



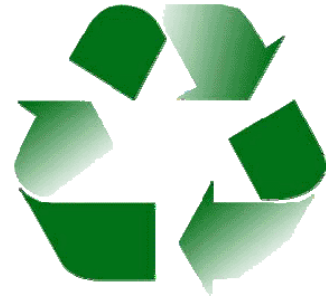
Recycling Construction and Demolition Waste

Handout No: 29
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Construction and Demolition (C&D) debris represents a significant part of the solid waste stream. This puts a significant amount of potential recyclable or reusable materials into landfills that might otherwise be recycled. Throughout Sonoma County, it is strongly encouraged to recycle construction and demolition debris and materials, including cardboard, gypsum board, recyclable wood, scrap metals, glass, yard debris and other recyclable materials.

Benefits of a C&D Debris Diversion Program:

- ✓ **Avoid Trash Collection and Disposal Fees:** The price for waste disposal in Sonoma County has skyrocketed over the past few years. To avoid the high cost of disposal, a contractor or owner performing construction or demolition work can reduce the amount of waste produced during a project by reusing and recycling waste materials.
- ✓ **Save Resources and Money Through Deconstruction:** Deconstruction is an expression describing the process of selective dismantling or removal of materials from buildings before or instead of demolition. Reuse and recycling examples include electrical and plumbing fixtures that are reused, steel, copper, and lumber that are reused or recycled, wood flooring that is re-milled, and doors and windows that are refinished for use in new construction. By donating reusable excess C&D debris and materials, you help keep these reusable materials out of landfills.
- ✓ **Improve Your Organization's Public Image:** By using fewer resources and reducing the amount of waste sent to landfills and incinerators, a company can enhance its image in the community and with its customers.
- ✓ **Make New Products from Old Materials:** Six major constituents of C&D debris, including concrete, asphalt, metals, and wood, and to a much lesser degree, gypsum wallboard and asphalt shingles, have all been recovered and processed into recycled-content products and successfully marketed throughout the United States.
- ✓ **Improve the Market for Recycled-Content Products:** Because of the effort being exerted to develop markets for recovered materials, the number of C&D facilities is continuing to grow, thereby making recycling more cost effective for everyone.
- ✓ **Help Sonoma County Meet Its Waste Diversion Goals:** C&D debris reuse and recycling will help Sonoma County meet its goal of diverting 70% of waste from landfills¹.
- ✓ **It's Just the Right Thing To Do:** By reducing, reusing and recycling, you are helping to preserve the environment now and for future generations.



¹ [See the 2003 Countywide Integrated Waste Management Plan by the Sonoma County Waste Management Agency](#)

Recyclable Materials Include:

- ⇒ **Scrap lumber or wood** can be processed and used for landscaping, compost, animal bedding, boiler fuel, or engineered building products.
- ⇒ **Metals** such as aluminum, copper, steel, and brass can be sold to scrap metal yards. These are some of the easiest and most cost-effective materials to recycle.
- ⇒ **Cardboard** can be isolated in cardboard-only dumpster at the job site and picked up by a local recycling firm.
- ⇒ **Gypsum drywall** can be collected for use as a soil amendment or a substitute for lime on lawns.
- ⇒ **Rubble** (concrete, bricks, cinder block, and certain types of tile) can be crushed and sieved for use as an aggregate. For example, it can substitute for stone aggregate in non-construction applications.
- ⇒ **Glass** can be recycled into fiberglass or used in place of sand in paving material.
- ⇒ **Asphalt shingles** can be used in asphalt paving and pothole repair.
- ⇒ **Other scrap**, such as plastic, fiberglass, and foam or other packaging materials can be recycled; however, it may not be cost effective to recycle small amounts unless local markets exist. Check with the local or state solid waste manager for information on recycling markets.

Separation of Materials On-Site

If your project is a large development project, you may want to sort the recyclable materials on the job site and haul the recyclable materials to a local recycling processor. Be sure to first identify processors that will accept your recyclable materials. At the beginning of the job, bins or other means of containment should be set up to hold and separate recyclable materials.

Separation of materials on a job site provides a specific, clean waste stream that can be processed into products made from materials that would otherwise be discarded. Contractors or builders that practice source separation at a job site usually save on the hauling and disposal costs and may generate income through the sale of salvaged materials.

Single-Source (Comingled) Collection and Recycling

Construction and demolition waste may be placed in a single container (debris box provided by the City's garbage and rubbish hauler) and then sorted for recycling at an off-site material recovery and sorting facility after it leaves the job site. This method of recycling usually results in higher waste removal costs to the owner or contractor than on-site separation of materials by the owner or contractor. It also results in more contamination and decreases the amount of recyclable waste diverted from the landfill than separating materials on site.

Sonoma Garbage Collectors has an exclusive franchise with the City of Sonoma to collect and dispose of all garbage and rubbish, including recyclable materials, within Sonoma city limits. However, contractors or maintenance personnel who are providing construction, landscaping, maintenance, hazardous materials abatement or demolition work on a property and who dispose of rubbish (including recyclable materials), hazardous waste or yard waste directly generated by such work in their own containers may do so. Also, residents of the city may dispose of yard waste, hazardous waste, rubbish (including recyclable material) or garbage from their own property, provided that they use their own containers.

Within the City of Sonoma, contact Sonoma Garbage Collectors at 707-996-7555 for your comingled C&D waste collection and recycling needs.

Materials Exchange

There are well-established markets for some recyclable materials that may generate income and reduce landfill disposal costs. Recyclers for these materials can typically be found in the telephone directory Yellow Pages under “recycle centers” or “scrap metal.”

Demolition Waste

Separating waste materials at a demolition site is usually more difficult than new construction sites due to the comingling of and physical attachment of varying materials. However, disposal costs represent a large part of demolition activities and, as a result, waste reduction measures during demolition may represent a substantial project savings. It's estimated that over 70 lbs. of waste are generated for every square foot of residential demolition. At the beginning of a demolition job, the owner or contractor should identify local materials exchange dealers and processors of recyclable waste materials and determine any reusable items that may be extracted from the demolition the project for reuse. Hand demolition or deconstruction should be considered where practical in order to reduce contamination of recyclable or reusable materials.



Resources

Separation of Materials On Site

- Sonoma County Department of Health Services Environmental Health Department
www.keepsonomaclean.org/legal_disposal.htm#recycling
- California Integrated Waste Management Board
www.ciwmb.ca.gov/condemo/recyclers

Single-Source (Comingled) Collection and Recycling

- Sonoma Garbage Collectors
707-996-7555

Materials Exchange

- Sonoma County Waste Materials Exchange
www.sonomax.org/
- California Integrated Waste Management Board
www.ciwmb.ca.gov/CalMAX/