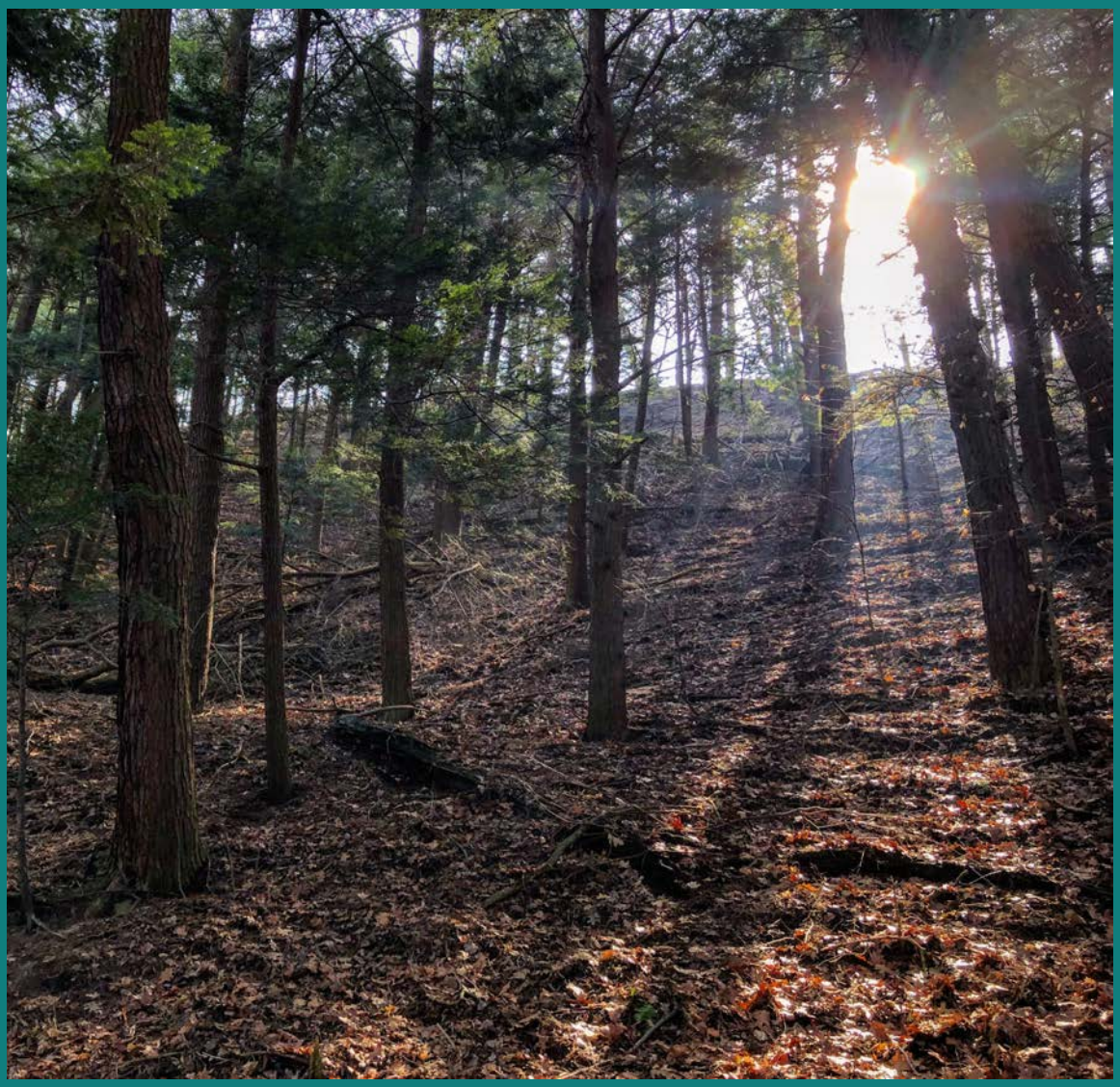
CONSERVATION NEEDS ASSESSMENT REPORT

2021



OTTAWA CONSERVATION DISTRICT

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OTTAWA COUNTY OVERVIEW

This report contains the results of the 2021 Conservation Needs Assessment Survey, an overview of Ottawa County's resources, and an overview of the Ottawa Conservation District's operations.

COUNTY CHARACTERISTICS

Ottawa County, Michigan, is in the western Lower Peninsula on the shores of Lake Michigan. Ottawa County is 369,167 acres or roughly 576 square miles. Land use in the county varies widely from the urban centers like Holland and Grand Haven to the sprawling agricultural areas in the central and northeastern part of the county, to the numerous parks and forests. The area is well known for its excellent schools, scenic beauty, and thriving local economy, making it a highly desirable place to live. Ottawa County has a robust agricultural industry. The most recent Census of Agriculture shows there are currently 1,363 farms in the county.

POPULATION GROWTH AND BREAKDOWN

Between 2010 and 2020 the population of Ottawa County grew 12.28%, or 32,399 new residents, making it the fastest growing county in Michigan. It is the 7th most populous county in Michigan with total population of 296,200 in 2020. Figure 1 is a map of population growth percentage throughout Ottawa County over the previous 10 years (Figure 1 – developed by Ottawa County Planning, Performance, and Improvement Dept.).

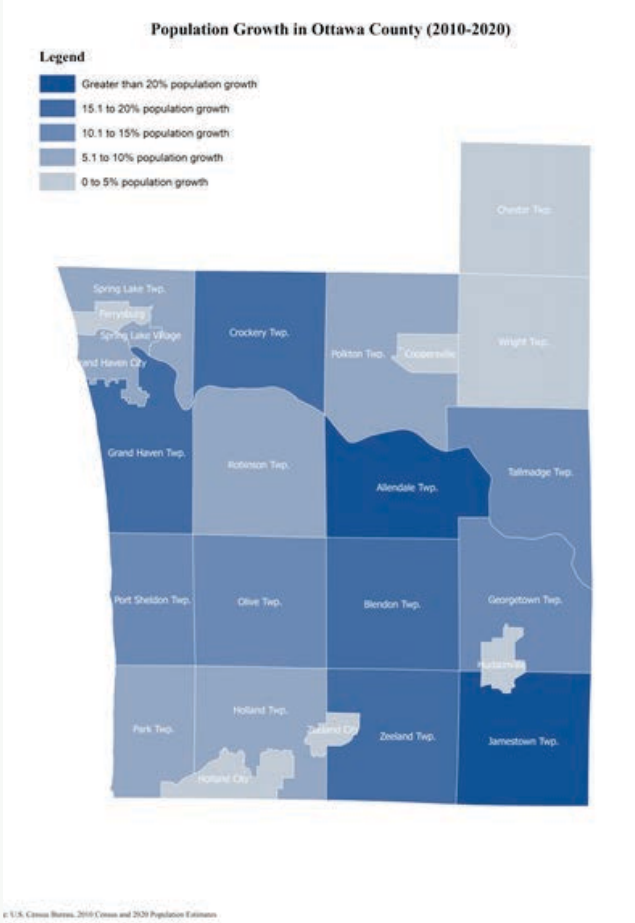
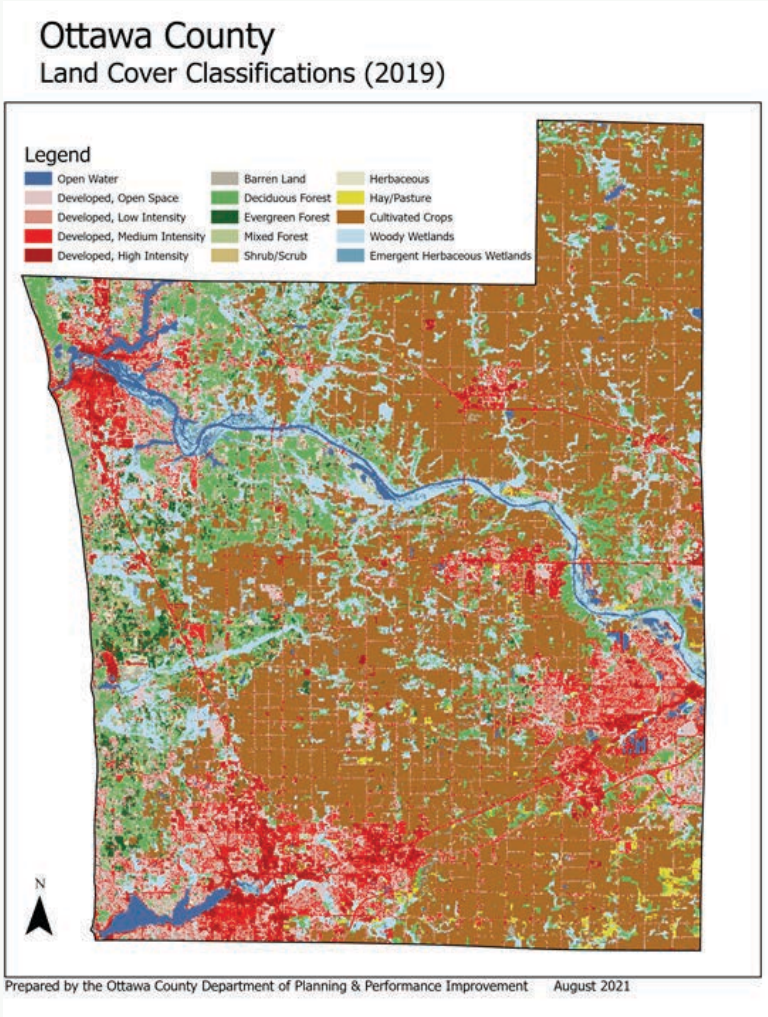


Figure 1 - Population Growth in Ottawa County (2010-2020)

COUNTY LAND USE

Ottawa County is quite diverse in terms of land use as evidenced by Figure 2. Most land in the county is used for cultivated crops, followed by various intensities of developed areas, and deciduous forest. The most notable waterways include the Grand River and its many tributaries, the Pigeon River and Pigeon Lake, and Lake Macatawa.

Figure 2 – Land Use Map



LAND COVER CLASS	ACRES
WOODY WETLANDS	37,196
SHRUB/SCRUB	1,070
MIXED FOREST	7,699
OPEN WATER	9,057
HAY/PASTURE	4,349
HERBACEOUS	4,660
EVERGREEN FOREST	7,202
EMERGENT HERBACEOUS WETLANDS	4,509
DEVELOPED, OPEN SPACE	27,436
DEVELOPED, MEDIUM INTENSITY	23,066
DEVELOPED, LOW INTENSITY	36,015
DEVELOPED, HIGH INTENSITY	8,597
DECIDUOUS FOREST	42,808
CULTIVATED CROPS	153,070
BARREN LANDS	2,533
TOTAL	369,267

Table 1 – Land Use By Acreage

CONSERVATION DISTRICT OVERVIEW

DISTRICT HISTORY

In the 1930s many Americans were experiencing the difficulties that come with extensive, long-term soil erosion. Michigan was no exception, which led a group of landowners concerned about this noticeable decline in productive land to form the West Ottawa Soil Conservation District. When the Michigan Public Act 237 passed in 1938, this Soil Conservation District was the first officially formed in the state. The first appointed directors were Clarence Reenders and Hunter Hering, and the district originally covered 6 townships: Grand Haven, Spring Lake, Port Sheldon, Park, Olive, and Robinson.

The unifying goal of the first directors was to stabilize the rapidly eroding sand dunes and farmland by planting trees. As the years passed, the district kept these goals while also widening its technical assistance to cover erosion caused by rising water levels and increasing pollution in local waterways. The remaining townships in Ottawa County were also added to the purview of the district. Over time the district established itself as a trusted local resource for technical expertise. With this new chapter, the name was officially changed to the Ottawa Soil and Water Conservation District.

Not long after, the district had its first large partnership with Ottawa County in managing acres of pine plantations. These years of extensive work did not go unnoticed, and during the district's 50th-anniversary celebration in 1988, President Gerald Ford was the keynote speaker. In 1990, the district continued to grow with a new program called Ground Water Education. This comprehensive program addressed multiple factors that can affect surface and groundwater, including topics such as proper disposal and recycling of hazardous materials and drinking water wellhead protection. Due to the district's passion for caring for the county's resources, in 1992 the USDA recognized the Ottawa Soil and Water Conservation District's outstanding efforts in Soil and Water Conservation, and Education and Outreach to residents of the county.

DISTRICT HISTORY (CONTINUED)

From the late 90s through the first decade of the 2000s, programming continued in forestry and wildlife management, groundwater education, soil erosion, water use, and integrated pest and fertilizer management. The district continued to partner with a variety of organizations in programs focused on Great Lakes water quality, increasing the impact of the Critical Dunes program, and addressing an increasing concern with invasive Gypsy Moth. It was during this time that the name was changed to the Ottawa Conservation District, which is the name to this day.

The economic stress felt in 2008 led the State of Michigan to halt funding for conservation districts. The district reached out to Ottawa County and asked them to provide funding, to allow for continued operations at the same capacity. The county agreed to this request, and this productive partnership between the Conservation District and the County still exists today. As one of the fastest-growing counties in the state, the district had the desire to continue to be a leading technical assistance resource to residents and sought additional grants to allow for this.

One of the most notable grants secured during this time was the Bass River Deer Creek Restoration project, a 319 grant funded by the Michigan Department of Environment, Great Lakes, and Energy. To continue this multi-faceted approach to conservation, the district also became the lead partner and fiduciary in a regional grant project to address invasive species called the West Michigan Cooperative Invasive Species Management Area.

Moving into our current chapter, the Ottawa Conservation District has continued to experience intense growth. Virtually every program is seeing an increase in participation and many grants have received multiple rounds of funding, and district fundraisers and volunteer events are seeing increased community participation. The additional funding streams, staff, and overall operational capacity has led the district to begin creating an official strategic plan that will be finalized in 2022.

ORGANIZATION AND STRUCTURE

Ottawa Conservation District is organized as a local unit of state government under the Soil Conservation District Law (Act 297 of Public Acts of 1937). It is administered by a publicly elected board of directors and operated by a qualified technical and professional staff. The District provides information, programs, and services to assist private landowners and municipalities with managing land and water resources. Offices are currently located in the United States Department of Agriculture (USDA) service center at the corner of Ferris and US 31 in Grand Haven Township. While no longer co-located with the Natural Resource Conservation Service, the District values its long-time partnership with NRCS, an agency within the United States Department of Agriculture (USDA). The district holds board meetings on the first Tuesday of each month at 7 PM that are open to the public at 16731 Ferris St. Grand Haven, MI 49417.

FINANCIAL RESOURCES

At the District's current capacity, there are numerous funding streams that lend to a complicated accounting and auditing process. Financials are reported at every board meeting and summarized in every Annual Report and specific numbers will not be explored in this document. While economic conditions and political priorities at the federal, state, and county levels impact our funding, overall the funding of the district has trended positively in the last five years. Important operational resources have included:

·Numerous federal and state allocations and grants
·An annual allocation from the Ottawa County Commission
·Funds generated from tree seedling and native plant sales
·Funds generated from the increased capacity of invasives treatments

These funding sources allow continued operations to provide Ottawa County residents with important information, services, and financial resources to conserve local natural resources.

DISTRICT PROGRAMS & SERVICES

The district offers numerous services to the residents of Ottawa County to assist them in caring for local natural resources. The following are overviews and notable accomplishments of the programs the District has offered in the last five years.

MICHIGAN AGRICULTURE ENVIRONMENTAL ASSURANCE PROGRAM

MAEAP aims to proactively help farms of all sizes and all commodities voluntarily and confidentially prevent or minimize agricultural pollution risks. In the 2020 fiscal year, 42 risk assessments were completed in Ottawa County, covering 294 acres.

FARMLAND & WATER QUALITY CONSERVATION INITIATIVE

The Ottawa Conservation District is a partner in the county's Groundwater Sustainability Initiative, and with the goal of addressing the groundwater shortage through the lens of natural resource management, the District sought and received county-wide funding. This initiative will allow the District and NRCS to fund numerous agricultural conservation practices.

BASS RIVER/DEER CREEK RESTORATION INITIATIVE

This project is dedicated to reducing nutrients, sediment, and E. coli levels in the Bass River and Deer Creek watersheds by providing technical assistance and cost-share funding for best management practices with funding from a 319 grant from the Michigan Department of Environment, Great Lakes, and Energy (EGLE). In 2020 this grant allowed for cost-share assistance in 6 septic system replacements and over 4300 acres of cover crops and reduced tillage. It also allowed us to provide cost-share for one manure storage facility, replace or improve two culverts, and assist 23 individual farmers with our available programs.

CROCKERY CREEK/SAND CREEK RESTORATION INITIATIVE

This project received funding from a 319 grant from EGLE in 2021 and allowed for the District to begin offering cost-share for agricultural best management practices and septic system repairs throughout the watersheds. This project is dedicated to reducing nutrients, sediment, and E. coli levels in the Crockery and Sand Creek watersheds.

PIGEON RIVER WATERSHED MANAGEMENT PLAN

The District has been working closely with partners to develop a watershed management plan (WMP) that will be a publicly available reference guide for any information about the watershed. All this data will be used alongside historical information to determine how OCD can work to improve conditions in the watershed and it will qualify the watershed for specific restoration funding sources.

ROAD STREAM CROSSING INVENTORIES

For two years the District completed inventories in both the Pigeon River and Sand Creek watersheds. The information will be shared with partners to help advise future improvements that can be made to our waterways and leverage funds for projects like culvert replacements, streambank stabilizations, and habitat restoration.

WEST MICHIGAN COOPERATIVE INVASIVE SPECIES MANAGEMENT AREA

HEMLOCK WOOLLY ADELGID

Funded by the Michigan Invasive Species Grant Program and the United States Forest Service Great Lakes Restoration Initiative, this program is entirely dedicated to surveying and treating Hemlock trees in the current known extent of the HWA infestation in Michigan. During the 2020 survey season, the CISMA surveyed nearly 20,000 trees across 650 acres, and in the treatment, season staff was able to treat just over 20,500 trees across 1,227 acres.

STRIKE TEAM

The West Michigan CISMA has strike teams that work out of three Conservation Districts in West Michigan. They work to address invasive plants on both public and private properties. One area of recent growth for the West Michigan CISMA is fee-for-service work. This includes work that is not funded through grants, either due to the priority of the species or its location.

NATIVE PLANT AND NATIVE TREE SEEDLING SALES

Over the last five years, the spring tree seedling sales and spring and fall native plant sales have increased the amount of funding they provide to the District. In 2021 the tree seedling sale sold out of over 12,000 seedlings.

FORESTRY ASSISTANCE PROGRAM

FAP assists forest landowners in making management decisions for their woods. The program provides on-site assessments and guidance to landowners and forestry professionals. These services are provided year-round at no cost.

CRITICAL DUNES

If an Ottawa County resident is building within a Critical Dune area, the District can offer assistance in completing a Vegetation Removal Assurance (VRA) during the required permit process with EGLE. The District has also completed classroom education programs on Critical Dunes.

NATURAL RESOURCES IN OTTAWA COUNTY

WATERSHEDS

The major watersheds present in Ottawa County are the Lower Grand River, the Pigeon River, and the Macatawa watershed. The Lower Grand River is the most downstream portion of the largest river system in Michigan. In Ottawa County, the Lower Grand flows into Lake Michigan through the City of Grand Haven. This large river and its many tributaries comprise a significant portion of the county's surface water. Several bayous and wetlands along its route serve as important wildlife areas and provide boundless opportunities for recreation.

The Pigeon River flows through the central portion of Ottawa County into Pigeon Lake, and then to Lake Michigan. The headwaters of the Pigeon are a network of drains and ditches, which meet near Pigeon Creek Park to form the main branch of the river. The Pigeon River supports activities at several important public parks like Hemlock Crossing and historically has been classified as a cold-water trout stream, though recent monitoring reveals this classification may no longer hold.

The Macatawa watershed in southern Ottawa County is like the Pigeon River watershed, though much larger. The headwaters are mostly small creeks, ditches, and drains, which eventually flow to Lake Macatawa, and then into Lake Michigan through the City of Holland. Lake Macatawa is a prized watercourse in the county for recreation.

Other notable bodies of water in Ottawa County include Spring Lake and Norris Creek, and Crockery Lake. The far southeastern portion of the county includes a minute portion of the headwater region of the Rabbit River watershed, which flows south to the Kalamazoo River and Lake Michigan.

SOILS

Soils are a major component of the ecology of a region, and ultimately impact the kind of natural resource management activities that can occur. Ottawa County has especially unique soils given the proximity to Lake Michigan. There are twelve major described soil associations across the county. Those are: Rubicon-Blown-out land-Deer Park, Rubicon-Granby-Croswell-Au Gres, Granby-Au Gres-Saugatuck, Nester-Kawkawlin-Sims, Richter-Gilford-Gladwin, Mancelona-Nest-Belding-Iosco, Sloan-Adrian-Houghton, Chelsea-Mancelona-Montcalm, Blount-Morley-Kibbie, Miami-Hillsdale-Spinks, Bowers-Hettinger-Nester, Kawkawlin. More information about these associations and their characteristics can be found in the up-to-date online Web Soil Survey, or in the 1972 Soil Survey of Ottawa County. The varying soils across the county impact erosion rates, sediment deposition in local waterways, groundwater recharge to streams, rivers, and deep aquifers. Additionally, soil types are critical to understand for agricultural practices and developing areas.

Given the proximity to Lake Michigan, many soils throughout the county are sandy and sandy loams, making them excessively drained and having low water-holding capacities. Much of the central portion of the county contains these soil associations. Although the lakeshore is made up of rolling dunes, once you move east through the county much of the land is topographically homogenous and flat. The exception to this is in the far northeastern and southeastern portions of the county, where rolling hills dominate the landscape.

ENDANGERED, THREATENED, AND SPECIAL CONCERN SPECIES

Michigan Natural Features Inventory (MNFI) has documented many rare, threatened, and endangered species in Ottawa County. Appendix A displays these results.

DUNES

Dunes are a critical component of Ottawa County's natural resources. They are a rare natural community in the United States in general and are certainly a prized recreational resource in the county. Several parks such as Kirk, Rosy Mound, and Ottawa Sands are located within the dune areas, providing excellent accessible places for the public to view and enjoy these scenic landscapes.

CONSERVATION ISSUES & ACTION ITEMS

INVASIVE DISEASES

OAK WILT

Oak Wilt is a fungus that kills healthy Red Oaks (*Quercus rubra*). White Oak (*Quercus alba*) can be affected too but tend to have more resistance. Once a tree is infected it cannot be treated; however, oaks surrounding the infected tree can be treated as a preventative measure. OCD currently provides technical assistance to landowners on how to prevent infection of oak trees. The best preventative measure is to avoid pruning during the growing season, which is April through September in Michigan.

BEECH SCALE

Beech Scale is an invasive insect native to western Asia and southeastern Europe. Accidentally introduced to North America in the 1800s, the scale can have a devastating effect on American Beech trees (*Fagus grandifolia*). The insect infests trees through their trunks, creating cracks and creases where fungal pathogens can grow. These pathogens ultimately kill the trunk. In the forest stands of American beech, there is no practical treatment method. In isolated populations treatment of the scale by insecticides or physical removal can prevent fungal infections.

TERRESTRIAL INVASIVE SPECIES

HEMLOCK WOOLLY ADELGID

Hemlock Woolly Adelgid (HWA) is an invasive insect that feeds on and ultimately kills Eastern Hemlock (*Tsuga canadensis*) in Michigan. The small insect feeds on the needles of Hemlock trees, sequestering important nutrients over time. Trees can perish between two and ten years without treatment. OCD currently has a robust treatment program for this insect, utilizing a combination of survey and treatment periods throughout the year. The trees are treated using systemic insecticides.

LYMANTRIA DISPAR DISPAR

Lymantria dispar dispar, previously known as Gypsy Moth, is a nuisance insect that is largely naturalized in North America (considered non-native). This species of insect has highly cyclical population cycles, with peaks occurring roughly once a decade. The caterpillar phase of the moth's life cycle is a voracious eater, and swarms of the caterpillars can defoliate large swaths of deciduous forest. While some tree mortality does occur because of this feeding, most healthy hardwoods survive these cyclical attacks, and many regrow their leaves in the same season.

AQUATIVE INVASIVE SPECIES

EUROPEAN FROG BIT

European Frog Bit is a floating aquatic plant that is visually like lily pads. Native to Europe, Asia, and Africa, this invasive plant can form dense mats in slow-moving rivers, ponds, and lakes. These dense mats can reduce oxygen and light levels in the water column, impacting native fish and vegetation. The plant can be removed physically in spring and summer. The OCD Strike Team spends significant amounts of time each year removing this plant from local waterways. It is important to visit sights annually to ensure eradication, as European Frog Bit is known to be highly resilient.

PHRAGMITES

Phragmites is a major invasive species in the great lakes region. This tall growing invasive wetland grass grows in dense stands that displace native plants and animals. Phragmites can be difficult to eradicate in certain areas, and the plant can spread via seeds or through horizontal growth with rhizomes or stolons. Phragmites is relatively uncommon in western Michigan, making early detection and treatment with herbicides especially important. The OCD Strike Team currently monitors and treats pockets of this plant as they are discovered to prevent stands from growing to immense sizes, like in the eastern parts of the state.

WATCH LIST INVASIVE SPECIES

The State of Michigan has several invasive plants and animals on its current Watch List. If a species is present on the watch list, it means it poses an immediate or potential threat to Michigan's economy, environmental or human health. Most species on the list have not been found in Michigan yet, but some have, though to a limited extent. Notable species not currently found in Michigan found on the watchlist include Asian Longhorned Beetle, Spotted Lanternfly, Kudzu, Grass Carp, Red Swamp Crayfish, Water Hyacinth, and Yellow Floating Heart.

WATER QUALITY CONCERNS

Excellent water quality is critical to the health of a region. Without clean water, everything from recreation to infrastructure can be impacted. In Ottawa County, water quality is well monitored and documented throughout the county. The Michigan Department of Environment, Great Lakes, and Energy serve as the regulatory agency in Michigan responsible for documenting and maintaining records of impaired watersheds in the state. Many watersheds in Ottawa County are listed as impaired for one or more of their designated uses. Designated uses can include items such as agriculture, warm or cold-water fishery, supporting other aquatic life, and partial and total human body contact. Some pollutants which may be causing the listing of certain watersheds as not supporting their designated uses are described in further detail below.

E. COLI

E. coli is a bacteria that typically comes from fecal sources. There are many different species of E. coli, most of which are not harmful; however, some can pose threats to human health and water quality. Sources of harmful E. coli include failing septic systems, runoff from stormwater systems, and animal manure.

CHEMICAL POLLUTANTS

Chemical pollutants in the watershed include nitrogen, phosphorus, chlorides, and several other chemical combinations. Excess chemicals in watersheds can have numerous detrimental effects on native plants and wildlife, as well as human health. Impacts like eutrophication and algal blooms not only cause physical harm to watersheds, but also create ugly visuals and nasty smells.

SOIL EROSION

Soil erosion poses a major threat in Ottawa County. When soil is moved from one location to another, either purposefully or by natural causes, it can be considered a source of pollution. For example, cold water trout streams depend on high oxygen levels and clean cobble substrate to provide habitat for trout to spawn on. If a major event upstream washes soil and sediment downstream to these habitats, they will be covered, leaving nowhere for trout to spawn, and causing the local collapse of a fishery. Soils can carry nutrients with them into waterways, which only compounds the issues already presented by erosion.

GROUNDWATER

Many residents of Ottawa County do not reside in cities with public water supplies, meaning they must rely on groundwater as their source of drinking water. Additionally, agricultural producers in the county depend on groundwater for irrigating crops and keeping livestock hydrated. Recent studies conducted in the county suggest the groundwater supplies are being depleted faster than they are being recharged. It has been hypothesized that this is largely due to thick, clay-heavy soils creating a barrier to surface water, preventing it from reaching the deep-water aquifer to provide recharge. The county has launched the Groundwater Sustainability Initiative in response to this resource concern. Their goal is to provide as much information about the issue to residents, while also seeking new research and technologies to describe more about the problem. Additionally, residents and farmers alike are being encouraged to adopt water conservation practices to help reduce the pressures on groundwater supplies.

CONSERVATION NEEDS ASSESSMENT SURVEY

OVERVIEW

OCD sent out a survey to residents of Ottawa County to gauge community attitudes towards resource concerns, opinions about District priorities, and knowledge of existing programs. The survey was developed using past questionnaires as reference material and distributed using the Mailchimp web application.

The survey was initially sent out to those subscribed to OCD's e-newsletter. The survey was also promoted via social media and several partner platforms. Below is a summary of the distribution timeline and notable outreach efforts:

- 10/20/2020 – Survey distributed to e-newsletter subscribers
- 10/20/2020 – Facebook post
- 10/27/2020, 11/4/2020, 2/22/2021, 3/31/2021 – Outreach conducted
- 4/5/2021 – Survey closed

SURVEY METHODOLOGY

The developed survey contained 16 questions consisting of multiple-choice, yes/no, and open-ended responses. Respondents were occasionally asked to select all responses that applied, and to rank the given categories in terms of importance. See Appendix B for a summary of the survey questions.

SURVEY RESPONSES

OCD has 1,885 contacts on Mailchimp, 1,642 of whom are subscribers. The survey received 201 responses. Responses for each question were evaluated by looking at the percentage of responses for each category. The total number of responses per question is represented by n =.

SURVEY RESULTS

Question one (Figure 3) was designed to help OCD understand the residency status of survey respondents. They were also asked to check all that apply, meaning some may have selected multiple categories. The overwhelming majority (70.7%) of responses were under the "Homeowners (permanent resident) category. Notably, 12.1% of responses were for the "Agricultural landowner" category. Fewer of the responses were for the Property owner (no home) (4.2%), Renter of home and/or property (4.2%), Vacation home or 2nd homeowner (2.5%), and Vacation tourist/visitor categories (6.3%).

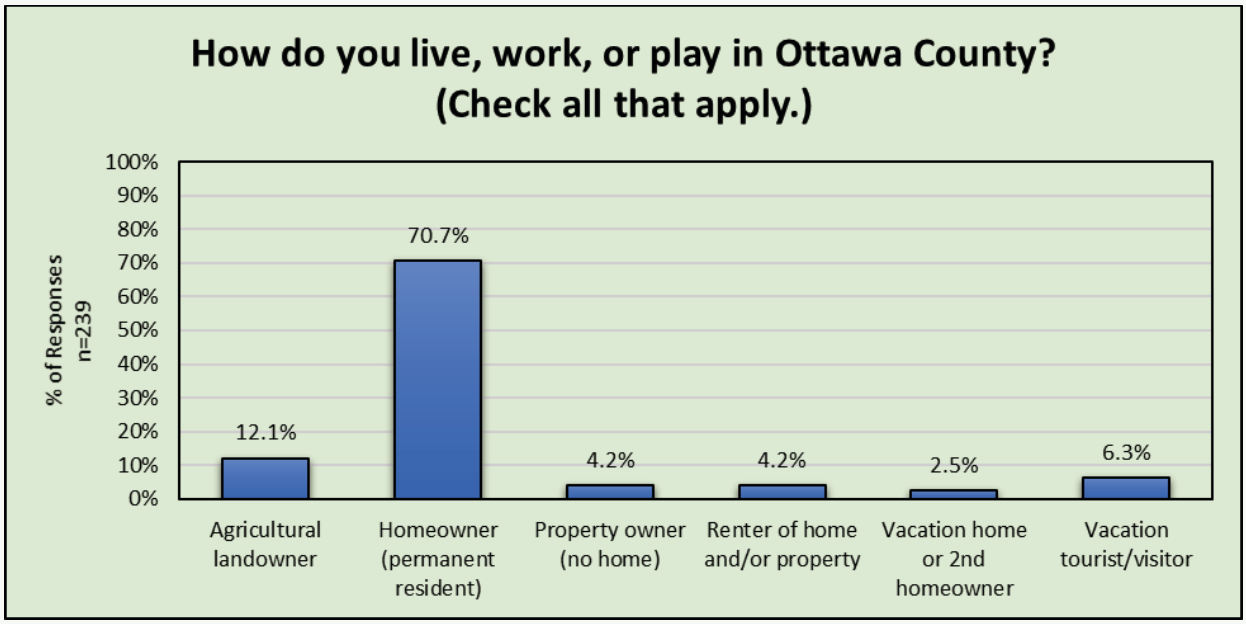


Figure 3 - Residency Status

Question two (figure 4) prompted respondents to select all the different types of natural areas they utilize in Ottawa County. Responses for this question were evenly distributed among the top selections, with Parks receiving the largest number of responses (181) and Your own backyard/property receiving 176 responses. The lowest number of responses were agricultural lands with 54 responses, Public hunting areas with 29, Other with 3, and then I do not use natural areas in the county with 2 responses.

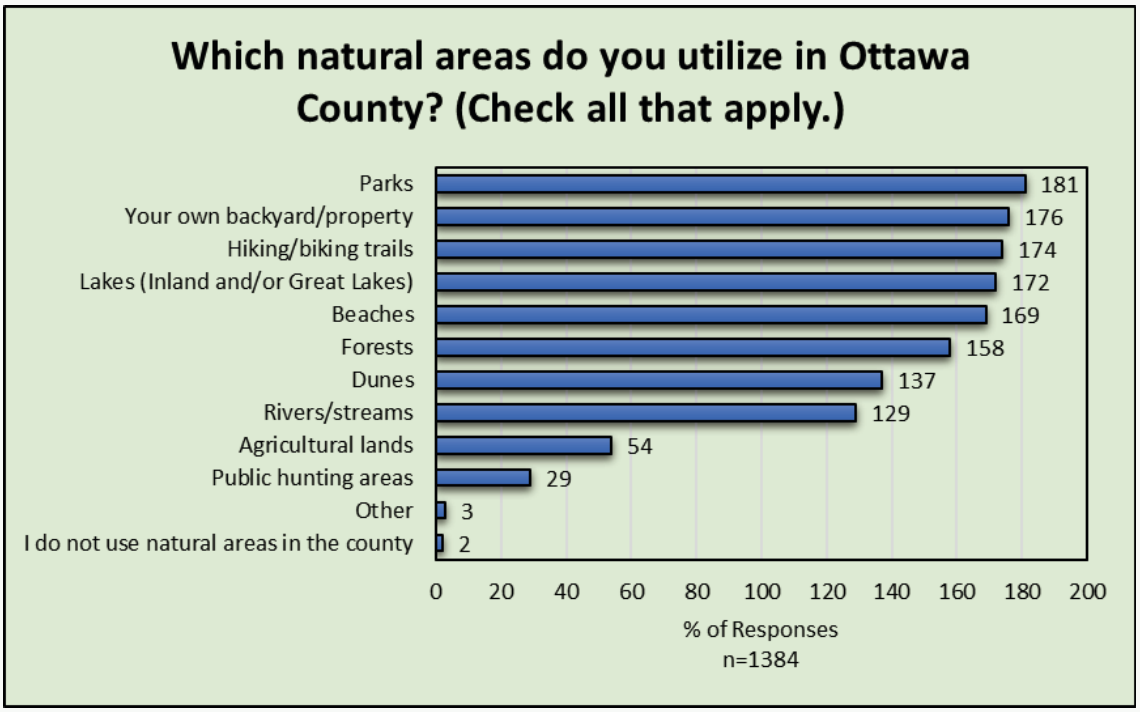


Figure 4 - Natural Area Utilization

Question three (Figure 5) was the first in a series of ranking questions where respondents were asked to select the top three priorities OCD should focus on in relation to a specific resource concern over the next 5 years. The question first asked about priority areas as they related to water quality. Drinking water/groundwater was most frequently selected (23.6%) as a priority, with Farmland water runoff (20.3%) and Wetlands (17.1%) receiving the second and third most selections. Rivers/streams (15.6%), City/Village stormwater runoff (13%), and Lakes/ponds (10%) received slightly lower response rates. The Other category received 0.5% of responses and included two written statements.

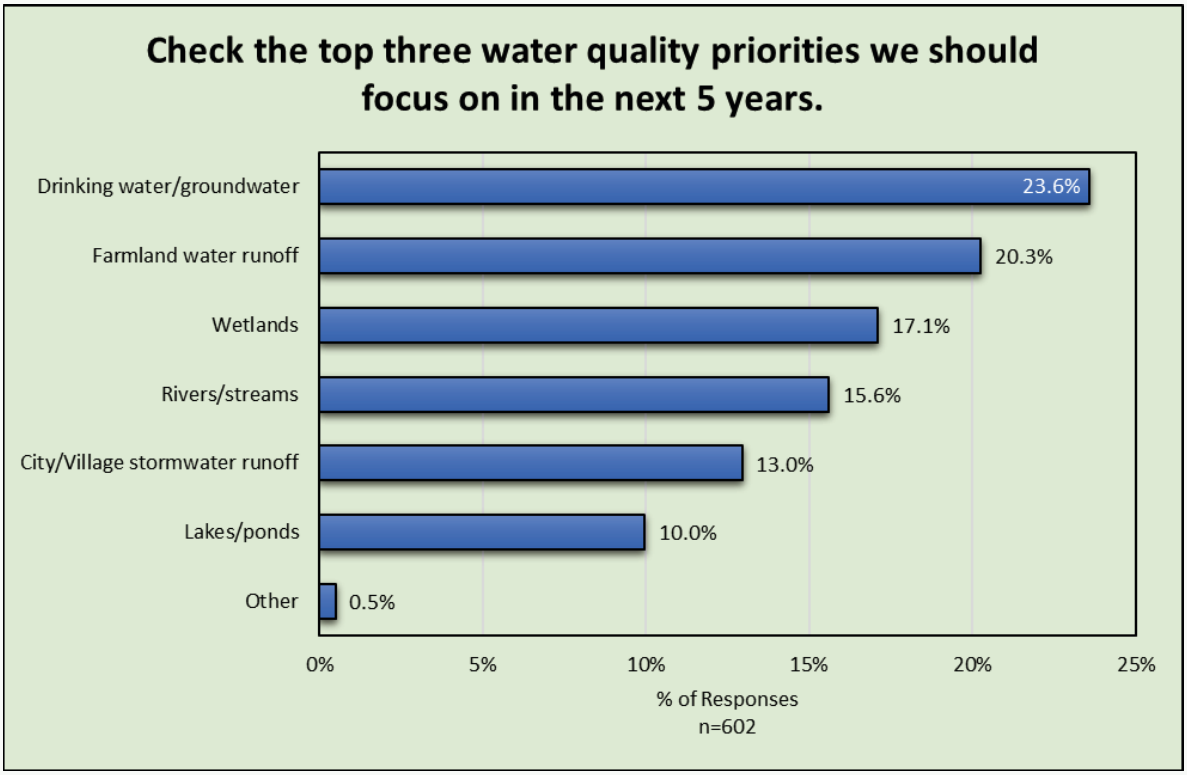


Figure 5 – Water Quality Priorities

Question four (Figure 6) asked respondents to rank the top three forests/woodland priorities. Both the Loss due to development (27.4%) and Invasive species (27%) categories received the highest percentage of responses, with Plant and wildlife habitat (23.8%) coming in third. Sustainable forest management (15.8%), Recreation/hunting access (5.4%), and the Other (0.5%) categories scored lowest.

Question five (Figure 7) asked respondents to rank the top three agricultural/farmland priorities. Proper use and disposal of farm chemical/fertilizers (19.7%), Pollinator/wildlife habitat (19.2%), and Water quality (18.6%) all ranked highest. Lower-ranking categories were Farmland preservation (14.5%), Soil erosion (10.2%), Animal manure management (10.2%), Irrigation management (6.9%), and other (0.7%).

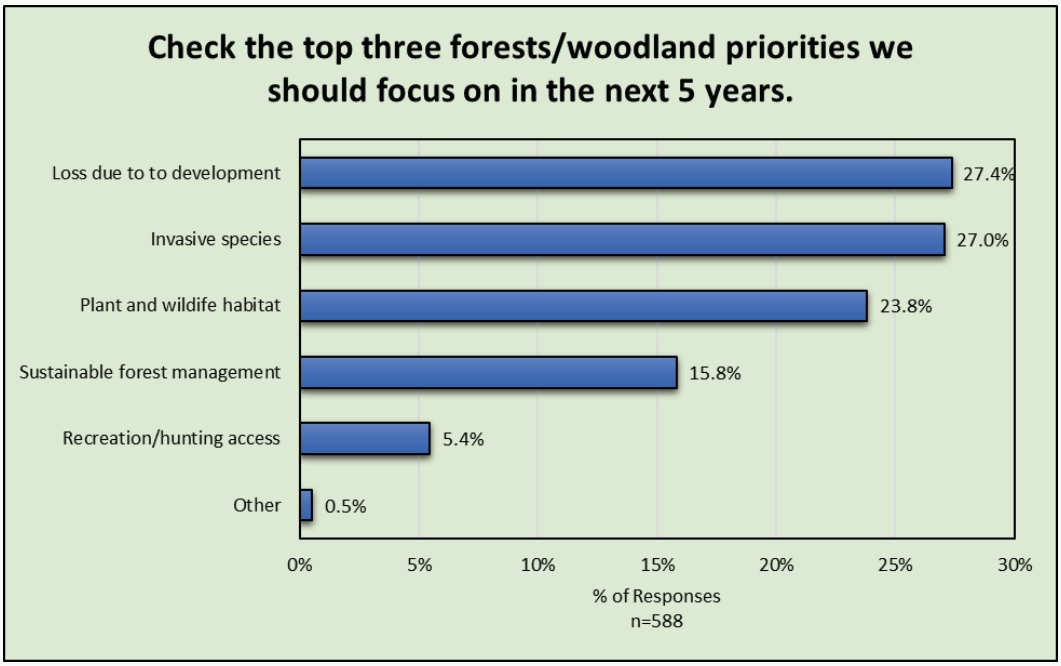


Figure 6 - Forest and Woodland Priorities

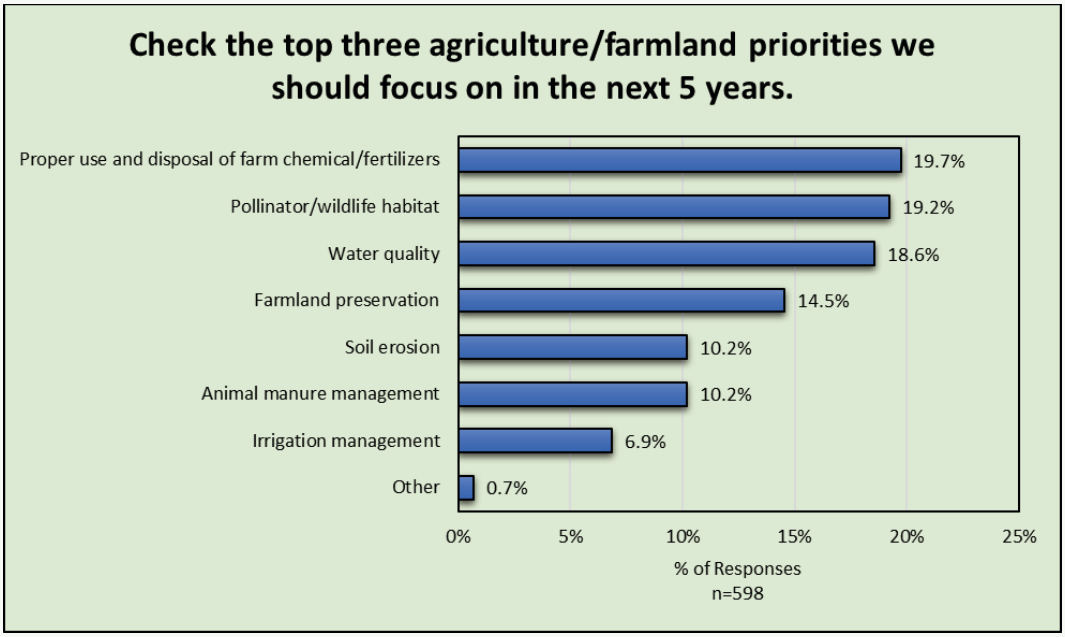


Figure 7 - Agriculture and Farmland Priorities

Question 6 (Figure 8) asked respondents about the top three non-farmed land priorities they would like OCD to focus on over the next 5 years. Invasive species (23.9%), Pollinator/wildlife habitat (23.7%), and Loss due to development (22.5%) were the three highest-ranking categories. Water conservation practices (16%), Lawncare/landscape management (7.2%), Recreational/hunting access (5.5%) and Other (1.2%) received lower scores.

Question seven (Figure 9) asked respondents to rank the top three quality of life/human behavior priorities. Invasive species/native restoration ranked higher than any other category, receiving 23.6% of the responses. Recycling/proper garbage disposal was second with 16.9% of responses, and Water conservation (rain gardens, rain barrels, irrigation management) received 15.5% of responses to rank third overall. Land recreation (biking, hiking, hunting, etc.) nearly cracked the top three, receiving 15% of responses. Proper use and disposal of household chemicals (11.8%), Water recreation (boating, fishing, paddling, etc.), Lawn and garden (5.4%), Agricultural tourism (3.7%), and Other (0.5%), received lower response rates.

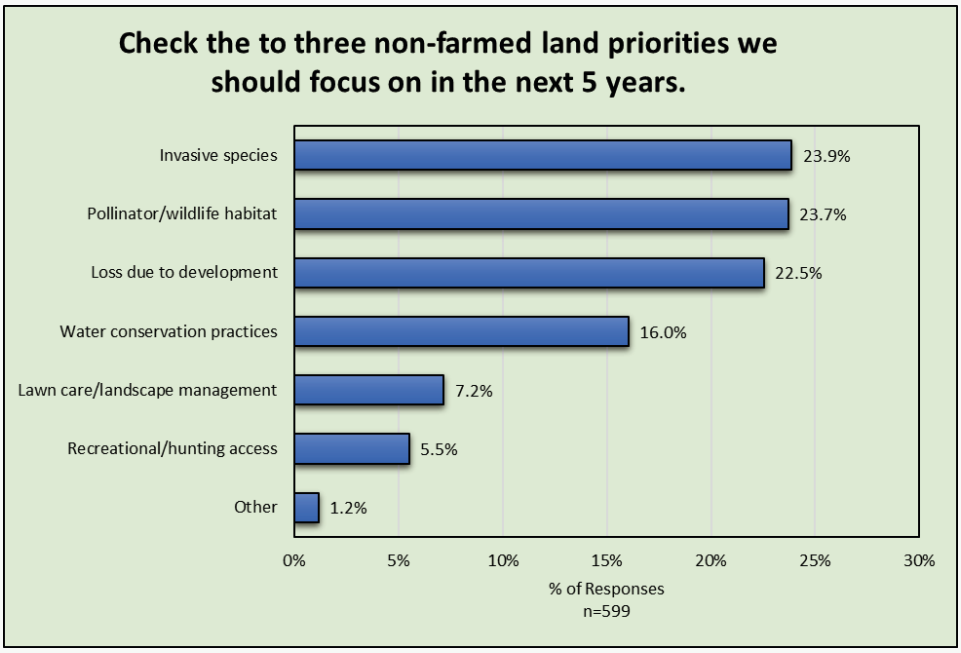


Figure 8 – Non-farmed Land Priorities

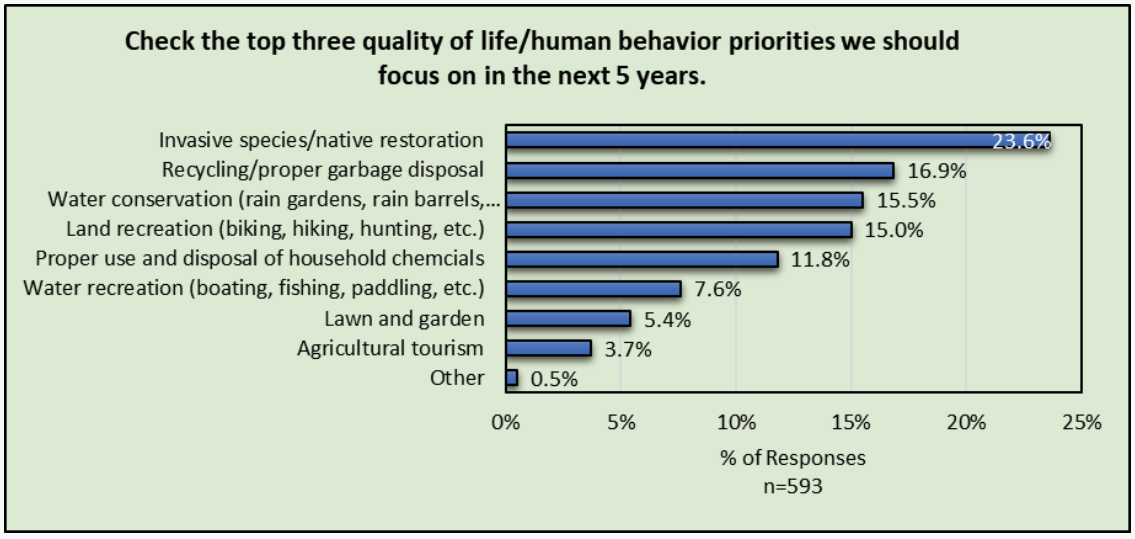


Figure 9 – Quality of Life and Human Behavior Priorities

Question eight (Figure 10) asked participants which programs OCD offers they are aware of, or whether they have participated in any. On average, respondents were aware of or had participated in a program 7% of the time. Those programs with above-average visibility and participation response rates were Tree Seedling and Native Plants sale and workshops (19.6%), Hemlock Woolly Adelgid Program (11%), Invasive Species Strike Team (11.1%), Beach and Highway Cleanups (12.1%), and the Pigeon River Watershed Management Plan (7.3%). At or below average programs were Wildlife/habitat planning (6.5%), Scrap Tire Recycling (7%), Bass River Deer Creek Restoration Project (5%), MAEAP (5.2%), Pigeon River, and Sand Creek Trout Habitat Assessments (2.9%), Sand Creek Restoration Program (5.4%), Forestry Assistance Program (4.6%), and Vegetation Removal Assurance Permits (1.7%).

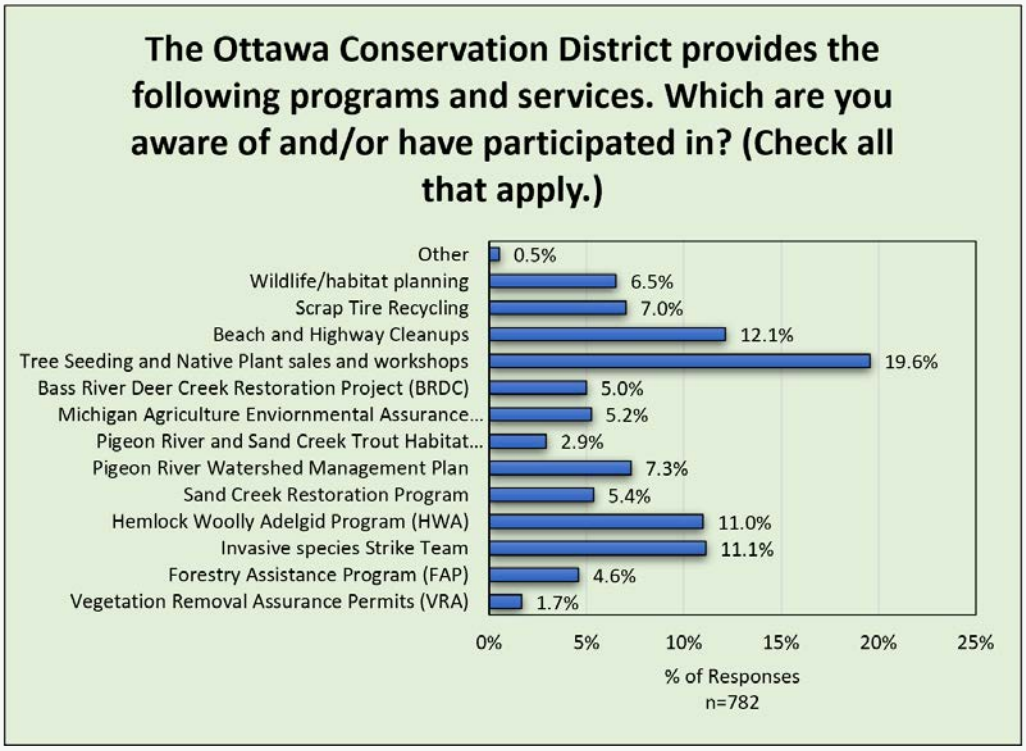


Figure 10 – Program Participation and Awareness

Question nine asked participants what actions, programs, and services they would like OCD to add to help them, their land, and the community. Out of the 201 people who responded to the survey, 61 answered this question. See Appendix C for a compilation of all written responses. The answers were widely varied and indicated that some respondents are not aware of the scope of the district's work.

Question ten asked respondents what the 5-digit zip code is of their residence or main property within Ottawa County. Out of the 201 survey respondents, 186 answered this survey question. 34 respondents answered 49417, 24 answered 49456, 17 answered 49460, 17 answered 49426, 16 answered 49424, 13 answered 49428, 10 answered 49464, 9 answered 49423, 9 answered 49401, 7 answered 49403, 6 answered 49434, 6 answered 49404, 4 answered 49435, 4 answered 49448, 2 answered 49315, 1 answered 494507, 1 answered 49544, 1 answered 49408, 1 answered 49525, 1 answered 49418, 1 answered 49318, 1 answered 49507.

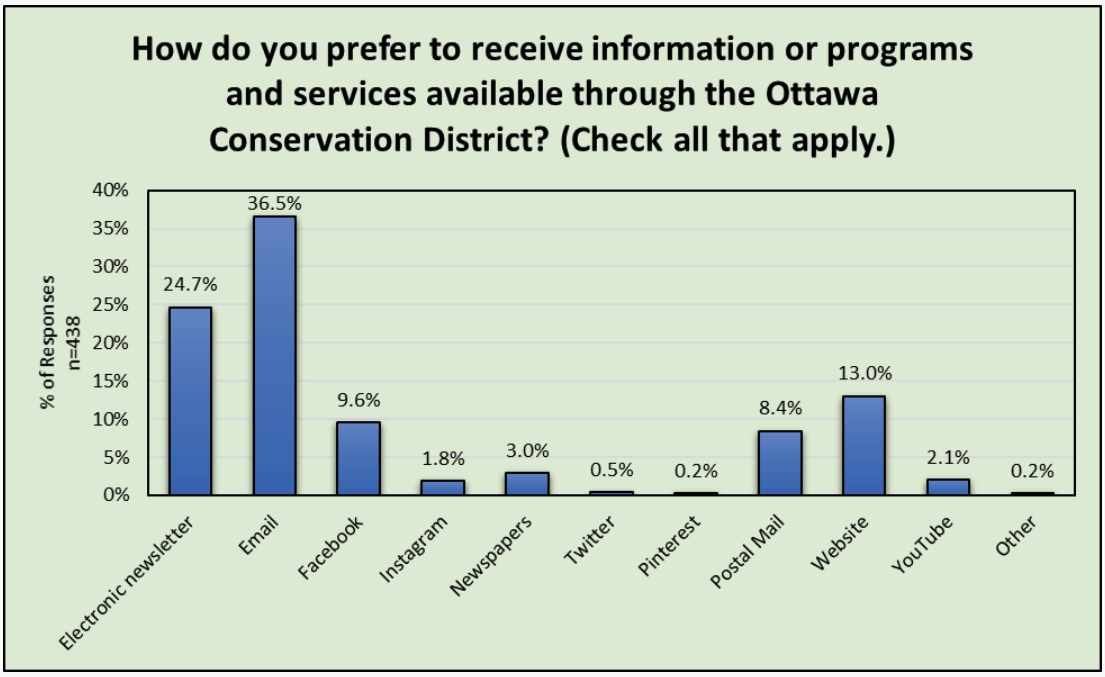


Figure 11 - Preferred Communication Methods

Question eleven (Figure 11) asked respondents what their preferred method for receiving information is. The most preferred method of communication was Email, with 36.5% of responses. The second-highest scoring method was Electronic newsletter, with 24.7% of the total responses. The Website, Postal Mail, Newspapers, YouTube, and Instagram categories received lower scores. Twitter, Pinterest, and Other received less than 1% of the responses.

Question twelve (Figure 12) asked respondents about their interest in attending a field day, workshop, or presentation on certain topics. Most respondents were interested in topics related to Native trees, plants, and pollinators (23.7%). Other high-ranking topics were Invasive species (18.1%) and Water quantity and conservation (15.2%).

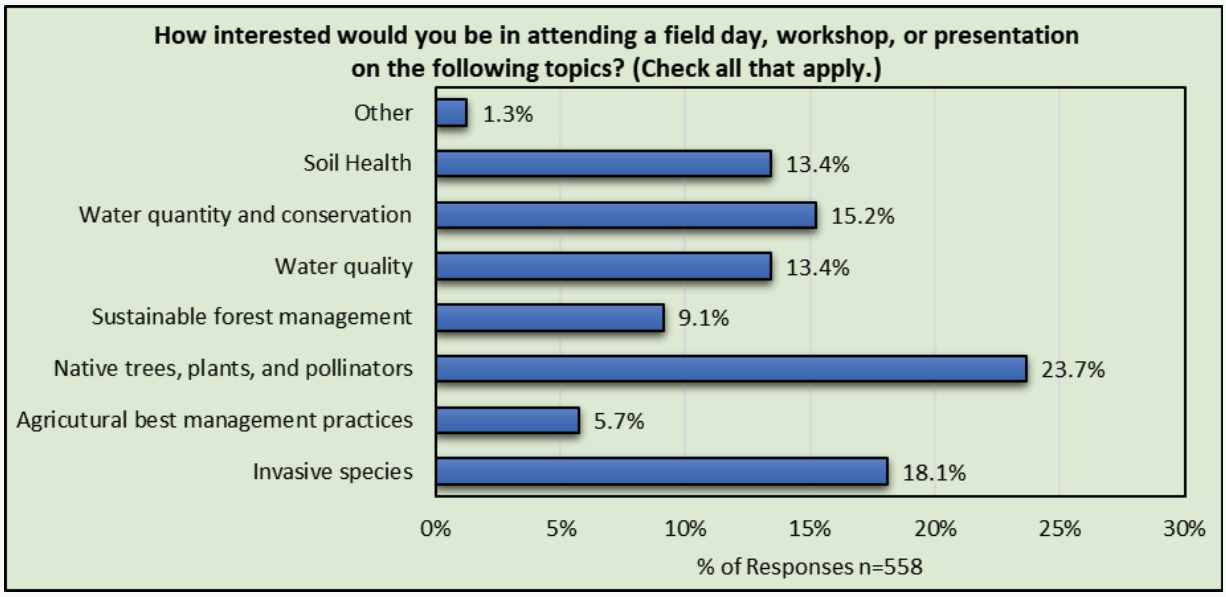


Figure 12 - Interest in Educational Programming

Question thirteen (Figure 13) prompted respondents to select from a list of volunteer events and programs, indicating which they would be interested in assisting with. The bulk of the respondents (43%) said they would be interested in helping during the Tree Seedling Sale and workshops. Beach Cleanups also received a high percentage of responses (31%).

Question fourteen asked if respondents would like to receive electronic updates from the district, and question fifteen allowed them to enter an email address if they would like to receive those updates.

Question sixteen asked respondents if there were any additional comments they wanted to provide about the survey, the OCD, or Ottawa County's resources. See Appendix D for full-length answers. Responses were largely aligned with current district goals.

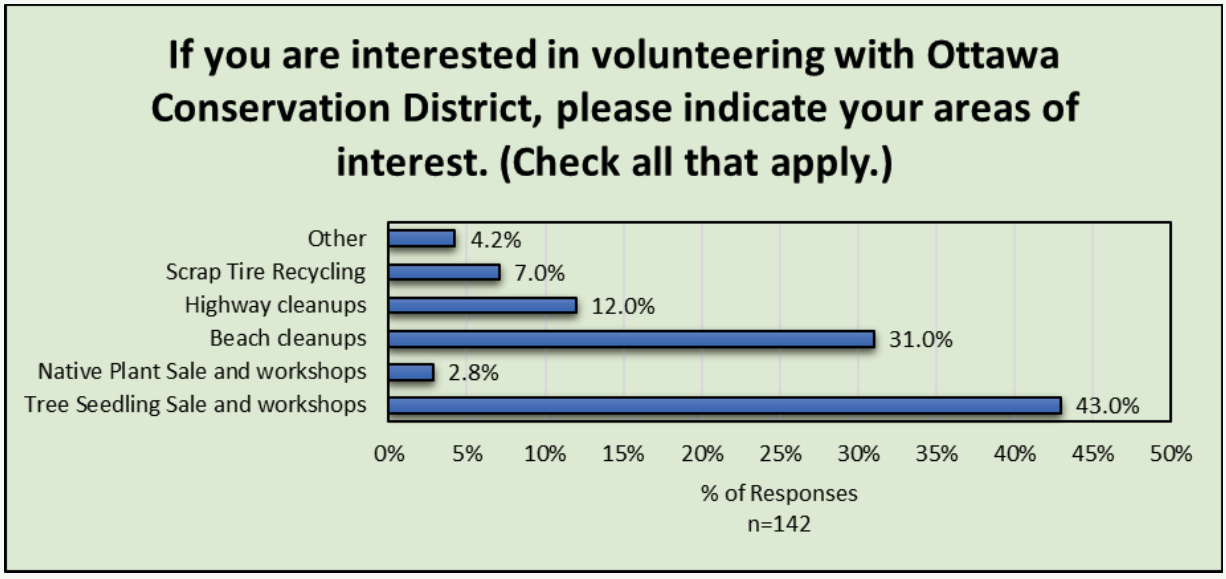


Figure 13 - Interest in Volunteering

SUMMARY OF RESULTS

The bulk of those who responded to the survey consider themselves residential homeowners in Ottawa County. Many of the respondents reported using a variety of natural areas in the county. Greater than 100 people reported utilizing Parks, Your own backyard/property, Hiking/biking trails, Lakes (Inland and/or Great Lakes), Beaches, Forests, Dune, and River/streams. This indicates a good portion of respondents utilize a variety of natural areas throughout the county.

When it came to areas respondents would like to see prioritized by OCD over the next 5 years, results were typically clear. When it comes to water quality, respondents stated they would like to see OCD focus on Drinking water/groundwater-related issues, Farmland water runoff, and Wetlands. In forests and woodlands, respondents would like OCD to focus efforts on Loss of forests and woodlands due to development, invasive species, and plant and wildlife habitat. Regarding agricultural priorities, survey respondents said proper use and disposal of farm chemical/fertilizers, Pollinator/wildlife habitat, and water quality should be the top three priorities.

With non-farmed lands, respondents indicated OCD should focus efforts on invasive species, pollinator/wildlife habitat, and loss of land due to development. Human behavior priorities were invasive species/native restoration, recycling/proper garbage disposal, and water conservation (rain gardens, rain barrels, irrigation management).

Given the indication by respondents that pollinator and wildlife habitats should be important for multiple reasons (human behavior and agricultural priorities), this area should receive an emphasis over the next 5 years. The survey also indicated many people would be interested in attending or participating in educational programming related to native trees, plants, and pollinators, setting up a potential perfect vector for OCD to disseminate information.

Another major concern of residents was the loss of land due to development. This was chosen by respondents as a top 3 priority area in the forest/woodlands and non-farmed lands categories. While difficult for OCD to address directly, stronger partnerships could provide opportunities to mitigate land loss. Coordinating efforts with Ottawa County Parks Department and Agricultural Preservation Programs, and with land trust organizations such as the West Michigan Land Conservancy are likely to be the most beneficial.

Generally, OCD is addressing or has plans to address many of the priority resource concerns described by survey respondents. Over the next 5 years, OCD will utilize the results of this survey, along with our mission statement, to continue to ensure we are serving the needs of people living in Ottawa County.

FOCUS GROUP MEETING WITH STAKEHOLDERS

December 1st, 2020
Ottawa Conservation District Board Meeting
7 Participants

METHODOLOGY

This group is comprised of the elected directors for the Ottawa Conservation District as well as a discussion facilitator and note-taker. The facilitator-led an informal discussion based on open-ended questions. The questions were drafted with the goal to gain an understanding of internal priorities.

QUESTIONS

Question 1:
Ottawa Conservation District's work currently focuses on environmentally sound agriculture practices, critical dunes, watersheds, and invasive species. Are there other project areas you believe the District should pursue in the coming 5 years?
Responses: More funding for animal agriculture-based conservation practices, continued water quality focus, an expansion into air quality conservation, and an expansion to more watersheds in the county for agricultural best management practices and septic system replacement or repair funding.

Question 2:
What services are needed in the community to further protect local natural resources?
Responses: Increased pesticide/hazardous disposal and tire disposal. Providing ways for the community to easily access proper disposal/recycling of difficult materials. Increased native plant education and education on the importance of pollinators for growers/homesteaders. More resources for small homesteaders/acreages. Residential resources for those with just a yard or patio. Eastern county and Western county focus to ensure they are being made aware of resources. Increasing ease of use/timeliness in participating with our programs. Addressing the gap in lake management.

Question 3:
What investments or improvements are a top priority for our natural resources?
Responses: Investing time into addressing soil erosion and encouraging landowners to increase soil health/water holding capacity. Improving preservation of the county's natural resource assets. Ensuring resources are going to those partners caring for assets.

Question 4:
What do you see as our most important programs? Where do you see growth and where do you see regression?
Responses: Cover crops and septic programs are very important. Invasives contribute to growth in staff and money and are very important for the District. There has been growth in aquifer/groundwater issues and our work in those areas.

THE NEXT FIVE YEARS

As a publicly funded entity, the District's role is to provide information, education, and resources to help landowners and residents manage natural resources in a way that prioritizes the environment and the integrity of community investment. The District does and will continue to provide information and education on conserving agricultural land, water quality and quantity, forests, and managing invasive species. In response to suggestions provided in the survey results and focus group, the District will be developing a detailed strategic plan to ensure that the goals made for the next five years are as achievable, balanced, and as beneficial to the public as possible. The District intends to continue with the projects, programs, services that are already successfully underway.

CONCLUSION

This completed Conservation Needs Assessment demonstrates the District's commitment to seeking landowner and stakeholder input to guide future projects and initiatives while keeping the scope of county growth demographics and public priorities at the forefront. During this recent chapter of growth and expansion, the District has worked to remain a leading resource for Ottawa County residents to maintain and improve our natural resources and environment for future generations.

SPECIAL THANKS TO:

·Landowners and stakeholders who participated in the survey and focus group
·Ottawa County Commission
·Ottawa Conservation District Board of Directors and Staff
·Natural Resources Conservation Service (NRCS) of Ottawa County
·Grant project partners
·Grant staff from Michigan Departments of Agriculture and Rural Development, Natural Resources, and Environment, Great Lakes, and Energy

APPENDICES

APPENDIX A – RARE, THREATENED, AND ENDANGERED SPECIES FOUND IN OTTAWA COUNTY

Scientific Name	Common Name	Federal Status	State Status	Global Rank	State Rank	Occurrences in County	Last Observed in County
Acris blanchardi	Blanchard's cricket frog		T	G5	S2S3	4	2017
Adlumia fungosa	Climbing fumitory		SC	G4	S3	1	1871
Alasmidonta marginata	Elktoe		SC	G4	S3?	1	
Alasmidonta viridis	Slippershell		T	G4G5	S2S3	1	
Boechera dentata	Rock cress		T	G5	S1	1	2016
Bombus affinis	Rusty-patched bumble bee	LE	SC	G2	SH	2	1954
Bombus auricomus	Black and gold bumble bee		SC	G5	S2	1	2015
Bombus borealis	Northern amber bumble bee		SC	G4G5	S3	1	1912
Buteo lineatus	Red-shouldered hawk		T	G5	S4	1	2000
Carex davisii	Davis's sedge		SC	G4	S3	1	1986
Carex seorsa	Sedge		T	G5	S2	1	2015
Cincinnatia cincinnatiensis	Campeloma spire snail		SC	G5	S3	2	1932
Cirsium pitcheri	Pitcher's thistle	LT	T	G3	S3	3	2015
Cistothorus palustris	Marsh wren		SC	G5	S3	2	2005
Clemmys guttata	Spotted turtle		T	G5	S2	5	2005
Clonophis kirtlandii	Kirtland's snake		E	G2	S1	1	1976
Collinsia verna	Blue-eyed Mary		SC	G5	SNR	1	1966
Coregonus artedi	Lake herring or Cisco		T	GNR	S3	1	1997
Coregonus kiyi	Kiyi		SC	G3G4	S2S3	1	1983
Coregonus zenithicus	Shortjaw cisco		T	G3	S2	1	2001
Corispermum americanum	American bugseed		SC	G5?	SNR	1	1900
Corispermum pallasii	Pallas' bugseed		SC	G4?	SNR	2	2015
Cyclonaias tuberculata	Purple wartyback		T	G5	S2	1	1959
Diarrhena obovata	Beak grass		T	G4G5	S2	1	2014
Eleocharis tricostata	Three-ribbed spike rush		T	G4	S2	1	1942
Emydoidea blandingii	Blanding's turtle		SC	G4	S2S3	5	2020
Euonymus atropurpureus	Wahoo		SC	G5	S3	1	2012
Euphorbia commutata	Tinted spurge		T	G5	S1	1	1901

Euxoa aurulenta	Dune cutworm		SC	G5	S2S3	1	1959
Falco columbarius	Merlin		T	G5	S3	1	2011
Falco peregrinus	Peregrine falcon		E	G4	S3	2	2018
Fontigens nickliniana	Watercress snail		SC	G5	S2S3	1	
Galearis spectabilis	Showy orchis		T	G5	S2	1	1894
Haliaeetus leucocephalus	Bald eagle		SC	G5	S4	9	2017
Hybanthus concolor	Green violet		SC	G5	S3	1	1979
Hypericum gentianoides	Gentian-leaved St. John's-wort		SC	G5	S3	1	1986
Jeffersonia diphylla	Twinleaf		SC	G5	S3	1	2010
Juncus brachycarpus	Short-fruited rush		T	G4G5	S1S2	1	2011
Lasmigona compressa	Creek heelsplitter		SC	G5	S3	4	1934
Lasmigona costata	Flutedshell		SC	G5	SNR	2	1960
Lepisosteus oculatus	Spotted gar		SC	G5	S2S3	1	2019
Ligumia recta	Black sandshell		E	G4G5	S1?	2	
Lithobates palustris	Pickerel frog		SC	G5	S3S4	1	2018
Lithospermum latifolium	Broad-leaved puccoon		SC	G4	S2	2	1899
Lycopodiella subappressa	Northern appressed clubmoss		SC	G2	S2	2	1986
Mertensia virginica	Virginia bluebells		E	G5	S1S2	5	2018
Morus rubra	Red mulberry		T	G5	S2	1	1896
Moxostoma carinatum	River redhorse		T	G4	S2	2	2018
Moxostoma duquesnei	Black Redhorse		SC	G5	S2	1	2018
Nelumbo lutea	American lotus		T	G4	S2	2	1999
Notropis dorsalis	Bigmouth shiner		SC	G5	S2	3	1997
Notropis texanus	Weed shiner		X	G5	S1	1	1934
Nycticorax nycticorax	Black-crowned night-heron		SC	G5	S3	1	2016
Obliquaria reflexa	Threehorn wartyback		E	G5	S1	4	1960
Obovaria olivaria	Hickorynut		E	G4	S1	7	1959
Panax quinquefolius	Ginseng		T	G3G4	S2S3	7	2010
Perimyotis subflavus	Eastern pipistrelle		SC	G2G3	S1	1	2004
Pisidium cruciatum	Ornamanted peaclam		SC	G4?	SNR	3	1959
Pisidium simplex	A fingernail clam		SC	G5	SNR	2	1959

Pleurobema sintoxia	Round pigtoe		SC	G4G5	S3	2	1960
Poa paludigena	Bog bluegrass		T	G3G4	S2	1	1899
Potamilus alatus	Pink heelsplitter		SC	G5	SNR	1	
Potamilus ohiensis	Pink papershell		T	G5	SNR	2	1960
Proserpinaca pectinata	Mermaid-weed		E	G5	S1	1	2011
Pterospora andromedea	Pine-drops		T	G5	S2	1	1871
Pycnanthemum verticillatum	Whorled mountain mint		SC	G5	S2	1	1910
Pyganodon subgibbosa	Round lake floater		T	G1Q	S1	1	1930
Rallus elegans	King rail		E	G4	S2	1	1894
Ranunculus ambigens	Spearwort		T	G4	SX	1	1940
Rhexia mariana	Maryland meadow beauty		T	G5T5	S1S2	1	1995
Rhexia virginica	Meadow beauty		SC	G5	S3	2	2011
Sander canadensis	Sauger		T	G5	S1	1	1919
Setophaga citrina	Hooded warbler		SC	G5	S3	1	2003
Setophaga dominica	Yellow-throated warbler		T	G5	S3	1	1999
Sisyrinchium atlanticum	Atlantic blue-eyed-grass		T	G5	S2	1	1982
Smilax herbacea	Smooth carrion-flower		SC	G5	S3	1	1979
Spiza americana	Dickcissel		SC	G5	S3	1	2007
Strophostyles helvula	Trailing wild bean		SC	G5	S3	1	1918
Terrapene carolina	Eastern box turtle		SC	G5T5	S2S3	9	2020
Toxolasma parvum	Lilliput		E	G5	S1	1	1935
Trillium nivale	Snow trillium		T	G4	S2	1	1900
Truncilla donaciformis	Fawnsfoot		T	G5	S1	4	1959
Truncilla truncata	Deertoe		SC	G5	S2S3	3	1960
Utterbackia imbecillis	Paper pondshell		SC	G5	S2S3	1	
Villosa iris	Rainbow		SC	G5	S3	1	1929
Zizania aquatica	Wild rice		T	G5	S2S3	7	1988

APPENDIX B - SURVEY QUESTION SUMMARY

1. How do you live, work, or play in Ottawa County?
- Agricultural landowner
- Homeowner (permanent resident)
- Property owner (no home)
- Renter of home and/or property
- Vacation home or 2nd homeowner
- Vacation tourist/visitor

2. Which natural areas do you utilize in Ottawa County?
- Agricultural lands
- Beaches
- Dunes
- Forests
- Hiking/biking trails
- Lakes (inland and/or Great Lakes)
- Parks
- Public hunting areas
- Rivers/streams
- Your own backyard/property
- I do not use natural areas in the county
- Other

3. Check the top three water quality priorities we should focus on in the next 5 years.
- City/Village stormwater runoff
- Drinking water/groundwater
- Farmland water runoff
- Lakes/ponds
- Rivers/streams
- Wetlands
- Other

4. Check the top three forests/woodland priorities we should focus on in the next 5 years.
- Invasive species
- Loss due to development
- Sustainable forest management
- Plant and wildlife habitat
- Recreation/hunting access
- Other

5. Check the top three agriculture/farmland priorities we should focus on in the next 5 years.
- Animal manure management
- Proper use and disposal of farm chemical/fertilizers
- Farmland preservation
- Pollinator/wildlife habitat
- Soil erosion
- Water quality
- Irrigation management
- Other

6. Check the top three non-farmed land priorities we should focus on in the next 5 years.
- Invasive species
- Loss due to development
- Pollinator/wildlife habitat
- Recreational/hunting access
- Water conservation practices
- Lawn care/landscape management
- Other

7. Check the top three quality of life/human behavior priorities we should focus on in the next 5 years.

- Agricultural tourism
- Proper use and disposal of household chemicals
- Invasive species/native restoration
- Lawn and garden
- Land recreation (biking, hiking, hunting, etc.)
- Recycling/proper garbage disposal
- Water recreation (boating, fishing, paddling, etc.)
- Water conservation (rain gardens, rain barrels, irrigation management)
- Other

8. The Ottawa Conservation District provides the following programs and services. Which are you aware of and/or have participated in?

- Vegetation Removal Assurance Permits (VRAs)
- Forestry Assistance Program (FAP)
- Invasive Species Strike Team
- Hemlock Woolly Adelgid Program (HWA)
- Sand Creek Restoration Program
- Pigeon River Watershed Management Plan
- Pigeon River and Sand Creek Trout Habitat Assessments
- Michigan Agriculture Environmental Assurance Program (MAEAP)
- Bass River Deer Creek Restoration Project (BRDC)
- Tree Seedling and Native Plant sales and workshops
- Beach and highway cleanups
- Scrap Tire Recycling
- Wildlife habitat planning

9. What additional actions, programs, and services would you like the Ottawa Conservation District to add to help you, your land, and the community?

- See Appendix C for long-form answers.

10. What is the 5-digit zip code of your home/residence or main property within Ottawa County?

- See reported zip codes in the report.

11. How do you prefer to receive information on programs and services available through the Ottawa Conservation District?

- Electronic newsletter
- Email
- FaceBook
- Instagram
- Newspaper
- Twitter
- Pinterest
- Postal mail
- Website
- YouTube
- Other

12. How interested would you be in attending a field day, workshop, or presentation on the following topics?

- Invasive species
- Agricultural best management practices
- Native trees, plants, and pollinators
- Sustainable forest management
- Water quality
- Water quantity and conservation
- Soil health
- Other

13. If you are interested in volunteering with the Ottawa Conservation District, please indicate your areas of interest.

- Tree Seedling sale and workshops
- Native Plant sale and workshops
- Beach cleanups
- Highway cleanups
- Scrap Tire Recycling
- Other

14. Would you like to receive emails from the Ottawa Conservation District about the results of the survey, events, and programs?

- Yes
- No

15. Please enter your name and email address if you would like further correspondence.

16. Please use the space below for any additional comments about this survey, the Ottawa Conservation District, or Ottawa County's resources. Do not include personally identifying information in this box.

- See Appendix D for long-form answers.

APPENDIX C - SURVEY QUESTION 9 LONG-FORM RESPONSES

"You guys do a great job with a small budget. It would be great (if funding allowed) to continue to encourage farmers to plant cover crops, perhaps with cost-share? And non-ag folks need to understand what the super-green manicured lawn costs the environment and be educated about other options that use less chemicals and water. "

"Regenerative agricultural practices as solutions for soil health, biodiversity, water security. Educating local farmers on the importance of soil health and no till practices -- how tilling degrades soil structure and leads to increased use of
pesticides, fertilizers and increased soil erosion. "

Add the Palameto Preserve (Pigeon Creek) on Lake Shore Drive approximately 1/4 mile South of Lake Michigan Drive to you clean up schedule. My neighbor and I spent approximately two hours there picking up trash yesterday (3/30/2021). Mostly discarded liquor bottles, beer cans, Styrofoam, and plastic water bottles. We removed four large garbage bags of trash. The West side pond has some large items such as lumber, an oil barrel, and automobile tires we were not able to retrieve and remove. The habitat includes a pair of eagles, ducks, geese, swans, mink, muskrats, deer, bobcat, and a variety of fish and bird species. Thank You for all that you do for the environment in Ottawa County."

""better county recycle program for those who can't afford their own service"

"?"

"Disposal of household chemicals, paints, ect. Access hours to recycling/disposal sites needs to be expanded and without charge"

"More accessible points for paddle boards or kayaks in local lakes and rivers. More single track mountain bike trails."

"add to the macatawa greenway and other parks"

"Invasive species identification resources and removal days; a notification system open to the public so we could tag where invasive species are found so removals could be organized, especially along roadsides or in parks; more

"So much trash everywhere in West Michigan (North side of Holland and west olive area) ditches. Please send crews animals are suffering due to our trash in their environment."

"Further, more updated research on agricultural land restoration."

"Adequate water supply for those with wells."

"Education! How to manage your garden and lawn, for example."

"proper septic field maintenance"

"Pollinator/wildlife habitat
Soil erosion
Water quality
Irrigation management
Lakes/ponds
Rivers/stream
Hemlock Wooly Adelgid Program (HWA)
Sand Creek Restoration Program
Pigeon River Watershed Management Plan
Pigeon River and Sand Creek Trout Habitat Assessments
Michigan Agriculture Environmental Assurance Program (MAEAP)
Bass River Deer Creek Restoration Project (BRDC)"

"CRP for upland birds"

"Clean water supply for rural areas where the groundwater salinity is high."

"Cheers to continue in the future as you have been!"

"Help and encouragement for condo communities to develop natural areas on their properties and minimize lawn maintenance."

"Make it easier to figure out how to get soil testing, water testing, or how to work with other agencies (IE drain commissioner)."

"Seems you have a comprehensive approach"

"Workshops in Native Plant gardening, building a compost bin and feeding it, outdoor service adventures for children on/in the County, birding for elementary students from home, butterfly gardening techniques...using the Grand River and understanding our watershed..."

"Fisheries. Fish management. Areas to fish with and without boat. "

"More native pollinator plantings. Removal of invasive species. "

"Maps of local hunting access areas, websites that would have current info that could be printed.."

"Water! New developments are drying up wells in Ottawa county"

"Poison ivy removal "

"Preservation of old forest growth--trees around roads; preservation of old growth trees around new developments; You all are doing a great job. Keep it up."

"Mountain biking area"

"Continue to partner with GVSU faculty, staff, students, and related departments (e.g. geology, biology, anthropology, environmental studies), programs (e.g. Making Waves)."

"I would love to see some pheasant habitat restoration programs. We have some county owned property with potential to hold wild populations of pheasant if we could put some effort into them. Also, promoting farmers to set aside some land for CRP that would help pheasants and other wildlife too. "

"Attack the out-of-hand proliferation of Autumn Olive. It is taking over a great of land and crowding out valuable native plants. One example: look at what has happened in the former Construction Ag's Gravel Pit area. Now about 75% Autumn Olive!"

"Groundwater quality and quantity, groundwater recharge, organize other types of community recycling days (HHW, electronics, etc.)"

"I'd like to be involved."

"Repair of washouts/gullies."

APPENDIX D - SURVEY QUESTION 16 LONG-FORM RESPONSES

""please focus on runoff "

"I believe Ottawa county has one of the best park systems in the Country. I use most of them in addition to State, Township, and City parks. Deep up the good work."

"you guys do a great jobs with parks and recreation area's"

"Keep up the great work."

"Help restore our wildlife. The development and trash is getting overwhelming and there has been no help. "

"prioritize environmental degradation of soil and water with remedies and education"

"I wish we could choose more than three choices, because it is so hard to choose from all of the factors that affect out community!!"

"thanks for your newsletters"

"We love the Parks and Recreation areas in our county!! Thank you for asking about five year outlook plans! "

"Great follow up on tree and invasive species visits by Drew and Ben and others!"

"Thank you for allowing participation."

"Clear plan if water tables go bad. Pumping line from Lake Michigan "

"It's encouraging to see the diversity of grants and programming that you've been able to secure and deliver the last few years."

"...well put together survey! Sorry my participation days are over."

"We are lucky to have a great team for conservation at the district especially our awesome MAEAP technician. "

"Ottawa County is a great place to live and recreate in! Let's make it even more so in the years to come."

"Keep up the great you are doing!"

"I'm very proud of Ottawa County and all of it's parks. We do a lot to protect wild life and take care of our water. But there is always more to learn."

"Great team of energetic, knowledgeable young folks, who respond with action and direction. Pleasure engaging with this fine group of today's youth. "

"Thank you for allowing me to express my feelings."

"none"

"Thank you for all the amazing trails and parks in Ottawa County. I hiked all of them this year. "

"The depletion of the aquifer is a pressing concern and probably will take a multi-pronged approach to get the average county resident to realize that they can make a difference. Whatever you can do to help is good. Thank you for your good work! "

"Ottawa County is a great place to live for outdoor activities, agricultural products and the efforts made to protect the natural environment."

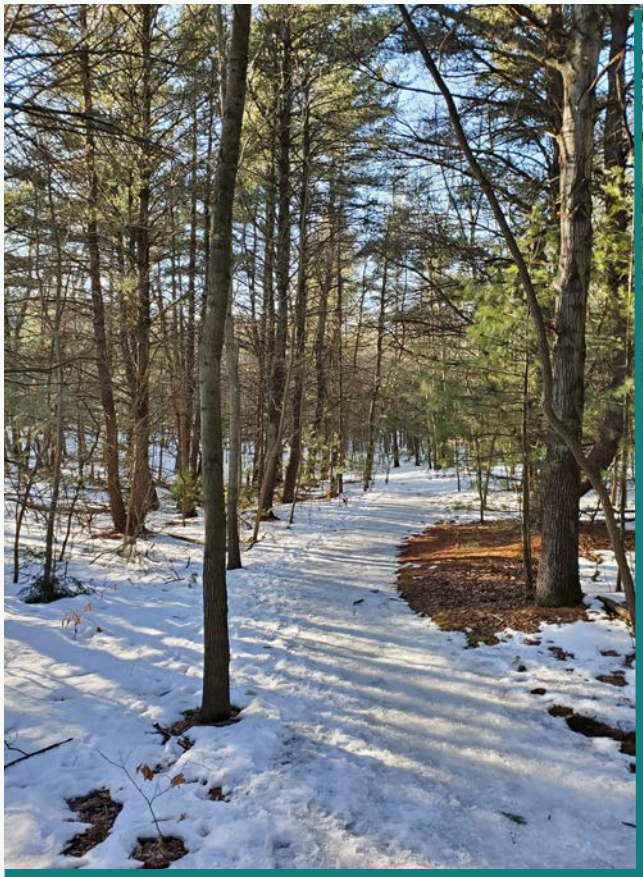
"Thank you for asking."

"Ottawa County already does a great job ensuring a future outdoor environment for people to come, but we must not let our guard down..."

"Thanks for all you do!"

"I appreciate what you guys do. Personally I would love to see less green lawns and more native plants! Keep up the good work. So many reasons to keep pushing ahead."

"Thank you for taking the survey. I'll be interested to see the results."



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(616) 842-5852 Ext. 5
ottawacd.org