

Used Electronics

The Facts

- Americans buy more computers than any other nation. In 2009, 438 million new consumer electronics were sold in the US.
- According to a 2008 report by the Consumer Electronics Association, Americans now own on average 24 electronic products per household.
- Some studies estimate that as much as 5 million tons of old, used equipment is in storage, where it takes up space and becomes more obsolete and less valuable.
- An average PC (not including the monitor) is typically 40% steel, 30-40% plastic, 10% aluminum, and 10% other metals, including copper, gold, silver, cadmium, and platinum. Those are valuable resources that should be kept out of landfills.
- From 2001 to 2009, the recycling rate of personal computers increased by 28%.
- In 2009, only 8% of the 141 million mobile devices retired in the US were recycled; 17% of televisions and 38% of computers were recycled.

How can Electronics be Harmful?

- Computer or television displays (CRTs) contain an average of 6 pounds of lead each.
- When CRTs are crushed in landfills, the lead is released into the environment.
- Exposure to lead can cause damage to the central and peripheral nervous systems, blood system, and kidneys in people.
- Lead accumulates in the environment, and has highly acute and chronic toxic effects on plants, animals, and microorganisms.
- Other hazardous materials used in computers and other electronic devices include cadmium, mercury, hexavalent chromium, PVC plastic, and brominated flame retardant.
- The presence of these chemicals also makes waste collection particularly hazardous to workers.

Resource Consumption in Computer Manufacturing

The manufacturing of one desktop computer and a 17-inch monitor uses the following resources:

- 528 pounds of fossil fuel
- 48.4 pounds chemicals
- 412.5 gallons water

Recycling vs. Hardrock Mining

The benefits of recycling electronics outweigh mining raw materials for several reasons:

- Recycling produces a fraction of the pollution mining raw materials produces.
- Ninety-five percent of mining is done on federal lands and 14 of the 15 largest Superfund sites are former mining operations.
- Used electronics are 300% richer in copper and other metals than mined ore

Source Reduction

Reduce, Reuse, Recycle, Rebuy

Source reduction is the least expensive and most effective way to manage used electronics. For more information on how to donate or recycle your used electronics, visit www.recycleinfo.org or call 1-800-CLEAN-UP.

- Reduce:** When your computer is in need of repair or of an upgrade, fix or replace only the necessary components instead of buying a new computer.
- Reuse:** Schools, non-profit organizations, and lower income families can benefit from your equipment if it is in good working order. For electronics in need of repair there are charitable organizations and training programs that repair equipment for reuse.
- Recycle:** Some municipalities offer electronic collection as part of household hazardous waste collections or special events. Also, in Texas, computer manufacturers are required to provide free and convenient recycling opportunities to recycle your old computer equipment. For more information, visit www.tceq.texas.gov/p2/P2Recycle/electronics.
- Rebuy:** Many products are addressing environmental issues, are being made with fewer toxins and more recycled content, are more energy efficient, are designed for easy upgrade or disassembly, and are using less packaging.

For more information on electronics recycling contact:

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