes that contain Dutch white clover. These will be more drought- and disease-resistant, and require less fertilizer. Contact MSU-Extension for specific grass types for low maintenance situations.

Reduce the amount of fertilizer needed by mowing often and high (2 ½ to 3 inches), and leaving the grass clippings on the lawn. This will also result in a stronger turf.

Areas which were heavily disturbed during construction might be planted to turf with the establishment of a transition zone of ornamental grasses, shrubs, and mulched areas at the interface with undisturbed natural areas. Use mass plantings of shrubs compatible with the native vegetation. While some literature stresses only the use of native plants, many improved varieties of these plants provide increased performance, in terms of flowering, fruiting, form, etc. as well as increased disease tolerance and other traits that make them superior performers with fewer problems. When planting trees along the property line, consider the effect on neighboring properties; tall evergreen trees can shade adjacent areas, which can interfere with farming or vegetable gardens.

In areas to be left natural, try to avoid clearing underbrush, removing all dead trees, or thinning the live trees. Wildlife uses the cover and food present in these not-too-manicured areas. A large single area is better than several small islands of natural vegetation. MSU Extension has numerous publications with recommendations for landscape establishment and maintenance. See **Section 9**,

Resources.

C. WATER AND WET AREAS IN THE LANDSCAPE

Wetlands and riparian areas are protected under the Federal Clean Water Act as well as by State of Michigan laws. The Michigan Department of Environmental Quality, and in Washtenaw County, the Office of the Drain Commissioner and the Soil Erosion Program through the Department of Building Services all regulate these lands. (See **Section 2B, Before You Build.**) Many townships also have ordinances that protect these lands. Do not disturb or in any way alter these areas without first contacting all of the above listed agencies. There are severe penalties for violating laws protecting wetlands.

Wetland is a generic term for all the different kinds of wet habitats where the land is wet for some period of time each year but not necessarily permanently wet. Many wetlands occur in areas where surface water collects or where underground water discharges to the surface, making the area wet for extended periods of time. The Clean Water Act defines wetlands as “areas that are inundated or saturated by surface or ground water at a frequency and duration sufficient to support, and that under normal circumstances do support, a prevalence of vegetation typically adapted for life in saturated soil conditions. Wetlands generally include swamps, marshes, bogs, and similar areas.”

Wetlands act as storage for excess amounts of water, which may occur during times of heavy rainfall or high flow in rivers. Wetlands also regulate flow, helping to reduce soil erosion, and store floodwater. **Riparian Areas** are lands adjacent to streams or other water bodies. Wetlands and riparian areas have many beneficial uses. They serve as a filter to remove sediment, nutrients, bacteria and toxins from water, and can recharge the ground water. They also serve as a critical habitat for many wild species.

Management of wetlands and riparian areas requires an understanding of the value of these lands and avoidance of efforts to fill or dry them out, which may result in environmental degradation and unforeseen problems. Before either filling or excavating wet areas, seek advice from the County agencies mentioned earlier.

Ponds and Wetland Restorations: There are times when wetland restoration or pond construction is appropriate. Acres of farm lands were tilled and drained in the past. Many current wetland restoration projects seek to restore these wetlands by simply breaking or disrupting these tiles which have drained the land. They might involve construction of a low dike to retain water. There are many resources available to help you decide if you have an appropriate pond site. The MSU Extension Service, Washtenaw County Conservation District,

and USDA Natural Resources Conservation Service (734/761-6721 ext. 5) have educational information and planning support for projects involving ponds and wetlands. Several private organizations, such as Ducks Unlimited, have engineering help and some cost sharing available for wetland projects that meet their criteria. A grading permit or waiver is required for earth-moving activities, including the addition of beach sand. See **Section 2B, Before You Build**.

Living with Waterfront Property: Shoreline properties need to be managed to prevent erosion and the growth of shoreline or aquatic weeds. One valuable method is the use of greenbelts. Greenbelts, or filter strips are mixed plantings of trees, shrubs, groundcovers and some herbaceous plants between the water's edge and heavily used areas of the property. Greenbelts along the shoreline are of primary importance to prevent erosion, filter runoff and frame views of the water. It is suggested that they be a minimum of 15 ft.. wide, except in areas where access to the water must be provided. There should always be a greenbelt between lawn and beach areas, with a winding walkway or path to access the beach through the greenbelt. Attempt to eliminate, or at least minimize the amount of lawn-beach interface.

In addition to a greenbelt by the water, shoreline landscapes should include greenbelts or filter strips in locations that define various outdoor work and living areas, including driveways, drainfields, fruit and vegetable gardens, animal pens, etc. Careful arrangement of mass plantings and the construction of berms can help direct runoff over areas where it can percolate through the soil and insure that the runoff does not reach erosive velocity.

Shoreline property owners are often concerned about weeds out in the water. Weed management must be a long term strategy, usually involving greenbelts and other measures to reduce nutrient input to our water resources. Lawn fertilizers may contribute to this problem. Aquatic herbicides are usually short-term measures that may actually make matters worse in the longer term. Attempting to kill all weeds with an aquatic herbicide may result in a lot of dead weeds decomposing at one time. As this happens, oxygen levels are reduced and all the nutrients in those weeds are recycled in the water, providing ideal conditions for the growth of algae. Aquatic plant problems are usually best managed with a long-term strategy in which all shoreline property owners agree to take a careful look at their property and make the changes necessary in their landscape and their activities to reduce nutrient and sediment input to the water.

D. MANAGING FARMLAND

Washtenaw County has a wide variety of farms, from a few acres to hundreds, from livestock or dairy operations to vegetables and flowers. The Washtenaw County MSU Extension Agricultural Agent is ready to help new or established

farmers with specific or general problems. Washtenaw County MSU Extension also conducts a number of short courses on specific farming subjects, including a course on starting a small farm. Call for more information at (734) 997-1678.

Meanwhile, if you have just acquired 10 or 40 acres of farmland, here are a few tips on how to keep that land productive.

Renting Your Land to Others

If you have purchased a lot that is larger than you want to maintain as a residence, you might consider renting extra acreage to a nearby farmer. Farmers are often looking for extra acreage to meet their grain, hay, and livestock production needs. By renting land to them you can enjoy the scenic beauty of managed fields. Row crops and hay fields attract wildlife. You will also earn income from your rental agreement to offset the cost of your annual property taxes.

How do you go about finding a farm family that is interested? Advertisements may be helpful. Small town newspapers are well read by many farm families. A sign along the roadside indicating your acreage is for rent will also attract the attention of interested farmers that are already working near your home. A third possibility would be to post an announcement at nearby agribusinesses.

Rental rates are set by negotiation. The amount you receive per acre will depend on how well your property has been maintained, how fertile the soils are, the amount of flexibility you will grant to the farmer in management of the land, the length of the agreement, and the distance from your location to market. The nature of the crop to be grown will also be a factor. Be aware that crop commodity prices fluctuate, and farmers will not be able to pay top dollar for land when prices are low. A common rule of thumb is that land rental rates should be equal to approximately 25% of the value of a corn crop. By multiplying the average corn yield of the past 3 corn crops by the average local price for those years, it is possible to calculate a rent based on this approach.

Regardless of how you find a renter, it is strongly advised that after you agree on fair conditions you put the agreement into writing. Guidelines for developing written rental or lease agreements are available through the Washtenaw County MSU Extension Office.

Tips For Hobby Farmers

New owners of small acreages may wish to “do a little farming” with their new land. These are some general tips for those interested in starting a hobby farm. For more information on farm operation, contact MSU Extension.

- Evaluate your reasons and expected rewards in starting a farm. Is it

for income? For an opportunity for the family to experience some farming activities? For example, young people can find rewards from being involved in a family livestock project. Through 4-H, they can meet other young people who are raising animals, and make a little money, too.

- Analyze your farm as a business. In order to avoid draining the family budget, you will need to clarify your commitments to the type of product your farm will produce, marketing strategies, record keeping systems, and management philosophy. In addition to calculating financial costs, consider time budgeting to make sure family members will be able to follow through on farm projects. Crop production has seasonal peaks in time requirement. Livestock production requires feeding, handling, and health checks daily.
- Evaluate the risk levels related to different farm enterprises and select crops or livestock that fit your risk tolerance. Apples are potentially more profitable per acre than hay or small grain. However, the risks from year to year are much higher for fruit and vegetable crops. High-value crops are only money makers if they are managed properly.
- Consider renting equipment or hiring custom operators to perform certain tasks. If you are going to raise 10 acres of grain, it is unlikely you will be able to justify the cost of buying a combine for harvest operations.
- Learn about farm safety. Many hobby farmers purchase older equipment. While many older tractors and other implements still run well, they often are not equipped with safety features. Tractors should have roll bars. PTO shafts should always have protective shields. There are many risks related to handling grain and livestock.
- Surround yourself with trusted advisors. Commercial scale farmers rely on the experiences of their neighbors when trying to overcome obstacles to successful farming.
- Attend educational programs on agricultural production. These are offered frequently by agribusinesses and MSU Extension. The best ways to make sure you know of these events are farm publications, the local paper, and the county website. Ask to be put on the mailing lists of those who offer educational programs.

Livestock

Before purchasing livestock or horses, check with your township office. Local ordinances govern the type and number of livestock and the size of the parcel on which they may be maintained.

Also be aware that livestock are a continuous responsibility. MSU Extension can provide information about livestock maintenance. Courses on buying and maintaining horses and other livestock are offered periodically. Call the

Washtenaw County MSU Extension office at (734) 997-1678 for more information.

SECTION 6: IT'S THE LAW

When you think about moving or indeed do move to the country, it is important to your health, safety, welfare and even your bank account, to make sure you are aware of laws, regulations and ordinances governing your property. Here is a reminder of some (not all) regulations of which you need to be aware:

Township

- A. Burning Ordinances (Section 3A)
- B. Zoning Laws/Land-use Planning (Section 2A)
- C. Non-posted Speed Limits (Section 3C)
- D. Blight Ordinances (Contact Township Office)
- E. Wetlands Protection (Section 2B, 3D and 5C)
- F. Building Codes (Section 2B)

County

- A. Water Well Placement (Section 2B and 4D)
- B. Sewage Systems (Section 2B and 4E)
- C. Building Codes (Section 2B)
- D. Soil Erosion (Section 2B, 5B, 5C)

State and Federal

- A. Clean Water Act (Section 5C; complete law available from Washtenaw County Environmental Health Department)
- B. Safe Drinking Water Act (contact the Washtenaw County Environmental Health Department)
- C. Right-to-Farm Law (Section 4B; complete law available from the Washtenaw County MSU Extension office)
- D. Michigan Motor Vehicle Code (Section 4B: complete law available at the Secretary of State's office)

It is also against the law to let your dogs run free. All dogs must be licensed and vaccinated. **If your pet harms a farm animal in any way, you will be held responsible and liable.**

SECTION 7: MSU EXTENSION

The mission of Washtenaw County Michigan State University Extension is to provide creative educational opportunities that enable individuals to make informed decisions for themselves and their communities. This is accomplished by providing practical, timely, research-based information and educational programs to help residents meet local needs in agriculture, horticulture and

natural resources, family management, community development, and youth development. Extension programs are guided by experienced faculty and staff members in Washtenaw County and on the MSU campus. Phone numbers are in **Section 9, Resources**. Other information is available at the Washtenaw County website, <http://extension.ewashtenaw.org>.

Extension has three major funding sources: the federal government, state government, and local county government. The federal funding links Extension with the U.S. Department of Agriculture and to national trends and issues affecting Michigan communities. State funding ensures that the needs of Michigan citizens are being met. Local funding means that Extension is in place to deal with the needs and issues in every county.

Staff provide information and manage programs in the following areas:

Agriculture, Horticulture and Natural Resources

- ◆ farm management and value-added agriculture
- ◆ farm safety
- ◆ livestock & dairy production
- ◆ water quality
- ◆ farming a few acres
- ◆ soils and crop fertilization
- ◆ pesticide safety
- ◆ fruit and vegetable production
- ◆ rural issues
- ◆ integrated pest management/organic production
- ◆ variety test plots
- ◆ crop culture and pest control
- ◆ home horticulture
- ◆ landscape service industry
- ◆ Master Gardener Program
- ◆ native and wild plant landscaping
- ◆ forestry
- ◆ soil test interpretation
- ◆ pond and shoreline management
- ◆ plant and insect diagnostic services
- ◆ gypsy moth education and other invasive species education

Children, Youth and Family Programs

Family and Consumer Sciences:

- ◆ parenting education
- ◆ breastfeeding and immunization education
- ◆ family nutrition
- ◆ financial management
- ◆ low income family programs

- ◆ home ownership education
- ◆ consumer education
- ◆ food safety and storage
- ◆ food nutrition and health

Extension 4-H Youth Programs:

- ◆ 4-H clubs with adult volunteers
- ◆ international and citizenship programs
- ◆ programs for youth ages 5-19
- ◆ youth at risk programs
- ◆ 4-H youth show
- ◆ community service
- ◆ 4-H in-school and after school programs
- ◆ youth development
- ◆ Jr. Master Gardener program
- ◆ environmental and animal programs
- ◆ adaptive programs for handicappers
- ◆ citizenship academy
- ◆ character education and developmental assets
- ◆ life skills and leisure time programs
- ◆ career development
- ◆ leadership training for adults and teens

Community Development:

- ◆ leadership development
- ◆ urban and rural understanding
- ◆ small business education
- ◆ private sector outreach
- ◆ community development
- ◆ organizational development
- ◆ housing and home buyer education
- ◆ land use education

SECTION 8: ACKNOWLEDGMENTS

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MSU Extension Bulletin E-1140, "Getting into Country Living"

Michigan Township Association, "Putting All of the Pieces Together"

Rockford Map Publishers, Inc.

Institute of Water Research, Dean Solomon, District Natural Resources Agent and Eckhart Dersch, Professor of Resource Development

SECTION 9: RESOURCES

Emergency phone numbers:

Police, Fire and Ambulance	911
Miss Dig (Michcon)	(800) 482-7171
DTE Energy/Michcon	(800) 477-4747
Poison Control	(800) 222-1222
Suicide/Emotional Crisis	(734) 996-4747

Washtenaw County Departments:

Building Inspection Division	(734) 222-3900
Building Inspection Request Line	(734) 222-3910
Building Services	(734) 222-3900
Clerk/Register of Deeds	(734) 222-6700
Drain Commissioner	(734) 994-2525
Environmental Health Regulation	(734) 222-3800
GIS Program	(734) 994-2435
Home Toxics Program Hotline	(734) 222-3950
Planning & Environment	(734) 994-2435
Road Commission	(734) 761-1500
Solid Waste Program	(734) 994-2435
Soil Erosion Division	(734) 222-3888

Other agencies:

Michigan Department of Environmental Quality	(517) 780-7690
Michigan Wildlife Habitat Foundation	(517)641-7677
USDA Natural Resource Conservation Service	(734)761-6721 Ext. 3
Website: www.mi.nrcs.usda.gov	
Rockford Map Publishers, Inc.	(800)321-1627
Washtenaw County Conservation District	(734)761-6721 Ext. 5
Website: www.washtenawcd.org	

Washtenaw County MSU Extension:

NEW LOCATION: 705 N. Zeeb Road - Ann Arbor (Scio Township - north of Jackson and I-94 Roads)

Phone:	(734) 997-1678
Fax:	(734) 222-3990
Garden hotline:	(734) 997-1819
Dial-a-garden:	(734) 971-1129
Email:	washtena@msue.msu.edu
Website:	http://extension.ewashtenaw.org

On the Internet:

- **Washtenaw County:** <http://www.ewashtenaw.org>
Each County department has information on services, ordinances, and telephone numbers at this website. Washtenaw County MSU Extension is at <http://extension.ewashtenaw.org>. Up-to-date information about hours, courses, and programs is located on the website.
- **Michigan State University Extension:** <http://www.msue.msu.edu>
- **Crop Advisory Team alerts:** <http://www.msue.msu.edu/ipm/aboutcat.htm>
These Crop Advisory Team Alerts (“CAT alerts”) have timely pest management information based on current conditions. The Landscape edition has useful information for homeowners as well as landscape professionals. Fruit, vegetables, and field crop section are geared to commercial production.
- **<http://www.E-answers.org>:** Information by Extension and Agricultural Experiment Station professionals throughout the U.S.

MSU Resources for Home Grounds Planning and Maintenance:

- MSU Bulletins, Videos & Computer Software Available on many common horticultural and agricultural topics. Available at the Extension office or order directly from MSU Bulletin Catalog. Home-A-Syst Packets of “self evaluation” forms designed to help homeowners evaluate their potential to cause pollution and make positive changes. 10 specific topics available.
- Master Gardener Phone Line (734) 997-1819. Staffed 9:00 am. until noon and 1:00 p.m. until 4:00 p.m., Monday through Friday, April through October, and periodically during the winter.
- Dial-A-Garden (734) 971-1129. Select from a choice of 20 to 30 timely, prerecorded gardening messages. Selections are changed monthly.
- Soil Testing Soil testing is an important diagnostic tool to evaluate nutrient imbalances and understand plant growth problems. Soil tests help you adjust fertilizer applications to provide only nutrients that are lacking or inadequate for your lawn or garden. For garden soils, sample 6" to 8" deep. Take 15 to 20 subsamples and mix them in a clean plastic pail. Submit 1 to 2 cups of the mix, after it has air dried. Call the Extension office, (734) 997-1678 for current costs.
- Plant & Insect Diagnostic Services. In order to advise clients on best management strategies for pests, it is important that the problem be accurately identified. Samples should be brought in for diagnosis at the time the problem is actively occurring. Samples brought in at a later time may not be diagnosable. Call the Extension office (734) 997-1678 regarding costs and instructions for taking an appropriate size sample, and handling it so it is received in good condition.

Specific bulletins available from the Extension office. Some of these are free of charge, others have a small charge.

- ◆ Thoughts About Lawns & Landscapes by Roberta Lawrence
- ◆ Water and Wet Areas in the Landscape by Roberta Lawrence (Includes a “Partial List of Plants for Shoreline Landscapes” and “So Your Lake or Pond is Weedy”)
- ◆ E1554 Managing Ponds for Sport Fishing
- ◆ E2323 Nature from Your Backdoor
- ◆ E2332 Identifying Trees of Michigan
- ◆ E2024 Diagnosing Problems of Ornamental Landscape Plants
- ◆ TURF0103 Fertilizing Home Lawns to Preserve Water Quality
- ◆ NCR356 Fertilizing Garden and Landscape Plants and Lawns
- ◆ WQ02 Testing of Private Wells
- ◆ WQ25 Nutrient Management to Protect Water Quality
- ◆ WQ53 Lawn-A-Syst
- ◆ WQ52 Managing Shoreline Property to Protect Water Quality
- ◆ WQ57 Lakescaping for Wildlife & Water Quality
- ◆ E1769 Planning a Vegetable Garden
- ◆ Vegetable Harvest and Storage, Dept. of Ag Fact Sheet
- ◆ Sources of Vegetable and Plant Seeds
- ◆ Making and Using Compost, Dept. of Ag Fact Sheet
- ◆ E1144 Farm Records Book for Management
- ◆ E2292 Forage Quality - What is it?

Educational Meetings which are offered periodically include Farming a Few Acres, Farm Safety, Selecting and Raising Horses, Selecting and Raising Sheep, Pesticide Education, Woodlot Management, Master Gardener, and tree pruning. Check with the MSU Extension Office for information.

Strengthen our Farm Economy: The Washtenaw County Extension Agricultural Advisory Council is interested in working with you to strengthen our local farm economy. If you work for a company that uses agricultural commodities or by-products, we may be able to help you purchase these direct from local family farms. If you have an idea or a production opportunity for farmers to consider, contact the MSU Extension Agricultural Agent. Washtenaw County farms currently produce large quantities of corn, soybeans, wheat, and alfalfa. Fruit, vegetables and ornamental crops are also produced by several farms. Local farms account for the highest level of sheep production in Michigan. There is also a significant amount of beef cattle, dairy, and swine production.

ADDRESSES ASSIGNMENT BY TOWNSHIP

Township	Who Assigns	How Long	Cost	Is a Form Generated?	Notes/Contact Person
Ann Arbor	Bldg./Zoning Admin.	< 1 week	None	Yes	Gary Dresselhouse 734-663-3418
Augusta	Planning Administration	< 1 week	\$25	Yes	Requires proof of ownership, legal description, survey, parcel ID #, nearest addresses both sides & across the road.734-461-6117
Bridgewater	Zoning Administration	1 – 2 days	\$15	Yes	Janet Cowling 734-944-0165. Requires proof of ownership, legal descrip., site plan, nearest surrounding addresses.
Dexter	Ordinance Officer	Allow 2 weeks	None	Yes	Must have parcel ID # from equalization– may need survey 734-426-3767.
Freedom	Zoning Administration				Larry Lindemann 734-428-9687
Lima	Zoning Administration	OTC*-1 week	\$50	Yes	Chuck Schauer 734-475-2246
Lodi	Zoning Officer	1 –2 days	\$25	Yes	Legal description, parcel ID #. 734-665-7583
Lyndon	Consumers Power	Allow 2 weeks	None	Yes	1-800-477-5050
Manchester	Consumers Power	Allow 2 weeks	None	Yes	1-800-477-5050
Northfield	Fire Chief	Allow 2 weeks	\$20	Yes	Requires proof of ownership, accurate parcel I.D. # & legal description. Must meet zoning requirements. 734-449-2880
Pittsfield	Zoning Administration	1-2 days	None	Yes	Mark Spencer 734-944-8206. <http://pittsfieldtwp.org>
Salem	Zoning Administration	Allow 2 weeks	\$25	Yes	248-349-1690
Saline	Zoning Administration	OTC*	\$10	Yes	Bob Marion 734-429-4869.Requires proof of ownership, parcel ID#
Scio	Assessor	1-2 days	None	No	Must submit prelim.site plan for zoning purposes. 734-665-2123
Sharon	Consumers Power	Allow 2 weeks	None	Yes	1-800-477-5050
Superior	Assessor	Same day	None	No, except site condos & multiparcels	Assign using Detroit Edison grid formula. Requires owner to verify street name w/post office if new street. 734-482-6099
Sylvan	Consumers Power	Allow 2 weeks	None	Yes	1-800-477-5050
Webster	Zoning Officer	OTC* 1 week	\$15	Yes	Assessor confirms property ID. # & tax bill paid. Forwards to Zoning Officer. 734-426-6267 <www.twp.webster.mi.us>
York	Zoning Administration	7-10 wk. Days	None	Yes	Glen Cutright 734-439-8842. Requires proof of ownership, survey, split approval from township (if applicable)
Ypsilanti	Fire Chief	1-2 weeks	None	Yes	Bring plot plan, addresses of nearest surrounding homes. 734-544-4225.

*Over-The-Counter

September, 2001