

## Coordinated Prevention Grant Conversion Sheet

(The original document was created by Ecology and is the standard conversions used by the Annual Recycling and Moderate Risk Waste Survey. The Coordinated Prevention Grant (CPG) program has adapted the following table to include other conversions to help local governments when reporting their outcomes. This is a working document and if you have any questions or comments, contact Shelly McMurry, CPG Coordinator at [smcc461@ecy.wa.gov](mailto:smcc461@ecy.wa.gov))

<u>Material</u>	<u>Volume/Count</u>	<u>Weight in Pounds</u>	<u>Source</u>
Books	one cubic yard	500	EPA NRMRL <sup>1</sup>
Corrugated cardboard	one cubic yard	400	EPA NRMRL
Corrugated cardboard, baled	one cubic yard	1,000-1,200	NRC <sup>2</sup>
Magazines	one cubic yard	500	EPA NRMRL
Mixed Paper	one cubic yard	500	EPA NRMRL
Newsprint, loose	one cubic yard	500	EPA NRMRL
Newsprint, compacted	one cubic yard	720-1,000	NRC
Newsprint	12" stack	35	NRC
Office Paper	one cubic yard	500	EPA NRMRL
Phone Books	one cubic yard	500	EPA NRMRL
Aluminum cans, whole	one cubic yard	75	EPA NRMRL
Aluminum cans, flattened	one cubic yard	250	NRC
Aluminum cans	one full grocery bag	1.5	NRC
Catalytic converter	one	14	NRC
Ferrous cans, whole	one cubic yard	150	NRC
Ferrous cans, flattened	one cubic yard	850	NRC
Refillable beer bottles	case	11.4	NRC
Glass, whole bottles	one cubic yard	600-1,000	NRC
Glass, semi crushed	one cubic yard	1,000-1,800	NRC
Glass, crushed (mechanically)	one cubic yard	800-2,700	NRC
Glass, whole bottles	one full grocery bag	16	NRC
Glass, uncrushed to manually broken	55 gallon drum	125-500	NRC
PET, soda bottles, whole, loose	one cubic yard	40	EPA NRMRL
PET, soda bottles, whole, loose	gaylord <sup>3</sup>	40-53	NRC
PET, soda bottles, baled	30" x 62"	500	NRC
PET, soda bottles, granulated	gaylord	700-750	NRC
PET, soda bottles, granulated	semi-load	30,000	NRC
Film, baled	30" x 42" x 48"	1,100	NRC
Film, baled	semi-load	44,000	NRC
HDPE (dairy only), whole, loose	one cubic yard	24	NRC
HDPE (dairy only), baled	32" X 60"	400-500	NRC
HDPE (mixed), baled	32" x 60"	900	NRC

<sup>1</sup> Environmental Protection Agency National Risk Management Research Laboratory (EPA NRMRL).

<sup>2</sup> National Recycling Coalition (NRC).

<sup>3</sup> Gaylord size most commonly used, 40" X 48" X 36."

<u>Material</u>	<u>Volume/Count</u>	<u>Weight in Pounds</u>	<u>Source</u>
HDPE (mixed), granulated	gaylord	800-1,000	NRC
HDPE (mixed), granulated	semi-load	42,000	NRC
Mixed Plastic	one cubic foot	50	EPA NRMRL
Mixed PET & dairy, whole, loose	one cubic yard	average 32	NRC
Mixed PET, dairy & other rigid, whole, loose	one cubic yard	average 38	NRC
Mixed rigid plastic, no film or dairy, whole, loose	one cubic yard	average 49	NRC
Mixed rigid plastic, no film, granulated	gaylord	500-1,000	NRC
Mixed rigid plastic & film, densified by mixed plastic mold technology	one cubic foot	average 60	NRC
Food waste	one cubic yard	800	EPA NRMRL
Food waste, solid and liquid fats	55 gallon drum	412	NRC
Yard trimmings, branches	one cubic yard	350	EPA NRMRL
Yard trimmings, grass	one cubic yard	350	EPA NRMRL
Yard trimmings, leaves	one cubic yard	350	EPA NRMRL
Wood chips	one cubic yard	500	NRC
Sawdust	one cubic yard	375	Tellus Institute
Stumps & Logs	one cubic yard	1080	CCG <sup>4</sup>
Grass clippings	one cubic yard	400-1,500	NRC
Manure	one cubic yard	1628	FEECO <sup>5</sup>
Pallets	one cubic yard	185	EPA NRMRL
Concrete	one cubic yard	2850	Ecology <sup>6</sup>
Asphalt	one cubic yard	2850	Ecology
Composition Shingles	one cubic yard	419	CIWMB <sup>7</sup>
Gypsum (dry)	one cubic yard	500-670	NRC
Battery (auto)	one	40	NRC
Tire – passenger car	one	20	NRC
Tire - truck, light	one	35	NRC

<sup>4</sup> Developed by Cascadia Consulting Group (CCG) for a waste composition study in San Diego, California in 2000.

<sup>5</sup> "FEECO International Complete Systems and Equipment Handbook," 9<sup>th</sup> printing.

<sup>6</sup> Washington Department of Ecology (Ecology), industry surveys.

<sup>7</sup> "Conducting a Diversion Study – A Guide for California Jurisdictions," March 2001, California Integrated Solid Waste Management Board.

<u>Material</u>	<u>Volume/Count</u>	<u>Weight in Pounds</u>	<u>Source</u>
Tire – semi	one	105	NRC
Used motor oil	one gallon	7.4	NRC
Oil filter drum (non crushed)	One	400	Ecology
Oil filter drum (crushed)	one	600	Ecology
Used oil filter	one	2.8	Ecology
Antifreeze	gallon	8.4	NRC
Computer (CPU)	one	30	Ecology
Computer (15" monitor)	one	30	Ecology
Computer (17" monitor)	one	45	Ecology
Computer (21" monitor)	one	60	Ecology
Cell Phone	one	.33	Ecology
Printers	one	18	Ecology
White goods/appliances	one	150	Ecology
TV	one	55	Ecology
Printer	one	18	Ecology
cellphone	one	.33	Ecology
Propane tanks	one	30	Ecology
Sinks	one	20	Ecology

### Mercury containing items

<u>Material</u>	<u>Volume/Count</u>	<u>Mercury</u>	<u>Source</u>
Fluorescents (tubes and cfls)	54,000 pounds	1 pound	Ecology
Auto Switch	100 pounds	1 pound	Ecology
Thermostats	50 pounds	1 pound	Ecology
Fluorescent (cfls-tubes)	One	.016 -.04 grams	
Thermostat	One	2.2-3 grams	IMERC
Auto Switch (approx .5 switches in each car)	One	.8-1 grams	
Thermometer	One	.61 grams	IMERC

## Other helpful Assumptions/Conversions

ClearStream Recycling Bags:

- On average, a full bag of aluminum will weigh 62 pounds
- On average, a full bag of plastic bottles will weigh 34 pounds
- On average, a full bag of mixed aluminum cans and plastic bottles will weigh 48 pounds

The average class size is 20 students

The average compost bin diverts 416 pounds/year of organics

The average Christmas tree (6-7 foot noble fir) weighs 44 pounds

The typical family (4) produces 10.8 pounds/week of food waste

Mulching mowers: The average household generates 1,000 pounds of grass annually

Hog fuel is currently going for about \$30 /BDT (bone dry ton). A ton of chipped green waste equals about 1/2 BDT hog fuel (1/2 ton moisture). A ton of chipped waste urban wood equals about 3/4 BDT hog fuel. Another common unit of measure is BDU or bone dry unit. There are 1.2 tons per unit.

### Conversions

Pounds to Tons: # of pounds multiplied by .0005=tons (2,000 pounds in a ton)

Cubic Yards to tons: # of cubic yards multiplied by .125= tons

Grams to Pounds: # of grams multiplied by .002205=pounds