

# Sustainability at the Metroparks



Update November 2018

Created by the Metroparks Sustainability Team



**2018 Metroparks Sustainability Committee**

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## BACKGROUND

The Sustainability Team, formed in 2016 and comprised of Huron-Clinton Metropolitan Authority (HCMA) administrative, operations, and maintenance staff solicited information from a variety of sources inside and outside the Huron-Clinton Metroparks (Metroparks) to determine the most appropriate path forward. The Michigan Recycling Coalition Conference in May 2016 provided essential information about the economics of recycling, the various recycling facilities in the area, and the best practices of other agencies.

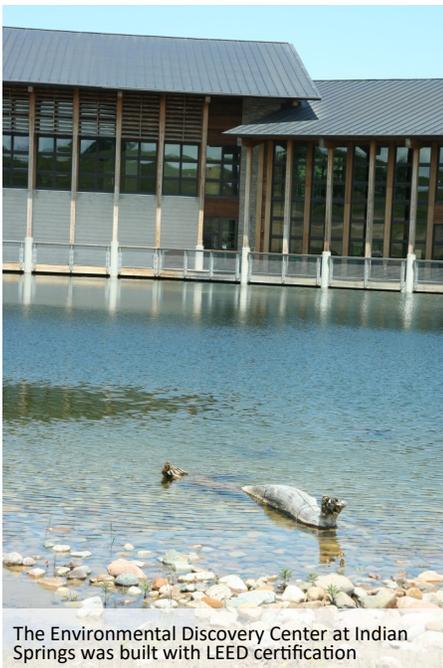
The Team looked to documents from Oakland County Parks, Michigan Department of Natural Resources Parks & Recreation Division, Oregon Metro Council, Cuyahoga County Solid Waste District, and Scientific American to better define the mission of sustainability and to identify feasible goals and action items that have met with success in other agencies.

The Team gained valuable information about the current sustainability practices of each park from staff taking the SEMCOG Green Initiatives Survey, summarized in the appendix. The District Superintendents, Park Operations Managers, and Maintenance Managers expanded upon current park efforts and offered their ideas for action items in the future.

The Team met with departments throughout the Administrative Office to gain a solid understanding of where the Metroparks stand now in terms of sustainability and what resources would be necessary to implement new initiatives. A summary of these meetings is available in the appendix.

In August 2018, a newly formed Metroparks Sustainability Committee to replace the Sustainability Team made up of both operations and administrative staff organized a kick-off teleconference meeting to discuss updates to this Sustainability Plan and to prioritize future actions with updated timelines.

This updated document reinforces the Metroparks blueprint for sustainability actions moving forward, including broad goals and simple first steps. However, it should be seen as a living document, changing as opportunities and obstacles shift in the years to come. **The goal of the Sustainability Committee is to identify realistic, actionable projects that can be monitored and quantified.**



# ORGANIZATION AND PROCESS

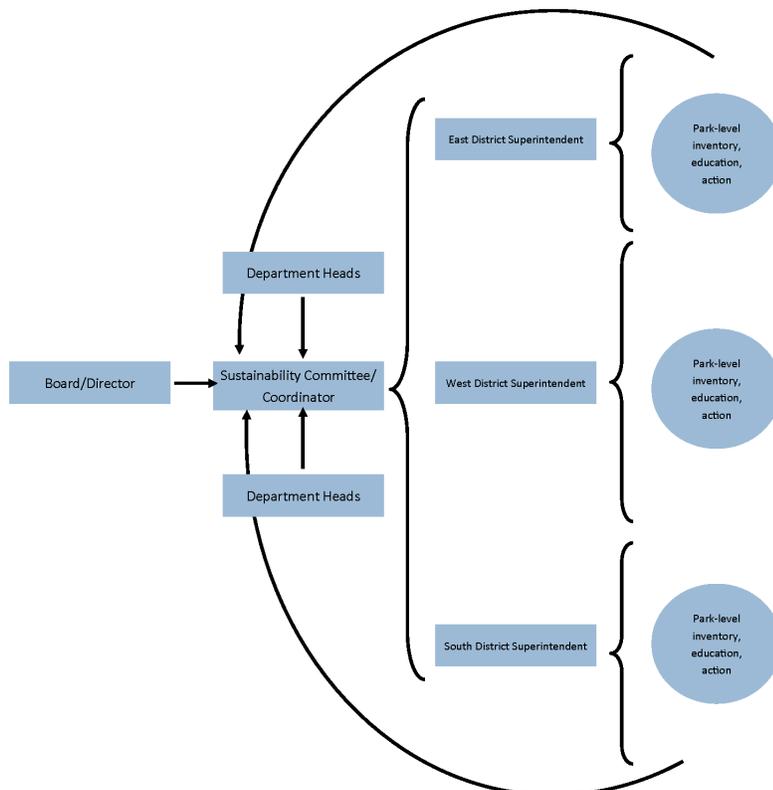
Each action item proposed by the Sustainability Committee will follow the same basic process:

1. INVENTORY AND RESEARCH
2. EDUCATION
3. IMPLEMENTATION
4. FOLLOW-THROUGH AND EVALUATION

Due to the complexities of implementing any action step and the geographically dispersed nature of the parks, the Sustainability Committee proposes taking advantage of the talented employees at the parks to achieve each goal. The Committee would ask District Superintendents to assign the District Maintenance Manager from each Metropark District as the respective Sustainability Liaison. These individuals would be asked take on approximately five hours per month of sustainability-related work. In addition, the Committee would assign a Sustainability Coordinator to effectively represent the Committee in contacts and relationships with Sustainability Liaisons, department leadership staff, and the Director.

The first step of implementing the short-term action items will begin in the winter of 2019. The Sustainability Committee will direct the Liaisons to do necessary inventory and research for each item: for instance, in the case of lightbulb replacement, discovering exactly which buildings in the park have already been outfitted with LEDs. They report their findings through email to the Sustainability Committee and their District Superintendent. Next, the Sustainability Coordinator will communicate to the Liaisons what education measures are necessary to ensure awareness in staff and visitors. The Liaisons will proceed with these measures: for instance, distributing posters and pamphlets or leading short presentations at staff meetings. The Liaisons will also assist with the implementation step as necessary: for instance, placing recycled-content paper in the proper location. Finally, in an essential step of the process, the Liaisons will fill out paperwork reporting on the successful completion of the action item and any unresolved issues, and send this by email to the Sustainability Committee and their District Superintendent. The Sustainability Committee will work with the District Superintendent to follow up on unresolved issues. A draft of the reporting form can be found in the appendix. Maintaining successful implementation of these short-term actions will continue with this 2018 update. In addition, the Metroparks will seek additional opportunities that continue to result in environmental, social, and economic benefits that result in a healthy and sustainable park system.

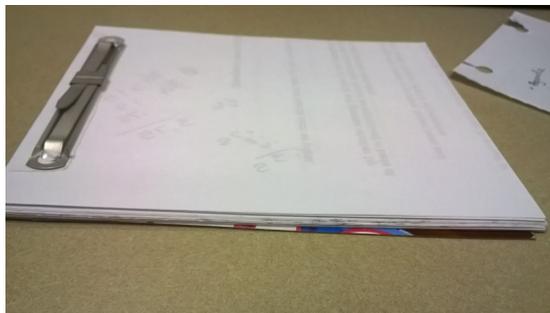
## ORGANIZATIONAL CHART



# WHERE WE ARE NOW

## PAST & CURRENT PROJECTS

- Sustainability Working Group
- Sustainability Team Support Projects
- Sourcing informally from local companies
- Installing energy-efficient light fixtures as needed
- Installing solar panels where reasonable
- Using bioswales and permeable surfaces where possible
- Stormwater management plan
- Installing efficient water fixtures as needed
- E-waste recycling
- Following Michigan Department of Transportation (MDOT) recycled asphalt standards
- Rare species conservation
- Rare habitat conservation
- Reducing single use water bottles
- Recycling bins in parks
- Recycling bins at staff workspaces
- Switch to reusable coffee mugs
- Using low Volatile Organic Compound (VOC) paints
- Using recycled fuel
- Environmental Discovery Center (EDC) constructed to Leadership in Energy and Environmental Design (LEED) standards
- Companies recycling demolition materials
- Reusing scrap paper where reasonable
- Wetland conservation
- Invasive species control
- Ecological monitoring
- Elimination of Styrofoam containers at food services



Reused paper notepads from 2010-2013 are still available but not widely used

The Metroparks have implemented a number of sustainability initiatives in the past ten years, many of them due to the recommendations of the Sustainability Work Group formed in 2010 and active through 2013. The majority are carried over as current projects with this update in 2018.

Building design, construction, and demolition is an area of significant progress towards sustainability. An ongoing effort has been made to replace incandescent lightbulbs at the end of their lives with compact fluorescent or LED bulbs, and all new buildings feature these more efficient light fixtures. A parallel effort is replacement of conventional water fixtures with low-flow faucets, shower heads, and toilets, and use of these fixtures in new construction. Due to the longer life of the bulbs and reduced water consumption of faucets, these improvements will save HCMA money in the long term.

One of the Metroparks buildings, the Environmental Discovery Center, has received LEED certification, and recent construction projects have been built with LEED standards in mind. Solar panels have been installed in two locations in the park system, and road construction meets or exceeds MDOT standards for recycled asphalt content. At the end of a building's life the park system incorporates sustainability; contractors involved in the demolition of a building frequently remove the deconstructed materials for recycling.

Daily park operations have been conducted with sustainability in mind. Paints used at the parks are low VOC, and recycled fuel is used in many park vehicles and mowers. To reduce waste, paper is recycled or reused at many office locations, facilities have been located in convenient areas for staff and public recycling of other common items, and parks work with recycling companies to sustainably dispose of tires, lumber, metal, and electronics. Internal education has changed the attitudes and habits of staff, so that reusable mugs are now the norm in many park offices and individual recycling bins are used in cubicle spaces.

All the golf courses in the system either have or are working towards Michigan Turfgrass Stewardship certification for environmental landscape management. Bioswales and native plantings are used to absorb rainfall and prevent runoff and flooding. When trees need to be felled for safety issues, they are sold for lumber, reused as firewood at campgrounds, or left in place as wildlife habitats

Currently, the Purchasing Department makes every effort to source materials locally, preferably from the same county as the park in question, reducing transport emissions. The integrated phone system connecting all Metroparks employees allows for discussions and updates without vehicle travel, and staff consistently carpool to meetings and events.



Golf course turf is sustainably maintained



Felled trees are recycled as lumber or firewood

## ADDRESSING HISTORICAL BARRIERS

In the past, various obstacles have prevented certain sustainability initiatives from being implemented. The former Sustainability Team identified these barriers through documents from the old Sustainability Working Group and discovered present-day solutions through discussions with staff. One important change is that the various parks now function and identify more as a unified park system, so that efforts towards consistency may be more supported and easier to put into action. Another important opportunity is the recent completion of a 10-year master plan for each park in the system, allowing staff to work sustainability goals into the overall vision of the future for the park.

	BARRIER	SOLUTION
1	<b>Funding</b>	Increased public interest in funding Sustainability initiatives, new Grant Writer on staff
2	<b>Short-term thinking</b>	Creation of 10-year Park Master Plans puts system into long-term mindset
3	<b>Staff and public attitudes</b>	New focus on education and follow-through when beginning initiatives
4	<b>Staff capacity</b>	New administrative and operations staff have been hired
5	<b>Communication/coordination</b>	Ensuring effective communication through Park Sustainability Liaisons and reporting
6	<b>Maintenance/operations implications</b>	Sustainability Liaisons will work on appropriate inventory and follow-through during implementation
7	<b>Technology</b>	New technologies and software, new IT director on staff
8	<b>Existing infrastructure</b>	Aging of certain facilities will present opportunities for reinventing infrastructure

# WHERE WE WANT TO GO

The Sustainability Team in 2016 articulated three broad categories of sustainability goals to work towards over the next ten years. With the update in 2018, these have been separated into areas of focus, which are further separated into specific projects for short term, medium term, and long term. The short term projects (<1 year) build upon organizational practices already in place and require little extra investment. The medium term projects (2-5 years) require some operational changes and the associated education and follow-through. The long term projects (6-10+ years) build on earlier efforts but are broader and more ambitious, and may require mindset as well as operational changes. This update considered sustainability goals from the previous document, in conjunction with public input, stakeholders, and staff input to refine projects for the future. The sustainable goals that follow are generally consistent with the previous plan, but are presented with updates to actions and priority levels along with those projects completed. Some projects have been eliminated, as the Metroparks have completed them or they have been superseded by other items. **Items in green text are new to this update. In addition, some projects will not have a target completion date but, rather, be classified as ongoing.**

## SUPPORT PROJECTS



### Education and Awareness

By investing in sustainability education and awareness, we will ensure that park visitors and staff feel empowered to participate meaningfully in our park system's journey towards greater environmental responsibility.

- Internal action
- External action



### Resource Management

By sustainably managing our resources, we will ensure that we take no more than our share of the energy and water that will support life in our world and in our parks for generations.

- Light and heat resources
- Transportation resources
- Habitat and ecosystem resources
- Water resources



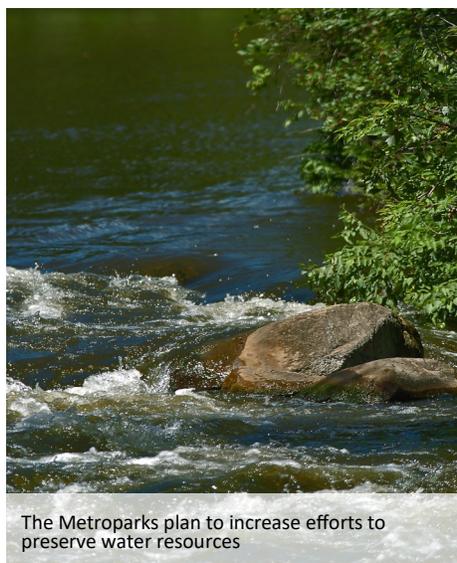
### Waste Management

By sustainably managing our waste, we will ensure that we dispose of our byproducts in a way that does not compromise the ability of future generations to enjoy our world and our parks.

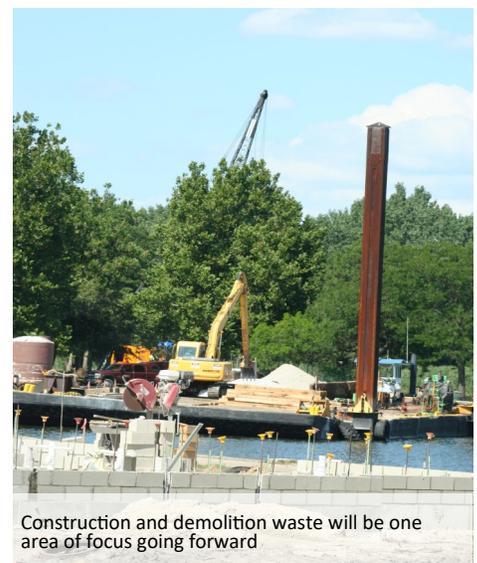
- General waste
- Construction waste
- Toxic waste
- Paper waste



Increased public education around sustainability is a future goal



The Metroparks plan to increase efforts to preserve water resources



Construction and demolition waste will be one area of focus going forward

## SUPPORT PROJECTS

Certain tasks must be carried out in order to facilitate the completion of sustainability action items. These are jobs that the Sustainability Committee has identified, and that the Committee will address with help from the Park Sustainability Liaisons. Some of these have already been completed at the time of or as a part of this report. Some of these action items involve codifying a practice that already exists informally, such as recycling of construction materials. The goal is to provide a formal structure so that sustainable practices do not depend on the decisions of a single staff member, but rather are incorporated into the decision-making process of the organization.

Projects	Target Completion Date	Program Input From	Responsible Program Position
Meet with departments for feedback/ opportunities for sustainability	Ongoing	Sustainability Committee, Sustainability Liaisons	Sustainability Coordinator
Visit counterparts to inform Metroparks sustainability initiative	Ongoing	Sustainability Committee	Sustainability Coordinator
Identify areas where sustainable product requirements can be written into contracts	Ongoing	Sustainability Committee/ Planning & Development	Engineering
Re-establish criteria and assign Park Sustainability Liaisons for each park	Short Term	Park Managers, Maintenance Managers	District Superintendent
Identify a Sustainability Coordinator	Short Term	Sustainability Committee	Planning & Development
Identify opportunities for recycling waste materials such as oil	Short term	Sustainability Committee	Maintenance
Develop protocol for recycling leftover construction materials	Short term	Sustainability Committee	Engineering
Establish metrics to evaluate success of Recycle Bin Pilot Project	Short term	Partnership (Waste Management), Operations/ Maintenance	Planning & Development
Study policy to incorporate sustainable development for all new capital projects	Short term	Planning & Development	Engineering
Strategic partnerships with organizations that promote regional sustainability and synergies	Short term	Engineering/Natural Resources	Planning & Development

## SUPPORT PROJECTS Continued

Projects	Target Completion Date	Program Input From	Responsible Program Position
Policy for purchasing closer to home products	Short term	Sustainability Committee	Purchasing
Evaluate the practice of composting in parks and use of composted material products	Mid term	Maintenance /Purchasing/ Park Manager/Interpretive Farms	Planning



Interpretive centers have had recycling receptacles available for years, and now this has spread throughout the system



Wolcott Mill already recycles organic material as animal feed, and other methods of organic waste management can be explored

## EDUCATION AND AWARENESS

The exciting sustainability goals the Metroparks is working towards will not be attainable without the investment and support of both park staff and the public. These individuals must understand the reasons why an action is being implemented, the necessary steps, and how it will impact them personally.

Identifying Sustainability Liaisons in each park district and the Administrative Office will lead to greater accountability at the park level. These staff members will take the lead in building awareness among their colleagues and will report back to the Sustainability Committee on the success of each initiative.

To reach the public, the Metroparks will take a multi-platform approach. The website will be the primary hub of environmental information, explaining the benefits of each initiative, providing a timeline for completion, and promoting the role of park visitors. This will be complemented by social media posts highlighting exciting moments in the sustainability journey and videos giving a more in-depth look at the implementation process.

Finally, volunteers will be essential to the success of certain action items, such as the Zero Waste Events. Volunteers with an interest in sustainable living will find working with the Metroparks a meaningful way to have an impact. In some cases, corporate volunteers and/or sponsorships may be appropriate, in addition to seeking grant funding or crowdfunding opportunities.

### INTERNAL ACTION

Projects	Target Completion Date	Program Input From	Responsible Program Position
Evaluate interpretive programming for visitors to learn about sustainable projects	Ongoing	Planning & Development	Interpretive Services
Operations meeting sustainability updates	Short term	Sustainability Committee	Planning & Development



Awareness can be spread through interpretive programming



The Metroparks website is a perfect opportunity to educate staff and visitors about sustainability actions



Volunteers will be an important part of sustainability actions

# EDUCATION AND AWARENESS Continued

## EXTERNAL ACTION

Projects	Target Completion Date	Program Input From	Responsible Program Position
Work with staff on developing/ maintaining sustainability webpage	Short term	Sustainability Committee, Marketing	IT
Sustainability tips into social media	Short term	Sustainability Committee	Marketing
Sustainable topic in newsletter	Short term	Sustainability Committee	Sustainability Coordinator
Develop volunteer roles for sustainability initiatives	Mid term	Planning & Development, Sustainability Committee	Volunteer Services

## RESOURCE MANAGEMENT

The Metroparks are built upon Michigan’s abundant and gorgeous natural resources, providing unique opportunities for enjoying forests, lakes, streams, fields, and wetlands. The development and operation of the parks also relies on access to open space, outdoor experiences, and abundant natural resources for the communities of Southeast Michigan now and into the future. In order to responsibly use these assets and secure the future of the parks, sustainable resource management will be a high priority in the coming decade.

The Metroparks have a huge opportunity to decrease their carbon footprint by reducing the use of motor vehicles. Although in a regional park system a substantial amount of driving among the parks is inevitable, more can be done to reduce staff emissions through the use of technology. Teleconferencing, videoconferencing, and simultaneous document editing can facilitate effective communication without transportation, and greater coordination of carpooling and item delivery can increase efficiency.

The light and water fixtures installed in Metroparks buildings also play a role in conserving resources. The parks have an opportunity to redouble efforts of replacing conventional lightbulbs and faucets with LEDs and low-flow fixtures, and can eventually reach a point where all buildings use these technologies.

### TRANSPORTATION RESOURCES

Projects	Target Completion Date	Program Input From	Responsible Program Position
Explore pursuing distance learning grant funds again	Short term	Planning & Development	Grants Coordinator
Explore video conferencing technology with goal of reducing car fleet emissions now that greater fiber optic capacity exists system wide	Mid term	Sustainability Committee	IT
Evaluate partnerships with SEMCOG and other agencies for carpooling services	Mid term	Sustainability Committee	Planning & Development
Reduce fuel consumption in fleet vehicles and equipment	Long term	Sustainability Committee	Purchasing



Phone and video technology can be used more regularly to cut down on car trips



Simultaneous document editing reduces the need for travel to collaborate on projects

## LIGHT AND HEAT RESOURCES

Projects	Target Completion Date	Program Input From	Responsible Program Position
Evaluate LED conversion programs and vendors for energy-saving technologies	Short term	Engineering, Sustainability Committee	Planning
Installing energy-efficient light fixtures as needed	Mid term	Planning, Engineering	Parks Maintenance
Installing solar panels where reasonable	Long term	Planning, Grants Coordinator	Engineering

## HABITAT AND ECOSYSTEM RESOURCES

Projects	Target Completion Date	Program Input From	Responsible Program Position
Rare species conservation	Ongoing	Partners (MDNR/USFWS)	Natural Resources
Rare habitat conservation	Ongoing	Partners (MDNR/USFWS)	Natural Resources
Invasive species control	Ongoing	Partners (Contractors), Operations	Natural Resources
Ecological monitoring	Ongoing	Partners (Contractors), Operations	Natural Resources
Natural resources volunteer work	Ongoing	Volunteer Services	Natural Resources



Native wildflower restoration projects



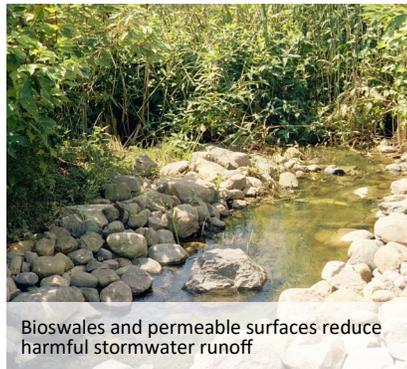
Prescribed burns part of invasive species management

## WATER RESOURCES

Projects	Target Completion Date	Program Input From	Responsible Program Position
Stormwater Management Plan implementation	Ongoing	Engineering, Planning & Development	Natural Resources
Wetland conservation	Short term	Outside agencies/NGOs	Natural Resources
Installing efficient water fixtures as needed	Short term	Engineering	Maintenance
Using bioswales and permeable surfaces where possible	Short term	Planning & Development, Natural Resources	Engineering
Implement grass cutting reduction plans	Short term	Natural Resources	Maintenance
Monitor E. coli levels in rivers, streams, and lakes	Short term	Partnerships (Contractors), Natural Resources	Maintenance
Convert turf to drought-resistant landscaping	Mid term	Engineering, Maintenance	Natural Resources
Incorporate low-impact development into all new construction	Mid term	Planning & Development, Natural Resources	Engineering
Develop policy for native and climate-adapted plants	Mid term	Natural Resources	Planning & Development
Removal of vault latrines and septic fields within 200 feet setback from waters edge	Long term	Planning & Development, Maintenance	Engineering

## WATER RESOURCES

Projects	Target Completion Date	Program Input From	Responsible Program Position
Consider sustainable developments that don't require chemical maintenance	Short term	Natural Resources, Engineering, Planning & Development	Sustainability Coordinator
Consider how to alter current landscapes or practices to reduce dependence on pesticides	Mid term	Interpretive Services, Planning & Development, Maintenance	Natural Resources
Implement irrigation Best Management Practices (BMP)	Mid term	Natural Resources, Engineering	Maintenance
Replace older toilets with low-flow toilets	Mid term	Maintenance	Engineering
Sustainable pump and filter controls with better ventilation	Mid term	Maintenance	Engineering
Reduction of impervious/stormwater pipe infrastructure	Long term	Planning & Development, Natural Resources	Engineering
GIS tracking of pesticides and fertilizers by area and set goal for reduction	Long term	Natural Resources, Planning & Development	Sustainability Coordinator
Underground Storage Tank (UST) removals	Long term	Partnership (MDNR)	Engineering
Prioritize the measurement of irrigated lawn district-wide with GIS so water use measured by area	Long term	Planning & Development, Engineering	Natural Resources
With help from experts, create pilot green roof on comfort station	Long term	Partnerships (Contractors), Planning & Development	Engineering



## WASTE MANAGEMENT

Just as attention is needed on resources the Metroparks consume, it is important to consider the byproducts of the system and how they are managed. The parks have expanded their recycling efforts in an exciting partnership with Waste Management beginning with a recycling pilot project for park users at Lake St. Clair Metropark in the spring of 2019. The next steps will involve integrating recycling more deeply into Metroparks operations across the park system. Food service locations currently use Styrofoam containers that are generally discarded, but potential exists to either collect them for recycling or replace with compostable packaging. While the Administrative Office collects e-waste for recycling, more outreach can be done to the individual parks to ensure that their e-waste is consolidated rather than discarded. In the long term, the bidding process can be revised to give preference to products that are recyclable or use recycled materials. Another long term goal is to gradually cease disposable water bottle sales at the parks, coinciding with installation of reusable water bottle filling stations.

Although recycling of materials during construction and demolition is a common practice at the parks, this expectation can be codified and added to contracts to ensure consistency. For park operations, the use of low-VOC paints and biofuels can be complemented by a switch to environmentally-friendly cleaning products.

In any office setting, managing paper waste is an often overlooked but essential task. The simplest action will be changing all printer settings so that double-sided printing is the default, although individual staff members can easily switch to single-sided when necessary. Recycled paper can be used in both outside printing projects and in-house printers, following research and communication with manufacturers to determine acceptable recycled content. Other paper products, such as paper towels and toilet paper, can be transitioned to recycled material for little extra cost.

### GENERAL WASTE

Projects	Target Completion Date	Program Input From	Responsible Program Position
E-waste recycled	Short term	Sustainability Coordinator	IT
Pilot Recycle Program Lake St. Clair	Short term	Sustainability Committee, Planning & Development	Purchasing
Educate about and implement sending e-waste to AO for recycling	Short term	Sustainability Liaisons, Sustainability Coordinator	IT
Modify contracts where reasonable to give higher preference to recycled materials	Short term	Sustainability Coordinator	Purchasing
Switch to reusable coffee mugs	Short term	Sustainability Committee	Purchasing, Sustainability Coordinator
Usage of permanent refillable hand soap container at restrooms	Short term	Sustainability Committee	Purchasing
Recycle K-Cup pods	Short term	Sustainability Committee	Purchasing, Sustainability Coordinator
Evaluate composting at Kensington and explore partnership with GM Proving Grounds	Mid term	Sustainability Committee, Interpretive Services, Planning & Development	Maintenance, Sustainability Coordinator

## GENERAL WASTE continued

Projects	Target Completion Date	Program Input From	Responsible Program Position
Phase out Styrofoam containers currently used by food service providers	Mid term	Sustainability Committee, Planning	Purchasing
Phase out purchase of water bottles for meetings and events	Mid term	Sustainability Committee, Planning	Purchasing
Recycling bins throughout each park	Long term	Sustainability Coordinator, Park Maintenance	Planning
Budget into projects installation of reusable water bottle filling stations	Long term	Sustainability Committee, Planning	Engineering

## TOXIC WASTE

Projects	Target Completion Date	Program Input From	Responsible Program Position
Following environmental compliance guidelines	Ongoing	Maintenance, Natural Resources	Engineering
Replace standard cleaning products with environmentally-friendly products	Ongoing	Natural Resources, Purchasing, Sustainability Committee	Maintenance



The parks have already phased out many disposable food containers and can continue this effort



Recycling opportunities will continue to expand in the Metroparks

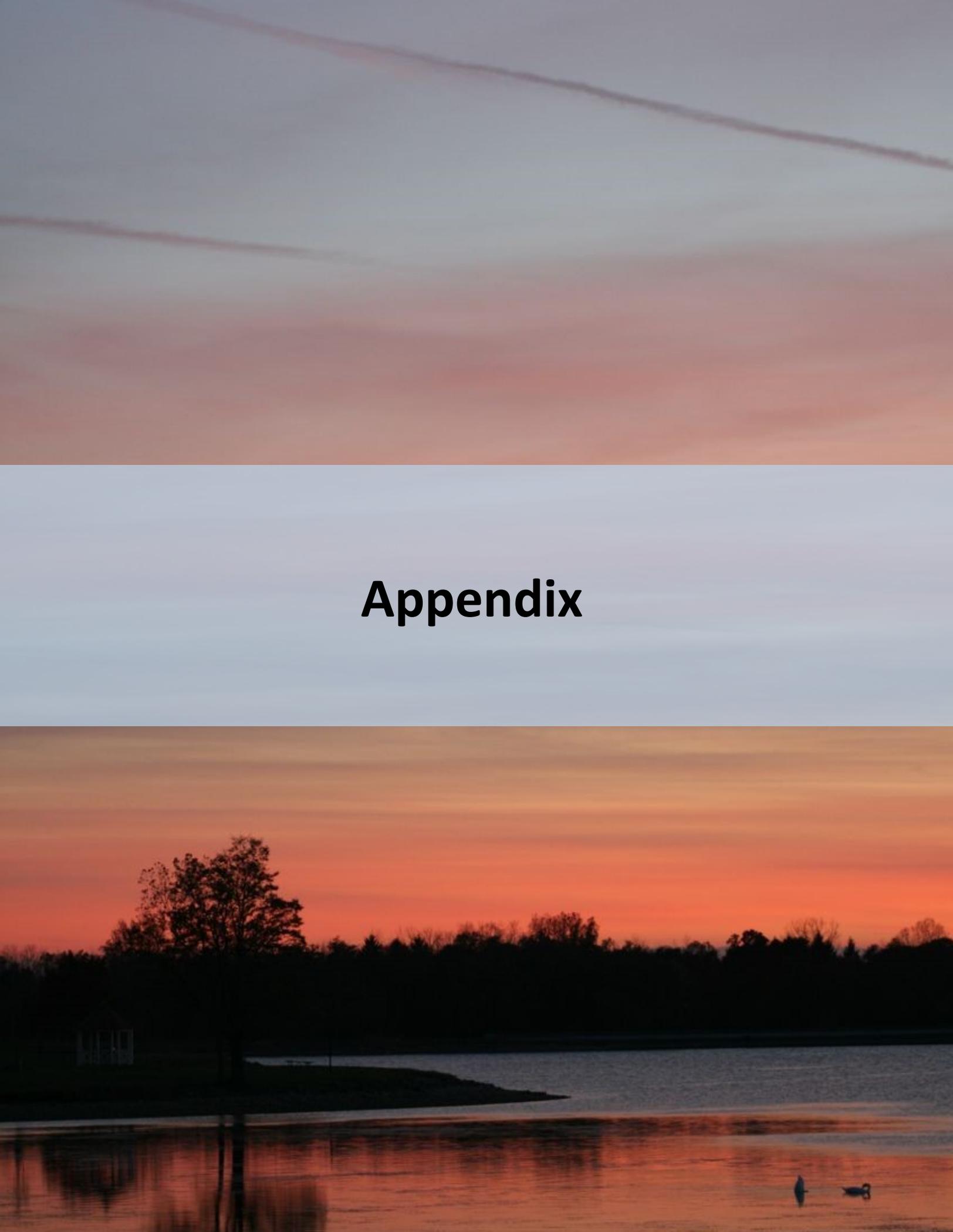
## CONSTRUCTION WASTE

Projects	Target Completion Date	Program Input From	Responsible Program Position
Following MDOT recycled asphalt standards	Ongoing	Planning, Park Maintenance	Engineering
Companies informally recycling demo materials	Ongoing	Planning, Park Maintenance	Engineering
Move towards compact development nodes and colocation	Long term	Engineering, Natural Resources	Planning

## PAPER WASTE

Projects	Target Completion Date	Program Input From	Responsible Program Position
Reusing scrap paper where reasonable	Ongoing	Sustainability Committee, Marketing, Graphics, Operations	Sustainability Coordinator
Return to using recycled paper in printing projects	Ongoing	Sustainability Committee, Marketing, Graphics	Sustainability Coordinator
Switch printer defaults to double-sided	Ongoing	Sustainability Committee, Marketing, Graphics, Operations	Sustainability Coordinator
Switch to % recycled paper in printers	Ongoing	Sustainability Committee, Marketing, Graphics	Sustainability Coordinator, Purchasing
Standardize recycled paper towel/toilet paper across system	Ongoing	Sustainability Committee, Marketing, Graphics	Sustainability Coordinator, Purchasing
Use volunteers to hold Zero Waste events and/or programming	Ongoing	Sustainability Committee, Marketing, Graphics	Volunteer Services



A full-page background image of a sunset over a lake. The sky is a gradient of colors from light blue at the top to deep orange and red near the horizon. Silhouetted trees line the shore, and a person is visible in the water in the lower right. The word "Appendix" is centered in the middle of the page.

# Appendix

**SEMCOG GREEN INITIATIVES SURVEY PARK RESPONSES (2016)**

(at time of survey—does not include recent recycling receptacle addition)

PARK	HMe	SCr	ISp	LSC	HMi	LEr	Oak	Wil	LHu	Ken
NAME	Adam H	Mike L	John V	Jason S	Dave K	Jim P	Jim P	Jim P	Jim P	Kimberly J
<b>Employee recycling</b>	Yes	No	Yes	Yes (only)	Yes	Yes	Yes	Yes	Yes	Yes
paper/cardboard										
plastics										
Metal/cans										
returnable bottles/cans										
glass										
batteries										
cell phones										
DVDs/CDs										
light bulbs										
ink cartridges										
electronics										
tires										
paint cans										
wood pallets										
propane tanks										
oils and lubricants										
oil and fuel filters										
concrete										
aerosols										
<b>Visitor recycling</b>	No	No	Yes	No	Yes	No	No	No	No	Yes
plastics										
Metal/cans										
returnable bottles/cans										
glass										
batteries										
cell phones										
DVDs/CDs										
light bulbs										
ink cartridges										
electronics										
tires										
paint cans										
wood pallets										
propane tanks										
oils and lubricants										
oil and fuel filters										
concrete										
aerosols										
paper/cardboard										
<b>Compost/mulch</b>	Yes	Yes	Yes	No	Yes	No	No	No	No	Yes
grass clippings										
pruned plant										
food waste										
leaves										
<b>Monitor amount</b>	No	No	No	No	No	No	No	No	No	No
<b>Bio-soy</b>	No	No	Yes	No	Yes	Yes	Yes	Yes	Yes	Yes
Hydraulic fluid										
bar and chain oil										
penetrating oil										
summer/winter diesel										
two-cycle engine oil										
10W30 motor oil										
parts cleaning solution										
bearing grease										
air compressor fluid										
degreaser										
80/90 gear lube										
lawn mowers										
golf course mowers										
bulldozers										
boats										
chainsaws										

PARK	HMe	SCr	ISp	LSC	HMi	LEr	Oak	Wil	LHu	Ken
NAME	Adam H	Mike L	John V	Jason S	Dave K	Jim P	Jim P	Jim P	Jim P	Kimberly J
Green-certified cleaning										
Chemical cleaning products										
<b>Multi-purpose products</b>	Yes	Yes	Yes	No	Yes	No	Yes	Yes	Yes	Yes
<b>Product-metering device</b>	No	Yes	No	No	No	No	No	No	Yes	No
75-100%										
50-75%										
25-50%										
less than 25%										
<b>No Mow Zones</b>	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Lake or Stream Buffers										
Special habitat										
Specific % of land										
Low impact areas										
Wetland Buffers										
<b>Other green products/practices</b>	Yes	No	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Geo-thermal heating										
Golf course cert. MTESP										
PIPP/SPCC inspections										
Low VOC paints										
Phospho-free fertilizer										
<b>Energy-efficient lighting</b>	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	No
CFLs										
LEDs										
Timers										
Occupancy Sensors										
Daylighting										
<b>Water-saving plumbing</b>	No	Yes	No	No	Yes	No	No	No	No	No
low-flow toilets										
waterless urinals										
push-button/timed showers										
push-button hand faucets										
<b>Stormwater management</b>	No	No	No	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Community gardens										
Permeable paving										
Green roofs										
Rain gardens										
Stormwater retention pond										
Bioswales										
<b>Green technology</b>	Yes	Yes	Yes	No	Yes	Yes	Yes	Yes	Yes	Yes
Solar panels										
Wind turbines										
Energy star appliances										
Recycled materials										
<b>Educate visitors</b>	No	No	Yes	No	No	Yes	No	Yes	Yes	No
<b>Educate employees</b>	No	Yes	No	No	No	Yes	No	Yes	Yes	No
visitor newsletter										
employee newsletter										
signage										
<b>Employee training</b>	No	Yes	Yes	No	No	No	No	No	No	No
<b>Visitor programming</b>	No	No	No	No	Yes	Yes	No	No	No	Yes
Park Stewardship										
Special events										
Educational Programs										
Orientation										
<b>Initiatives</b>	local drop spot		more seasonal mowing							
	controlled release									
	recycle and old lights									

## DEPARTMENT INTERVIEWS

### Sustainability Meeting with Engineering (Mike Brahm-Henkel)

June 28, 2016, 10AM

#### CURRENT PRACTICES

<b>Construction</b>	New construction often follows LEED standards, although certification has generally not been obtained due to cost Injectable foam insulation in block and mortar buildings Geothermal technology has been used in some buildings, although efficiency is questionable Done in newer buildings (EDC, golf starter), have to look in project notes for more specifics
<b>Stormwater</b>	Have stormwater management plan authority-wide
<b>Lighting</b>	Gradually updating buildings and parking lots to high-efficiency lights Change made with new construction or sometimes at park level Have to look in project notes or accounting system
<b>Sourcing</b>	Follow MDOT standards for recycled asphalt content, although there is a quality tradeoff
<b>Demolition</b>	Not specified, but companies often recycle demo materials due to value Not possible in older buildings with asbestos and lead
<b>Tree Work</b>	Felled trees often logged out to companies for use of wood
<b>Pumps</b>	Variable Speed Drive to match demand to expectations
<b>Paint</b>	Low VOC paints generally used
<b>Contaminated sites</b>	Monitoring Moving fuel tanks aboveground, making them smaller Follow regulations for waste stream management
<b>Solar</b>	Solar panels at Indian Springs near White Lake Rd and at Huron Meadows on top of cart barn Return on investment is questionable

#### OPPORTUNITIES

<b>Construction</b>	Include design and material choice standards in contracts and meetings with contractors, follow through and confirm use of materials/procedures
<b>Stormwater</b>	Move towards more gravel lots, roads, and trails, and more natural wetland/buffer areas, including a strong education component
<b>Footprint</b>	Move towards compact nodes of development/utilities, co-locate facilities

### Sustainability Meeting with Purchasing (Ron Smith and Maria Van Rooijen)

June 29, 2016, 1:30pm

Maria currently tries to source everything possible from local companies, but there is no written policy  
Recycled paper had been used for all printing projects until Amanda left – no longer more expensive  
Compostable food service packaging and dishware through US Foods costs much more (2-3x)  
Paper towels – some are recycled, could standardize across system  
We could draft a recommendation that Maria could edit  
New products would be phased in after current lifecycle completed  
Recycled copy paper was messing up the machine, need to find right % recycled content – ask Sterling  
Some contracts can be modified to write higher preference for sustainability  
Need list of what can and can't be modified in terms of contracts  
IT doesn't like recycled cartridges, but other gov agencies use them

## **Sustainability Meeting with IT (John Chang and Nolan Clark)**

**Thursday, June 30, 10am**

Human perception is important obstacle  
Videoconferencing with two people is easy to do – built into ShoreTel system  
Adding capability for multiple users would require LifeSize package add-on – research cost  
TWAC is not good for conference connections because not enough bandwidth in connection, but a fiberoptics plan would make it viable.  
Places with strong enough connections for teleconferencing are AO, Ken nature center, Ken golf course.  
Have applied for distance learning grant twice but not received funding.  
Ask Michelle if other grants are available  
Sharepoint can have some basic collaboration enabled for simultaneous document editing  
Would only require settings changes and staff education  
Haven't seen problems with recycled paper in printers, could get maximum recycled content from manufacturer  
Have had problems with recycled cartridges, especially in the Phaser  
JD Beaver recycles our electronics, we deliver to them, they take basically all items  
No cost and sometimes small profit  
Parks have not been consistent about sending e-waste to AO, opportunity for education  
Making double-sided printing the default is just a matter of changing settings  
General issues with heat settings in IT/server room and rest of building  
Don't currently return printer cartridges to manufacturer – could start that if various parks consolidated

## **Sustainability Meeting with Web and Media (Brad Felder and Lisa Parsons)**

**Friday, July 8, 10am**

Website can have a separate Sustainability page once action plan is created  
May be helpful to create a separate sustainability@metroparks.com email that forwards to Ryan and Carolyn—talk to IT  
Once we have started on some of the projects, able to create video content to share with public  
Newsworthy stories send to Lisa to get to outlets  
Send Lisa and Brad plan once it is created, short and long term objectives to advertise  
Hillary can work on promoting on social media  
Inspiration from Detroit Zoo campaign—good content and laid out nicely  
Create storyboard and graphics—talk to Carla  
Cross-promotion with Natural Resources and parks/departments on social media

## **Sustainability Meeting about Volunteers (Katie Kowalski)**

**Wednesday, July 13, 10am**

Volunteers critical to sustainability efforts  
Advantages and risks involved with using volunteers—may not show up  
Should start with corporate volunteers, other organized groups, create good base—possibly with funding tied to it  
Then possibly move into individual volunteering  
Good to start with a big event that can generate excitement and buzz  
Always have a contingency plan for no-shows  
Possibility to get corporate partnership/other grants for water filling stations  
Work with Waste Management or other companies, have people volunteer to be informal advisers, answer questions  
Ford is big on sustainability, redoing buildings to be geothermal—short term goal to visit  
University students can help with more complex projects such as composting, pilot green roofs  
Can create action plans, capstone projects for how to implement these initiatives efficiently  
Zero Waste Events—should be action plan for next year  
Possible events: Philharmonic, Hawk Fest, Summer Fun, Huron River Watershed Council's Suds on River  
Partner with other organizations to make their events zero waste  
Possibility of involving microbreweries in beer/wine events  
Green Run with invited organizations, already existing running groups, raise money for projects  
Identify a few high-expense projects to raise money through events, grants, crowdfunding (like the zoo)  
Next year is 75th anniversary—leverage this milestone

## SUSTAINABILITY PROJECT IMPLEMENTATION REPORT

Name

Park

Project

Date

Steps that have been taken to implement project:

Remaining steps that have not been completed:

Results of project, any issues to address:

District Sustainability Liaison Signature

Please email completed report to the Sustainability Team and to your District Supervisor. Please avoid printing unless necessary.



# Sustainability at the Metroparks

