

Recommendations for Electronics Handling for School Districts, Cities and Towns in Snohomish County

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1. Background and Collection Summary

In May 2002, the Washington State Department of Ecology announced that cathode ray tubes (CRTs), used in computer monitors and televisions, are designated as dangerous waste due to their high lead content. <http://www.ecy.wa.gov/biblio/0204017.html>. To address this, along with additional federal and local rules, Snohomish County no longer accepts certain electronic products as garbage. <http://www.co.snohomish.wa.us/publicwk/solidwaste/programs/takeitback/index.htm>

- A. Computers, laptops, monitors, separated computer circuit boards and televisions can no longer be disposed of as garbage and must be reused or recycled in Snohomish County.
- B. Many other electronic items can be reused or recycled and it is better for the environment to do so. This includes computer peripherals (mouse, keyboard, cables, printer, scanner, speakers, etc.), cell phones, hand-held devices, photocopiers, fax machines, stereos, VCRs, and DVD players. Some of these items are expected to designate as dangerous wastes when additional testing is completed.

The State's designation and Snohomish County's enforcement mean that school districts and cities in Snohomish County can no longer dispose of equipment in Category A as ordinary garbage and that surplussing such equipment requires careful sorting and handling.

To assist school districts and cities clean out stockpiled electronic equipment, Snohomish County Solid Waste Management Division, funded partly by the Department of Ecology, offered a one-time free collection by the bid-selected recycling vendor, Total Reclaim. From December 9-20, 2002, Total Reclaim collected a total of 298,332 pounds (347 pallets, over 7,000 units) from 18 districts and cities throughout Snohomish County for recycling. The total cost was \$64,093 or \$.215 per pound. The school district quantity was 314 pallets, at 136 tons (271,860 lbs.) With 85,291 students in the participating school districts, this represented 3.19 lbs. of stockpiled electronic equipment per student.

The next step in Snohomish County's electronic assistance project was to work with the districts and cities to

- 1) prevent the stockpiling of electronic waste in the future, and
- 2) develop and implement surplus and recycling policies and procedures necessary to appropriately and legally manage old electronics affected by the new regulations mentioned above.

2. Preventing Computer Stockpiling

In order to prevent the stockpiling of non-working electronic equipment in the future, Snohomish County recommends that all districts and cities develop and implement adequate prevention measures. Here are some options to consider:

Donations Screening

School districts should develop specific clear donation screening policies and communicate these new policies with all personnel who typically accept donated electronics from the public (this may include teachers, front office staff, principals, superintendents and school board members). To request the sample Mukilteo School District policy please call Snohomish County at 425-388-6489. (*See policy attached with this mailing.*) The Superintendent of Public Instruction Minimum Standards can be found at <http://www.k12.wa.us/edtech/standards.asp>.

Benefits and Barriers: One perceived benefit of accepting donations includes the “good will” factor. Districts often want to be known as gracious receivers of “good” donations. Districts want to look like they are not wasting resources and thus willing to use up someone else’s discards.

However, many districts encounter hidden costs associated with electronic donations of any kind, even when it’s newer equipment that they’ve received from large companies in their district. For instance, costs are incurred when technology staff focus precious time and funds to purchase and install soft ware necessary for system compatibility, and, in some cases, need to network these donated machines. In addition, many donations are not actually usable by the district and thus result in extra costs associated with surplussing, recycling, and garbage service.

Even when computers are almost new and fully functional, there are schools and districts that reject donations of any equipment not in their budget, perceiving that this across-the-board donation screening ends up saving them time and money in the long term.

Leasing

The following vendors offer leasing programs described at their websites listed below. When equipment is returned to the vendors after the lease term is over, the equipment is typically recycled.

- **Gateway** -- The number for education is 800-211-4952. Offers leasing options described at their website at http://www.gateway.com/work/pdf/edu/Leasing_Page8.pdf. Gateway also offers a rebate program: the Gateway Recycling Benefit, described at http://www.gateway.com/work/services/asset_recovery.asp?seg=ed
- **Dell**— Dell offers a variety of leasing options for schools. http://www.dell.com/us/en/k12/services/dfs_000.htm
- **Apple**—Apple offers leasing and take-back options for schools. Take-back programs are limited to machines no older than 3 years. <http://www.apple.com/education/financing/>. Recycling procedures are available at <http://www.recycleapc.com/Apple/>
- **Compaq/HP**— Phone is 800-88TEACH (800-888-3224). Offers leasing options. <http://www.hp.com/hpinfo/globalcitizenship/environment/recycle/index.html>
Also has a take-back program

Benefits and Barriers: Districts that lease receive the newest available technology, return it after the agreed time period (typically 3 years), and receive upgraded equipment when they renew the lease. Leasing may reduce time required for school district staff to recycle or discard equipment.

The lease agreement also gives the district the option to pay over the term of the agreement, typically 3 years, rather than paying the full amount upfront at the time of purchase. This may be beneficial if the district does not have all the funds available at one time.

However, some districts choose to purchase the computer equipment at the end of the lease term and, unfortunately, the equipment ends up potentially costing 7-10% more to lease—a cost they would not incur if they purchased equipment upfront.

Leasing may not be a good option for districts where funding is uncertain over time. Because many districts purchase computers after the passage of a technology levy or bond issue, funding may thus be available all at once, and then not available again for several years. Therefore, paying outright for computer equipment is to some districts' advantage. But this, of course, requires the district to manage the recycling and surplussing of the old equipment.

Requesting Recycling at the Time of Purchase

Another option that may be beneficial to a district is to include the task of proper recycling of old units in a vendor bid when purchasing new equipment. If working directly with a corporation (Dell, Apple, Gateway, etc.) rather than a distributor, the district might also contract for the corporation to take back the new units at the end of their useful life.

It is not recommended for a district to pay an upfront recycling fee that is broken out in any contract, because this could result in a higher cost to you rather than if recycling is simply included in the overall specifications and bid package.

If you are working with a distributor or “middle person,” it may be smart to have them take back your current old units at the time you buy your new units, rather than setting up the agreement for them to recycle the new units after their useful life. This could prevent the possibility of loss of unit recycling if the distributor happens to go out of business.

3. Surplussing and Recycling Old Computers

Even if your district or city leases computers or pays for the recycling of new units at point of purchase, you may still end up with old computers for disposal. Your options include surplussing working computers, and recycling computers that no longer work.

Surplus

The first important step is to determine whether or not the equipment is “working.” For functional units, specific policy and procedures for surplussing electronics should be developed and followed that include recognition of the hazardous nature of electronic material, and that regulations and associated costs govern certain electronics. Once designated as surplus, these electronics would then be handled according to district surplussing procedures.

Any equipment that is designated as “not working” should not be surplussed. It should be recycled (mandatory if it contains CRTs or other hazardous elements) or discarded appropriately, if deemed non-reusable and non-hazardous.

In order to prevent possible future liability, cities and districts may want to require buyers of surplussed electronic equipment to sign a statement of understanding regarding the hazardous content of electronic equipment and of agreement to follow the State requirements for proper recycling through reputable recyclers at end-of-life. Due to the “cradle-to grave” responsibility connected with hazardous waste, cities and districts may also want to keep records of surplussed equipment and purchasers, in case follow-up tracking is needed. For a sample signature statement of understanding, please call 425-388-6489. (*See attached sample “sign-in” sheet in this mailing.*)

If equipment is bundled for surplus, it should be grouped with other working equipment, and not mixed with non-working equipment.

How should your district/city determine whether or not to surplus electronic equipment? Here are some guidelines offered by other agencies:

- According to the State Department of General Administration Scrap Policy and Procedure guidelines, <http://www.ga.wa.gov/pca/scrappolicy.htm>, a waste becomes a waste when the owner declares it unusable, unsafe, or hazardous. School-originated televisions and monitors with CRTs that are deemed unusable are, by designation, hazardous waste. Hazardous waste is the responsibility of the owner. School districts make their own determinations and policies regarding surplussing or recycling electronic equipment, taking into account the hazardous nature of the equipment and possible liability associated with it. The Administration delegates to state agencies the authority to dispose of (recycle) this unusable surplus “personal” property. Thus, this material may be designated as “scrap” by the owning agency and not subject to surplus requirements.
- King County surpluses equipment only when computers are functional, i.e. turn on and function. If the computer is broken and will not function, it is up to the originating department to recycle the unit.
- The City of Seattle surplus department only accepts computers Pentium 133 and higher. They perform diagnostics on computers and repair broken equipment whenever possible. They reject all non-repairable equipment.

Recycling

Equipment designated hazardous and “non-usable” and, therefore, not suitable for surplus, must be properly recycled. Snohomish County’s list of reputable vendors is available by calling 425-388-3425, press “0,” or at <http://www.co.snohomish.wa.us/publicwk/solidwaste/programs/takeitback/index.htm>.

In addition to local electronics recycling vendors, the computer vendors (Dell, Gateway, Hewlett-Packard and IBM) also offer recycling services. Regularly updated websites are also listed in the brochures for future reference. You can also refer back to the “Leasing” section under “Preventing Computer Stockpiling” in this document.

4. Planning for the Future

In thinking about ways to manage obsolete computer equipment in coming years, the cost of recycling is a significant consideration. The worksheet at the end of this document may assist you in planning the cost for recycling most electronic equipment in future budgets. The cost estimates are based on current quotes from major recyclers in the region. Most recyclers charge by the monitor, and by weight for all remaining materials. There are a few who will charge by weight for monitors as well. It is important to ask recyclers if they offer special prices on large quantities (pallet loads). It is recommended that you work out a five year budget plan to ensure adequate funding for proper recycling in the future.

Finally, establishing a relationship with one recycling vendor for regular or periodic collection may also offset costs slightly, due to the initial expense associated with developing contract agreements and other paper work each time a load is recycled.

State Recycling Contract Now Available!

Snohomish County, Solid Waste Management Division, held a meeting with school districts, cities and towns in January 2003. During that meeting, cities and districts agreed that a collective recycling contract would provide the best option for both lowering costs and streamlining procedures. As a result, the State was contacted and subsequently amended an existing contract (#11601) with Total Reclaim to include electronics. Contact Pati Sandstrom at 360-902-7443 or psandst@ga.wa.gov for information. Or go to <http://www.ga.wa.gov>, choose "Vendors," then "Goods and Services," then "Online Contracts Lookup," then plug in Contract Number 11601, then under Available Documents, choose "Current Contract Information Document."

The State is also currently developing new policies and procedures for surplussing and procurement contracts, in order to address the Ecology Interim Policy. You may want to check with the State for new options.

Contact Information

Snohomish County
Solid Waste Management Division:
Marcia Rutan
425-388-6489
1-800-562-4367, ext. 6489 (in state only)
Marcia.rutan@co.snohomish.wa.us

"Exporting Harm" Video

This video portrays the harmful effects of sending American computers overseas to a village in China for recycling, where no environmental rules are enforced. Scenes with school district labels clearly visible on equipment gives one pause!

Residents and people working within Snohomish County can borrow this video free of charge by calling 425-388-3425, press "0."

To purchase a copy, please contact The Basel Action Network at 206-652-555 or go to www.ban.org . (Suggested donation: \$55)

Cost Estimation Worksheet Per Year for Recycling Computer Components¹

Item (Including range of recycling fees)	Cost To School or City from Vendor	X	Number of Units or Pounds	=	Estimated Total Cost*
Monitor** \$10-\$15 per unit, or \$0.15-\$0.35 per pound					
TV*** (screen larger than 15") \$10-\$15 per unit, or \$0.15-\$0.35 per pound					
Central Processing**** Units \$0.15-\$0.35 per pound					
Printers \$0.15-\$0.35 per pound					
Keyboards \$0.15-\$0.35 per pound					
Mice \$0.15-\$0.35 per pound					
Disc drives \$0.15-\$0.35 per pound					

*Cost may not include transportation or additional collection fees. This figure is only fee charged by recyclers to accept the units.

** Average monitor weighs 30 lb

***Average TV weighs 50 lb.

****Average CRT weighs 50 lb. Finally, establishing a relationship with one vendor for collection on a regular basis or periodic basis may also offset costs slightly, because of the expense associated with developing contract agreements and other paper work each time you want to recycle a load.

¹Information is based on a survey of businesses in Seattle (Total Reclaim), Portland area (Quantum Resource Recovery, GenTech, Computer Drive Connection, Earth Protection Services), and national recyclers (HMR and NxtCycle).