

WASHTENAW COUNTY RESOURCE ASSESSMENT

September, 2011



Managing Our Natural Resources

TABLE OF CONTENTS

Executive Summary	1
District Overview	2
County Resources	2
Land Use	2
Population	2
Geology & Topography	2
Soils	3
Hydrology	3
Climate	3
Purpose of Assessment	3
Linking and Scanning of Stakeholders	3
Results of Linking and Scanning	4
Surface and Groundwater Quality	4
Land Use	4
Energy Use	4
Solid Waste/Recycling	5
Wildlife and Habitat	5
Forests and Trees	5
Wetlands	5
Air Quality	5
Priority Concerns (by Major Resource Concern)	5
Other Issues or Concerns Identified (by Major Resource Concern)	6
Other Survey Responses	10
Stakeholder-Specific Questions	11
What the Conservation District Can Do	12
Demographic Questions	14
Summary	15
Sources Referenced	15
Appendix A	15
Surveys	16

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 35.8% of county acreage, while urban and undeveloped land uses account for 64.2% of county acreage. The County's population as of the 2010 U.S. Census was 344,791 which is a 6.8% increase since 2000.

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: **Surface and Ground Water Quality, Land Use, Energy Use, Solid Waste/Recycling, Wildlife and Habitat, Forests and Trees, Wetlands, and Air Quality.**

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 June – August, 2011.

The identification and priority of the above issues was determined by a survey which was distributed via e-mail with a link to an on-line survey and a direct link on the District's web site. In addition, 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 prior lists generated through the 2001 and 2006 resource assessment surveys, and some additional issues. 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.

Of the 335 responses to the survey received, 277 were submitted via on-line surveys and 58 hard copy responses were submitted by mail or fax. This is an increase of 150 responses or 81% from 2006.

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 collaboration and 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, Saline and Whitmore Lake.

Land Use Breakdown – Washtenaw County
Source: Southeast Michigan Council of Governments

Land Use	Acreage	% of Total
Agricultural	165,587	35.8%
Urban: Residential	192,410	41.6%
Urban: Airport, Commercial/Office, Industrial, Government/Institutional, Transportation, Communication and Utility	58,612	12.7%
Park, Recreation and Open Space	35,031	7.6%
Water	10,608	2.3%
TOTALS:	462,248	100.0%

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

Park, Recreation and Open Space: public assembly/cultural or sport facilities, outdoor recreation, public open space.

Water: includes rivers, streams, ponds and lakes.

POPULATION

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

Year	Population	Percent Change
1970	234,103	NA
1980	264,748	+13%
1990	282,937	+6.9%
2000	322,770	+14%
2010	344,791	+6.8%

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 their resource issues and concerns.

Stakeholders

Five stakeholder groups were identified and contacted with the request to complete the resource assessment survey:

- Residents, landowners, Conservation District e-mail newsletter recipients, Conservation District tree and product customers, Conservation District newsletter recipients.
- Township supervisors, County commissioners, State legislators.
- Municipal staff, County, State and Federal department/agency staff.
- Conservation/environmental organizations and sportsman's clubs.
- Agri-businesses, environmental consultants and media contacts.

Appendix A lists the number of each group contacted through the linking and scanning process and number of responses.

Survey

A resource assessment survey was developed which listed issues and specific concerns related to the general issues generated from the assessments in 2001 and 2006, plus some additional new issues that have become of more concern in recent years. See Appendix A for a copy of the survey.

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.

In addition to ranking resource issues and concerns, the survey also included questions on:

- 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 Conservation District can do to address the issues identified.

There were also stakeholder-specific questions included, based on the target group being contacted, as follows:

Residents, landowners, etc.

- The setting in which they live—urban (city or village), suburban, rural/farm.
- What category best describes them—farmer, homeowner, small business owner or operator, or other.

All other groups

- How will their level of government, department/agency, organization/group or business plan to address the top resource concerns they identified.
- What trends in government policy/regulation at the federal, state and local levels do they think will impact the top resource concerns they identified.

The survey was distributed using the following methods:

- Internet-based survey launched via e-mail message or District “E-Conservation Update” e-mail newsletter.
- News release announcement via County newspapers with on-line survey link.
- Direct link to survey from the District web site home page.
- Survey included in summer issue of District “Conservation Update” newsletter for return via mail or fax.

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 general issues. The overall priority of concerns was also determined by the total number of responses received for each concern.

Following tabulation of responses, the prioritized major resource issues were: **Surface and Ground Water Quality, Land Use, Energy Use, Solid Waste/Recycling, Wildlife and Habitat, Forests and Trees, Wetlands, and Air Quality.** Each issue is briefly described below.

Surface and 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 purposes. Maintaining good water quality is vital to the health and quality of life in the County.

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.

Energy Use

Energy in various forms is used to heat, cool and light our homes and businesses, and fuel our vehicles. Concerns have increased in recent years about the availability, cost and use of traditional energy sources, changing federal energy policies impacting the exploration for and processing of current energy sources, new vehicle mileage requirements, and

the viability and cost effectiveness of alternative sources of energy. The impacts on the environment from current energy sources such as coal and oil, as well as alternative sources such as wind or solar must be balanced with the costs of extraction, production and processing of those sources, making them readily available.

Solid Waste/Recycling

Waste created by human activity in large part ends up in landfills. That solid waste and how it is managed can have serious impacts on ground and surface waters in addition to finding the space to store this waste. Recycling is a primary method to reduce the waste stream and has been embraced by Washtenaw County and its residents for many years. Expanding recycling options, encouraging product reuse and increasing the availability of recycled products can be ways to help extend the life of current landfill facilities.

Wildlife and 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. Destruction of habitat for wildlife by land fragmentation and development increases the conflicts between man and wildlife that are becoming more commonplace. There are limited wildlife management efforts on private lands and public properties in the County making only minimal impact in these conflicts.

Forests and Trees

The rural forests and woodlands of Washtenaw County contain quality hardwood species. Early logging by high grading, where most, if not all the best quality trees were removed have left many timber stands in poor condition, with lower-quality and lower-valued trees. Also, because of a high percentage of urbanized land, the County has a large urban forest resource. Both of these forest resources have been severely impacted by the Emerald Ash Borer and invasive plant species that crowd out the more desirable trees. Limited forest management efforts on private lands, and public properties as a result of tight budgets, have not allowed for adequate management of the forest resources on private lands, as well as in local municipalities.

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.

Air Quality

The quality of our air can impact our health, participation in outdoor activities, and the growth and development of trees, plants, and crops. Factors such as emissions from vehicles and industry, smoke and particulate matter from fires, weather conditions, and others can affect air quality.

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: Surface and Ground Water Quality

1. Storm water management.
2. Groundwater supply protection and management.
3. Surface water supply protection and management.

Major Resource Issue #2: Land Use

1. Loss of farmland / urban sprawl.
2. Natural areas and open space preservation.
3. Better development growth management and zoning.

Major Resource Issue #3: Energy Use

1. Need more economically viable alternative energy sources.
2. Need more energy conservation.
3. Energy efficient appliances, cars, etc.

Major Resource Issue #4: Solid Waste/Recycling

1. Expand recycling options and locations. (tie)
2. Encourage/educate public on product reuse. (tie)
3. Landfill space and management.

Major Resource Issue #5: Wildlife and Habitat

1. Need restoration and improvement of habitats.
2. Destruction of wildlife habitat by construction.
3. Invasive plant species control.

Major Resource Issue #6: Forests and Trees

1. Tree diseases, insects, species decline.
2. Invasive plant species control.
3. Woodlots needing management.

Major Resource Issue #7: Wetlands

1. Loss of wetlands by construction or filling.
2. Preservation of connected natural systems.
3. Invasive plant species control.

Major Resource Issue #8: Air Quality

1. Vehicular emissions/pollution. (tie)
2. Industrial emissions/pollution. (tie)
3. Health related concerns (respiratory ailments, ozone action days, etc.)
4. Odors affecting outdoor activity.

Other Issues or Concerns Identified

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

Surface & Groundwater Quality

Storm Water & Management

- Building construction within agricultural areas without adequate storm retention.
- Enforce or prohibit residential storm water drainage directly into the streets, which overwhelms the storm sewers.
- Drainage from easements located on residential properties where subdivisions were not designed with proper retention; drainage from new subdivisions; redesign drainage systems to accommodate current and new subdivisions and residential home properties.
- Drainage ditch maintenance (county drains and roadside); road run-off.
- How County officials address roadside and field runoff problems; more regulations to reduce runoff.
- Flooding and control.
- Management/maintenance of watersheds.
- Animals, both wild and pets, that defecate in the watershed and the feces that are washed into the river in storm runoff. Enact license fees on pets to help the county budget and be used for the problems caused by this contamination.

Surface Water Quality

- Increasing amount of contaminants in water that there is no known remediation for.
- Protection of Huron River:
 - maintain superior level of water quality for recreation,
 - removal of dams along river,
 - oil spills and other disasters.
- Animals, both wild and pets, that defecate in the watershed and the feces that are washed into the river in storm runoff. Enact license fees on pets to help the county budget and be used for the problems caused by this contamination.
- Pollution from industrial and farm sites. If any CAFOs they need to be carefully monitored.
- Conflict between the "rights" of farmers to unlimited use of chemicals, pesticides and fertilizers and the damage and residue they do to the soil and water, both surface and underground.

Groundwater Quality

- Ann Arbor needs to deal honestly with the Gelman (Pall Life Sciences) groundwater contamination plume.
- Chemical composition of well water in Salem Township.
- Conflict between the "rights" of farmers to unlimited use of chemicals, pesticides and fertilizers and the damage and residue they do to the soil and water, both surface and underground.
- Stop/control "hydro fracking" before it contaminates groundwater.
- Commercial and industrial pollution of groundwater and streams and lack of government oversight.
- The legal use of "bio-solids" (human sewage) on farmland that creates odors during application, contaminate the topsoil with parasites and have the potential to contaminate wells.

Other

- Water conservation and education, saving the great lakes.
- Municipal water supplies must never be privatized. Support local, county and state organizations that oppose privatization of water resources and outside influences from taking over local land use rights.
- Private sale of drinking water - is it happening here? How do we prevent it from happening here?

Land Use

Development Planning & Zoning

- Over-regulation stifling development and reasonable land uses.
- Reduction in freedom to use or manage your own lands.
- Balance of preservation and conservation with use.
- On-site wastewater treatment systems in new rural subdivisions approved by law.
- Over population and over use of land creating close together houses in subdivisions. Minimum should be at least 2 acres per house. 5 acres is better.
- Control densely populated areas like apartments, condos, trailer parks, etc. by placing them in already high density areas, not on the fringes of those areas. Side effects are increased traffic, noise and light pollution.
- Encourage walking and biking, especially when making development and zoning plans; new shopping areas should include easy walking and bike access; key old roads should have bike paths added.
- Public Transportation: accessibility, incentives for use and prioritization of making it easy to walk or use alternative means of transportation (e.g. roadways and parking lots are cleared long before sidewalks when it snows.)
- Reduce auto traffic and increase bicycle use; install more bike/walking paths to shopping & business areas.
- Strengthen local zoning ordinances for the absolute protection of areas considered Conservation-Preservation. Minimize waivers and exceptions to this policy.
- Vacant land with clouded titles and absentee ownership exists with erosion and other problems.
- Blight ordinances that are not aggressively enforced by township officials. There are many cases of neighbors accumulating large numbers of junk autos in their yards which may leak oil/gas into the ground water.
- There will be abandoned, neglected properties--both agricultural and residential--that should be turned to advantage rather than left to be a hazard and eyesore.
- Better management of parks/preserves. Land use among private and public parties is improving, but requires more effort.
- Lack of county-wide land use planning & zoning.
- Requirements for developers and individuals to plant or maintain roadside trees in their developments and properties.

Farmland/Open Space Planning & Zoning

- Greenbelt around Ann Arbor and between Ann Arbor and Detroit; balancing growth to enhance tax revenue with the need to keep a green buffer around Ann Arbor.

- Farmland preservation and purchase of development rights on farmland; more funds for farmland purchase of development rights to sustain the agricultural industry in Washtenaw County.
- Use other preservation techniques such as: farmers leaving turning corners fallow; UM & businesses encouraged & helped to make their buildings green and land turned into prairies or meadows so they do not look like indoor-outdoor carpeting.
- Farmland conservation, stewardship, and community support.
- Community sustainable agriculture and food security. Increased emphasis on locally produced food; residential food.
- Animal husbandry and community gardens on parkland.
- Protect farmlands from unattractive windmills.
- State regulations that exempt Ag need to be fair for all land uses. Make registering complaints of misuse easier, with feedback on what action was taken.
- We need to be more conscious of: Good Soil--soil should be naturally fertile; less chemicals and better management. GMO drift--contamination from GMO crops to non-GMO crops.

Other

- The general home owner does not realize the impact of this to their property (value) and to their neighbors when they allow invasives to continue to occupy space in perimeter/property lines and in gardens. This is my #1 problem in my home garden environment and the reason for my clearing of buckthorn and purchase of trees to occupy the vacant spaces.
- Public areas, especially along roads and freeways, are the first to be overtaken by, and spread, non-native species. The various jurisdictions over roads need to train the unemployed and low-risk prisoners to identify and remove these botanical invaders while we still have native plants to protect; and then to employ them to do so when possible.
- Climate change mitigation/adaptation—dealing with more extreme weather, storms, flooding, etc.

Energy Use

- Light rail (trains) or other mass transit options for commuters; vital to cutting fuel usage.
- Add to evening and weekend bus schedules to increase ridership which will reduce traffic, pollution and energy consumption.
- Restore or increase tax rebates, especially DTE & CE.
- Outdoor lighting on county, city and university buildings, and street lights that stay on during daylight hours, wasting energy.
- Buildings and homes need to be designed to be more energy efficient, with better insulation, materials, and doors and windows. Home energy consumption and conservation.
- Availability of information on products to save energy, green roofs, building designs that create a natural airflow so air-conditioning is only used minimally, including architects & builders who can design & install them. Encouragement and/or ordinances that "make" these buildings happen.
- Climate change adaptation and mitigation measures, including resources for support, such as grants and funding opportunities to assist local communities.
- Need to get the public educated and active on the need to conserve energy, water, and other resources; the need to plant trees for shade and windbreaks and to maintain and restore natural areas to absorb both carbon dioxide and water.

Solid Waste / Recycling

- Home composting education and outreach.
- Mandate recycling, stop making it an option; give incentives; have weekly pickups.
- Litter in natural areas and along rivers, streams or lakes.
- Involve homeless more in recycling options, possibly connect with bus pass.
- Recycling center for Ypsilanti; give Ypsilanti city residents access to Ypsilanti Township facilities.

- Provide incentives for corporate waste reduction/recycling, and penalties for air and ground waste/pollution that could be recycled or otherwise contained.
- Safe disposal of prescription drugs.
- Road dumping.

Wildlife & Habitat

- Relocate animals from urban sprawl; provide wildlife protected areas throughout our county and beyond; wildlife travel corridors; encroachment on wildlife habitats.
- Wildlife populations: deer, raccoons, groundhogs and skunks, causing car collisions, ruining trees/gardens; their devastation of native plants.
- More efforts to restore some of the species that used to inhabit Michigan (i.e., our state animal).
- Education about interacting with fox, coyotes and other small predator types of wildlife that are adapting to living closer to humans.
- Loss of pollinators, especially native bees and honeybees.
- More public education and information on the spread of invasive plants in the County, like Autumn Olive or Purple Loosestrife. Investigate the sale of very similar plant species at such places as Lowe's or Home Depot.

Forests & Trees

- Removal AND replacement of diseased, dead or dying trees, preferably with local species; State aid to homeowners trying to reforest their property.
- Maintain and manage existing trees: watering newly planted trees; highway departments butchering trees along the highways (local and interstate) with cutting machines; excessive cutting down trees, shrubs, and grass along the highways, wasteful of money.
- Provide "best practices" for effective eradication of Autumn Olive and Oriental Bittersweet which are transforming and choking our forests.
- Education toward protection and re-creation of globally threatened savanna habitats.
- More public education and information on the spread of invasive plants in the County, like Autumn Olive or Purple Loosestrife. Investigate the sale of very similar plant species at such places as Lowe's or Home Depot.

Wetlands

- Incorporate natural wetlands with man-made systems to provide clean water.
- Unregulated draining of wetlands because they fall below the 2½ acre limit of control; State does not look carefully enough at requests for permits.

Air Quality

- People who burn things that ought to be composted, or that release toxic fumes because they should not be burned.
- Platted subdivisions in rural townships need to be treated differently than farm properties with regards to herbicide, insecticide and burn/air quality issues. We're getting more abuse and carelessness by the new homeowners around us.
- Radiation exposure from the nuclear plants. Maybe loan a Geiger counter to auto repair shops who could test the used air filters they take off the cars (to determine amount and extent of radiation).
- Add to evening and weekend bus schedules to increase ridership which will reduce traffic, pollution and energy consumption.

Other

- Noise level is rising every year in the county, especially in the rural areas as more and more traffic comes out here due to building. Noise management, especially routing of large trucks, loud mufflers, etc.
- Large lights that stay on all night as a regular setting.
- Expanding government control and breadth is not the answer.
- Insensitivity by State government elected leaders to these interests.

- How do you do more with less? With fewer dollars available at all levels of government, the only choice is to involve volunteer and civic groups in problem solving.
- Maintenance of current resources, i.e. roadside mowing/clean up, tree trimming, removal of dead deer, etc. We should keep what we have in good shape.
- My concern is the diminishing of what has already been accomplished and/or is in place because of financing difficulties.
- Use "Dark Sky's" educational program to let people know that light pollution can be minimized very cheaply.

Other Survey Responses

Survey respondents were also asked to rate how their natural resource/environmental issues were being addressed by local conservation/environmental groups, and County and State government agencies on a 1 to 5 scale (1=Very Well, 5=Very Poorly). The results are listed below with comparison data from the 2006 survey.

How well do you think your top 3 general issues are currently being addressed by the following groups?

YEAR	GROUP	1 (Very Well)	2 (Well)	3 (Adequately)	4 (Poorly)	5 (Very Poorly)	No opinion
2011	Local conservation or environmental groups? <i>(Ex.: watershed council, land conservancies, wildlife groups, etc.)</i>	8% (23)	32% (94)	34% (100)	11% (34)	2% (7)	13% (40)
2006	Local conservation or environmental groups? <i>(Ex.: watershed council, land conservancies, wildlife groups, etc.)</i>	8% (15)	19% (35)	39% (72)	22% (42)	3% (6)	9% (17)
2011	County level government agencies? <i>(Ex.: Environmental Health, Parks & Rec., Water Resources, etc.)</i>	1% (4)	22% (64)	38% (112)	22% (65)	5% (16)	12% (34)
2006	County level government agencies? <i>(Ex.: Environmental Health, Parks & Rec., Water Resources, etc.)</i>	3% (6)	12% (23)	33% (61)	34% (63)	7% (14)	11% (21)
2011	State level government agencies? <i>(Ex.: MI DNR, MI DEQ, MDARD, etc.)</i>	NA% (1)	8% (24)	30% (88)	37% (111)	12% (36)	13% (38)
2006	State level government agencies? <i>(Ex.: MI DNR, MI DEQ, MDARD, etc.)</i>	1% (1)	5% (9)	23% (43)	36% (67)	27% (49)	8% (15)

NOTE: Numbers below percentages are the number of responses received for each rating category.

Local Conservation or Environmental Groups

The majority of respondents, 66%, ranked local conservation/environmental groups as Well to Adequately (2-3 range) addressing the issues they identified. This is up from the 2006 survey rating of 58% for the same ratings range. These rankings seem to indicate that a majority of respondents had positive impressions about what local groups are doing.

County Level Government Agencies

For County level government agencies, 61% of respondents rated County government agencies as Very Well to Adequately (1-3 range) addressing the issues they identified, while 65% rated County government Adequately to Very Poorly (3-5 range) in addressing identified issues.

These figures indicate an increase in positive responses with County agencies from the 2006 survey ratings of 48% Well to Adequately; and a drop in negative responses from a 2006 rating of 74% for Adequately to Very Poorly in addressing identified issues.

State Level Government Agencies

The majority of respondents ranked State level government agencies as Adequately to Poorly (3-4 range) addressing the issues they identified. The Poorly to Very Poorly (4-5 range) was down, at 49% compared to 63% in 2006. And there was also a slight increase in the Very Well to Well (1-2 range) from 6% in 2006 to 8+% in the current survey.

Compared to the 2006 survey, these responses would seem to show an increase in positive responses with State level agencies addressing the issues respondents identified. However, these improved ratings are tempered by a number of negative comments submitted that would seem to indicate residents are not satisfied with how the State is addressing natural resource/environmental issues.

Stakeholder-Specific Questions

Several different versions of the resource assessment survey were distributed to the various stakeholder groups targeted. All the surveys had the same questions regarding resource issues and concerns. Following these questions were several stakeholder-specific questions. Below are those questions and the responses received.

How is your level of government, department or agency, organization, group or business planning to address the top 3 general issues over the next 5 years?

Surface and Groundwater Quality

- We operate a water and sewer system. A good deal of time, effort and expense is expended.
- Continue to place high emphasis on storm water management.
- We are actively pursuing protection of surface waters and storm water management through TMDL compliance plan implementation, and county storm water permit implementation.

Land Use

- Continue our purchase of development rights program; continue partnering with others to educate new farmers for local markets.
- Continue to refresh local zoning regulations.
- County Parks Commission is securing lands to protect high quality natural areas.
- We will continue educating the public about the importance of stewardship of natural areas and the importance of local biodiversity and sustainable living.

Energy Use

- Our group is focusing on energy issues, particularly energy efficiency, conservation, and renewable energy production. We do so by initiating projects and programs in these areas in partnership with companies, municipalities, and individuals.
- We hope that renewable fuel costs will come down so we can use them again.

Solid Waste / Recycling

- Continue to provide recycling opportunities at township hall.

Wildlife and Habitat

- Trying to protect and restore more natural habitat.

Forests and Trees

- Continue to provide sound best forest management practices.

Wetlands

- We are principally involved in protecting wetlands and habitat, with some role in stewardship and stewardship education. We intend to continue in that role, and potentially increase the educational component as a means of engaging residents and landowners with the importance of wetlands and land protection for water quality and air quality, as well as economic vitality.
- Complete wetland restoration where opportunities present themselves.

Other

- Few of these issues are within the control of the lowest levels of government.
- Participate as a partner with other agencies.
- Most can be addressed through the implementation of the 2008 Farm Bill Conservation Program. Also, conservation technical assistance can be provided without participating in programs.
- By completing invasive plant control and management planning services.
- Ecological restoration, exotic species removal, storm water retention, quality design and client education.

What trends in government policy/regulation at the federal, state and local levels do you think will impact your top 3 issues over the next 5 years?

Funding

- Lack of funding is seriously impacting governments' ability to implement and enforce environmental programs at all levels. Those who see improving "business climate" and economic development as top (perhaps only) priority often oppose much-needed environmental regulation and wise use of resources in favor of short term economic gains.
- Lack of state commitment due to budgets.
- I would like to see money for purchase of development rights on farmland available from the State of Michigan.
- Limited state and federal funding will hamper effectiveness.
- Will county taxpayers step up to foot the bill, or will self interest prevail here also?
- Our greatest concern relates to the trends at the federal and state levels to cut back funding and repeal laws supporting environmental initiatives.
- The ongoing shortfall in government revenues makes it increasingly difficult for government to participate in any of these areas.
- On the energy side, conservation and alternative energy are not going to become widely accepted without significant government involvement in education and in research and development. There seems to be little federal understanding of this, and state and local governments lack the resources to engage in this.
- Funding availability will be the biggest impact; also open space planning within the county will continue to determine where resources need to be targeted.
- Funding cuts, time-strapped contract managers leading to poor oversight of projects.

Regulation

- Regulations are not implemented the same for everyone, such as the residential fertilizer and pesticide applications and the Agricultural fertilizer/ pesticide applications and runoffs.
- Regulations are only as useful as their enforcement, and without a strong commitment to staff and support enforcement, this won't happen. In many areas, there is a strong commitment to these issues, but when the decision has to be made of cops on the streets vs. wetlands protection, or Medicaid dollars vs. habitat restoration, immediate needs will trump the natural resources, which "have always been there" and therefore can wait.
- Wetland protection policy and farm bill legislation.
- Added regulations to land owners.
- Reduced environmental regulation will have negative impact.

What the Conservation District Can Do

Survey respondents were also asked several questions about the Conservation District and what it 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.

How familiar are you with the Washtenaw County Conservation District and its services?

Level of Familiarity	Number	Percent
Very Familiar	50	15%
Somewhat Familiar	233	69%
Not Familiar At All	52	16%

What can the Washtenaw County CD do to address the general natural resource and environmental issues you have identified in this survey over the next 5 years?

What	Number	Percent
Create new, or expand existing partnerships with local conservation groups, county/state agencies or others.	236	36%
Offer educational workshops and meetings to assist people with the issues identified.	181	27%
Expand the District web site to include more information on the issues identified.	120	18%
Create new programs and/or hire additional staff to address the specific issues identified.	114	17%
Other, please specify – see below.	12	2%
Investigate ways the District can assist your business better serve your customers with the issues identified.	2	>1%

Other

District Outreach & Promotion

- Educate public about who you are and what you do, your purpose, and what you offer to assist landowners to manage their acreage to its best long term use.
- More WCCD site promotion on the web; links; newsletters; electronic information; use of Facebook and Twitter, etc.
- Partnerships with elected officials.
- Publicize the problems and involve more people.

District Programs & Services

- Continue/expand tree and plant sales, heavily advertise.
- Assist/support county historical/genealogical societies when and if the goals of these organizations are compatible with the CD goals; i.e. the location and preservation of Indian sites, significant historical sites in rural areas, protection of significant and/or unusual forested sites.
- Reprioritize or refocus existing program funding.
- Develop a resource list of recyclable and renewable energy products and services.
- Programs to encourage/enlist volunteer assistance.
- New programs that townships can use/share with their communities.

Education

- Build partnerships with schools, scouts, college education majors to educate the younger generation to think in environmentally friendly ways at all levels; develop strong curriculum of environmental issues and conservation in the K-12 school systems -- including educating the parents and families; leading kids on developmentally appropriate field trips, even fun, manageable work days. Getting our kids invested in the environmental health of our region.
- Offer workshops for individuals trying to restore the ecology/wildlife habitat/conservation aspects of their properties.
- Educate the public AND government officials about green alternatives to lawns; encourage planting of native plants and trees to eliminate lawns. Provide incentives to do so.
- Create programs which address issues of concern with sportsman's groups.
- Evaluate land stewardship as more than conservation/preservation.
- Promote the importance of protecting what we have (clean water, air, etc.) through infomercials (TV/radio ads), educational pamphlets.
- Better education on how policy decisions made in Lansing by law makers directly affect local residents.
- Local communities need to be informed about how to organize and oppose powerful outside interests from buying up, polluting or otherwise taking over their local water and land use rights.
- Encourage local and state governments to partner with some of the existing blogs to expand information sharing.

Advocacy

- Help garner funding from more state and federal sources, where possible.
- Support additional funding for purchase of development rights on farmland in the county at the federal level.
- Try to change the Farm Bill so that local cash match is not required to help farmers protect their land.
- Lobby local and state agencies to simplify and reduce unnecessary and overly restrictive regulations and policies.
- The government should only set the basic operating rules, no more.
- More effort needs to be taken at the state level to encourage more financial resources towards addressing invasive species, relaxed wetland infill regulations, potential water pollution/contamination from natural gas drilling and oil pipeline leaks.
- Better law and enforcement of corporate, government and public environment use and abuse, and how resources are managed or mismanaged at the local and state level. Make the DNRE obey the laws.

Demographic Questions

Finally, survey respondents were asked the following demographic or categorical questions:

How would you describe the setting in which you live?

Where	Number	Percent
Urban (city or village)	56	21%
Suburban	78	29%
Rural/Farm	130	50%

Please check the one category which best applies to you:

Who	Number	Percent
Farmer	15	5%
Homeowner	240	82%
Small business owner or operator	3	1%
Municipal, Township or County officials	14	5%
State or Federal officials, agencies	4	1%
Conservation/Environmental organizations or Sportsman's groups	9	3%
Agri-business or Environmental consultants	8	3%

The following responses were also provided indicating specific local, County, State or Federal agencies; conservation groups or businesses completing the survey:

Township Officials: Ann Arbor, Augusta, Manchester, Sylvan & York Townships

County Officials/Staff: Water Resources Commissioner & staff, County Administration

State Legislator

Federal Agencies: USDA Farm Service Agency, USDA NRCS, U.S. Geological Survey

Conservation/Environmental & Sportsman's Groups: Wild Ones Ann Arbor Chapter, Ducks Unlimited, Clean Energy Coalition

Agri-businesses or Environmental Consultants: Agricultural organization, Native Plant Nursery LLC, PlantWise, LLC, Appel Environmental Design

Resident respondents were equally split between rural and urban/suburban settings, and the majority of those who completed the survey were homeowners by a wide margin. Also, there was a modest response from township and County officials, as well as conservation groups and businesses.

Summary

The major natural resource/environmental issues, **Surface and Ground Water Quality, Land Use, Energy Use, Solid Waste/Recycling, Wildlife and Habitat, Forests and Trees, Wetlands, and Air Quality**, and the associated key concerns will be the basis for updating the Conservation District's strategic plan. The plan will identify for each issue and concern, specific actions the District has the ability, expertise and resources available to take or consider implementing.

For the next five years, District annual plans of work 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 provided will be valuable in honing in on what actions the District should continue, expand, or start, in order to address the identified resource issues.

Sources Referenced

1. Washtenaw County Resource Assessment, December 2006, Washtenaw County Conservation District.
2. Southeast Michigan Council of Governments
3. U.S. Census Bureau
4. Washtenaw County Soil Survey

Appendix A

Stakeholder Groups

Listed below are the stakeholder groups, number contacted and number that responded through the linking and scanning process.

Stakeholder Group	# Contacted	# Responding	Percent Response
Residents, landowners, District e-mail newsletter recipients, tree and product customers, and "Conservation Update" newsletter mailing list	4,828	304	6.3%
Township supervisors, County commissioners, State legislators	36	9	25.0%
Municipal staff, County, State and Federal department/agency staff	34	11	32.3%
Conservation/environmental organizations and sportsman's clubs	22	7	31.8%
Agri-businesses, environmental consultants and media contacts	47	4	8.5%
TOTALS:	4,967	335	6.7%

Of the 335 responses to the survey received, 277 were submitted via on-line surveys and 58 hard copy responses were submitted by mail or fax. This is an increase of 150 responses, or 81% from 2006.

Following are copies of the resource assessment surveys that were prepared in Word format, and a copy of the on-line version in different formatting. The Internet-based surveys were prepared and tabulated using SurveyMonkey.com. The hard copy version, included with the "Conservation Update" summer newsletter issue, used the Word format and asked respondents to either return the completed survey by mail or fax.

2011 RESOURCE ASSESSMENT SURVEY

The purpose of this survey is to learn more about natural resource and environmental issues of concern in Washtenaw County. All answers will be kept strictly confidential. **PLEASE RETURN COMPLETED SURVEY BY: AUGUST 31, 2011** 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 and its services?
 ___Very familiar ___Somewhat familiar ___Not Familiar At All

2. Below is a list of general natural resource and environmental issues that were identified in past surveys. Please rank the TOP THREE ISSUES that you think will be of concern over the next 5 years in Washtenaw County by placing an "X" in the appropriate column. (1=first, 2=second, 3=third)

GENERAL NATURAL RESOURCE & ENVIRONMENTAL ISSUES	1	2	3
Air Quality			
Energy Use			
Forests & Trees			
Land Use			
Solid Waste/Recycling			
Surface and Groundwater Quality			
Wetlands			
Wildlife and Habitat			
Other, please specify:			

3. For each of the top three general issues you selected above, please rank your TOP THREE SPECIFIC CONCERNS for each general issue below, with an "X" in the appropriate column. (1= first, 2=second, 3=third)

NR or ENVIRONMENTAL ISSUE	1	2	3	SPECIFIC CONCERNS
Air Quality				Vehicular emissions/pollution.
				Industrial emissions/pollution.
				Health related concerns (respiratory ailments, ozone actions days, etc.)
				Odors affecting outdoor activities.
				Other, please specify:
Energy Use	1	2	3	SPECIFIC CONCERNS
				Need more energy conservation.
				Need more exploration for current energy sources.
				Need more economically viable alternative energy sources.
				Energy efficient appliances, cars, etc. Other, please specify:
Forests & Trees	1	2	3	SPECIFIC CONCERNS
				Woodlots needing management.
				Removal of dead trees along roads and in public areas.
				Protecting/saving trees during construction.
				Invasive plant species control.
				Reuse of wood from urban tree removals.
				Tree diseases, insects and species decline. Other, please specify:
Land Use	1	2	3	SPECIFIC CONCERNS
				Loss of farmland from urban sprawl.
				Natural areas and open space preservation.
				More re-development/revitalization of urban centers.
				Better development growth management and zoning.
				Education of people moving to agricultural areas.
				Use of land based on environmental and suitability criteria. Other, please specify:
Solid Waste/Recycling	1	2	3	SPECIFIC CONCERNS
				Landfill space & management.
				Expand recycling options and locations.
				Encourage/educate public on product reuse.
				Increase availability of recycled products to the public. Other, please specify:

NR or ENVIRONMENTAL ISSUE	1	2	3	SPECIFIC CONCERNS
Surface and Groundwater Quality				Non-point source soil erosion and sedimentation.
				Construction site soil erosion and sedimentation.
				Storm water management.
				Residential fertilizer/pesticide use & management.
				Agricultural fertilizer/pesticide use & management.
				Agricultural cropland drainage.
				Groundwater supply management & protection.
				Surface water supply management & protection.
				Private waste water treatment systems & management.
				Other, please specify:
Wetlands	1	2	3	SPECIFIC CONCERNS
				Loss of wetlands by construction or filling.
				Restoration & management of existing wetlands.
				Inadequate wetland/riparian area protection.
				Preservation of connected natural systems.
				Invasive plant species control.
				Wetland regulations affecting drainage system maintenance.
			Other, please specify:	
Wildlife and Habitat	1	2	3	SPECIFIC CONCERNS
				Destruction of wildlife habitat by construction.
				Need restoration and improvement of habitats.
				Invasive plant species control.
				Lack of public hunting access.
				Wildlife damage to property, landscaping or agricultural products.
			Other, please specify:	

4. How well do you think your top three general issues are currently being addressed by the following groups?

(Check appropriate column)

GROUP	1 (Very Well)	2 (Well)	3 (Adequately)	4 (Poorly)	5 (Very Poorly)	No opinion
Local conservation or environmental groups? (Ex.: watershed council, land conservancies, wildlife groups, etc.)						
County level government agencies? (Ex.: Environmental Health, Parks & Rec., Water Resources, etc.)						
State level government agencies? (Ex.: MI DNR, MI DEQ, MI Dept of Ag, etc.)						

5. What can the Washtenaw County CD do to address the general natural resource and environmental issues you have identified in this survey over the next 5 years? (Please select up to 3 items.)

- Create new, or expand existing partnerships with local conservation groups, county/state agencies or others.
- Expand the District web site to include more information on the issues identified.
- Offer educational workshops and meetings to assist people with the issues identified.
- Create new programs and/or hire additional staff to address the specific issues identified.
- Other, please specify: _____

6. Are there other natural resource or 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: _____

7. Do you have any additional comments you would like to share with us?

8. How would you describe the setting in which you live? Urban(city of village) Suburban Rural/Farm

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

- Farmer Homeowner Small business owner or operator Other, specify: _____

Township Supervisors, County Commissioners, State Legislators

2011 RESOURCE ASSESSMENT SURVEY

Included questions #1 – 4 and 7 – 9 of the Resident, Landowner District e-mail and mailing Lists survey. Additional questions included:

5. How is your level of government planning to address the top 3 general issues over the next 5 years?

6. What trends in government policy/regulation at the federal, state and local levels do you think will impact your top 3 issues over the next 5 years?

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

Township Official (_____) County Commissioner State Legislator
Specify Township

Municipal, County, State or Federal Department/Agency Staff

2011 RESOURCE ASSESSMENT SURVEY

Included questions #1 – 4 and 7 – 9 of the Resident, Landowner District e-mail and mailing Lists survey. Additional questions included:

5. How is your department or agency planning to address the top 3 general issues over the next 5 years?

6. What trends in government policy/regulation at the federal, state and local levels do you think will impact your top 3 issues over the next 5 years?

10. Please check the one category which best identifies the department or agency you work for:

Municipal Gov't Dept. County Gov't Dept. State Gov't Agency Federal Gov't Agency

Please specify agency/department: _____

Conservation/environmental Organizations & Sportsman's Clubs

2011 RESOURCE ASSESSMENT SURVEY

Included questions #1 – 4 and 7 – 9 of the Resident, Landowner District e-mail and mailing Lists survey. Additional questions included:

5. How is your organization or group planning to address the top 3 general issues over the next 5 years?

6. What trends in government policy/regulation at the federal, state and local levels do you think will impact your top 3 issues over the next 5 years?

10. Please check the one category which best identifies the group or organization you are associated with:

Conservation/environmental organization or group Sportsman's Club or wildlife organization

Please specify organization/group: _____

2011 RESOURCE ASSESSMENT SURVEY

Included questions #1 – 4 and 7 – 9 of the Resident, Landowner District e-mail and mailing Lists survey. Additional questions included:

5. How will your business address the top 3 general issues over the next 5 years?

6. What trends in government policy/regulation at the federal, state and local levels do you think will impact your top 3 issues over the next 5 years?

10. Please check the one category which best applies to your business:

Agri-business Natural resource or environmental consulting or other services Other business

Media Please specify name of business or media: _____

2011 Resource Assessment Survey

The purpose of this survey is to learn more about natural resource and environmental issues of concern in Washtenaw County. All answers will be kept strictly confidential. Questions with an asterik require a response in order to complete the survey. PLEASE COMPLETE SURVEY BY: AUGUST 31, 2011. Thank you for your participation.

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

- Very familiar
- Somewhat familiar
- Not familiar at all

*** 2. Below is a list of general natural resource and environmental issues that were identified in past surveys. Please rank the TOP THREE ISSUES that you think will be of concern over the next 5 years in Washtenaw County by checking the appropriate column. (1=first, 2=second, 3=third)**

	1	2	3
Air Quality	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Energy Use	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Forests & Trees	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Land Use	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Solid Waste/Recycling	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Surface and Groundwater Quality	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Wetlands	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Wildlife and Habitat	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Other, please specify below.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

Other (please specify issue)

2011 Resource Assessment Survey

*** 3. For each of the top three general issues you selected, please rank your TOP THREE SPECIFIC CONCERNS for each general issue below by checking the appropriate column (1= first, 2=second, 3=third). ONLY RANK the issues you selected, not all issues.**

	1	2	3
AIR QUALITY: Vehicular emissions/pollution.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
AIR QUALITY: Industrial emissions/pollution.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
AIR QUALITY: Health related concerns (respiratory ailments, ozone action days, etc.)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
AIR QUALITY: Odors affecting outdoor activities.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
AIR QUALITY: Other, please specify below.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
ENERGY USE: Need more energy conservation.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
ENERGY USE: Need more exploration for and production of current energy sources.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
ENERGY USE: Need more economically viable alternative energy sources.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
ENERGY USE: Energy efficient appliances, cars, etc.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
ENERGY USE: Other, please specify below.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
FORESTS & TREES: Woodlots needing management.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
FORESTS & TREES: Removal of dead trees along roads and in public areas.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
FORESTS & TREES: Protecting/saving trees during construction.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
FORESTS & TREES: Invasive plant species control.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
FORESTS & TREES: Reuse of wood from urban tree removals.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
FORESTS & TREES: Tree diseases, insects and species decline.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
FORESTS & TREES: Other, please specify below.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
LAND USE: Loss of farmland from urban sprawl.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
LAND USE: Natural areas and open space preservation.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
LAND USE: More redevelopment/revitalization of urban centers.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
LAND USE: Better development growth management and zoning.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
LAND USE: Education of people moving to agricultural areas.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
LAND USE: Use of land based on environmental and suitability criteria.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
LAND USE: Other, please specify below.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
SOLID WASTE/RECYCLING: Landfill space and management.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
SOLID WASTE/RECYCLING: Expand recycling options and locations.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
SOLID WASTE/RECYCLING: Encourage/educate public on product reuse.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
SOLID WASTE/RECYCLING: Increase availability of recycled products to the public.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
SOLID WASTE/RECYCLING: Other please specify below.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
SURFACE & GROUNDWATER QUALITY: Non-point soil erosion and sedimentation.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
SURFACE & GROUNDWATER QUALITY: Construction site soil erosion and sedimentation.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

2011 Resource Assessment Survey

- SURFACE & GROUNDWATER QUALITY: Storm water management.
- SURFACE & GROUNDWATER QUALITY: Residential fertilizer/pesticide use and management.
- SURFACE & GROUNDWATER QUALITY: Agricultural fertilizer/pesticide use and management.
- SURFACE & GROUNDWATER QUALITY: Agricultural cropland drainage.
- SURFACE & GROUNDWATER QUALITY: Groundwater supply management and protection.
- SURFACE & GROUNDWATER QUALITY: Surface water supply management and protection.
- SURFACE & GROUNDWATER QUALITY: Private waste water treatment systems and management.
- SURFACE & GROUNDWATER QUALITY: Other, please specify below.
- WETLANDS: Loss of wetlands by construction or filling.
- WETLANDS: Restoration and management of existing wetlands.
- WETLANDS: Inadequate wetland/riparian area protection.
- WETLANDS: Preservation of connected natural systems.
- WETLANDS: Invasive plant species control.
- WETLANDS: Wetland regulations affecting drainage system maintenance.
- WETLANDS: Other, please specify below.
- WILDLIFE & HABITAT: Destruction of wildlife habitat by construction.
- WILDLIFE & HABITAT: Need restoration and improvement of habitats.
- WILDLIFE & HABITAT: Invasive plant species control.
- WILDLIFE & HABITAT: Lack of public hunting access.
- WILDLIFE & HABITAT: Wildlife damage to property, landscaping or agricultural products.
- WILDLIFE & HABITAT: Other, please specify below.

Other (please specify issue & concerns)

2011 Resource Assessment Survey

*** 4. How well do you think your top three general issues are currently being addressed by the following groups?**

	Very Well	Well	Adequately	Poorly	Very Poorly	No Opinion
Local conservation or environmental groups? (Examples: watershed council, land conservancies, wildlife groups, etc.)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
County level government agencies? (Examples: Environmental Health, Parks & Recreation, Water Resources, etc.)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
State level government agencies? (Examples: MI DNR, MI DEQ, MI Dept. of Ag, etc.)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

*** 5. What can the Washtenaw County CD do to address the general natural resource and environmental issues you have identified in this survey over the next 5 years? (Please select up to 3 items.)**

- Create new, or expand existing partnerships with local conservation groups, county/state agencies or others.
- Expand the District web site to include more information on the issues identified.
- Offer educational workshops and meetings to assist people with the issues identified.
- Create new programs and/or hire additional staff to address the specific issues identified.

Other (please specify)

2011 Resource Assessment Survey

6. Are there other natural resource or 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 below.

7. Do you have any additional comments you would like to share with us?

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

- Urban (city or village)
- Suburban
- Rural/Farm

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

- Farmer
- Homeowner/Property Owner
- Rental Resident
- Other, please specify below.

Other (please specify)