

RECYCLABLE* & NONRECYCLABLE MATERIALS

<i>RECYCLABLE</i>	<i>NONRECYCLABLE</i>
PAPER	
Newsprint Office Paper Computer Paper Phone Books Paper Grocery Bags Paper Egg Cartons	Soiled Paper Wax or Plastic-coated Paper Paper Laminated with Foil or Plastic Used Paper Towels, Napkins, Tissues and Plates Magazines and Catalogs
CARDBOARD	
Corrugated (packing boxes) Single Wall Cartons (cereal boxes)	Waxed Cardboard Waxed Milk Cartons Soiled Pizza or Frozen Food Boxes
GLASS	
Jars Bottles (clear, green or brown)	Light Bulbs Window Panes Glassware (cups, glasses, plates, etc.) Mirrors
METAL	
Aluminum Cans (soda pop cans) Scrap Metal Tin Cans	Bottle and Jar Lids with Plastic Liners Cans Used for Chemicals or Paint Aerosol Spray Cans
PETROLEUM PRODUCTS	
	Antifreeze Oil Contaminated with Solvents
PLASTICS	
Plastic Soda and Juice Bottles Milk Jugs Some Detergent, Oil and Antifreeze Bottles	Grocery Bags and Plastic Bags Styrofoam (cups, plates, packing materials)
BATTERIES	
Wet Cell Auto Batteries Dry Cell Household Batteries	
<p><i>* Check with recycling centers in Anchorage, Seattle and hub communities for information about what recyclables they will buy or handle. Not all recyclable materials can be recycled in Alaska.</i></p>	

APPENDIX 4: WASTE MGT. ALTERNATIVES

WASTE PROBLEMS AND ALTERNATIVES		
Waste Type	Problems Associated with Waste	Alternatives to Land Disposal
Food Waste: Food scraps, hide hair, fish wastes, solid and liquid fats	Attracts animals & insects; creates odors & settles as it decomposes; site cover may crack or subside; produces gases; decomposition slowed if compacted, covered, too dry or too dense.	Compost to return nutrients to the soil. Use compost for gardening. Use as fill or landfill/dumpsite cover. Burn under controlled conditions. Feed food scraps to pets. Avoid cooking or buying more food than can be consumed before spoiling.
Paper: Mixed paper, office paper, cardboard, newspapers, magazines, envelopes, telephone books, paper bags, and cardboard containers such as cereal boxes, packing boxes, egg cartons	Litter. Fuel source for uncontrolled fires. May release dioxins or metals from inks and coatings into landfills/dumpsites. Most common type of waste (about 40% of all waste is some type of paper).	<i>Reduce:</i> Shop for items with less packaging; use both sides of paper. Buy unbleached, uncoated paper printed using nonmetallic inks. Reduce junk mail by calling mailing lists and catalog companies to get off mailing lists. <i>Reuse:</i> Ask stores to reuse packaging for other purposes. Use back of paper as scrap paper. Use cardboard for packing batteries. Use untreated paper for home fires. <i>Recycle:</i> Separate clean and dry paper types and recycle. Ship office paper, mixed paper, computer paper, cardboard, or newspaper to paper recyclers. Buy recycled paper products.
Plastic: Plastic soda, water, milk and juice bottles, shampoo bottles, laundry/bleach bottles, six-pack rings, packaging materials (Styrofoam peanuts), bags and plastic wrap.	Litter problems. Burning creates toxic smoke. Does not degrade. Will not compost or decompose. Large volume – takes up space at landfill/dumpsite.	<i>Refuse:</i> Buy only recyclable plastics. Ban non-recyclable plastics, such as plastic shopping bags. Avoid throwing away plastic. Buy in bulk instead of many small disposable containers. Request stores to provide goods without plastic packaging. <i>Reuse:</i> Refill bottles and reuse plastic containers for storage. Use as fishnet floats and boat bumpers. Crochet plastic bags into rugs, purses and tote bags. <i>Recycle:</i> Sort and ship for recycling. Compact and landfill. Landfilling creates no pollution problems to air, water or land. DO NOT BURN.
Textiles: Clothing including shoes, linens (sheets, towels and blankets), clean rags, carpets and rugs, or anything made out of fabric or similar material.	Carpets and rugs can become a home for rats and mice. Burning polyester, plastic clothing (raingear or rubber boots and shoes) and nylon rugs and carpets can emit toxic fumes.	Reuse. Donate. Set up sheltered salvage area for exchanging items. Host community clothing exchange.
Leather & Rubber: Miscellaneous rubber parts, leather covers, etc.	Minimal concerns.	Reuse. Set up salvage area.
Furniture: Couches, desks, chairs, beds, tables, etc.	Furniture stored outdoors can attract rats and mice. They can carry diseases and inhaling droppings can be a serious health risk.	Reuse. Set up salvage area. When retrieving furniture left outside, check for droppings before moving items.
Glass: Bottles for juice, beer, wine, liquor and other products, and jars for food, cosmetics and other products.	Abrasion danger to trash handlers. Inert-will not pollute soil, water or air. Will not compost or burn but will melt at high temperatures; most incinerators and burn boxes require sorting of glass to prevent operational problems.	Crush for use in place of sand or gravel in concrete, road base, asphalt. Separate clear and colored glass and recycle. Crush and use as landfill cover. Reuse for storage containers.

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<p>Metals: Aluminum containers and packaging including food and soda pop cans. Tin cans including steel (bimetal and tin) food and beverage cans. Scrap metal, 55-gal drums, copper, and brass.</p>	<p>Corrosion slowly releases metals and causes landfill settling. Improperly compacted metals can rupture site cover. Burning contaminates ash, little heat recovery or volume reduction is achieved. Bulky, difficult to compact and landfill. If incinerated, metals concentration in ash could be toxic</p>	<p>Recycle. Alaskans Litter Prevention and Recycling (ALPAR) flies aluminum cans from villages to a recycling center free-of-charge. A check is issued for the value of the aluminum. Local barge/airlines/air cargo companies may transport other metal types for reduced rates. Before placed in landfill ensure metal is contaminant free. Collect scrap metal and ship for recycling.</p>
<p>Yard Wastes/Wood: Grass clippings, leaves, weeds, brush and branches, tree stumps. Wood is composed of pallets, crates, barrels and furniture.</p>	<p>Shelters rodents and other animals. Some treated wood is hazardous waste.</p>	<p>Compost yard waste. Shred to mulch for land cover. Burn untreated wood under controlled conditions. Reuse wood.</p>
<p>Household Hazardous Wastes (HHW): Paint, paint thinners, pesticides, weed killers, turpentine, kerosene, acetone, varnishes, lacquers, fuel additives, carburetor cleaners, detergents, bleach, broken fluorescent light bulbs, out-dated medicines, certain household cleaners.</p>	<p>Toxic. Pollute soil, water and air. May react to cause fires, explosions and poisonous gases. Hazardous substances can seep into the ground and pollute drinking material. Improper handling can burn skin and breathing fumes may cause respiratory illnesses.</p>	<p>Use up materials for their intended purpose. Separate from other garbage and don't landfill or burn. Shelter off-ground for community re-use or shipment. A material is hazardous if the label contains words such as flammable, corrosive, toxic, explosive and/or volatile. Educate public about what is hazardous. Only use when necessary. Select least toxic option (use water-based paint rather than oil-based paint). Don't purchase more than you need. Reuse and recycle when possible. Large quantities from businesses must be treated and disposed of as a hazardous waste (shipped to a hazardous waste facility). Small quantities from businesses or households can be disposed of in PERMITTED landfills that will accept this type of waste. Annual "spring cleanup" can be used to collect this type of waste for shipping to licensed handling facility. Small quantities of household hazardous waste are not currently prohibited from disposal in permitted landfills, but should be separated when possible because they can pollute soil and water.</p>
<p>Dirt and Ash: Incinerator ash, miscellaneous dirt, ash from wood stoves and burn barrels.</p>	<p>Ash can be hazardous and should be tested.</p>	<p>Use as landfill/dumpsite cover. Use for road construction fill.</p>
<p>Appliances: Large: ovens, microwaves, refrigerators, freezers, washers, dryers, and water heaters. Small: coffee makers, irons, food mixers, etc,</p>	<p>Bulky and difficult to compact and landfill. Minimal heat recovery from incineration. Freon is hazardous. Most are metal and will not burn. Temptation to scavenge in landfill exposes people to health and safety hazards.</p>	<p>Set up salvage area. Ship and recycle as scrap metal. Freon must be removed by qualified technician prior to compaction, shipping or landfill disposal.</p>
<p>Electronic Goods: Computers and monitors, electronic parts, TV's, CD players, VCRs, radios, stereos, etc.</p>	<p>Contain heavy metals and hazardous chemicals.</p>	<p>Reuse. Donate. "Take apart and put together" school projects. Store above ground and cover.</p>
<p>Waste Oil: Oil produced by generators, snow machines, outboard motors, cars, boats and other machines.</p>	<p>Used oil contains metals and toxic contaminants that can pollute the groundwater and surface water. Used oil is a potential fire danger. If improperly burned can also pollute the air and cause noxious smoke. Potential hazardous waste from accumulation of metals in oil.</p>	<p>Heat recovery in waste oil burner. Ship out for refining or disposal as hazardous waste. Set-up drop off area for used oil. DO NOT LANDFILL.</p>

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<p>Junk Vehicles: Scrap or abandoned automobiles, snow machines, boats, outboard motors, four-wheelers.</p>	<p>Bulky. Batteries, tires, fluids, etc. can contaminate groundwater. Require stripping of batteries, tires, fluids, etc. before crushing. Crushing can be expensive. Eyesores. Difficult and expensive to transport for recycling or disposal. Children can get hurt playing on them.</p>	<p>Repair. Sell for parts. Crush and ship for recycling as scrap metal. Landfill if no other option available. Donate. Remove batteries, fluids, and tires before crushing, storing on ground or landfilling.</p>
<p>Medical Waste: Any solid waste generated in the diagnosis or treatment of humans or animals. Syringes, bandages, unused medications, etc.</p>	<p>Potential to spread disease through direct contact, water or animal scavengers. Certain medications are poisonous.</p>	<p>Take to local clinic. Burn under controlled conditions. Implement strict collection/disposal guidelines for their disposal. Collect infectious waste in secure labeled containers and dispose of as a hazardous waste.</p>
<p>Construction & Demolition Debris: Concrete, asphalt, wiring, drywall, piping.</p>	<p>Temptation to scavenge in landfill exposes people to health and safety hazards.</p>	<p>Reuse. Make available through materials and exchange programs. Concrete and asphalt can be taken to quarries for recycling. Set-up salvage area.</p>
<p>Sewage & Fish and Animal Waste: Honey bucket waste. Animal carcasses and droppings. Fish carcasses and processing waste.</p>	<p>Infectious. Could spread disease through direct contact, water or animal scavengers. Odors. Breeds insects. Fish and animal carcasses attract bears, foxes, seagulls, eagles and other animal and bird scavengers.</p>	<p>Reclaim – keep separate from other waste. If no sewer system, dispose of honeybucket waste in separate lagoon. Bury animal and fish waste. Compost fish waste. KEEP SEPARATE FROM TRASH.</p>
<p>Tires: Tires from cars, trucks, four-wheelers, etc.</p>	<p>Tires retain water and create mosquito breeding grounds. Burning gives off dense, toxic smoke and fire is difficult to put out. Difficult to shred. Take up lots of landfill space.</p>	<p>Retread. Reuse for raised bed gardens, slope or road stabilization bumpers, play ground equipment. Shred or grind for use as mulch or fill. Ship out for recycling. Landfill. DO NOT BURN.</p>
<p>Batteries: Batteries from cars, trucks, boats, snow machines, motorcycles and four-wheelers.</p>	<p>Batteries corrode, releasing heavy metals and acid. Exposure to lead can cause nerve damage, death or chronic illness in animals and people. Acid will burn eyes and skin. Burning batteries produces poisonous gas. Can pollute soil or water.</p>	<p>Arrange with barge line or air carrier to transport batteries to a recycling center in Anchorage or Seattle. Must follow special procedures to drain and neutralize acid. Require special packaging for transport. Fish tote crates may be acceptable. Only lead/acid batteries can be recycled. Require careful handling and storage to prevent spills. Must be stored in a dry place. DO NOT LANDFILL OR BURN.</p>

GENERAL CONTACT NUMBERS FOR INFORMATION & ASSISTANCE:

- **Shipping Companies:** Northern Air Cargo – (800) 478-3330; Northland Barge Services – (800) 426-3113
- **Batteries:** Battery Specialists of Alaska (907) 276-5251; Interstate Battery (907) 349-1577; Northern Air Cargo (800) 478-3330
- **Materials Exchange:** Alaska Materials Exchange (907) 269-7586
- **Hazardous Waste:** MOA Transfer Site (907) 343-6298; Poison Control (800) 478-3193; Alaska Pollution Control (907) 344-5036
- **Composting:** Anchorage Composting Facility – (907) 243-8577; USDA Cooperative Extension Service – (907) 786-6300; Can-O-Worms (888) 422-2129
- **Recycling Companies:** West Seattle Recycling – (206) 935-4255; Smurfit Stone Recycling (907) 243-8577; ALPAR Flying Cans Program – (907) 274-3266; Alaska Metal Recycling – (907) 696-2246; Alaska Tire Recycling (907) 344-1668

Source: *Trash Management Guide*, 1992; *Open Dump Closure Report for Tlingit Haida Central Council*, Zender Engineering, 2002.

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Comparison of Recycling, Reusing & Composting with Disposal Methods <i>Factors to Consider When Starting a Solid Waste Management Program</i>			
Disposal Method Used	Recycling	Reusing	Composting
Burning	Need to separate out plastics and batteries before waste is burned, so recycling batteries should be considered. Recycling materials other than aluminum (pop cans) and batteries may cost some money to package and ship. Burning or reusing paper may be best.	Hazardous wastes like paint, batteries, and cleaners can be reused so won't need to dispose of them separately. Reusing or landfilling plastics may be best.	Most compostable wastes are burnable so burning will provide little benefit for these wastes.
Hauling or Shipping Out	Hauling out wastes for recycling can be carried out using existing solid waste facilities. Will reduce volume of waste going into landfill and save money.	Can help reduce volume of wastes and save money.	Can help volume of food and yard wastes and save money.
Landfilling	If landfill is limited for space, recycling helps to extend its life. Recycling batteries, used oil, and toner cartridges reduces potential contamination problems. Windblown wastes are reduced.	Can help to reduce volume of wastes and extend landfill life. Reusing hazardous wastes greatly reduces risk of contamination. A separate salvage area creates a cleaner landfill and it is easier to maintain.	Composting fish waste and food scraps away from landfill will keep disease carrying insects and animals out. Will reduce attraction of bears to landfill. Odors are reduced.

Source: Tlingit Haida Report on Open Dump Closure, Zender Engineering, 2002