

# WASHTENAW COUNTY RESOURCE ASSESSMENT

September, 2006



WASHTENAW COUNTY  
CONSERVATION DISTRICT

*Managing Our Natural Resources*

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## **Executive Summary**

The Washtenaw County Conservation District is a local unit of state government organized by the people of Washtenaw County under provisions of The Soil Conservation District Law. The District's mission is to educate and assist the people of Washtenaw County with the conservation and management of their natural resources.

Washtenaw County has a mix of agricultural and urban land uses. Agriculture comprises 41.3% of county acreage, while urban and undeveloped land uses account for 58.7% of county acreage. The County's population has grown by 38% since 1970, 14% from 1990 to 2000, and almost 6% from 2000 to 2005.

Glaciers created most of the varied terrain of the County and the numerous lakes which are actively used for recreation purposes. There are 83 distinct types of soils in Washtenaw County that can be grouped into 49 different soil series. Those soils vary from well drained to very poorly drained.

The majority of Washtenaw County drains to Lake Erie through five watersheds. These include the Huron River, Paint-Stony Creek, River Raisin/Saline River and Rouge River. A small portion of northwest Washtenaw County drains to Lake Michigan through the Grand River basin.

The climate of Washtenaw County is generally pleasant with adequate precipitation during the growing season and seldom are there prolonged periods of either hot, humid weather in summer or extreme cold during the winter.

All these factors make Washtenaw County an enjoyable place to live, work and play. However, expanding human and land use pressures impact the natural resources of the County. The result is that not all resources are in the best condition, or at least have areas needing action to maintain or improve their quality.

This resource assessment, conducted by the Washtenaw County Conservation District, is a continuous process of determining the County natural resource/environmental issues and concerns that need to be addressed. As a result of this resource assessment process, the prioritized major natural resource/environmental/ issues identified were: **Land Use, Surface & Ground Water Quality, Wildlife & Habitat, Wetlands, and Forests.**

The procedure used to identify these concerns included:

- Developing a list of stakeholders.
- Contacting stakeholders to gather input on issues and concerns.
- Preparing a resource assessment document, which summarizes the information obtained and identifies the priority issues the District will focus on over the next five years.

The first two steps (referred to as "linking and scanning"), and preparation of the resource assessment were completed from April – July, 2006.

To determine the priority of the above issues, a survey was developed and distributed via e-mail with a link to an on-line survey, news releases were published in local media requesting public input using the on-line survey, and a paper mail-in version of the survey through the Conservation District's "Conservation Update" newsletter was distributed. Respondents to the survey were asked to rank their top three resource issues from a list of issues generated through the 2001 resource assessment survey. The overall priority for these issues was determined by the total number of responses received for each issue.

Survey respondents were also asked to rank their top three concerns for each of their top three issues. Again, the overall priority of the concerns was determined by the total number of responses received for each concern.

The District has tried to be comprehensive in developing this assessment, but certainly not all issues or concerns may have been identified. Such a task requires constant awareness and cooperation among the many public and private agencies, groups and organizations, the public, as well as education and assistance to the individuals and groups wanting to take action. Since the District does not have the resources to impact all of the issues identified, it must assist many other public and private agencies and organizations within the County, and rely upon their strengths to get the job done. This role of coordination is possibly the most important opportunity for the Conservation District to fill in the future, to address the identified resource issues.

This resource assessment will be used by the District to update its current long-range strategic plan. Annual implementation plans will then be prepared which identify actions the District will take to address the priority issues outlined in the resource assessment.

## ***District Overview***

The Washtenaw County Conservation District, whose boundaries are those of Washtenaw County, is a local unit of state government organized by the people within the District boundaries under provisions of The Soil Conservation District Law, Act 297 of Public Acts of 1937, as amended. In 1994, the Conservation District Law was made part of The Compiled Environmental Code. It is now Part 93 of Act 451 of 1994, as amended.

The Washtenaw County Conservation District was organized in 1948 through the process of petition, hearing and referendum under the leadership of local landowners who realized the importance of our soil and water resources. As such, the District is a locally controlled resource management agency, created by concerned landowners and administered by a publicly elected, five-member, board of directors. The board makes all decisions regarding the District's programs and activities. The directors hire qualified staff to conduct and carry out the programs and activities that have been approved.

The mission of the District is to educate and assist the people of Washtenaw County with the conservation and management of their natural resources.

## ***County Resources***

### **LAND USE**

Washtenaw County has a mix of agricultural and urban land uses. Agriculture is predominant in the western and southern portions of the county. The major urbanized area is located in the east-central portions of the county and includes the cities of Ann Arbor and Ypsilanti and the townships of Ann Arbor, Pittsfield, Scio and Ypsilanti. There are also areas of urbanization around the smaller communities of Chelsea, Dexter, Manchester, Milan and Saline.

#### Land Use Breakdown – Washtenaw County

<u>Land Use</u>	<u>Acres</u>	<u>% of Total</u>
Agricultural	191,140	41.3%
Urban: Residential	70,544	15.3%
Urban: Commercial/Office, Industrial, Transportation, Utilities	23,772	5.1%
Undeveloped	164,156	35.5%
Recreation, Cemetery & Cultural	7,779	1.7%
Under Development	5,142	1.1%
Total:	462,533	100.0%

Land use information was obtained from the Southeast Michigan Council of Governments. The classification system used is as follows:

*Agricultural:* includes cropland, orchard, bush fruit, vineyards, ornamental horticulture, confined feeding operations, permanent pasture, other agricultural land and farmsteads.

*Urban, Residential:* single-family residential, multi-family residential, manufactured home parks.

*Urban: Commercial/Office, Industrial, Transportation, Utilities:* primary/central business district, shopping center/mall/retail center, secondary/mixed business area, institutional establishment, office/research center or park, air, rail, water and road transportation, communication, electrical, gas and oil pipeline, solid waste disposal site, sewage and water treatment and transmission.

*Undeveloped:* grassland and shrub, woodland, wetland, open, extractive, barren, water.

*Recreation, Cemetery & Cultural:* public assembly/cultural or sport facilities, outdoor recreation, and cemetery.

*Under Development:* single-family residential and undefined.

### **POPULATION**

The population of Washtenaw County as reported by the U.S. Census Bureau is:

<u>Year</u>	<u>Population</u>
1970	234,103
1980	264,748
1990	282,937
2000	322,895
2005, July	341,847 (Estimated)

## GEOLOGY & TOPOGRAPHY

Glaciers covered Washtenaw County in ancient times, and the action of these glaciers created most of the varied physical terrain of the county. Rolling hills in the north and center, steeper hills in the west and gently rolling areas in the southern portions of the county. An ancient inland lake, extending northeast from present Lake Erie formed the flat areas in southeastern Washtenaw County.

## SOILS

There are 83 distinct types of soils in Washtenaw County that can be grouped into 49 different soil series. These soils range widely in texture, natural drainage, slope and other characteristics. Well drained to moderately well drained soils make up 35% of the county soils; somewhat poorly drained soils, 24%; poorly drained to very poorly drained soils, 37%; with fill and made land comprising the remaining 4% of soils.

## HYDROLOGY

The majority of Washtenaw County drains to Lake Erie through four watersheds. These include the Huron River, Paint-Stony Creek, River Raisin/Saline River and Rouge River. A small portion of northwest Washtenaw County drains to Lake Michigan through the Grand River basin.

There are more than 80 glacier created lakes more than a mile in diameter within the county. Some of the larger lakes include: Ford Lake on the Huron River, Independence Lake, Pleasant Lake, Portage Lake, Silver Lake and Whitmore Lake.

## CLIMATE

The inland location of Washtenaw County in southeast Michigan minimizes the influence of the Great Lakes on the county climate, most noticeably in increased cloudiness. Cloudy days are most common in late fall and early winter and least common in late spring and summer. Because the day-to-day weather is controlled chiefly by the movement of pressure systems across the nation, there are seldom prolonged periods of either hot, humid weather in summer or extreme cold weather during the winter. The annual average percent of possible sunshine is 53%.

The average daily maximum temperature in summer is 82° and in winter 34°. The average annual total precipitation is 30.48 inches. Fifty-six percent of that, or over 17 inches, is received during the growing season from May through October. The growing season averages 172 days. Average seasonal snowfall is 29.5 inches.

### ***Purpose of Assessment***

In order to accomplish the District's mission of educating and assisting the people of the County with the conservation and management of their natural resources, the issues and concerns related to those natural resources need to be identified. Every five years, the District conducts an assessment for this purpose.

The procedure to be used includes:

- Develop a list of stakeholders.
- Contact stakeholders to gather input on resource issues and concerns.
- Prepare a resource assessment document, which summarizes the information obtained and identifies the District's priority issues for the next five year period.

The completed resource assessment will then be used by the District to up date its long-range strategic plan. Annual implementation plans will be prepared which identify actions the District will take to address the priority issues outlined in the resource assessment.

### ***Linking and Scanning of Stakeholders***

The process of identifying and contacting stakeholders about natural resource/environmental concerns is referred to as "linking and scanning." Contacts or "links" are made with the stakeholders and they are surveyed or "scanned" for resource issues and concerns.

A resource assessment survey was developed which listed issues and specific concerns related to the general issues, generated from the last assessment in 2001. Survey respondents were asked to rank their top three resource issues, and also rank their top three concerns for each of their top three issues. Respondents also had the opportunity to add other issues and concerns not listed. See Appendix A for a copy of the survey.

Several new questions were added to the 2006 survey, including:

- How well respondents thought local conservation/environmental groups, County government agencies, and State level government agencies were addressing their top three resource issues.
- What the Washtenaw County Conservation District can do to address the issues identified.
- Demographics: how long respondents have lived in the County; how much property they own; and the setting in which they live.
- What sources are used to keep informed about news and information concerning resource issues in Washtenaw County.

The survey was distributed using the following methods:

- Internet-based survey launched via e-mail announcement (sent to 575 e-mail addresses).
- News release announcement via County newspapers with on-line survey link.
- Survey in summer issue of District "Conservation Update" newsletter (mailing list of 1,793).

See Appendix A for a list of the people and groups contacted through the linking and scanning process.

### ***Results of Linking and Scanning***

Those completing the resource assessment survey were asked to rank their top three natural resource/environmental issues using a 1, 2, 3 rank, with 1 being the most important issue. The overall priority for these issues was determined by the total number of responses received for each issue.

Survey respondents were also asked to rank their top three concerns for each of their top three broad issues. Again, the overall priority of concerns was determined by the total number of responses received for each concern.

Following the tabulation of responses, the prioritized major resource issues were: ***Land Use, Surface & Ground Water Quality, Wildlife & Habitat, Wetlands, Forests***. Each issue is briefly described below.

#### **Land Use**

Land is a basic resource. Wise land use planning, whether for agriculture, urban/residential, commercial/industrial, recreation or other uses, is critical. Unplanned development creates urban sprawl and fragmentation that is not conducive to the best use of the land resource. The loss of agricultural land to urban use is a concern of many County residents, groups, townships, County agencies and the Conservation District. While development is not bad in and of itself, planning of that development for the optimum use of the land resource is most important.

#### **Surface & Ground Water Quality**

The quality of our surface and ground water is affected by many factors, including point and non-point sources of contamination. Soil erosion and sedimentation, fertilizer and pesticide use, road runoff, septic systems and other sources all impact water quality. Surface and groundwater in Washtenaw County is used for drinking, recreational and aesthetic uses. Maintaining good water quality is vital to the health and quality of life in the County.

#### **Wildlife & Habitat**

The presence of wildlife in Washtenaw County is an asset that is enjoyed by many residents, but also poses negative impacts when that wildlife damages agricultural crops and livestock, causes traffic accidents, or is displaced from natural habitat by man's activities and developments. Very little active wildlife management is taking place on private lands in the County, and limited knowledge of management techniques and options are evident. Destruction of habitat for wildlife by land fragmentation and development increases the conflicts between man and wildlife that are becoming more commonplace.

#### **Wetlands**

Wetlands are important for wildlife habitat, storage of storm water, cleansing of water, and groundwater recharge. The destruction and filling of wetlands for development, sedimentation of wetlands from agricultural and urban land uses, and invasion of invasive plant species seriously impact the ability of wetlands to provide the benefits noted.

#### **Forests**

The forest and woodlands of Washtenaw County contain quality hardwood species. However, early logging involved much high grading, where most, if not all the best quality trees were removed indiscriminately for use in the timber industry. This type of harvesting has left many of the remaining timber stands in poor condition, with lower-quality and lower-valued trees. Very little active forest management stems from a general lack of public knowledge in this area. Like Wetlands, invasive plant species impact Forests and their management.

While each of these resource concerns can be viewed independent of the others, they are all interconnected when looking at natural systems. So in many cases, concerns related to one issue will also impact others.

## **Priority Concerns**

The priority concerns identified for each major natural resource/environmental issue include:

### ***Major Resource Issue #1: Land Use***

1. Loss of farmland/urban sprawl.
2. Natural areas and open space preservation.
3. Adequate planning/zoning for development and growth management by local governments.

### ***Major Resource Issue #2: Surface & Ground Water Quality***

1. Groundwater supply protection and management.
2. Residential fertilizer/pesticide use and management.
3. Surface water supply protection and management.

### ***Major Resource Issue #3: Wildlife & Habitat***

1. Destruction of wildlife habitat.
2. Need restoration/improvement of habitats.
3. Native landscape restoration, establishment and management.

### ***Major Resource Issue #4: Wetlands***

1. Loss of wetlands.
2. Preservation of connected natural systems. (tie)
3. Invasive plant species control. (tie)
4. Restoration and management of existing wetlands.

### ***Major Resource Issue #5: Forests***

1. Tree diseases, insects, species decline.
2. Invasive plant species control. (tie)
3. Protecting/saving trees during construction. (tie)
4. Woodlots needing management.

## ***Other Issues or Concerns Identified***

Listed below are other issues and concerns identified by survey respondents in the survey. These will be considered by the Conservation District in updating its strategic plan and annual plans of work. They have been listed according to the major resource issue where they were provided by survey respondents, and are listed in no particular order. The views expressed are not necessarily shared by the District.

### **Land Use**

- There are few remaining large quality tracts of land left and they will be gone if the politicians don't stop studying and talking and buy these and set them aside. Little two acre "parks" with paved parking and walks where city people go to see a tree won't work.
- Must develop in-fill projects in the urban areas as a way to preserve rural areas.
- Much of Washtenaw is hilly, unsuitable for farming. Hilly areas should be relegated to forestation and some residential. 50 story residential buildings should be constructed along AA's I-94 corridor for control of urban sprawl.
- Development should be confined to urban centers, rural parcels should reflect the overall scale of rural properties and the negative impact on resources such as waste management, ground water supplies, etc.
- Impact of huge manufactured housing developments.
- Detached housing vs. multiple units in response to growth.
- Local units of government in competition with each other, and not working together.

- Local governments' hands are often tied by State regulations.
- Restoration is the savior of sustainable design. When elected officials are adhering to an approved master plan, they should not be subject to litigation from mega developers.
- Lack of accountability of local governments to follow land use /master plans. If new officers are elected, they can approve uses NOT in the previous plans & only the citizens police their actions, there is no government oversight.
- I wish we taxpayers would effectively divert sprawl-supporting government expenditures into conservation and rational urban planning.
- Gravel mining & pit expansions.
- Factory farms.
- As land is divided and people move in, they complain about current farms and their farming practices.
- Right to Farm laws, purchase of development rights, farmland preservation.
- We need a way to keep farmers aware of land which might be farmed, and educate people living near farms.
- Inventory land use and then use land according to what is best for the land and environment.
- Would like to see the eradication of the American LAWN as a landscaping tradition.
- Reduce grass mowing around homes, businesses, parks & roadsides except for safety concerns.

### **Surface & Groundwater Quality**

- The ill-conceived legislation (passed via intense lobbying by builders and real estate agents) that allows private sewer systems has provided a legal means to pollute our waters. This legislation should be repealed immediately.
- Proliferation of private waste water treatment plants and their subsequent failure.
- Sewage treatment plants in non-compliance.
- Impervious surfaces—loss of land, water contamination, and storm water problems.
- County drains
- Chemicals (salt, etc.) spread on roads in the winter and (oil-based) on dirt roads in the summer.
- Dams
- Important to educate the public about native landscaping, which also is good for groundwater quality, etc.
- Impact of gravel pit mining below the water table.
- Contamination of ground water: fertilizer use, sealing abandoned wells, deep-well injection of pollutants.
- Clean up downed trees & trash in & around lakes and rivers.
- Educate public on need to properly manage water resources in MI compared to states without such resources.
- Impact on groundwater by Ellsworth dump expansion.

### **Wildlife & Habitat**

- Development escalation is devastating to wildlife and I am disgusted by the lack of concern for wildlife.
- Loss of wildlife corridors.



- Need more hunters/raise bag limits, or expand property owners rights to take “destructive species” on their property (deer, rabbits, etc.).
- Why not put hunters to work with birth control shot or injections to control deer population growth? Or export them (deer) to the UP, where deer populations are dwindling.
- The spread of invasive plants.

### **Wetlands**

- Destruction of wetland areas by construction of new homes, businesses, etc. Too often the destruction goes unreported or ignored.
- Many excavators have purchased wetland for dumping their fill; then, they sell the land to developers for construction.
- The wetland regulations are too strict. Because the drains are not kept open I lose more farmland every year.

### **Forests**

- Emerald Ash borer has already made a dramatic change in the over story composition, and invasive shrubs are the most abundant succession species.
- Dead Ash trees along expressway & other open areas that are not being addressed.
- Proper tree planting methods & site selection.
- Loss of woodlands due to sprawl development, loss of habitat due to loss of wetlands, loss of urban tree cover.

### **Other**

- Environmental issues related to ever increasing automobile usage.
- Human population growth. Population Density... there are too many people in the world and in Washtenaw County.
- Energy use. Renewable energy. Energy efficiency. Energy conservation.
- Jobs. How about training low-risk prisoners to clear invasives, and then have a career when they exit?
- Solid waste/recycling.
- Improving the opportunity for non-car commuting, e.g. safer bicycling routes. Although legal users of the roads, it is a lot easier to travel if there is space to bicycle just to the right of the white line. Widen/improve shoulders.
- Air quality. Ozone holes.
- Light pollution (excessive lighting).
- Roundup Ready resistant weeds.
- Currently many programs are voluntary on a landowner basis. Protecting our natural resources, water, soil, air, plant and animal life should be mandatory, and not left up to only those who chose to be stewards.

### ***Other Survey Responses***

Survey respondents also rated how their natural resource/environmental issues were being addressed by local, County and State conservation/environmental groups, organizations and/or agencies on a 1 to 5 scale (1=Very Well, 5=Very Poorly). The results of these survey ratings are listed below.

**How well are your top resource issues currently being addressed by local conservation or environmental groups?**

1 (Very Well)	8%
2	19%
3 (Adequately)	39%
4	22%
5 (Very Poorly)	3%
No Opinion	9%

The majority of respondents ranked local conservation/environmental groups as Adequately addressing the issues they identified, with ratings higher toward the Adequately to Poor (3-4 range) over Well to Adequately (2-3 range).

These rankings give the perception that there is room for improvement in how local groups address natural resource/environmental issues, or at least, how their efforts are promoted or publicized. Currently many local organizations are doing good things, but the public may not be aware of what they are doing or how that is impacting them and their communities.

**How well are your top resource issues currently being addressed by County government agencies?**

1 (Very Well)	3%
2	12%
3 (Adequately)	33%
4	34%
5 (Very Poorly)	7%
No Opinion	11%

The majority of respondents ranked County government agencies as Adequate to Poor in addressing the issues they identified.

As noted above for local groups, these rankings give the perception that there is room for improvement in how County agencies address natural resource/environmental issues, or at least, how their efforts are promoted or publicized to the public. County agencies are working hard on issues of concern, but again, the public may not be aware of what the County is doing or how these activities are impacting their communities.

**How well are your top resource issues currently being addressed by State level agencies?**

1 (Very Well)	1%
2	5%
3 (Adequately)	23%
4	36%
5 (Very Poorly)	27%
No Opinion	8%

The majority of respondents ranked State level agencies as Poor to Very Poor (4-5 range) in addressing the issues they identified. Based upon survey responses, there is the perception that there is room for improvement in how State agencies address natural resource/environmental issues.

The low ratings may also be due in part to resident perceptions of the State's role in addressing local or County level issues, versus what those agencies actual responsibilities are. In addition, the budgetary strains on State agencies is likely to have a major impact on what those agencies can or cannot do to address resource issues with limited staffing and other constraints. Again, better publicity of their efforts may be needed.

This may an area of opportunity for the Conservation District to inventory local, County and State efforts in addressing the identified resource concerns, help promote their efforts and refer landowners to the appropriate organization or agency, and find ways to fill in any gaps that may be identified.

### **What the Conservation District Can Do**

Several choices were offered to survey respondents on what the Conservation District can do to address the natural resource/environmental issues they identified, over the next 5 years. An option to provide other responses was also provided. Results are listed below.

Expand or strengthen existing partnerships with conservation groups, County/State agencies or others.	31%
Create new partnerships with local conservation groups, County or State agencies or other organizations.	27%
Create new programs and/or hire additional staff to address specific issues identified.	18%
Expand the District web site to include more information on the issues identified.	14%
Offer interactive forums through the District web site on the issues identified.	10%

### **Other Actions Suggested:**

- More direct involvement with local “user groups” such as sports, hunting/shooting clubs, fishing and boating groups, hiking groups, etc.
- Get together people and groups that care for the land.
- Identify & estimate cost of invasive species to taxpayers.
- Increase community and public outreach, advocacy and education on issues, programs and opportunities.
- Promote services available to County residents, as not many people, other than the farm community know about the District.
- Provide interested groups presentations on why native planting is so important.
- Hold public meetings/forums on environmental issues.
- Work with and support townships against the onslaught of mega developers seeking to exploit rural lands.
- Send information to legislators about environmental protection.
- Health of crops and plants (keeping plants healthy to minimize diseases and pests). Show city residents how to do grafting and stem cuttings, so residents get hands on learning.
- I believe in action, not in just education. These go hand in hand for the improvement of our natural resources. To be effective, all levels of government and local citizens should be involved in the management of our resources.

### **Demographic Questions**

Listed below are the demographic questions asked in the resource assessment survey, and responses received.

#### **How long have you lived in Washtenaw County?**

Less than 1 year	2%
2-5 years	7%
6-10 years	12%
More than 10 years	79%

#### **How much property do you own in Washtenaw County?**

None	7%
1 acre or less	24%
2-10 acres	34%
11-40 acres	18%
41-100 acres	8%
Over 100 acres	9%

**How would you describe the setting in which you live?**

Urban (city or village)	17%
Suburban	15%
Rural Residential	47%
Farm	21%

**What category best applies to you?**

Conservation/environmental organization	5%
Farmer	8%
Government agency, employee, official	10%
Homeowner	64%
Small business owner or operator	8%
Other	5%

**What sources do you use to keep informed about news and information concerning resource issues in Washtenaw County?**

Local newspaper	31%
Meetings or mailings from organizations or groups you are a member of.	21%
Work of mouth.	18%
Internet	14%
Meetings of local government.	13%
Local cable television.	3%

**Summary**

The major natural resource/environmental issues, **Land Use, Surface & Ground Water Quality, Wildlife & Habitat, Wetlands and Forests**, and the associated key concerns listed above, will be the basis for updating the Conservation District strategic plan. The plan will identify for each issue and concern, specific actions the District has the ability, expertise and resources available to address.

For the next five years, District annual implementation plans will incorporate these action items. The desired result will be the focusing of District efforts, so that positive actions and improvements can be taken toward addressing the resource issues and concerns for the welfare and benefit of the residents of Washtenaw County.

Additional information garnered from the resource assessment survey will also be helpful in development of the District strategic and annual plans. The results of questions asked about what the District can do, demographic information, and the many comments on other issues and concerns will be valuable in honing in on what actions the District should continue, expand, or start to address the identified resource issues.

**Sources Referenced**

1. Washtenaw County Resource Assessment, December 2001, Washtenaw County Conservation District.
2. Southeast Michigan Council of Governments
3. U.S. Census Bureau
4. Washtenaw County Soil Survey

## **Appendix A**

Listed below are the people and groups contacted through the linking and scanning process.

### **STAKEHOLDERS CONTACTED:**

District web site e-mail newsletter list	District tree & native plant sale customers
District newsletter mailing list	Township Supervisors
Washtenaw County Board of Commissioners	Washtenaw County Drain Commissioner
Washtenaw County Dept. of Planning and Environment	Washtenaw County MSU Extension
Washtenaw County Road Commission	Washtenaw County Soil Erosion Control Program
State Legislators	City of Ann Arbor Forester
City of Ann Arbor, Natural Area Preservation	Michigan Department of Environmental Quality
Michigan Department of Natural Resources	USDA Farm Service Agency
USDA Natural Resources Conservation Service	The University of Michigan
Newspapers	Crop Production Services
Diuble Equipment, Inc.	G.E. Wacker, Inc.
Greenstone-Farm Credit Services	Royster-Clark
Schettenhelm's, Inc.	ECT, Inc.
Midwestern Consulting, LLC	Chelsea Rod & Gun Club
Ducks Unlimited, Inc.	Ecology Center
Global Releaf of Michigan	Huron Land Use Alliance
Huron River Watershed Council	Huron Valley Group-Sierra Club
Pheasants Forever-Washtenaw County Chapter	River Raisin Raptor Center
River Raisin Land Trust	River Raisin Watershed Council
Southeast Michigan Land Conservancy	Tri-County Sportsman's League
Washtenaw Land Trust	

The following agencies, groups or organizations were identified in survey responses.

### **STAKEHOLDERS RESPONDING:**

Lodi Township	Pittsfield Township Natural Resources Comsr.
Sylvan Township	Washtenaw County Board of Commissioners
Washtenaw County Drain Commissioner	Washtenaw County MSU Extension
Washtenaw Co. Dept. of Planning & Environment	Washtenaw County Road Commission
City of Ann Arbor, Natural Areas Preservation	Michigan DNR, Pinckney Recreation Area
USDA Natural Resources Conservation Service	The University of Michigan Nichols Arboretum
The Clinton Local newspaper	G.E. Wacker, Inc.
Midwestern Consulting, LLC	Treemore Ecology and Land Services
Ducks Unlimited, Inc.	Global Releaf of Michigan
Huron River Watershed Council	River Raisin Watershed Council
Saline River Greenway Alliance	Washtenaw Land Trust

A total of 185 responses to the survey were received: 145 on-line and 40 mail. Survey responses were received from all communities within Washtenaw County, plus responses from Adrian, Belleville, Britton, Clinton, Grass Lake, Gregory, Pinckney, Plymouth, South Lyon, and Stockbridge. While some of these communities are not physically located in Washtenaw County, zip codes for these communities do include residents of the County, or were from organizations whose offices are not in the County, but serve Washtenaw County in some manner.

Following is a copy of the paper mail-in resource assessment survey. The Internet-based survey was in a different format and was constructed and launched using HRgems, Inc., an Internet survey business.

## 2006 RESOURCE ASSESSMENT SURVEY

The purpose of this survey is to learn more about resource issues of concern in Washtenaw County. All answers will be kept strictly confidential. If you represent a business, conservation/environmental organization, County or State agency, or other group, please respond on behalf of that business, organization, agency, or group.

PLEASE RETURN COMPLETED SURVEY BY: JULY 31, 2006 via mail or fax to the address or fax number found on the back. Thank you for your participation.

### 1. How familiar are you with the Washtenaw County Conservation District (WCCD) and its services?

Very familiar       Somewhat familiar       Not Familiar At All

### 2. Below is a list of general environmental issues that were identified in a similar survey in 2001. Please select the TOP THREE ISSUES that you think will be of concern over the next 5 years in Washtenaw County. (1=top issue, 2=second issue, 3=third issue)

Land Use       Surface and Groundwater Quality       Wildlife and Habitat       Wetlands  
 Forests       Other, please specify: \_\_\_\_\_

### 3. If you selected "Land Use" as one of your top three environmental issues, please rank your top three concerns under this issue. (1= top concern, 2=second concern, 3=third concern) NOTE: IF YOU DID NOT SELECT THIS AS A TOP ISSUE, PLEASE SKIP TO THE NEXT QUESTION.

Loss of farmland/urban sprawl.       Natural areas and open space preservation.  
 Revitalization of urban downtown areas.       Increasing impervious surfaces.  
 Adequate planning/zoning for development and growth management by local governments.  
 Other, please specify: \_\_\_\_\_

### 4. If you selected "Surface and Groundwater Quality" as one of your top three environmental issues, please rank your top three concerns under this area. (1= top concern, 2=second concern, 3=third concern) NOTE: IF YOU DID NOT SELECT THIS AS A TOP ISSUE, PLEASE SKIP TO THE NEXT QUESTION.

Non-point source soil erosion and sedimentation.       Storm water management.  
 Residential fertilizer/pesticide use/management.       Agricultural fertilizer/pesticide use/management.  
 Agricultural cropland drainage hindrances.       Failed septic systems.  
 Groundwater supply protection & management.       Surface water supply protection & management.  
 Lakes & rivers needing clean-up.  
 Other, please specify: \_\_\_\_\_

### 5. If you selected "Wildlife & Habitat" as one of your top three environmental issues, please rank your top three concerns under this area. (1= top concern, 2=second concern, 3=third concern) NOTE: IF YOU DID NOT SELECT THIS AS A TOP ISSUE, PLEASE SKIP TO THE NEXT QUESTION.

Destruction of wildlife habitat.       Need restoration/improvement of habitats.  
 Native landscape restoration, establishment and management.       Wildlife survival.  
 Wildlife damage to property, landscaping, or agricultural crops.       Lack of public hunting access.  
 Other, please specify: \_\_\_\_\_

### 6. If you selected "Wetlands" as one of your top three environmental issues, please rank your top three concerns under this area. (1= top concern, 2=second concern, 3=third concern) NOTE: IF YOU DID NOT SELECT THIS AS A TOP ISSUE, PLEASE SKIP TO THE NEXT QUESTION.

Loss of wetlands.       Restoration and management of existing wetlands.  
 Inadequate wetland/riparian protection.       Preservation of connected natural systems.  
 Invasive plant species control.       Other, please specify: \_\_\_\_\_

### 7. If you selected "Forests" as one of your top three environmental issues, please rank your top three concerns under this area. (1= top concern, 2=second concern, 3=third concern) NOTE: IF YOU DID NOT SELECT THIS AS A TOP ISSUE, PLEASE SKIP TO THE NEXT QUESTION.

Poor timber stand condition.       Woodlots need management.  
 Lack of wood product markets.       Tree diseases, insects, species decline.  
 Protecting/saving trees during construction.       Invasive plant species control.  
 Reuse of wood from urban tree removals.       Other, please specify: \_\_\_\_\_

### 8. Are there other environmental issues that you believe will be of concern over the next 5 years in Washtenaw County, that were not identified in this survey? Please specify: \_\_\_\_\_

**9. How well do you think your top 3 environmental issues are currently being addressed by local conservation or environmental groups?** (Examples: Huron River Watershed Council, Ecology Center, Washtenaw Land Trust, or others)

1 (Very Well)     2     3 (Adequately)     4     5 (Very Poorly)     No opinion

**10. How well do you think your top 3 environmental issues are currently being addressed by County government agencies?** (Examples: Drain Commissioner, Environmental Health Dept., MSU Extension, Dept. of Planning & Environment, or others)

1 (Very Well)     2     3 (Adequately)     4     5 (Very Poorly)     No opinion

**11. How well do you think your top 3 environmental issues are currently being addressed by State level agencies?** (Examples: Dept. of Natural Resources, Dept. of Environmental Quality, Michigan Dept. of Agriculture)

1 (Very Well)     2     3 (Adequately)     4     5 (Very Poorly)     No opinion

**12. What can the WCCD do to address the environmental issues you have identified in this survey over the next 5 years?** Please select up to 3 items.

- Expand or strengthen existing partnerships with conservation groups, county/state agencies or others.
- Create new partnerships with local conservation groups, county or state agencies or other organizations.
- Expand the WCCD web site to include more information on the issues identified.
- Offer interactive forums through the WCCD web site on the issues identified.
- Create new programs and/or hire additional staff to address specific issues identified.
- Other, please specify: \_\_\_\_\_

**13. What is your five digit zip code?** \_\_\_\_\_

**14. How long have you lived in Washtenaw County?**

Less than 1 year     1-5 years     6-10 years     More than 10 years

**15. How much property do you own in Washtenaw County?**

None     1 acre or less     2-10 acres     11-40 acres     41-100 acres     Over 100 acres

**16. How would you describe the setting in which you live?**

Urban (city of village)     Suburban     Rural Residential     Farm

**17. Please check the one category which best applies to you:**

Builder/Developer     Conservation/environmental organization     Farmer  
 Government employee or official     Government agency     Homeowner  
 Small business owner or operator     Other, please specify: \_\_\_\_\_

**18. If you are responding on behalf of a business, agency or organization, please list the name of the business, agency or organization.** Name: \_\_\_\_\_

**19. What sources do you use to keep informed about news and information concerning environmental issues in Washtenaw County?**

Local newspaper     Local cable TV     Internet  
 Meetings of local government     Meetings or mailings from organizations or groups you are a member of.  
 Word of mouth.  
 Other, please specify: \_\_\_\_\_

**20. Do you have any additional comments you would like to share with us?** \_\_\_\_\_