

# What Happens to All This Stuff?

How Hennepin County manages household hazardous waste and other wastes it collects



On an annual basis, around 100,000 residents drop off waste items at Hennepin County's drop-off facilities and collection events. Waste is then managed by the county in the most environmentally-protective, cost-effective method. While initially processed in the United States, some materials, such as metal and paper, are eventually sold in international commodities markets.

## Why is this important?

Household hazardous wastes and problem materials can harm human health and the environment if they are not properly treated, stored, transported and disposed. By collecting and managing hazardous materials, the county avoids the environmental and health issues associated with them.

## Examples of the potential hazards we avoid

### • Mercury

A potent nervous system toxin which also affects reproduction and development. Developing fetuses and young children are especially at risk from mercury exposure. Mercury vapor is easily absorbed in the lungs and is toxic at low concentrations in air. Both long-term (chronic) and short-term (acute) exposure to mercury vapors are health threats. Because mercury does not degrade, it accumulates in the environment, reaching dangerous levels in fish, which result in fish consumption advisories.

### • Motor oil

One gallon of improperly disposed motor oil can contaminate 1 million gallons of fresh water.

### • Lead

Lead enters the body when you inhale lead fumes or lead dust, or swallow something that contains lead. Your body does not have a use for lead. If you are exposed to a small amount, your body will discharge it. If you are exposed to small amounts over time or one large dose, your body may take in more than it can eliminate.

Lead poisoning is a disease that occurs when too much lead builds up in the body. Lead, one of the top 25 toxic chemical pollutants in Minnesota, is also found in most fishing jigs and sinkers. This metal has an adverse effect on the nervous and reproductive systems of mammals and birds, and is poisoning wildlife such as loons and eagles.

Waste category	Why is it a problem?
<b>Automotive products</b>	<ul style="list-style-type: none"> <li>• Flammable and toxic to humans, plants and animals.</li> <li>• Certain types are banned from solid waste, per MN State Statute §115A.916.</li> <li>• Examples: motor oil, motor oil filters, brake fluid, power steering fluid, transmission fluid and antifreeze.</li> </ul>
<b>Batteries</b>	<ul style="list-style-type: none"> <li>• May contain cadmium, mercury, lead and other heavy metals—toxic materials that persist in the environment and pose a significant threat to humans, plants, animals and fish.</li> <li>• Lead acid batteries – banned from solid waste, per MN State Statute §115A.915.</li> <li>• Rechargeable batteries and products – banned from solid waste, per MN State Statute §115A.9157.</li> </ul>
<b>Compressed gases</b>	<ul style="list-style-type: none"> <li>• Depending on contents, may be flammable and/or toxic to humans, plants and animals.</li> <li>• Examples: aerosols, 1 lb. propane and butane gas cylinders.</li> </ul>
<b>Consumer electronics</b>	<ul style="list-style-type: none"> <li>• May contain lead, mercury, polychlorinated biphenyls (PCB) capacitors and other heavy metals— toxic materials that persist in the environment and pose a significant threat to humans, plants, animals and fish.</li> <li>• Cathode Ray Tubes (CRT) – banned from solid waste, per MN State Statute §115A.9565</li> <li>• Examples: TVs, personal computers and peripherals (such as keyboards, printers and scanners), stereos, telephones (cordless and cell phones) and VCRs.</li> </ul>
<b>Corrosives</b>	<ul style="list-style-type: none"> <li>• Cause burns and react with other materials; toxic to humans, plants and animals.</li> <li>• Examples: toilet bowl, drain and oven cleaner, lime remover, acids and bases.</li> </ul>
<b>Driveway sealers</b>	<ul style="list-style-type: none"> <li>• Liquids are prohibited from disposal in regular trash, per MN Rule 7035.2535.</li> <li>• Oil-based sealers are flammable and may contain metals which are toxic to humans, plants and animals.</li> </ul>
<b>Flammable liquids</b>	<ul style="list-style-type: none"> <li>• Flammable and toxic to humans, plants and animals.</li> <li>• Examples: gasoline, thinner, fuel, furniture oil and nail polish remover.</li> </ul>
<b>Fluorescent and HID lights</b>	<ul style="list-style-type: none"> <li>• Contain mercury, a potent neurotoxin and persistent environmental contaminant, that poses a significant threat to humans, plants, animals and fish.</li> <li>• Banned from solid waste, per MN State Statute §115A.932.</li> <li>• Examples: compact (CFL), u-shape, circular, four- and eight-foot, high intensity discharge (HID).</li> </ul>
<b>Major appliances</b>	<ul style="list-style-type: none"> <li>• May contain mercury, polychlorinated biphenyls (PCBs) and Freon. Mercury and PCBs persist in the environment and pose a significant threat to humans, plants, animals and fish. Certain types of Freon damage the ozone layer.</li> <li>• Banned from solid waste in 1990, per MN State Statute 115A.9561.</li> </ul>
<b>Mercury &amp; mercury-containing products</b>	<ul style="list-style-type: none"> <li>• A potent neurotoxin and persistent environmental contaminant, posing a significant threat to humans, plants, animals and fish.</li> <li>• Banned from solid waste, per MN State Statute §115A.932.</li> <li>• Examples: thermostats, thermometers, electric switches, gauges, medical and scientific instruments, electric relays and other electrical devices.</li> </ul>
<b>Oil-based paint, stains, sealers, etc.</b>	<ul style="list-style-type: none"> <li>• Combustible and may contain metals which are toxic to humans, plants and animals.</li> <li>• Examples: enamels, varnishes, shellacs, lacquers, stains and sealers.</li> </ul>
<b>Poisons (pesticides)</b>	<ul style="list-style-type: none"> <li>• Toxic to humans, plants and animals.</li> <li>• Examples: weed killer, ant killer, mouse killer and other insecticides, herbicides, algacides, rodenticides and fungicides.</li> </ul>
<b>Tires</b>	<ul style="list-style-type: none"> <li>• Tires don't degrade and they become a fire hazard and breeding ground for mosquitoes.</li> <li>• Banned from solid waste in 1985, per MN State Statute §115A.904.</li> </ul>
<b>Water-based paint (Latex)</b>	<ul style="list-style-type: none"> <li>• Mercury was used as a fungicide in latex paint prior to 1990.</li> <li>• Liquids are banned from solid waste, per MNRule 7035.2535.</li> </ul>

Waste category	What happens to it?	How much is collected each year?
Automotive products	<ul style="list-style-type: none"> <li>• Motor oil is consolidated and shipped for use as an alternative fuel in asphalt production.</li> <li>• Brake fluid, power steering fluid and transmission fluid are consolidated and shipped for use as an alternative fuel in cement production.</li> <li>• Motor oil filters are crushed, consolidated and shipped for metal and oil recycling.</li> <li>• Antifreeze is consolidated, shipped and recycled to make new antifreeze, plastics or fuel.</li> </ul>	114,000 gallons
Batteries	<ul style="list-style-type: none"> <li>• Sorted and consolidated by chemistry type, then shipped to recycling or treatment facilities. Alkaline, carbon zinc, mercuric and silver oxide, zinc air and button batteries –recycled.</li> <li>Nickel cadmium, lithium ion, nickel metal hydride –recycled.</li> <li>Gel cell and automotive lead acid <ul style="list-style-type: none"> <li>– lead and plastic are recycled. Acid is neutralized at a recycling facility.</li> </ul> </li> <li>Lithium <ul style="list-style-type: none"> <li>–incinerated at a hazardous waste facility.</li> </ul> </li> </ul>	Household batteries – 128 tons Lead Acid – 136 tons
Compressed gases	<ul style="list-style-type: none"> <li>• Consolidated and shipped for incineration at a hazardous waste facility.</li> </ul>	59,000 pounds
Consumer electronics	<ul style="list-style-type: none"> <li>• Consolidated and shipped for disassembly into components, which are resold and managed. Batteries (see batteries).</li> <li>Cathode Ray Tubes (CRT) – processed and used as feedstock in glass products manufacturing.</li> <li>Disk drives and circuit boards –processed to reclaim the metals.</li> <li>Copper, aluminum, tin, wire and other metal –recycled.</li> <li>Mercury lamps, relays and switches –processed to reclaim the metals.</li> <li>PCB capacitors –incinerated at a hazardous waste facility.</li> <li>Wood –incinerated to produce energy.</li> <li>Plastic –recycled or incinerated to produce energy.</li> </ul>	2,720 tons
Corrosives	<ul style="list-style-type: none"> <li>• Consolidated and shipped to a treatment facility where they are neutralized and metals are reclaimed.</li> </ul>	15,200 gallons
Driveway sealers	<ul style="list-style-type: none"> <li>• Water-based driveway sealers are mixed with aggregate and reused in road construction.</li> <li>• Oil-based driveway sealers are repackaged and shipped for incineration at a hazardous waste facility.</li> </ul>	9,400 gallons
Flammable liquids	<ul style="list-style-type: none"> <li>• Consolidated and shipped for use as an alternative fuel in cement production.</li> </ul>	16,400 gallons
Fluorescent and HID lights	<ul style="list-style-type: none"> <li>• Repackaged and shipped to reclaim metals and recycle the glass.</li> </ul>	102,500 lights
Major appliances	<ul style="list-style-type: none"> <li>• Shipped for disassembly into components, which are managed as follows. Mercury – metal reclaimed.</li> <li>PCBs – incinerated.</li> <li>Freon – captured and reused.</li> <li>Metal – recycled.</li> </ul>	17,000 appliances
Mercury & mercury-containing products	<ul style="list-style-type: none"> <li>• Consolidated and shipped to reclaim metals.</li> </ul>	1,100 pounds
Oil-based paint, stains, sealers, etc.	<ul style="list-style-type: none"> <li>• Consolidated and shipped for use as an alternative fuel in cement production.</li> </ul>	63,600 gallons
Poisons ( <i>pesticides</i> )	<ul style="list-style-type: none"> <li>• Consolidated and shipped for incineration at a hazardous waste facility.</li> </ul>	28,700 gallons
Tires	<ul style="list-style-type: none"> <li>• Consolidated, shipped and recycled for use as road sub-grade material; fill in retaining walls and under heated slabs; in septic system installations; and to aid drainage in rain gardens.</li> </ul>	141 tons
Water-based paint ( <i>Latex</i> )	<ul style="list-style-type: none"> <li>• Consolidated, shipped, solidified and used as a grinding agent in cement. Some latex paint is recycled back into paint.</li> </ul>	143,400 gallons

Material type	What happens to it?	How much is collected each year?
<b>Garbage</b>	Consolidated and shipped to one of following facilities: 1. Hennepin Energy Recovery Center facility, in downtown Minneapolis, uses a high temperature mass burn technology to produce energy from waste. Electricity is sold to Xcel Energy, Inc. 2. Elk River Resource Recovery Facility converts waste to Refused Derived Fuel (RDF). The RDF is transported to a nearby power plant owned by Great River Energy, where it is burned to generate electricity. 3. When the capacity of these facilities is exceeded, waste is shipped to an area landfill for disposal.	170,000 tons (includes deliveries from haulers and residents)
<b>Glass</b>	Sold to a local market for use in glass container production.	56 tons
<b>Metal</b>	Shipped to a local recycling facility where it is sorted, baled and sold to markets making new products, such as food and beverage cans, automobile parts and other metal products.	739 tons (719 tons scrap metal, 20 tons mixed cans)
<b>Paper</b>	Sold to local paper companies to be made into new paper products, such as newsprint, egg cartons, cereal boxes, high-grade office paper, new cardboard boxes and tissue products.	480 tons (293 tons corrugated boxes, 187 tons newspaper and mixed paper)
<b>Plastic</b>	Shipped to a local recycling facility where it is sorted, baled and sold to markets to make new plastic products, such as bottles, carpeting, landscape materials, clothing and plastic lumber.	36 tons
<b>Plastic bags</b>	Picked up by a local non-profit where they are sorted, baled and sold for use in plastic lumber production.	4,400 pounds

*Thank you for helping Hennepin County properly manage these wastes!*



**Hennepin County**  
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 612-348-3777

[www.hennepin.us/environment](http://www.hennepin.us/environment)

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