Scrap Tire Buy Back Program
Montgomery County, Ohio

EXECUTIVE SUMMARY

On September 21, 2013 the Montgomery County Solid Waste District provided Montgomery County residents an opportunity to recycle old tires by hosting a Scrap Tire Buy Back Event. Montgomery County residents could deliver up to ten scrap tires per vehicle for recycling and were paid two dollars per tire, with a maximum of ten tires per vehicle. Thus, residents were incentivized to clean up scrap tires from their neighborhoods, alleyways, vacant lots, rivers and streams, and deliver the tires to the event site. The inaugural event on September 21, 2013 attracted 1,581 vehicles and collected 15,488 scrap tires for recycling.

1. DESIGN OF COLLECTION FACILITY/MANAGEMENT SYSTEM

A. Describe the type of collection and special waste management system developed

Montgomery County, Ohio currently operates two solid waste transfer facilities that offer a free scrap tire drop-off program for the public. Montgomery County residents are permitted to bring up to ten tires per year for recycling at no charge.

In 2012, the Public Health - Dayton and Montgomery County (PHDMC) investigated 77 complaints of illegal dumping. As recently as 2009, PHDMC estimated there may be 17,000 scrap tires that are disposed of illegally in the region.

In response to the community need for additional scrap tire recycling options, the Montgomery County Solid Waste District (MCSWD) initiated the development of the Scrap Tire Buy Back Program. The program incentivizes County residents to collect scrap tires and deliver them to the event site where they are recycled. This program helps divert the scrap tires from potentially entering the environment through activities such as illegal dumping.
B. **Describe Special Event Site**

The inaugural event was held at Welcome Stadium, the Dayton Public School System’s central high school football stadium. Welcome Stadium is a well know local landmark with convenient access both from local streets as well as Interstate 75. The expansive parking lot surrounding the stadium allowed for multiple traffic pattern and operational scenarios. All points of entry could be easily controlled.

C. **Describe the operational plan design**

The site plan for the event designated three operational areas: Public Entrance, Tire Collection, and Cashier. A summary of each operational area follows.

I. Public Entrance

All public traffic entered the site through a single location and was routed to leave the site at an exit in the back of the site. City of Dayton staff and police officers monitored both the entrance and exit and controlled all traffic entering and exiting the site. Upon entering the site traffic was queued through the use of traffic cones and greeted by an initial group of staff. Staff explained the process to the occupants of each vehicle and they were given a packet of information detailing existing MCSWD programs for waste disposal and recycling, as well as state mandated requirements for the transportation, storage, and disposal of scrap tires. Further in the public entrance area another group of staff verified each customer’s residency and initiated a two part ticket for each vehicle that stayed with the customer throughout the process. Each sequentially numbered ticket was placed under the vehicle wiper blade and used to document the quantity of tires brought for recycling and a receipt for payment received.
II. Tire Collection Area

Once each customer was checked in and had received their ticket, they proceeded to the tire collection area. Sixteen 40-cubic yard roll-off dumpsters were placed in a line to collect tires. One staff member and one Montgomery County work release inmate, under the supervision of a Sheriff’s Deputy, were stationed at each roll-off container.

At the entrance to the unloading area, a staff member would direct each vehicle to the next available unloading area. The roll-offs were lined in a “pit road” configuration whereby vehicles could unload tires at any station and then pull back out into an exit lane when finished. A combination of staff, inmate, and resident would unload the tires into a container and the staff member would record the number of tires on each individual ticket.

III. Cashier Area

Once tire unloading was completed each customer proceeded to the cashier area. Four two-person teams of cashiers completed each transaction. The amount of buyback was recorded and each ticket was signed by a cashier and the customer. The customer was given a copy and the other copy was retained for record keeping. After each customer received their payment they exited the property through a designated area.

Law enforcement kept a visible presence throughout the event and also provided security for cash reserves.
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D. Describe the program’s role in local community’s integrated solid waste management plan

Since the creation of the Montgomery County Solid Waste District (MCSWD) more than 50 years ago the Montgomery County Board of Commissioners has assumed responsibility for the formal disposal of solid waste in the County. The district is one of the oldest in Ohio and is comprised of 28 member communities. In compliance with the requirements of House Bill 592 and the Ohio EPA, MCSWD has offered scrap tire recycling programs since 1988. In the five year period from 2008-2012, MCSWD received an average of 67,900 passenger tires from a combination of residents, commercial customers, and local jurisdiction staff. The Scrap Tire Buy Back Program is an additional community recycling opportunity that helps enable MCSWD to meet local and State recycling and waste diversion goals.

E. Describe innovative or unique aspects of the program

Montgomery County Solid Waste District’s Scrap Tire Buy Back Program is the first of its kind in the State of Ohio. Nationwide only one other municipality has offered a similar version of this program. To date the City of Dallas, Texas and the City of Jacksonville, Florida have indicated strong interest in developing similar programs based on the one offered by MCSWD. Due to the overwhelmingly positive impact to the community and also local municipality resources, MCSWD is committed to continuing this program in the future.
2. ENVIRONMENTAL BENEFITS AND REGULATORY COMPLIANCE

A. Discuss the overall impact of the program on human health, environmental quality and resource conservation

Scrap tires provide breeding grounds for mosquitoes and rodents when stockpiled or illegally dumped. Prone to heat retention, tires in stockpiles also can ignite, creating tire fires that are difficult to extinguish and can burn for months, generating unhealthy smoke and toxic oils. Illegal tire dumping pollutes ravines, woods, deserts, and empty lots.

By collecting and removing significant volumes of scrap tires from the environment through this program MCSWD is helping to reduce the potential risks to human health and environmental quality posed by the stockpiling and illegal disposal of scrap tires.

B. Describe the use of alternative products, source reduction, reuse and/or recycling

All scrap tires collected at the event were transported and processed for recycling by a contracted vendor. Rumpke Recycling, Inc. collected and transported all scrap tires to their tire recycling facility near Cincinnati Ohio. The tires were shredded and used for landfill construction under the Ohio EPA’s beneficial reuse program.

Additionally under this program MCSWD has partnered with the Montgomery County Sheriff’s Office to support and direct a full-time Montgomery County Environmental Crimes Deputy. The Deputy regularly visits commercial tire vendors and local citizens and community groups to educate them about their responsibilities under Ohio’s Scrap Tire Generator and Transporter Rules. Combining education and enforcement with the recycling programs will lead to effective source reduction, preventing many scrap tires from entering the environment illegally.

C. Explain how the site is in environmental compliance

All scrap tires brought to the site for recycling were immediately loaded into 40 cubic yard roll-off containers and each container removed from the site when full. At no time were scrap tires stored on the ground and all tires were removed from the site by the conclusion of the event.

Representatives from the Ohio EPA and Public Health Dayton and Montgomery County (PHDMC) were present the entire event to ensure regulatory compliance and that all scrap tire transportation, storage and disposal requirements were met.
3. PROGRAM PLANNING

A. Describe the special waste management/collection system planning process

MCSWD initiated and coordinated the system planning process to include representatives from several interested parties. The planning group included representatives from the following:

- City of Dayton
- City of Trotwood
- Harrison Township
- Jefferson Township
- Ohio EPA
- Public Health Dayton and Montgomery County
- the Montgomery County Sheriff’s Office
- the Montgomery County Prosecutor’s Office

Initial planning for the first Montgomery County Scrap Tire Buy Back event began in March 2013, with a detailed operational plan finalized in July 2013, and the event held on September 21, 2013. The program is a collaborative effort with the following goals:

I. Remove large volumes of scrap tires from the community, improving the local landscape and helping keep our neighborhoods beautiful and vital.

II. Reduce the burden on local jurisdictions, which must divert resources in response to illegal dumping and cleanup.

B. Describe the effectiveness of the planning process

Due to the collaboration of many different organizations and the length of the process, planning for the event was extremely effective. As a result of the successful planning process on September 21, 2013, 15,488 scrap tires from 1,581 vehicles were collected for recycling without any significant operational concerns.
C. **Describe the plan for managing the special waste**

Sixteen 40 cubic yard roll-off containers were staged at the site to collect the tires. Once full each roll-off container was removed from the event site. At no time were scrap tires stored on the ground and all tires were removed from the site by the conclusion of the event.

Full roll-off containers were transported to the nearby Montgomery County Transfer Station and emptied before being returned to the event site. At the transfer station, scrap tires were loaded into large walking floor trailers and transported to the recycling center in Cincinnati, OH. All tires were delivered to the recycling center the same day as the event.

D. **Discuss how community concerns were addressed and resolved**

The planning process also involved meeting with local community neighborhood group representatives to discuss the program. While pleased with MCSWD’s effort to address illegal scrap tire dumping, concerns were raised about vehicle traffic and congestion the day of the event. These concerns were addressed and resolved through the use of additional Neighborhood Assistance Officers (local auxiliary police officers) to ensure all local traffic congestion and flow at the event site and surrounding area were sufficiently controlled.

Local neighborhood community groups also were an important resource in promoting the event to urban areas affected by illegal scrap tire dumping, distributing event flyers and communicating directly to residents most affected.

4. **PERFORMANCE, ECONOMICS AND COST EFFECTIVENESS**

A. **Describe the efficiency of the operation**

During the six hours of the event 15,488 scrap tires were collected from 1,581 vehicles. Sixty-six 40 cubic yard roll-offs of scrap tires were removed from the site and bulk loaded into thirteen waste transfer trailers to be transported to the recycling facility. The operation efficiently achieved these results with no customer service issues, traffic concerns, or operational break downs.

B. **Discuss operational performance and whether it equals or exceeds the program’s goals and expectations**

As stated in section 3.A the program’s goals and expectations are:

1. Remove large volumes of scrap tires from the community, improving the local landscape and helping keep our neighborhoods beautiful and vital.

15,488 scrap tires were collected during the event resulting in corresponding neighborhood beautification by removing them from the environment or preventing them from ever entering the environment.
II. Reduce the burden on local jurisdictions, which must divert resources in response to illegal dumping and cleanup.

In the months following the first event scrap tire receipts at the two Montgomery County Waste Transfer Stations are down significantly. There has been a reduction of more than 38% in scrap tire receipts county-wide compared to the previous five year average. In the City of Dayton (our largest jurisdiction member) the reduction has been even greater at more than 44%.

The use of local jurisdiction resources to collect illegally dumped scrap tires has also been significantly reduced as a result of this program. In the year preceding the event the City of Dayton spent a monthly average of $2,353 collecting scrap tires. In the months since the event the City of Dayton has spent a monthly average of $974, a decrease of more than 58% in local jurisdiction costs. Montgomery County Environmental Services will continue to monitor these monthly costs and volumes to document the long-term success of the program.

III. Educate residents about resources and programs available for scrap tire and other types of recycling and waste disposal. In addition, the program educates the public on The State of Ohio requirements for the transportation, storage, and disposal of scrap tires.

On the day of the event 893 information packets were distributed to residents attending the event. Each vehicle received an information packet their first trip through the line. These packets contained detailed information on all of the waste disposal and recycling programs available to Montgomery County residents as well as information specific to the State of Ohio’s scrap tire transportation, storage, and disposal legal requirements.

C. Describe how the organization fosters customer service

As a public service organization MCSWD is committed to positive customer service. During the event, staff was stationed throughout the work site to communicate with and answer customer questions. To foster customer service MCSWD committed significant resources staffing the event. A summary of staff positions:

<table>
<thead>
<tr>
<th>Position</th>
<th>Staff</th>
</tr>
</thead>
<tbody>
<tr>
<td>MCSWD staff</td>
<td>40</td>
</tr>
<tr>
<td>Montgomery County Sheriff’s Office staff</td>
<td>14</td>
</tr>
<tr>
<td>Montgomery County Sheriff’s Office inmates</td>
<td>8</td>
</tr>
<tr>
<td>City of Dayton staff</td>
<td>10</td>
</tr>
<tr>
<td>Ohio EPA staff</td>
<td>1</td>
</tr>
<tr>
<td>Public Health Dayton and Montgomery County staff</td>
<td>2</td>
</tr>
<tr>
<td>Rumpke Recycling, Inc. staff</td>
<td>7</td>
</tr>
<tr>
<td><strong>Total Staff</strong></td>
<td><strong>82</strong></td>
</tr>
</tbody>
</table>

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D. Describe how the program operates within its budget and whether the costs are appropriate for the program in the industry that is comparable in size

Total operating costs for the first event were $92,687.

<table>
<thead>
<tr>
<th>Description</th>
<th>Cost</th>
</tr>
</thead>
<tbody>
<tr>
<td>Tire Disposal</td>
<td>$35,028</td>
</tr>
<tr>
<td>Buy Back Amount</td>
<td>$29,844</td>
</tr>
<tr>
<td>Staff Labor</td>
<td>$11,490</td>
</tr>
<tr>
<td>Sheriff’s Office Labor</td>
<td>$2,375</td>
</tr>
<tr>
<td>Operational Equipment</td>
<td>$3,604</td>
</tr>
<tr>
<td>Staff Food/Drink</td>
<td>$1,469</td>
</tr>
<tr>
<td>Printing/Promotional Items</td>
<td>$3,543</td>
</tr>
<tr>
<td>Advertising</td>
<td>$4,195</td>
</tr>
<tr>
<td>Misc.</td>
<td>$1,139</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td><strong>$92,687</strong></td>
</tr>
</tbody>
</table>

Due to the unique and innovative nature of this program it is difficult to compare total costs with similar programs in the industry at this time.

E. Explain whether the program met the expected budget, and if not, what factors contributed to the situation and what remedies are being proposed

The initial event budget is intended to establish a baseline for future events. The tire buyback program currently collects and disposes of scrap tires for a cost of $5.98/tire. MCSWD will continue to monitor the corresponding reduction in local resources needed to collect scrap tires to measure long term effectiveness of the program. Certain initial start-up costs are included and not expected to be recurring. Subsequent events will also integrate operational efficiencies that will lower total costs.

5. USE OF EQUIPMENT/SYSTEMS AND TECHNOLOGIES

A. Describe equipment used at the facility

Equipment used for this event included:

I. 3 – Articulating front loader with 5 cubic yard bucket
II. 5 – 40 yard roll-off straight truck
III. 5 – 48 foot walking floor trailer and truck
IV. 1 – Johnson VT650 Street Sweeper
V. 16 – 40 cubic yard roll-off container
B. **Detail efficiency and effectiveness of equipment**

All equipment performed effectively during the event. The articulating front loaders were instrumental in efficiently loading scrap tires into the 40 cubic yard roll-off containers. The roll-off straight trucks were able to remove 66 roll-off container loads from the site, travel the less than five mile route to the waste transfer station, off load, and return to the site in a timely manner. At the waste transfer station the five 48 foot walking trailers and trucks were able to efficiently haul 13 loads of scrap tires totaling more than 180 tons to the recycling center.

6. **WORKER HEALTH AND SAFETY**

A. **Describe employee training frequency and topics**

All MCSWD employees working the event receive training on the following topics and frequency:

<table>
<thead>
<tr>
<th>Topic</th>
<th>Required Frequency</th>
</tr>
</thead>
<tbody>
<tr>
<td>Compressed Gas Safety</td>
<td>Once</td>
</tr>
<tr>
<td>Confined Space Safety</td>
<td>Annually</td>
</tr>
<tr>
<td>Defensive Driving</td>
<td>Once</td>
</tr>
<tr>
<td>Emergency Procedures</td>
<td>Once</td>
</tr>
<tr>
<td>Fall Protection</td>
<td>Once</td>
</tr>
<tr>
<td>Forklift</td>
<td>Once</td>
</tr>
<tr>
<td>Hazcom</td>
<td>Annually</td>
</tr>
<tr>
<td>Hearing Conservation</td>
<td>Annually</td>
</tr>
<tr>
<td>Hot Environment</td>
<td>Once</td>
</tr>
<tr>
<td>Insect Safety</td>
<td>Once</td>
</tr>
<tr>
<td>Lockout/Tagout</td>
<td>Once</td>
</tr>
<tr>
<td>Machine Guarding</td>
<td>Once</td>
</tr>
<tr>
<td>MSDS Training</td>
<td>Annually</td>
</tr>
<tr>
<td>PPE – Personal Protective Equipment</td>
<td>Once</td>
</tr>
<tr>
<td>Tool Safety</td>
<td>Once</td>
</tr>
<tr>
<td>Walking and Working Surfaces</td>
<td>Annually</td>
</tr>
<tr>
<td>Workplace Violence</td>
<td>Annually</td>
</tr>
</tbody>
</table>
B. **Describe safety procedures, including enforcement. Include injury rates.**

All formal safety procedures and training are established by the Montgomery County Environmental Services Safety Department. Procedures are communicated and enforced through formal training, daily and weekly pre-shift staff meetings, and monthly safety committee meetings consisting of representatives from each work group.

A pre-event staff meeting was held with all employees to discuss the specific operational procedures and safety precautions for the tire buy back program.

As reported on the State of Ohio Public Employment Risk Reduction Program form 300P for 2013, Montgomery County Solid Waste District had one recordable injury. There are no reportable injuries associated with the Scrap Tire Buy Back Program.

7. **PUBLIC ACCEPTANCE, APPEARANCE, AND AESTHETICS**

A. **Describe the maintenance program for keeping the facility and vehicles clean and aesthetically pleasing**

All vehicles and equipment are subject to a routine preventative maintenance program performed by MCSWD personnel. The waste transfer station is routinely inspected by Ohio EPA personnel for housekeeping and cleanliness with no deficiencies.

After the event all equipment, property, and waste materials were removed from the site the same day and the site was thoroughly cleaned with a street sweeper.

B. **Describe public relations measures and public education information**

Local television affiliates WDTN, WHIO, and ABC22/FOX45 provided public relations coverage leading up to, during, and the week following the event. Local community cable access, public radio stations, and print media were also utilized to promote program awareness. The MCSWD website, social media and also the City of Dayton website were utilized for public relations and promotional purposes.

The Montgomery County Communications Department developed a promotional video of the event that included footage of the event operations, interviews with staff and residents, and program results. The video is a program documentary that is used in public outreach and education.

On the day of the event 893 information packets were distributed to residents attending the event. Each vehicle received an information packet their first trip through the line. These packets contained detailed information on all of the waste disposal and recycling programs available to Montgomery County residents as well as information specific to the State of Ohio’s scrap tire transportation, storage, and disposal legal requirements.
C. **Provide evidence that the facility is a good neighbor**

Due to the large numbers of vehicles and tires collected, as well as the overwhelming positive response from the public and local jurisdictions, Montgomery County Environmental Services considers this new program a tremendous success. More than 15,000 scrap tires were effectively removed from the environment resulting in a noticeable improvement in community beautification. Residents collected scrap tires from vacant lots, alleyways, vacant structures, and many other locations where illegal dumping was prevalent and delivered them to the event for recycling.

8. **SUPPLEMENTAL MATERIALS**

A. Tire Buy Back Program Press Release (pg. 13)

B. Tire Buy Back Program Promotional Flyer (pg. 14)

C. You Tube link to Program Summary Video:

   [http://www.youtube.com/watch?v=J4b7TWjiJA4](http://www.youtube.com/watch?v=J4b7TWjiJA4)
MEDIA ADVISORY

Montgomery County Residents Will Cash in Used Tires

Tire Buyback Event to Promote Recycling, Litter Prevention, and Community Beautification

Dayton, Ohio (August 12, 2013) – On September 21, Montgomery County Environmental Services will host a tire buyback event. Residents can earn $2 for every scrap/used tire they bring, up to a maximum of 10 tires per vehicle. All tires brought to the buyback event will be recycled.

Scrap tires can create health and safety hazards, pollute the environment, and become neighborhood eyesores if they are not properly stored or discarded. “Montgomery County and other jurisdictions invest a lot of time and resources into cleaning up illegal dumping sites and scrap tires,” said Montgomery County Commission President Dan Foley. “With this event, we encourage citizens to pick up tires from dump sites or bring in their own used tires to be recycled, which will reduce the cost of cleaning up dump sites now and in the future.”

What: Montgomery County Tire Buyback
Where: Welcome Stadium, Parking Lot D
1801 Edwin C. Moses Blvd.
Dayton, OH 45417
When: Saturday, September 21, 8:00 a.m. to 2:00 p.m.

This event is open to all Montgomery County residents, and identification will be required to confirm residency. Participants will be paid $2 per tire in cash, up to a maximum of 10 tires per vehicle. Only passenger vehicle tires will be accepted. (Please note that hauling more than 10 tires at a time without an appropriate state registration is a felony.)

About Montgomery County Environmental Services

Montgomery County Environmental Services provides solid waste, recycling, drinking water, and water reclamation services to the citizens of Montgomery County. The department also offers educational outreach to local schools, communities, and businesses that want to learn more about conservation and sustainability in the Miami Valley region.

# # #

Media Contact: Brianna Wooten – Montgomery County Environmental Services Communications Coordinator
937-781-2532 or wootenb@mcohio.org
Montgomery County Environmental Services

Tire Buyback Event

Saturday, September 21, 8:00 a.m. to 2:00 p.m.
Welcome Stadium, Parking Lot D
1801 Edwin C. Moses Blvd.
Dayton, OH 45417

Earn $2 / Tire!*

* Maximum 10 per vehicle. No truck, farm implement, or other over-sized tires accepted.

Open to all Montgomery County residents. Proof of residency required.
Maximum of 10 tires per vehicle allowed. Please be aware that hauling more than 10 scrap tires at a time without an approved state registration is a felony.

Call (937) 225-4999 for more information.