
Recycling Assessment Report

Barry County
Solid Waste Oversight
Committee

Iris Waste Diversion Specialists, Inc.
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Introduction

In 2017, the Barry County Board of Commissioners approved a recommendation by the Solid Waste Oversight Committee to hire Iris Waste Diversion Specialists, Inc. (Iris) to serve in the capacity of part-time Recycling Coordinator in order to provide focused effort on the achievement of Goal 4 of the Barry County Solid Waste Management Plan; *to recover to the maximum extent possible, the resources available in Barry County's waste stream through source reduction, source separation, recycling and reuse.*

A 2013 Grand Valley State University study of recycling opportunities in Barry County benchmarked recycling access and identified the need for further evaluation to determine the best methods for implementing cost-effective and sustainable recycling programs.

The first priority for Iris was to identify and study existing materials management programs and services provided by the local units of government in Barry County. Learning about how residents handle trash, recyclables and yard waste provides valuable insight for overcoming existing challenges and creating new opportunities. Information and data herein represents all municipalities, with the exception of the Village of Freeport and Woodland Township who could not be reached prior to the writing of this report. The information gathered through meetings, personal interviews, phone conversations, site visits and on-line research provides the substance of this report and is the basis for the recommendations.

The timing of this study coincides with a revival in interest by the State of Michigan to improve recycling. With a 15% recycling rate, Michigan ranks sixth among the seven other Great Lakes states. Since April 2014, Governor Rick Snyder has made recycling a priority initiative, with the establishment of the Governor's Recycling Council (GRC), an advisory group to the Governor and the Michigan Department of Environmental Quality for implementing the Governor's Residential Recycling Plan. As part of this plan, the Michigan Department of Environmental Quality was directed to lead a Solid Waste and Sustainability Advisory Panel (SWSAP) to review Part 115, Solid Waste Management, of the Natural Resources and Environmental Protection Act. This diverse panel of stakeholders were tasked with evaluating current solid waste laws and determine ways to more effectively drive sustainable management of waste and end of life materials, rather than just landfill disposal. The work of the appointed members of the GRC and the MDEQ SWSAP culminated in two separate but complimentary reports and recommendations, which are being used to draft amendments to Part 115. The proposed amendments will change Michigan's focus from ensuring landfill capacity to a focus on the recovery of resources. County Solid Waste Management planning will change to Materials Management planning and the planning process will be simplified and include incentives to Counties for meeting and achieving recycling benchmarks. The work of the Recycling Coordinator and the findings in this study will support pending changes to Part 115 and the Materials Management Planning responsibilities of Barry County.

Summary

As is typical among rural communities, residents of Barry County most often have the opportunity to recycle at a municipal recycling drop-off site or waste and recycling transfer station. Five townships fund a recycling drop-off site for residents on township property. The recycling drop-off sites are accessible to the public on a 24-hour basis. These open air, unstaffed sites are often challenged with dumping of trash and material overflow; subsequently increasing costs for providing recycling. Three waste and recycling transfer stations exist in Barry County, serving residents of seven communities. In addition to household trash, all three municipally funded waste and recycling transfer stations accept, on varying levels, materials for recycling such as scrap metal, cardboard or standard recyclables. The waste and recycling transfer stations are gated, have limited hours of operation and are for use only to residents of communities that fund their operation. Waste Management provides a public recycling drop-off at the Hastings landfill which City of Hastings residents may use at no charge; non-City residents pay a fee to recycle.

Residential curbside recycling is primarily an individual subscription service provided by private-sector haulers. Although individual subscription service is available to the majority of residents in Barry County, according to the private-sector service providers, a small percentage of households subscribe to curbside recycling service.

Barry County's proximity to recycling markets in neighboring counties brings added recycling drop-off opportunities from the private-sector. Paper recycling programs such as the PaperGator® paper recycling program and Nu-Wool® newspaper recycling program encourage recycling participation with financial and social incentives that support local schools, churches, and Boy Scouts. Scrap metal is accepted at municipal waste and recycling transfer stations and private-sector scrap metal recycling businesses in Hastings and adjacent counties. While not the focus of this study, a few businesses were identified as being recyclers. These businesses realize how recycling can reduce their costs of operation by reducing their waste disposal costs. One Delton business recycles cardboard from their operation and any revenue received from the sale of the material is given to the local Shriners.

As with recycling services, trash services are primarily available by subscription. Several waste hauling companies from within and outside of Barry County provide trash collection service to residents. The exception is the Village of Middleville which contracts with a single hauler to provide curbside trash collection on a weekly basis.

Yard waste and brush collection services are available on a much more limited basis than recycling collection, leaving residents to compost, stockpile or burn these materials on their own property. Some municipalities identified the lack of options for managing yard waste and brush as problematic for their communities.

Many opportunities exist for recycling in Barry County; however, further research is needed to determine actual participation levels and volume of materials diverted. Based on the data gathered for this study and the subjective information provided by municipal officials, a low recycling participation rate is suspected.

Recycling Drop-Off Access

The availability of drop-off recycling opportunities through municipal programs is prevalent in Barry County. Of the 21 local units of government, 10 (47% of Townships) provide or share a recycling drop-off on municipal property, such as the Township Hall or waste and recycling transfer station. Among the 13 communities with over 1,000 households, 8 communities (61%) provide their residents with drop-off recycling, as shown in Table 1. While the City of Hastings does not provide a recycling drop-off site, per the landfill host agreement City residents have free access to the recycling drop-off site located at the Waste Management landfill on M-43 in Hastings. All Barry County residents living outside of the City of Hastings may use the Waste Management recycling site for a fee.

Table 1 - Municipal Recycling Drop-Off Programs - Comparison to Number of Households

Municipality	Total Households (2010 U.S. Census Survey)	Type of Municipal Recycling Drop-Off
City of Hastings	2,910	None
Thornapple Township	2,835	None
Yankee Springs Township	1,648	Drop-Off Site - Township Hall
Rutland Township	1,491	None
Barry Township	1,330	Waste & Recycling Transfer Station
Castleton Township	1,328	Waste & Recycling Transfer Station*
Orangeville Township	1,289	Drop-Off Site - Township Fire Station Waste Transfer Station
Hope Township	1,286	Drop-Off Site - Township Hall Waste & Recycling Transfer Station**
Prairieville Township	1,278	Drop-Off Site - Township Hall
Village of Middleville	1,268	None
Johnstown Township	1,215	Waste & Recycling Transfer Station**
Irving Township	1,126	None
Hastings Township	1,066	Drop-Off Site - Township Hall
Carlton Township	881	None
Woodland Township	793	None
Assyria Township	766	None
Baltimore Township	731	None
Village of Nashville	620	Waste & Recycling Transfer Station
Maple Grove Township	578	Waste & Recycling Transfer Station*
Village of Freeport	177	None
Village of Woodland	162	None

*Shares in costs of Village of Nashville Waste & Recycling Transfer Station

**Shares in costs of Barry Township Waste & Recycling Transfer Station

Recycling Program Model – Drop-off Site

The most common and readily accessible recycling model is a drop-off site located on Township property. Of the five Township drop-off sites in Barry County, four (Hastings, Hope, Prairieville, and Yankee Springs Townships) are located at Township Hall and one (Orangeville Township) at the Township Fire Station. All sites are unattended and available 24-hours a day except for Prairieville Township, which provides a recycling container every weekend at the Township Hall.

Hope, Orangeville, and Prairieville Townships work with a single-hauler to provide collection service for recycling roll-off containers which accept household plastic, metal, glass, paper and cardboard. Materials are placed all together in the recycling bin, which is referred to in the recycling industry as single-stream recycling.



Recycling roll-off in Orangeville Township.



Hope Township recycling roll-off container.

Hastings Township is host to a unique recycling module designed by Township Supervisor Jim Brown. Township residents can place standard household recyclable material into material specific windows for plastic, paper, cardboard, and aluminum and metal cans. Glass is not accepted.

This “source-separated” method of recycling allows Hastings Township the flexibility to sell the recyclable commodities directly to processors. In this model, commodities with market value bring revenues that offset commodities with low or no value. Additionally, the recycling module is engineered with a solar panel and generates energy to power the Township office building.



Hastings Township recycling module is equipped with solar panels to bring added benefit to the Township.

There is some interest by others to utilize the Hastings Township model to offer recycling, however; the cost of the unit and contamination concerns have impacted decision making. Purchasing a recycling module, with optional solar panel, is an investment in a municipal recycling drop-off program that may present financial benefit over the traditional method of using a private-sector recycling hauler to equip and service the municipally funded recycling drop-off



Metal recycling roll-off container at Yankee Springs Township.

The recycling drop-off site at Yankee Springs Township is a high use site. To reduce recycling program costs, the site is set up with bins for specific materials that may bring revenue or cost less than the single-stream recycling service. A PaperGator® recycling bin for the collection of paper, a roll-off container for household metal and scrap metal are currently available for residents at the Yankee Springs recycling site. There is no cost to the Township for the PaperGator® program and the revenue from the sale of the metal collected offsets costs when market prices are good. The remaining materials, plastic, glass and cardboard are collected single-stream in a recycling roll-off. The Township is considering adding another recycling bin for only cardboard in hopes of reducing hauling costs of the single-stream recycling roll-off to the Kent County Material Recovery Facility.

All Townships indicated the recycling drop-off sites are well used; however, cited several challenges:

- *Boxes placed in the bin without being broken down and flattened.* Open boxes take up unnecessary space in the recycling bin, creating a need for more frequent pickup service which increases costs.
- *Bagged recyclable materials placed in recycling bins.* Aside from the fact that plastic bags are not accepted for recycling, bagged materials create pockets of unused space that contribute to increased service. Unbagged and loose materials maximize the space in the bins through settling and filling in of air space.
- *Leaving recyclable materials outside of the bins on the ground.* Aside from being unsightly, windy conditions increase litter at the Township and neighboring properties. For Townships with a seasonal influx of tourists and summer residents, materials left outside the bins is a recurring problem that challenges the budget and aesthetics of the community.
- *Trash dumping.* The added cost for the disposal of trash in and around the bin threatens continuation of recycling programs. Challenges multiply with the use of the bins for trash disposal by seasonal visitors.
- *Non-resident use of the recycling bins.* Each Township program is funded by its residents and intended solely for their use; however, most people see recycling as a good thing and will recycle where a bin is available and without consideration for who pays for the recycling program. Some Townships indicated they don't mind non-residents using their drop-off site as long as they are recycling properly.
- *Business use of the recycling drop-off sites.* Funded with residential tax dollars, the recycling sites are for residential use only. While well intentioned, businesses that use the recycling sites avoid the costs of recycling on site at their place of business at resident's expense. The volume of material generated by a business is generally more than a household and may have significant cost implications when extra service is required to accommodate recycling bins that fill sooner than anticipated.



Recyclable material left outside of full recycling container in Yankee Springs Township.

Recycling Program Model - Shared Services

Two models of shared services for management of waste materials exist in Barry County. Cost-sharing of waste and recycling transfer stations provides economic benefit to the partnering municipalities while providing access to trash disposal and recycling of accepted materials. Distance to the waste and recycling transfer station, unimproved roads leading to the transfer station, and limited hours of operation were identified as barriers that may reduce residential use of the sites.

The Village of Nashville and the Townships of Castleton and Maple Grove have a Transfer/Recycle Station Board to oversee the operation of the shared site in Nashville. A part-time transfer station attendant is paid to manage resident's use of the site during hours of operation. Residents generally use the site for disposal of larger items. To reduce trash disposal costs, the attendant assesses the materials brought in and redirects materials to locations on the site for recycling or reuse. Scrap metal and cardboard is accepted for recycling and items such as garden tools and lawnmowers are put in the reuse area for residents to take if they can use the item. Brush is also accepted. Residents are charged a fee for the cost of the disposal of trash, tires and used motor oil. Various vendors handle the materials received at the waste and recycling transfer station on an as needed basis.

Barry Township owns a waste and recycling transfer station and has arrangements with Hope and Johnstown Townships for residents to use the site. A private waste hauler is contracted to attend to the site when open. The contracted hauler determines and collects any fees for materials brought to the site. Household trash, appliances, tires and yard waste materials are accepted for a fee. Household recyclables are accepted at no charge.

Table 2 - Costs of Various Municipal Recycling Programs in Barry County

Municipality	Cost of Recycling/Budget	Funding Method
Barry Township	\$9,000Total Transfer Station Cost	General Fund
Castleton Township	\$5,000 (Cost Share Transfer Station)	General Fund
Hastings Township	\$7,600	General Fund
Hope Township	\$3,500 (Cost Share Transfer Station)	General Fund
Johnstown Township	\$3,500 (Cost Share Transfer Station)	General Fund
Maple Grove Township	\$5,000 (Cost Share Transfer Station)	General Fund
Village of Nashville	\$5,000 (Cost Share Transfer Station)	General Fund
Orangeville Township	\$14,000	General Fund
Prairieville Township	\$16,000	General Fund
Yankee Springs Township	\$30,000	General Fund

Recycling Program Model – Individual Subscription

Residents in Barry County who subscribe with a private-sector hauler for curbside trash collection services have the same opportunity to subscribe to curbside recycling services. With the exception of Assyria and Johnstown Townships, the majority of private-sector waste haulers serving Barry County residents offer curbside recycling service. While curbside recycling service provides a convenient option for residents who do not have or do not use a drop-off site or waste and recycling transfer station, the private-sector haulers interviewed for this study noted that subscriptions for recycling service is low. In general, there is little promotion by waste hauling companies of their services, therefore it follows that residents are unaware of the availability of curbside recycling by their trash hauler and do not subscribe to the service.



Other Municipal Services for Materials Management

Programs for handling waste materials other than trash and recycling were minimal among Barry County municipalities. Yard waste or brush collection and community clean up events for disposal of large items were the most common services provided, as shown in Table 3.

Table 3 - Other Municipal Materials Management Services

Municipality	Service
City of Hastings	Leaf and Small Brush Collection <ul style="list-style-type: none">• Twice per year - Spring and Fall• Pick up done by City crews
Village of Middleville	Yard Waste <ul style="list-style-type: none">• Seasonal• Twice per month pick up• Pick up done by Village DPW staff Brush Collection <ul style="list-style-type: none">• Seasonal• Once per month pick up• Pick up done by Village DPW staff Clean Up Day - Annual Drop-off Event
Village of Woodland	Brush Site <ul style="list-style-type: none">• Resident drop-off• Pick up of small amounts by Village DPW staff Clean Up Day - Annual Drop-off Event

Based on number of households, residents have opportunities to manage trash at no or minimal out-of-pocket cost through municipal programs such as waste and recycling transfer stations. Access to municipal recycling programs is more available than yard waste and brush pick up programs. Assuming 100% participation by residents, Table 4 shows the percentage of households in Barry County with access to these municipal funded materials management services. One-hundred percent participation in any of the services is highly unlikely; however, this figure is presented to illustrate the limited availability of services and the potential for participation.

Table 4 - Households with Access to Municipal Materials Management Services

Trash	Recycling	Yard Waste	Brush
Curbside Contract or Waste Transfer Station	Opt-In Curbside Contract, Drop-off Site, Waste Transfer Station	Seasonal Pickup, Seasonal Drop-off, Waste Transfer Station	Seasonal Pickup, Seasonal Drop-off, Waste Transfer Station
36%	64%	38%	43%

[illegible]

Table 5 - Municipal Materials Management Services

Municipality	Type of Municipal Service			
	Trash	Recycling	Yard Waste	Brush
Assyria Township	None	None	None	None
Baltimore Township	None	None	None	None
Barry Township	Waste & Recycling Transfer Station	Waste & Recycling Transfer Station	Waste & Recycling Transfer Station	Waste & Recycling Transfer Station
Carlton Township	None	None	None	None
Castleton Township	Waste & Recycling Transfer Station*	Waste & Recycling Transfer Station*	Waste & Recycling Transfer Station*	Waste & Recycling Transfer Station*
City of Hastings		None		Seasonal DPW Pickup
Village of Freeport	None	None	Unknown	Unknown
Hastings Township	None	Drop-Off Site - Township Hall	None	None
Hope Township	Drop-Off Site - Township Hall/ Waste & Recycling Transfer Station**	Drop-Off Site - Township Hall/ Waste & Recycling Transfer Station**	None	None
Irving Township	None	None	None	None
Johnstown Township	Waste & Recycling Transfer Station**	Waste & Recycling Transfer Station**	Waste & Recycling Transfer Station**	Waste & Recycling Transfer Station**
Maple Grove Township	Waste & Recycling Transfer Station*	Waste & Recycling Transfer Station*	Waste & Recycling Transfer Station*	Waste & Recycling Transfer Station*
Village of Middleville	None	None	Seasonal DPW Pickup	Seasonal DPW Pickup
Village of Nashville	Waste & Recycling Transfer Station	Waste & Recycling Transfer Station	Waste & Recycling Transfer Station	Waste & Recycling Transfer Station
Orangeville Township	Drop-Off Site - Twp Fire Station Waste Transfer Station	Drop-Off Site - Twp Fire Station Waste Transfer Station	None	None
Prairieville Township	None	Drop-Off Site - Township Hall	None	None
Rutland Township	None	None	None	None
Thornapple Township	None	None	None	None
Woodland Township	None	None	Unknown	Unknown
Village of Woodland	None	None	None	Seasonal DPW Drop-off
Yankee Springs Township	None	Drop-Off Site - Township Hall	None	None

*Shares in costs of Village of Nashville Waste & Recycling Transfer Station

**Shares in cost of Barry Township Waste & Recycling Transfer Station

Recycling Processors

A wide variety of companies provide recycling services to municipal waste and recycling transfer stations, municipal recycling drop-off locations and residential subscription customers. Haulers willing to provide information for this study indicated that single-stream and commingled recyclables are delivered to the Kent County Materials Recovery Facility in Grand Rapids for processing. Kent County provided recycling data, reporting 465.13 tons were recycled from Barry County in 2017 from a variety of haulers including:

- Arrowwaste, Inc.
- Bernie's Haul Away Inc.
- Bob's Disposal, Inc.
- Everkept Disposal
- Jim's Pick-up Service
- Les's Sanitary Service
- Republic Services
- Waste Management of Michigan

Recyclable materials are also delivered to the Republic Services facility in Marshall and Waste Management facility in Battle Creek. These companies would not provide data for inclusion in this report stating the data was proprietary.



In 2017, over 465 tons of recyclable materials collected in Barry County were processed at the Kent County Materials Recovery Facility in Grand Rapids.

Residential Private Sector Services

The private sector plays a large role in providing service provision for collection of trash and recycling at the curb and to municipal waste and recycling transfer stations and drop-off sites. Two local hauling companies based in Hastings, Jim's Pickup Service and Les's Sanitation Services, have a significant customer base in Barry County although residential trash and recycling services are provided in limited areas. National hauling companies Waste Management and Republic Services are based out-of-county yet have a concentrated presence in the County. Waste Management serves the Hastings area under a franchise agreement with the City of Hastings and Republic Services is under contract to the Village of Middleville. Both Waste Management and Republic Services also have a less concentrated presence across Barry County. Best Way Disposal is a regional hauler based in Kalamazoo that primarily provides service to the southern and southwest sections of Barry County. Other waste and recycling companies spill over from across the six Michigan counties bordering Barry County to provide residential and municipal services for trash, recycling and yard waste collection.

Table 6 - Waste & Recycling Companies Providing Residential Services in Barry County

Hauler	County of Origin
Arrowwaste, Inc.	Ottawa
Bernie's Haul-Away, Inc.	Allegan
Best Way Disposal, Inc.	Kalamazoo
Bob's Disposal	Kent
Butcher Disposal/Sherrod's Refuse Services/Sunny Bay Disposal	Calhoun
Everkept Disposal	Ottawa
Jim's Pickup Services	Barry
Les's Sanitary Service	Barry
Republic Services	Kalamazoo
Scooter's Refuse Service	Calhoun
Waste Management of Michigan – Southwest	Calhoun

County Wide Recycling Opportunities

Several companies provide recycling opportunities for a variety of materials across Barry County. Private-sector companies in Hastings accept materials for a fee, and fundraising programs for newspaper and mixed paper benefit local schools, churches and community groups, as shown in Table 7.

Table 7 - Other Recycling Drop-Off Sites in Barry County

Company or Program	Materials Accepted	Type of Program	Location
Nu-Wool®	Newspaper	Fundraiser - Boy Scout Troop	Delton Fire Station
PaperGator®®	Books-Soft/Hard Cover Catalogs/Magazines Junk Mail Newsprint Office/School paper Phone Books	Fundraiser - Various schools and churches	23 locations - Hastings, Middleville, Yankee Springs A list of PaperGator® locations is provided in the Appendix.
Padnos	Batteries Cardboard Electronics Paper Paper Plastics Metals Scrap metal	Private-sector - They pay for some, some are accepted for a fee. Visit: hastingsrecycling.com	Hastings
Waste Management Recycling Drop-Off	Paper Plastics Metals Cardboard	Private-sector - For fee drop-off	Hastings - Waste Management Landfill



The Nu-Wool newspaper recycling trailer in Delton provides financial support to the local Boy Scout Troop.



Schools and churches get paid for paper recycled in the PaperGator® recycling bin.

Funding of Adjacent County Resource Recovery Programs

Barry County receives funding for resource recovery programs from a landfill surcharge. The Barry County Solid Waste Oversight Committee oversees the use of the funds, which are generally used to cover costs of two Household Hazardous Waste events, recycling mini-grants and the Recycling Coordinator contract.

Allegan, Calhoun, Eaton, Ionia, Kalamazoo and Kent Counties border Barry County. Four of the six counties manage resource recovery programs for use by their respective County residents only. Of those with programs, three are funded by landfill surcharges. One county program is funded as allowed by Michigan Public Act 69 of 2005 which permits the establishment of a county recycling, composting and/or household hazardous waste program with some or all local units of government in the county. Improved parcels within the participating local units are assessed up to \$25 per year, as determined by the County.

Kent County has the most robust and well funded resource recovery program. Funding generated from landfill and disposal facility surcharges correlates with county population and economic activity. Kent County recently announced an aggressive goal to reduce landfill waste by 20% by 2020 and by 90% by 2030.

Table 8 identifies each county and their funding source. As funding will be necessary to support future materials management initiatives in Barry County, information on various recycling program funding mechanisms is included in the Appendix; see *Funding Options for Michigan Recycling Programs*.

Table 8 - Funding of Adjacent County Resource Recovery Programs

County	Resource Recovery Program	Funding Mechanism
Allegan	Yes	Michigan Public Act 69
Calhoun	Yes	Landfill Surcharge
Eaton	Yes	Landfill Surcharge
Ionia	No	N/A
Kalamazoo	No	N/A
Kent	Yes	Landfill Surcharge, Disposal Facility Surcharge

Opportunities & Recommendations

The Challenge of Illegal Dumping

The challenges cited by the municipal officials and staff contacted for this study are typical of issues faced by many Michigan communities with unattended, public recycling drop-off sites. While recycling drop-off sites are intended to offer convenient recycling access, these unattended sites become easy targets for illegal dumping of trash and overflow problems. The closure of recycling drop-off sites is usually due to the costs incurred by municipalities for cleanup and disposal of materials improperly placed at the site.

To address the issue of illegal dumping of trash it is suggested that local units of government and the County assess the expectations for the management of waste materials. Are citizens expected, or required by ordinance or law, to dispose of waste materials in a specific manner, time frame, etc.? What is the current procedure for handling these situations?

When trash service is not provided through the municipality but left to the resident to handle, there are factors, such as financial hardship, which may prevent a household from obtaining regular trash service. The unpleasant nature of trash causes residents without trash service to find a place to dispose of it and the unattended, convenient recycling drop-off site, roadside ditch or rural property ends up becoming the disposal site.

Enforcement

The illegal dumping of trash can be deterred through the enforcement of existing State laws by the County Prosecutor's Office. A summary of illegal dumping, littering and scavenging laws is provided in the Appendix to this report. Municipalities can support enforcement with the installation of security cameras to monitor the site and provide evidence of dumping to local law enforcement. Encouraging users of the recycling drop-off sites to become the "community watchdogs" and record license plate numbers and report to local law enforcement when illegal dumping is observed can improve monitoring of sites and prosecution of offenders.

Many communities have a high seasonal influx of summer visitors who may be challenged to find a location to dispose of trash when no options are available. Are local campgrounds and vacation rental properties providing trash disposal for guests or are guests required to take their trash with them upon departure? If the latter is the case, illegal dumping is likely to occur. Municipalities can work with the owners of campgrounds and vacation rental properties to establish waste disposal guidelines that will discourage the use of the recycling drop-off bins for trash.

Limit Access

Currently, the recycling drop-off sites are accessible 24 hours a day and unsupervised. To reduce illegal dumping and improper use, municipalities may consider fencing off the area around the recycling bins and establishing set hours of operation. Community volunteers could be recruited to supervise the use of the site during open hours.

Limiting access may be seen as an inconvenience for residents who recycle but this action makes it more difficult for the recycling bins to be used for trash disposal. Committed recyclers would likely support this change if illegal dumping is jeopardizing the continuation of the recycling program.

With the addition of site supervision, cost savings are possible due to a reduction in costs to dispose of contaminated material loads. Site supervisors will also interact with users of the site and ensure materials are properly prepared and that unwanted materials are kept out of the bins.

Orangeville Township with both a recycling drop-off site and a transfer station, could consider moving the recycling bins inside of the transfer station. As a drop-off site with high levels of contamination and misuse, the probable cost savings may allow for increased hours at the transfer station from every other week to weekly and thereby, improve access to the recycling bins.

Material Overflow

Evaluate Options for Service Method

The recycling drop-off sites in Barry County are equipped with 30-cubic yard roll-off containers modified with openings for depositing recyclable materials. Service is set up on a regular schedule or, as an on-call basis when the container is at capacity. The municipality is billed on a per occurrence basis for container service.

The per occurrence billing method pressures municipalities to call for service only when containers have reached maximum capacity in order to maximize the recycling budget. However, since material volume per user is unpredictable, maximum capacity can be reached sooner than anticipated leading to overflow and materials being left on the ground.

A new trend in the hauling industry is a move toward replacing recycling roll-off containers with an equivalent number of 10-12 cubic yard recycling containers that can be serviced by a rear-load or front-load truck. Containers of this size and design can be serviced by standard waste/recycling trucks and can be emptied along the residential recycling collection route. This service structure creates efficiency for the hauling company and provides a regular schedule of service for the municipality. When residents know the bin is serviced on a regular schedule they are more likely to return with their recyclables after the containers have been serviced rather than leave them on the ground.

Utilizing smaller recycling containers also allows for adjustments to the number of bins on site to accommodate seasonal changes in use, which may present a solution for overflow during peak season and bring cost savings through the reduction of bins on site during the off season.



Recycling drop-off site in Manistee County where custom 12-cubic yard containers are serviced by a rear-load truck on a weekly basis.

Expansion of Shared Services

The model of shared services for waste and recycling transfer stations is a good example of how sharing resources and costs can provide residents with expanded materials management services. The waste and recycling transfer stations provide a local site for the disposal of large materials not accepted at curbside. Having access to a local site provides a valuable service to the community by reducing illegal dumping at the recycling sites and roadside.

The waste and recycling transfer stations are underutilized for recycling, since they are used primarily for trash and large item disposal. The three transfer stations in Barry County accept recyclable materials, although the type of material varies for each location. Expanding to accept all standard household recyclables would increase opportunities to divert materials from the landfill; however, to create a site that will be well used, road improvements, site and bin signage, and expanded hours of operation are suggested.

Local officials expressed an interest in a county-wide recycling program. With funding, a county-wide waste and recycling transfer station could be established to accept materials from haulers serving Barry County, residents, and businesses. The facility could accept a broad range of materials, including standard household recyclables, commercial sector materials, and hard-to-recycle materials i.e., mattresses and polystyrene foam. A facility with the capacity to bale recyclable materials for shipment to a materials recovery facility would provide job opportunities and materials management solutions for Barry County citizens and businesses.

Contracted Single-Hauler Service

One of the most effective ways to increase recycling participation is to contract with a single-hauler to provide trash and recycling service; where recycling service is provided to every household on a regular schedule, as opposed to being included in the contract as an opt-in service. Case studies indicate that residential participation in recycling increases significantly when carts are provided as part of curbside collection service.

A number of waste and recycling hauling companies are currently providing service in Barry County and may have an interest in securing a contract for service provision to an entire community. To improve economies of scale, municipalities with smaller populations could collaborate on a contract to improve pricing.

Contracting with a single hauler may also bring other benefits, such as a reduction in road wear as a result of fewer haulers on the road, or added services such as a community wide Clean Up event, yard waste collection, etc.

Increase Public Education

No matter the method of recycling service provision, education and outreach to citizens is a necessary function of a successful and sustainable materials management program. According to the Recycling Partnership, \$1.00 per household should be budgeted to provide effective public education.

As part of this study municipalities with recycling access were asked about the methods used to communicate recycling information to residents. Seven out of ten municipalities provide recycling information on the municipal website and in property tax bills or utility bills. Half of the municipalities indicated they produce a newsletter which includes recycling information. Social media, print materials and newspaper advertising are used less frequently to communicate about recycling. Municipal representatives indicated a need for more robust public education to support proper recycling and were pleased to learn of the public education efforts that are forthcoming from Iris.

Conclusion

There are many opportunities to drop-off recyclables in Barry County; at a municipal recycling drop-off site or waste and recycling transfer station, at the site of a paper recycling fundraiser program, or at a private-sector recycling business. For those without a drop-off site or who find them inconvenient, curbside recycling service is available to the majority of households through their private-sector trash provider. It is obvious that recycling is important to citizens of Barry County as evidenced by the variety of recycling options available. Despite the numerous opportunities to access recycling, information gathered through this study indicate residential recycling participation is low.

The findings in this study point to a need for ongoing public education, for proper recycling, for a reduction in illegal dumping at recycling drop-off sites, and increased recycling participation. To fulfill Goal 4 of Barry County's Solid Waste Plan, it is recommended that Barry County continue to dedicate resources to this effort, define core principals and goals, develop strategies to achieve high levels of landfill diversion, and provide technical assistance and support to local units of government.

As the Governor and the State of Michigan acknowledge the positive impacts to economic development, natural resource protection, and quality of life gained through well planned materials management programs, Barry County can commit to develop a plan that aligns with State goals. Legislation is on the horizon to amend and fund County Solid Waste Planning, provide funding to improve recovery of materials, and develop markets within Michigan. Barry County and its citizens will benefit from the successful passage of the Legislation and the resulting initiatives that will prove essential to the future of Michigan's economic growth.

Appendix

Barry County Materials Management Profile

Barry County Publicly Funded Materials Management Services - Map

Barry County PaperGator®® Locations

Illegal Dumping, Littering and Scavenging Laws Reference Summary

Funding Options for Michigan Recycling Programs

Barry County Materials Management Profile

Assyria Township

STATISTICS

Population: 1,986

Households: 766

Seasonal Influx: 0.8%

MUNICIPAL RECYCLING PROGRAM STATUS

Assyria Township does not offer a recycling program currently for financial reasons. The township has the lowest millage in the county and residents prefer this. It will take buy-in from residents in order to offer a recycling program that will require an increase in their millage. The Township Supervisor is working on getting citizens involved in Township business and is willing to hear ideas regarding recycling program after he gets Assyria Township residents active.

YARD WASTE & BRUSH SERVICES

No municipal program provided; yard waste can be burned on residential property.

PRIVATE SECTOR SERVICE PROVIDERS

Curbside trash service providers:

- Les's Sanitary Service
- Scooter's
- Waste Management

Curbside recycling service providers:

- None

OTHER RECYCLING OPPORTUNITIES

Unaware of other recycling programs within the Township.

Barry County Materials Management Profile

Baltimore Township

STATISTICS

Population: 1,861

Households: 731

Seasonal Influx: 2.7%

MUNICIPAL RECYCLING PROGRAM STATUS

Baltimore Township is interested in providing recycling in partnership with Pierce Cedar Creek Institute. A recycling unit like the one being used in Hastings Township is being considered. The unit would be available for use by Baltimore Township residents and members of Pierce Cedar Creek Institute. Pierce Cedar Creek Institute has concerns about contamination of the recycling bins and look to the County's Recycling Coordinator for technical assistance in determining the best approach.

YARD WASTE & BRUSH SERVICES

Handling of yard waste and brush is unknown.

PRIVATE SECTOR SERVICE PROVIDERS

Curbside trash service providers:

- Les's Sanitary Service

OTHER RECYCLING OPPORTUNITIES

Unaware of other recycling programs within the Township.

Barry County Materials Management Profile

Barry Township

STATISTICS

Population: 3,378

Households: 1,391

Seasonal Influx: 8.9%

MUNICIPAL RECYCLING PROGRAM STATUS

Barry Township owns a waste and recycling transfer station and has a cooperative agreement with Hope and Johnstown Townships to share in the cost of operation. Total annual operating cost is budgeted at \$9,000.00. Hope and Johnston Township's portion is \$3,500 each. Barry Township pays for costs that exceed the budget.

There is no charge to residents of these three communities for recycling drop off; materials recycled include: metal, cardboard and plastics. However there is a charge for disposal of trash, appliances, brush, grass and leaves. The fee is determined per truck/trailer load by contracted operator, Sunny Bay Disposal.

Communities outside of Barry, Hope and Johnstown townships may incur a fee for use of the transfer station, as determined by the Site Operator.

YARD WASTE & BRUSH SERVICES

Brush, grass and leaves are accepted for a fee at the waste and recycling transfer station. Yard waste can be burned on residential property, no permit is required.

PRIVATE SECTOR SERVICE PROVIDERS

Curbside trash service providers:

- Les's Sanitary Service
- Best Way Disposal
- Waste Management

Curbside recycling service providers:

- Les's Sanitary Service

OTHER RECYCLING OPPORTUNITIES

Nu-Wool® (manufacturer of eco-friendly cellulose insulation) provides a trailer at the Delton Fire Station for the collection of newspaper which benefits local Boy Scout Troop 50.

Barry County Materials Management Profile

Carlton Township

STATISTICS

Population: 2,391

Households: 950

Seasonal Influx: 5%

MUNICIPAL RECYCLING PROGRAM STATUS

Carlton Township does not currently offer a recycle program because there has been no demand from the residents. The current Township Supervisor is open to a county-wide program where costs can be shared.

YARD WASTE & BRUSH SERVICES

No municipal program provided; yard waste can be burned on residential property.

PRIVATE SECTOR SERVICE PROVIDERS

Curbside trash and recycling service providers:

- Les's Sanitary Service
- Waste Management

OTHER RECYCLING OPPORTUNITIES

Unaware of other recycling programs within the Township.

Barry County Materials Management Profile

Castleton Township

STATISTICS

Population: 3,471

Households: 1,650

Seasonal Influx: 5.8%

MUNICIPAL RECYCLING PROGRAM STATUS

Castleton Township participates in a cooperative waste and recycling transfer station with Maple Grove Township and the Village of Nashville, each sharing the cost at \$5,000 each.

The waste and recycling transfer station is on property owned by the Village of Nashville, is staffed with a part-time site supervisor and is gated and locked during off hours. There is no charge to residents of these three communities for trash, yard waste or recycling drop off; materials recycled include: metal, cardboard, and glass. There is a fee for disposal of tires and oil.

YARD WASTE & BRUSH SERVICES

Yard waste and brush can be dropped off at the transfer station. Burning on residential property is allowed, no permit is required.

PRIVATE SECTOR SERVICE PROVIDERS

Curbside trash service providers:

- Les's Sanitary Service
- Waste Management

Curbside recycling service providers:

- Les's Sanitary Service

OTHER RECYCLING OPPORTUNITIES

Unaware of other recycling programs within the Township.

Barry County Materials Management Profile

City of Hastings

STATISTICS

Population: 7,350

Households: 2,910

Seasonal Influx: 0.5%

MUNICIPAL RECYCLING PROGRAM STATUS

The City no longer provides residential recycling services. Misuse of recycling drop-off sites and related costs of clean up and trash disposal caused the sites to close.

The City offers recycling containers throughout the downtown area which they received a mini-grant to fund. The containers are serviced by Les's Sanitary Service at no charge to the City as a community service.

YARD WASTE & BRUSH SERVICES

The City of Hastings Department of Public Works offers residential yard waste collection two times per year; Spring and Fall. The City also operates a drop-off compost facility for City residents only. Backyard burning is restricted to leaves only and a permit is required.

PRIVATE SECTOR SERVICE PROVIDERS

Service providers in the City of Hastings operate under a franchise agreement. Waste and recycling services to City residents are offered by two haulers - Les's Sanitary Service and Waste Management. Residents subscribe for service directly with one of these haulers. Both offering curbside trash and recycling options.

The City also hosts a landfill that is owned by Waste Management. Per a host agreement City residents can utilize the recycling drop-off at the landfill at no cost. There is a charge to all other county residents. Proof of residency is reviewed prior to entering the landfill.

OTHER RECYCLING OPPORTUNITIES

The city has PaperGator® bins at all public schools, one private school and six churches throughout the area. The funds from each bin benefits the entity which provides the space for the bin.

The paper collected through the PaperGator® recycling program will be shredded and processed into hydro seeding mulch, lawn establishment products, lawn repair products, Fresh News® Cat Litter, dog litter, Fresh News® Small Animal Bedding, Fresh News® Small Animal Litter or recycled at paper mills, cellulose insulation manufacturers or other recycling facilities.

Barry County Materials Management Profile

Hastings Charter Township

STATISTICS

Population: 2,498

Households: 1,358

Seasonal Influx: 8.1%

MUNICIPAL RECYCLING PROGRAM STATUS

The Township owns and operates a recycling drop-off site at the Township Hall. Les's Sanitary Services empties the containers on a weekly basis. Waste Management pays the township for being a joint host community with the City of Hastings for the Waste Management Landfill.

YARD WASTE & BRUSH SERVICES

No municipal program provided; yard waste can be burned on residential property with required permit.

PRIVATE SECTOR SERVICE PROVIDERS

Curbside trash service providers:

- Les's Sanitary Service
- Waste Management

Curbside recycling service providers:

- Les's Sanitary Service

OTHER RECYCLING OPPORTUNITIES

Unaware of other recycling programs within the Township.

Barry County Materials Management Profile

Hope Township

STATISTICS

Population: 3,239

Households: 2,149

Seasonal Influx: 23.4%

MUNICIPAL RECYCLING PROGRAM STATUS

Hope Township offers recycling drop-off at the Township Hall as well as participates in a Cooperative Model Transfer Station with Barry and Johnstown Townships, eaching sharing the cost at \$3,500 each.

There is no charge to residents of these three communities for recycling drop off; materials recycled include: metal, cardboard and plastics. However there is a charge for dump fees which is determined per truck/trailer and the items being discarded.

Communities outside of Barry, Hope and Johnstown townships may incur a fee for use of the transfer station.

YARD WASTE & BRUSH SERVICES

Yard waste and brush can be dropped off at the transfer station as well as be burned on residential property, no permit is required.

PRIVATE SECTOR SERVICE PROVIDERS

Curbside trash service providers:

- Les's Sanitary Service
- Waste Management

Curbside recycling service providers:

- Les's Sanitary Service

OTHER RECYCLING OPPORTUNITIES

Mixed paper can be taken to the PaperGator® located just North of the township at Thornapple Valley Church.

Barry County Materials Management Profile

Irving Township

STATISTICS

Population: 3,250

Households: 1,151

Seasonal Influx: 0.9%

MUNICIPAL RECYCLING PROGRAM STATUS

Irving Township does not offer recycling to residents because private sector haulers offer it and because of space limitations at the Township Hall building. The current Township Supervisor is not interested in a partnership to provide recycling to residents.

YARD WASTE & BRUSH SERVICES

No municipal program provided, yard waste can be burned on residential property. The Township Supervisor would like to see additional education provided around the practice of burning.

PRIVATE SECTOR SERVICE PROVIDERS

Curbside trash and recycling service providers:

- Les's Sanitary Service
- Jim's Pick Up

OTHER RECYCLING OPPORTUNITIES

Unaware of other recycling programs within the Township.

Barry County Materials Management Profile

Johnstown Township

STATISTICS

Population: 3,008

Households: 1,568

Seasonal Influx: 10.5%

MUNICIPAL RECYCLING PROGRAM STATUS

Johnstown Township does not offer a drop-off recycling location because of concerns regarding dumping. A shared program has not been considered because of previous shared programs that were unsuccessful and partnerships dissolved.

Johnstown Township pays Barry Township to allow residents to use the transfer station for recycling and trash drop off.

YARD WASTE & BRUSH SERVICES

No municipal program provided, yard waste and brush can be burned on residential property.

The Township Supervisor would like less burning around lakes and would like more education regarding the practice of burning. Pine Lake Association has a place for residents to bring leaves to decompose but residents still burn.

PRIVATE SECTOR SERVICE PROVIDERS

Curbside trash and recycling service providers:

- Sunny Bay Disposal

OTHER RECYCLING OPPORTUNITIES

There is a shed at the fire department for the collection of paper and corrugated cardboard. A local Boy Scout Troop and the local Fire Association share the profits earned from this collection.

Barry County Materials Management Profile

Maple Grove Township

STATISTICS

Population: 1,593

Households: 611

Seasonal Influx: 0.5%

MUNICIPAL RECYCLING PROGRAM STATUS

Maple Grove Township participates in a cooperative waste and recycling transfer station with Castleton Township and the Village of Nashville, each sharing the cost at \$5,000 each.

The waste and recycling transfer station is on property owned by the Village of Nashville, is staffed with a part-time site supervisor and is gated and locked during off hours. There is no charge to residents of these three communities for trash, yard waste or recycling drop off; materials recycled include: metal, cardboard, and glass. There is a fee for disposal of tires and oil.

YARD WASTE & BRUSH SERVICES

Yard waste and brush can be dropped off at the transfer station as well as be burned on residential property, no permit is required.

PRIVATE SECTOR SERVICE PROVIDERS

Curbside trash service providers:

- Les's Sanitary Service
- Waste Management

Curbside recycling service providers:

- Les's Sanitary Service

OTHER RECYCLING OPPORTUNITIES

Unaware of other recycling programs within the Township.

Barry County Materials Management Profile

Orangeville Township

STATISTICS

Population: 3,311

Households: 1,711

Seasonal Influx: 24.5%

MUNICIPAL RECYCLING PROGRAM STATUS

Orangeville Township owns and operates a recycle drop-off location in the Fire Department parking lot for Orangeville residents only, identified by a vehicle sticker. There are three cameras providing web-based monitoring of use/misuse.

Collection containers for both the drop-off site and the transfer station are serviced by Bernie's Haul-Away.

YARD WASTE & BRUSH SERVICES

No municipal program provided, yard waste can be burned on residential property with verbal permission which is given through a pre-recorded message. This recording is set-up through the Fire Service Association, it provides the area with info regarding weather, wind speeds and what can/cannot be burned. The resident is responsible for leaving their name, address and yard waste being burned. There is no charge to residents.

PRIVATE SECTOR SERVICE PROVIDERS

Curbside trash service providers:

- Best Way Disposal
- EverKept
- Republic Services
- Waste Management

Curbside recycling service providers:

- Best Way Disposal
- EverKept

OTHER RECYCLING OPPORTUNITIES

Unaware of other recycling programs within the Township.

Barry County Materials Management Profile

Prairieville Township

STATISTICS

Population: 3,404

Households: 1,657

Seasonal Influx: 16.2%

MUNICIPAL RECYCLING PROGRAM STATUS

Prairieville Township funds weekend recycling at the Township Hall. Republic Services drops off recycling containers on Friday and picks them up on Monday. Residents can drop off their recycling from Saturday morning through Sunday evening. They opted for this type of program due to space limitations at the Township Hall. Cameras are in place for monitoring use/misuse.

Battery recycling is offered at the Township Hall and managed by a Trustee.

Prairieville has a junk ordinance in place. They encourage residents to use other area fundraising programs as listed below.

YARD WASTE & BRUSH SERVICES

No municipal program provided, yard waste is handled through a private sector hauler or backyard burning. Burning requires a county permit but is discouraged around the lakes.

PRIVATE SECTOR SERVICE PROVIDERS

Curbside trash service providers:

- Sunny Bay Disposal
- Republic Services
- Best Way Disposal

Curbside yard waste service providers:

- Best Way Disposal

Curbside recycling service providers:

- None

OTHER RECYCLING OPPORTUNITIES

Nu-Wool® (manufacturer of eco-friendly cellulose insulation) provides a trailer at the Delton Fire Station for the collection of newspaper which benefits local Boy Scout Troop 50.

Barry County Materials Management Profile

Rutland Charter Township

STATISTICS

Population: 3,987

Households: 1,491

Seasonal Influx: 4%

MUNICIPAL RECYCLING PROGRAM STATUS

No municipal services are provided.

YARD WASTE & BRUSH SERVICES

No municipal program is provided. Yard waste can be burned on residential property with required permit.

PRIVATE SECTOR SERVICE PROVIDERS

Curbside trash service providers:

- Jim's Pickup Services
- Les's Sanitary Service
- Waste Management

Curbside recycling service providers:

- Jim's Pickup Services

OTHER RECYCLING OPPORTUNITIES

Unaware of other recycling programs within the Township.

Barry County Materials Management Profile

Thornapple Township

STATISTICS

Population: 7,882

Households: 3,086

Seasonal Influx: 0.8%

MUNICIPAL RECYCLING PROGRAM STATUS

Thornapple Township had a recycling program several years ago, but it was closed due to dumping issues. The current Township Supervisor would be open to discussions regarding a joint opportunity with Irving and Yankee Springs Townships and having a unit like Hastings Charter Township. He would like to see the County establish recycling drop-off sites strategically placed throughout the county.

The township staff directs residents to Hastings Charter and Yankee Springs Townships for recycling.

YARD WASTE & BRUSH SERVICES

No municipal program provided, burning yard waste is a widespread practice among residents. Residents obtain a verbal permit via the local Fire Department who asks what they are burning; only allowed to burn what grows on their property and permit is dependent on weather conditions. Residents are not supposed to burn furniture, construction or demolition materials.

PRIVATE SECTOR SERVICE PROVIDERS

Curbside trash, recycling and yard waste service providers:

- Arrowaste
- EverKept

Curbside trash and recycling service providers:

- Jim's Pickup Services

OTHER RECYCLING OPPORTUNITIES

A local Boy Scout Troop collects deposit containers to support the Parks & Recreation Commission.

There is a PaperGator® at all Thornapple Kellogg Schools and at three local churches. The funds from each bin benefits the entity which provides the space for the bin.

There is also a container for cardboard collection at Thornapple Kellogg Middle School.

Barry County Materials Management Profile

Village of Freeport

STATISTICS

Population: 483

Households: 201

Seasonal Influx: 8.7%

MUNICIPAL RECYCLING PROGRAM STATUS

No interview to draw from

YARD WASTE & BRUSH SERVICES

Yard waste and brush can be dropped off at the transfer station as well as be burned on residential property, it is unknown if a permit is required.

PRIVATE SECTOR SERVICE PROVIDERS

Curbside trash service providers:

- Les's Sanitary Service
- Waste Management

Curbside recycling service providers:

- None

OTHER RECYCLING OPPORTUNITIES

Unaware of other recycling programs within the Village.

Barry County Materials Management Profile

Village of Middleville

STATISTICS

Population: 3,319

Households: 1,263

Seasonal Influx: 0.3%

MUNICIPAL RECYCLING PROGRAM STATUS

The Village of Middleville does not fund any of the residential curbside services offered by Republic Services. However, the fee is set per single-hauler contract.

The Village has a 'no junk' ordinance and as part of their contract, Republic Services brings 10-14 trucks in for a Yearly Spring Clean Up Day event.

YARD WASTE & BRUSH SERVICES

The Village has a 'no burn' ordinance for residents and offers curbside yard waste and brush pickup through the DPW, who burn what is picked up. They also have a compost pile used for local excavation and top soil.

PRIVATE SECTOR SERVICE PROVIDERS

Curbside trash and recycling service provider:

- Republic Services

This single hauler contract was chosen for safety reasons and to limit the amount of truck traffic within the Village. With this contract the residents pay for the services directly to Republic.

OTHER RECYCLING OPPORTUNITIES

Residents can recycle paper at the many PaperGator® containers throughout the Village and Township. There is a PaperGator® at each of the public schools, at the Middleville Downtown Enhancement Fund and at three local churches. The funds from each PaperGator® benefits the entity which provides the space for the bin.

Barry County Materials Management Profile

Village of Nashville

STATISTICS

Population: 1,628

Households: 716

Seasonal Influx: 0.8%

MUNICIPAL RECYCLING PROGRAM STATUS

The Village of Nashville participates in a cooperative waste and recycling transfer station with Castleton and Maple Grove Townships, each sharing the cost at \$5,000 each.

The waste and recycling transfer station is on property owned by the Village of Nashville, is staffed with a part-time site supervisor and is gated and locked during off hours. There is no charge to residents of these three communities for trash, yard waste or recycling drop off; materials recycled include: metal, cardboard, and glass. There is a fee for disposal of tires and oil.

YARD WASTE & BRUSH SERVICES

Yard waste and brush can be dropped off at the transfer station. It is unknown if a municipal program is provided or if residential burning is available and whether a permit is required.

PRIVATE SECTOR SERVICE PROVIDERS

Curbside trash service providers:

- Waste Management

Curbside recycling service providers:

- None

Les's Sanitary Service is the service provider for the transfer station, it is part of the agreement that they do not offer curbside services to residential customers.

OTHER RECYCLING OPPORTUNITIES

Unaware of other recycling programs within the Village.

Barry County Materials Management Profile

Village of Woodland

STATISTICS

Population: 425

Households: 162

Seasonal Influx:None

MUNICIPAL RECYCLING PROGRAM STATUS

The Village of Woodland does not offer a municipal funded program because private haulers offer curbside recycling. The Village DPW Manager states that there is no interest in a collaboration to offer recycling to residents.

The Village does offer a cleanup day, using general fund monies, where residents can bring trash and scrap metal. Franklin Iron & Metal provide the scrap metal collection container.

YARD WASTE & BRUSH SERVICES

A community burn pile is located at the edge of town, the DPW Manager will pick up small amounts or residents can bring yard waste to the pile themselves. Materials are burned twice a year by the DPW.

PRIVATE SECTOR SERVICE PROVIDERS

Curbside trash and recycling service providers:

- Les's Sanitary Service
- Waste Management

OTHER RECYCLING OPPORTUNITIES

There is a PaperGator® at Lakewood Elementary School and a local church for the collection of paper. Funds from each PaperGator® benefits the entity which provides the space for the bin.

Barry County Materials Management Profile

Woodland Township

STATISTICS

Population: 2,047

Households: 947

Seasonal Influx: 8.2%

MUNICIPAL RECYCLING PROGRAM STATUS

No interview to draw from.

YARD WASTE & BRUSH SERVICES

Handling of yard waste and brush is unknown.

PRIVATE SECTOR SERVICE PROVIDERS

Curbside trash service providers:

- Les's Sanitary Service

OTHER RECYCLING OPPORTUNITIES

There is a PaperGator® at Lakewood Elementary School and a local church for the collection of paper. Funds from each PaperGator® benefits the entity which provides the space for the bin.

Barry County Materials Management Profile

Yankee Springs Township

STATISTICS

Population: 4,117

Households: 2,253

Seasonal Influx: 23.9%

MUNICIPAL RECYCLING PROGRAM STATUS

Yankee Springs Township owns three roll-off containers that are housed at the Township Hall for the use of Yankee Springs Township residents only.

YARD WASTE & BRUSH SERVICES

No municipal program provided, yard waste can be burned on residential property with required permit. Permits can be obtained by contacting the Fire Chief.

PRIVATE SECTOR SERVICE PROVIDERS

Curbside trash, recycling and yard waste service providers:

- Arrowwaste
- EverKept

Curbside trash and recycling service providers:

- Jim's Pickup Services (limited areas in the township)

OTHER RECYCLING OPPORTUNITIES

There is a PaperGator® for the collection of paper at the Township Hall, funds from each PaperGator® benefits the entity which provides the space for the bin.

Barry County

Materials Management Profile

Environmentally Friendly Fundraising Also Benefits Michigan Businesses

Nu-Wool® is a Michigan based manufacturer of eco-friendly cellulose insulation recycling the newspaper collected from the trailers for their product. This insulation is a high-quality product trusted by homeowners, builders and installation professionals. If insulation is a product you need, look for Nu-Wool® products, you may be using newspaper you recycled to insulate your home, benefiting the environment two-fold.

The paper collected from the PaperGator® containers is shredded and processed into products that many of us use; hydro seeding mulch, lawn establishment products, lawn repair products, dog litter, Fresh News® Cat Litter, Fresh News® Small Animal Bedding and Fresh News® Small Animal Litter or recycled at paper mills, cellulose insulation manufacturers or other recycling facilities. If you purchase these products you can make a difference by confirming it contains recycled content and by purchasing the Fresh News® brand to close the loop and support a Michigan based business (BPV Environmental). More information at <http://papergatorrecycling.com/index.htm>

Barry County Publicly Funded Materials Management Services

KENT COUNTY		IONIA COUNTY		
ALLEGAN COUNTY	<div>THORNAPPLE TWP</div> <div>Village of Middleville</div> <div></div>	<div>IRVING TWP</div> <div>Village of Freeport*</div> <div></div>	<div>CARLTON TWP</div>	<div>WOODLAND TWP*</div> <div>Village of Woodland</div> <div></div>
	<div>YANKEE SPRINGS TWP</div> <div>RECYCLE HERE</div> <div></div>	<div>RUTLAND TWP</div>	<div>HASTINGS CHARTER TWP</div> <div>City of Hastings</div> <div></div> <div>RECYCLE HERE</div> <div></div>	<div>CASTLETON TWP</div> <div>Village of Nashville</div> <div>TS</div> <div></div>
	<div>ORANGEVILLE TWP</div> <div>TS</div> <div></div> <div>RECYCLE HERE</div> <div></div>	<div>HOPE TWP</div> <div>RECYCLE HERE</div> <div></div>	<div>BALTIMORE TWP</div>	<div>MAPLE GROVE TWP</div>
	<div>PRAIRIEVILLE TWP</div> <div>RECYCLE HERE</div> <div></div>	<div>BARRY TWP</div> <div>TS</div> <div></div>	<div>JOHNSTOWN TWP</div>	<div>ASSYRIA TWP</div>
	KALAMAZOO COUNTY		CALHOUN COUNTY	
		EATON COUNTY		

LEGEND



Recycling Drop-off Site



Optional Curbside Recycling Collection - Municipal Contract



Curbside Trash Collection - Municipal Contract



Clean Up Day



Yard Waste



Transfer Station



Transfer Station Trash



Transfer Station Recycling - Various Materials



Transfer Station Scrap Metal Recycling



Brush

Transfer Station Collaboration:
Castleton, Maple Grove
Townships and Vlg of Nashville

Transfer Station Collaboration:
Barry, Hope and Johnstown
Townships

*Municipal services unknown

Barry County PaperGator® Bin Locations

Hastings

Public Schools	Private Schools	Churches
Central Elementary School 509 S. Broadway	Barry County Christian School 2999 McKeown Road	Emmanuel Episcopal 315 W Center St
Northeastern Elementary School 519 E. Grant Street		First Baptist Church of Hastings 309 E. Woodlawn Ave
Star Elementary School 1900 Star School Road		First Presbyterian Church 405 N. M-37
Hastings Middle School 232 W. Grand Street		Grace Lutheran Church 239 E. North St
Student Council Southeastern Hastings High School 1300 E. State Street		Hastings Free Methodist Church 2635 N. M-43 Hwy
Interact Club Hastings High School 520 W. South Street		St Rose Church 805 S. Jefferson

Village of Middleville

Public Schools	Local Organizations	Churches
Thornapple Kellogg Lee Elementary School 840 W. Main Street	Middleville Downtown Enhancement Fund 210 East Main Street	First Baptist Church 5215 N. M-37 Highway
Thornapple Kellogg McFall Elementary School 509 W. Main Street		Peace Reformed Church 6950 Cherry Valley Ave
Thornapple Kellogg Page Elementary 3675 Bender Road		Thornapple Valley Church 55 State Street
Thornapple Kellogg Middle School 10375 Green Lake Road		
Thornapple Kellogg High School 3385 Bender Road		

Yankee Springs Township

Municipal Program
Yankee Springs Township Hall 284 N. Briggs Road

Village of Woodland/Woodland Township

Public Schools	Churches
Lakewood Elementary School 812 Washington Blvd	Kilpatrick Church 10005 E Barnum Rd

Illegal Dumping, Littering and Scavenging Laws Reference Summary

Illegal Dumping of Filth, Garbage or Refuse

The Michigan Penal Code Act 328 of 1931 Section 750.552a addresses the improper disposal of filth, garbage, or refuse on the grounds or premises of another without permission as unlawful and is punishable as a misdemeanor.

Illegal Dumping of Used Motor Oil

The Natural Resources and Environmental Protection Act 451 of 1994 Part 167 defines used motor oil and identifies proper recycling and disposal of used motor oil.

Section 324.16704 specifically addresses the disposal of used motor oil and the subsequent civil infractions and fines associated with violation of the law.

Littering

The Natural Resources and Environmental Protection Act 451 of 1994 Part 89 defines littering on public and private property. Section 324.8905a identifies the civil infractions and fines associated with littering.

Example: Emmet County identifies that violators are subject to litter laws and a minimum \$100 fine for leaving material at the recycling drop off site other than specified acceptable items.

Scavenging

The Michigan Penal Code Act 328 of 1931 (section 750.356) addresses the stealing of items, specifically including nonferrous metal and the subsequent fines and punishment according to the value of the items stolen.

Example: Emmet County references the Michigan Penal Code, in addition to their own local ordinance, on a sign at their recycling site to prohibit scavenging of materials.

FUNDING OPTIONS FOR MICHIGAN RECYCLING PROGRAMS

UPDATED SEPTEMBER 2010

ACTION BY COUNTY BOARD

General Fund Appropriation: Some Michigan counties allocate general fund dollars to cover their county-wide recycling programs. No action is needed by local units or voters. Ingham, Calhoun, Eaton, Oakland, and Missaukee Counties use general fund monies to fund portions of their programs.

Landfill Surcharge: Michigan counties that have a landfill within their jurisdiction can enact an ordinance that establishes solid waste and recycling programs and imposes a tipping fee Surcharge (e.g., \$3 per ton) on all solid waste coming into the landfill. The operator must collect the surcharge and pay it to the county for use in the established solid waste and recycling programs. No action is needed by local units or voters. Berrien, Eaton, Calhoun, St. Clair, Wexford, Monroe, and Clare Counties use a landfill surcharge to fund recycling programs.

Disposal Facility Surcharge: Michigan counties that have their own solid waste disposal facilities can establish rates for using those facilities that include the costs of running a recycling program. No action is needed by local units unless local unit support is needed to commit waste to the facility. Emmett County Transfer Facility and Wexford, Kent, Jackson, Alpena, Montmorency, Oscoda, and St Clair Counties.

ACTION BY COUNTY BOARD AND LOCAL UNITS OF GOVERNMENT

Act 185 Public Works Assessment: Michigan counties can create a board and Department of Public Works (DPW) and then work with some or all of the local units to establish a solid waste and recycling project. The engineers estimate for the project is then used to establish an assessment roll for parcels within the jurisdiction of the local units that have approved an agreement with the county. The county then collects the assessment as a program availability user fee and manages the solid waste and recycling program. Action is needed by the county and the local unit but no action is needed by voters. Property owners can appeal the assessment. Washtenaw County and Western Washtenaw County Authority,

Public Act (PA) 69 of 2005: PA 69 of 2005 allows counties to work with some or all of their local units to establish a recycling, composting, and/or household hazardous waste project. The county can collect up to \$25 per year from households in the local units that have approved an agreement with the county. Further, subject to the approval of local voters, the county may collect up to \$4 per month or \$50 per year. Commercial businesses could be subject to the surcharge, with voter approval. To hold an election on the increased surcharge, the county board of commissioners must pass a resolution with specific information. The initial authorization for the additional surcharge is for a period of five years. Subsequent authorizations are for at least 10 years. The surcharge approved by voters would not apply to vacant land, land owned by a public-utility, rights-of-way, and easements that do not generate solid waste. Benzie, Leelanau, Allegan, and Cheboygan Counties use this funding mechanism.

ACTION BY COUNTY BOARD AND/OR LOCAL UNITS OF GOVERNMENT

Intergovernmental Agreement and Independent Cost Sharing: Counties and local units and/or local units working together on their own can act in unison through intergovernmental agreements to run recycling programs. Each local unit can be obligated for their fair share and then come up with their own methods of paying for that share. No action by voters is required. Mid-Michigan Waste Authority, Southeastern Oakland County Resource Recovery Authority (SOCRRA), Resource Recovery and Recycling Authority of Southwest Oakland County (RRRASOC) use this funding mechanism.

Intergovernmental Agreement and Hauler Licensing: Counties and local units and/or local units working together on their own can act in unison through intergovernmental agreements and a uniform ordinance that requires private waste haulers to meet certain recycling requirements in order to do business and to include the costs for those programs in their overall solid waste service fees. No action by voters is required. Grand Traverse County Curbside Recycling, Eaton and Kalamazoo Counties use this funding mechanism.

Dedicated Millage: Incorporated Cities and Charter Townships in Michigan can charge an additional millage for solid waste and recycling services up to limits specified by statute. No action by voters is required. Royal Oak, Ann Arbor, Troy, Birmingham, Southfield, and Pontiac Counties use this funding mechanism.

Organized Collection: Any local unit of government can use contracting and ordinances to select a single hauler to provide solid waste and recycling services to all households, all businesses, or both and establish a fee collection mechanism to cover the cost for the same. Through intergovernmental agreement a third party (BPW, authority, etc.) can be assigned this responsibility by the local unit. No action by voters is required. Shelby Township hauler does the fee collection, Superior Township (rate is established by bid, hauler does billing).

Operating Revenues: A program operated with public agency involvement can charge additional fees for various services that will help offset the public sector's costs for the program. An example would be a multi-township recycling and solid waste drop-off facility that collected a per bag charge for the solid waste dropped off by citizen's and used that revenue to help offset operating costs such as staffing, building improvements, etc. The City of Ann Arbor/Washtenaw County drop-off program uses this funding mechanism.

Material Sales Revenues: A program operated with public agency involvement can use the revenue from sale of recycled materials to help offset the public sector's costs for the program. An example would be a regional recycling facility owned by a multi-county authority and operated under contract by a private firm, with the public agencies offsetting some of their costs with a share of the revenue from sale of recyclables. RRRASOC, Emmet and Newaygo Counties use this funding mechanism.

VOTER APPROVED MEASURES

Voter Approved Millage: Any local unit of government and/or a county can put a vote to the people for a temporary or permanent millage to fund a solid waste or recycling program. Examples include Royal Oak, Chippewa, Charlevoix, and Tuscola Counties.

Fee

If approved by voters, a city may collect a per household fee to fund a recycling program. The fee is collected with the property taxes. City of Lansing uses this funding mechanism.

For more information contact:

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