

2022

Annual Report



E-CYCLE
washington

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[as required by RCW 70A.500.140]

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Executive Summary

E-Cycle Washington is a recycling program for unwanted computers, monitors and televisions in Washington State. Individuals, small businesses and others can drop off these electronics for free at E-Cycle Washington collection sites across the state. The Washington Materials Management and Financing Authority (WMMFA) is the administrative organization for E-Cycle Washington.

Electronic products contain toxic materials that should be kept out of the landfill, and valuable materials that can be recycled. The Washington State legislature enacted the Electronic Product Recycling Act (70A.500 RCW) to establish this convenient recycling program, and to protect human health and the environment. This law requires manufacturers of the products accepted by E-Cycle Washington to finance the collection, transportation, recycling and administration of the program.

HIGHLIGHTS

In 2022, E-Cycle Washington collected over 13.3 million pounds of electronics. E-Cycle Washington has collected more than 453 million pounds of electronics since it began operations on January 1, 2009.

Electronics can be dropped off for free at over 230 collection sites in Washington. This voluntary network of collection sites is comprised of retailers, non-profit organizations, local government facilities and others. Some cities also hold recycling collection events where electronics are accepted for recycling from the public for free.

SIGNATURE

This annual report was prepared as required by WAC 173-900-800 and submitted electronically to the Washington State Department of Ecology on March 1, 2023.



Peter Thermos
Executive Director, WMMFA



COVERED ELECTRONIC PRODUCTS (CEPS) COLLECTED

Including Orphan Products

CEP Pounds Collected by County			CEP Pounds Collected by County by CEP Type			
WA State County	Pounds Collected 2022 Excluding Reuse	Percent of Total Pounds by County	Computers	Monitors	Televisions	Total
Adams	13,790	0.1%	6,930	-	6,860	13,790
Asotin	37,700	0.3%	4,788	6,715	26,197	37,700
Benton	242,043	1.8%	44,895	33,424	163,724	242,043
Chelan	84,904	0.6%	12,722	7,278	64,904	84,904
Clallam	59,349	0.4%	2,747	7,339	49,263	59,349
Clark	897,567	6.7%	90,695	85,385	721,487	897,567
Columbia	-	0.0%	-	-	-	-
Cowlitz	249,755	1.9%	22,052	20,062	207,641	249,755
Douglas	20,645	0.2%	2,364	3,856	14,425	20,645
Ferry	19,083	0.1%	1,628	915	16,540	19,083
Franklin	70,171	0.5%	7,850	10,923	51,398	70,171
Garfield	5,209	0.0%	920	746	3,543	5,209
Grant	44,270	0.3%	8,007	6,283	29,980	44,270
Grays Harbor	137,909	1.0%	13,682	17,347	106,880	137,909
Island	243,361	1.8%	30,858	23,967	188,536	243,361
Jefferson	89,649	0.7%	10,523	8,981	70,145	89,649
King	4,903,654	36.8%	531,890	729,799	3,641,965	4,903,654
Kitsap	389,926	2.9%	25,848	36,006	328,072	389,926
Kittitas	29,674	0.2%	1,373	3,669	24,632	29,674
Klickitat	31,431	0.2%	8,558	1,891	20,982	31,431
Lewis	89,286	0.7%	5,115	9,309	74,862	89,286
Lincoln	14,862	0.1%	1,584	2,061	11,217	14,862
Mason	89,730	0.7%	1,530	8,941	79,259	89,730

POUNDS COLLECTED BY COUNTY

Including Orphan Products

CEP Pounds Collected by County			CEP Pounds Collected by County by CEP Type			
WA State County	Pounds Collected 2022 Excluding Reuse	Percent of Total Pounds by County	Computers	Monitors	Televisions	Total
Okanogan	25,316	0.2%	5,596	3,883	15,837	25,316
Pacific	32,787	0.2%	3,533	1,427	27,827	32,787
Pend Oreille	31,499	0.2%	3,357	-	28,142	31,499
Pierce	1,237,679	9.3%	87,926	210,828	938,925	1,237,679
San Juan	52,400	0.4%	8,980	3,534	39,886	52,400
Skagit	304,177	2.3%	27,814	24,932	251,431	304,177
Skamania	28,395	0.2%	725	3,016	24,654	28,395
Snohomish	1,843,352	13.8%	159,810	196,613	1,486,929	1,843,352
Spokane	695,620	5.2%	130,165	149,739	415,716	695,620
Stevens	20,645	0.2%	2,364	3,856	14,425	20,645
Thurston	270,360	2.0%	9,646	37,027	223,687	270,360
Wahkiakum	-	0.0%	-	-	-	-
Walla Walla	145,878	1.1%	18,191	19,324	108,363	145,878
Whatcom	487,320	3.7%	67,399	72,762	347,159	487,320
Whitman	64,983	0.5%	9,042	7,290	48,651	64,983
Yakima	307,868	2.3%	33,601	48,876	225,391	307,868
Total	13,312,247	100.0%	1,404,708	1,808,004	10,099,535	13,312,247

LARGE QUANTITIES FROM SCHOOL DISTRICTS, SMALL GOVERNMENT AND SMALL BUSINESS

Total Pounds Received in Large Quantities from School Districts, Small Businesses and Small Governments.

TELEVISIONS	
School District TV	8,039
Small Business TV	24,776
Small Government TV	12,084
Total Televisions	44,899

MONITORS	
School District Monitors	25,175
Small Business Monitors	23,300
Small Government Monitors	6,632
Total Monitors	55,107

COMPUTERS	
School District Computers	56,329
Small Business Computers	23,656
Small Government Computers	4,975
Total Computers	84,960

TOTAL CEPs 184,966

NON-PROFIT POUNDS BY COLLECTOR

Total weight of Covered Electronic Products (CEPs) received from non-profit charitable organizations.

NON-PROFIT NAME	CEP POUNDS
All Shred	6,400
Anacortes Aktion Club	26,957
Deseret Industries - Puyallup	18,663
Deseret Industries - Shoreline	77,605
Goodwill Everett	1,235,356
Goodwill Pasco	260,958
Goodwill Seattle	1,184,840
Goodwill Spokane	534,501
Goodwill Tacoma	1,014,966
Goodwill Vancouver	372,287
Goodwill Wenatchee	69,506
Green Okanogan	8,618
Interconnection.org	170,626
Methow Recycles	9,901
Orcas Recycling Services	17,362
Salvation Army - Spokane Valley	13,212
Salvation Army - Yakima	10,839
St. Vincent De Paul - Bremerton	16,122
St. Vincent De Paul - Everett	11,350
St. Vincent De Paul - Monroe	24,952
St. Vincent De Paul - Seattle	36,306
St. Vincent De Paul - Tacoma	19,669
Stanwood-Camano Kiwanis	21,061
Sunnyside Christian Thrift Store	12,274
Union Gospel Mission - Yakima	23,329
TOTAL NON-PROFIT POUNDS:	5,197,660

COLLECTION SITES

These collection sites accepted covered electronics for recycling at no charge in 2022.

Collector Name	Address	City	County
Bruce Transfer Station	504 S Lucy Rd	Othello	Adams
Gigamedics	213 W Main	Ritzville	Adams
Ritzville Transfer Station	1803 E Danekas Rd	Ritzville	Adams
CEP Recycle Asotin County	2901 6th Avenue	Clarkston	Asotin
Clayton-Ward Company Kennewick	119 E Albany Ave	Kennewick	Benton
Goodwill Columbia Center Mall Donation Center	100 Columbia Center Blvd	Kennewick	Benton
Goodwill Kave	2618 W Kennewick Ave	Kennewick	Benton
Goodwill Kennewick Store	345 S Columbia Center Blvd	Kennewick	Benton
Clayton-Ward Company Richland	1936 Saint St	Richland	Benton
Goodwill Albertsons Donation Center	690 Gage Blvd	Richland	Benton
Goodwill Richland	201 Wellsian Way	Richland	Benton
Goodwill KK Donation Center	3250 Kennedy Rd	West Richland	Benton
Stay Tan West	3680 W Van Giesen	West Richland	Benton
Goodwill Wenatchee Store	830 S. Mission St	Wenatchee	Chelan
Pacific Power Batteries Wenatchee	742 S. Mission St	Wenatchee	Chelan
Goodwill Port Angeles Store	603 S Lincoln St	Port Angeles	Clallam
Goodwill Sequim Store	680 W Washington St, Ste C	Sequim	Clallam
Goodwill Battleground Store	101 NW 20th Ave	Battleground	Clark
Central Transfer and Recycling Center	11034 NE 117th Avenue	Vancouver	Clark
Goodwill Fishers Landing Store	1200 SE 162nd Pl	Vancouver	Clark
Goodwill Hazel Dell Store	1600 NE 78th St	Vancouver	Clark
Goodwill Orchards Store	14201 NE Fourth Plain Blvd	Vancouver	Clark
Goodwill Salmon Creek Store	14300 NE 20th Ave	Vancouver	Clark
Goodwill Vancouver Outlet	9021 NE 117th Ave	Vancouver	Clark
Goodwill Vancouver Store	6425 NE Fourth Plain	Vancouver	Clark
West Vancouver Materials Recovery Center	6601 NW Old Lower River Road	Vancouver	Clark
Washougal Transfer Station	4020 S. Grant Street	Washougal	Clark
Columbia County Transfer Station	501 S Cottonwood	Dayton	Columbia
Goodwill Longview Store	1030 15th Avenue	Longview	Cowlitz
Waste Control Recycling	1150 3rd Ave	Longview	Cowlitz
Goodwill East Wenatchee Store	620 Grant Road	East Wenatchee	Douglas
Inchelium Community Center	14 Community Center Loop Rd	Inchelium	Ferry

COLLECTION SITES

Collector Name	Address	City	County
Keller Community Center	11669 S. Highway 21	Keller	Ferry
Torboy Transfer Station	105 Torboy Dump Road	Republic	Ferry
Goodwill Pasco Outlet	307 W. Columbia St	Pasco	Franklin
Goodwill Pasco Road 68	5115 N Road 68	Pasco	Franklin
Goodwill Pasco Store	3521 W. Court Street	Pasco	Franklin
CEP Recycle Garfield County	209 S 10th St	Pomeroy	Garfield
Consolidated Disposal Service	2370 Basin St SW	Ephrata	Grant
CDSI Transfer & Recycle	9524 Rd 7 NE	Moses Lake	Grant
Goodwill Moses Lake Store	789 North Central Drive	Moses Lake	Grant
Goodwill Aberdeen Store	1103 East Wishkah Blvd	Aberdeen	Grays Harbor
Pay More Recycle and Salvage Inc. Aberdeen	1813 Westport Road	Aberdeen	Grays Harbor
Waste Connections Inc dba Aberdeen Sanitation	29 Gavett Lane	Montesano	Grays Harbor
Camano Island Transfer Station & Recycle Park	75 E. Camano Hill Road	Camano Island	Island
Coupeville Island Recycling	20018 SR 20	Coupeville	Island
Freeland Island Recycling	20014 SR 525	Freeland	Island
North Whidbey Drop Box Station	3151 N. Oak Harbor Road	Oak Harbor	Island
Goodwill Port Townsend Store	602 Howard St	Port Townsend	Jefferson
The Recycle Center	301 County Landfill Rd	Port Townsend	Jefferson
Goodwill Auburn Store	1519 Auburn Way S	Auburn	King
Living Green Technology	1720 Pike Street NW, Suite 4	Auburn	King
Rain City Recycling, LLC	4150 B Pl NW Suite 103	Auburn	King
UpTeKK	101 Lund Rd	Auburn	King
VIDEO ONLY - Bellevue	14339 NE 20th St	Bellevue	King
Goodwill Burien Store	1031 SW 128th Street	Burien	King
St Vincent de Paul 1st Ave S	13445 1st Ave South	Burien	King
Value Village Burien	131 SW 157th St	Burien	King
Enumclaw Recyclers	2032 Garrett St., Ste. A	Enumclaw	King
Goodwill Federal Way Store	32521 Pacific Hwy S	Federal Way	King
VIDEO ONLY - Federal Way	1643 S. 352nd St	Federal Way	King
Goodwill Issaquah Donation Site	970 7th Ave. NW	Issaquah	King
Value Village Issaquah	5530 East Lake Sammamish Parkway SE	Issaquah	King
St Vincent de Paul Bothell Way NE	7304 Bothell Way NE	Kenmore	King
3R Technology	8002 S 208th St. Unit E105	Kent	King

COLLECTION SITES

Collector Name	Address	City	County
EWC Group, Inc	Kent 228 Building B, 22633 83rd Ave S	Kent	King
Goodwill Kent 360	315 Washington Ave S	Kent	King
St Vincent de Paul Kent	310 Central Ave N	Kent	King
Total Reclaim	7021 South 220th St	Kent	King
Value Village Kent	24034 104th Ave SE	Kent	King
Busby Junk Removal	(pick-up only)	Kirkland	King
Goodwill Juanita Store	9826 NE 132nd Street	Kirkland	King
Goodwill Totem Lake Donation Center	12221 120th Avenue NE	Kirkland	King
Pacific Power Batteries of Kirkland	13205 NE 124th St #A	Kirkland	King
Goodwill Maple Valley Store	27077 Maple Valley/Black Diamond Hwy	Maple Valley	King
E-Recycle Mercer Island Site	7835 SE 30th Street	Mercer Island	King
Goodwill Redmond (Bellevue) Store	15301 NE 24th Street	Redmond	King
Goodwill Renton Store	3210 NE Sunset Blvd	Renton	King
Green Label Recycling	927 thomas ave sw	renton	King
St Vincent de Paul Renton	575 Rainier Ave N	Renton	King
Goodwill Sammamish Donation Center	228th NE and NE 8th	Sammamish	King
EcoLights Northwest	1915 South Corgiat Drive	Seattle	King
Friendly Earth International Inc.	1560 1st Avenue South	Seattle	King
Goodwill Ballard Donation Center	2400 NW 85th St	Seattle	King
Goodwill Ballard Store	6400 8th Avenue NW	Seattle	King
Goodwill Capitol Hill	115 Belmont Avenue East	Seattle	King
Goodwill North Transfer Station	1350 N. 34th Street	Seattle	King
Goodwill Ravenna Donation Center	4637 Union Bay Place NE	Seattle	King
Goodwill Seattle Store	1400 South Lane St	Seattle	King
Goodwill South Lake Union	411 Westlake Avenue North	Seattle	King
Goodwill University District Store Donation Center	4552 University Way NE	Seattle	King
InterConnection Charitable Reuse & Recycling	1121 N 35th St.	Seattle	King
RE-PC Seattle	1565 Sixth Avenue South	Seattle	King
St Vincent de Paul 4th Ave S	5950 4th Ave. S	Seattle	King
Deseret Industries - Shoreline	17935 Aurora Ave N	Shoreline	King
Goodwill Shoreline Store	14500 15th Avenue NE	Shoreline	King
The Salvation Army Thrift Store, Shoreline	15403 Westminster Wy N	Shoreline	King
Goodwill Tukwila Store	1174 Andover Park West	Tukwila	King
RE-PC Tukwila	600 Andover Park East	Tukwila	King

COLLECTION SITES

Collector Name	Address	City	County
The Salvation Army Thrift Store, Tukwila	16705 Southcenter Pkwy	Tukwila	King
Value Village Tukwila	16700 Southcenter Parkway	Tukwila	King
Video Only - Tukwila	290 Andover Park E	TUKWILA	King
Goodwill Woodinville Donation Center	17524 131st Ave NE	Woodinville	King
Goodwill Woodinville P&R Donation Center	17800 140th Avenue NE	Woodinville	King
PC Recycle - Woodinville	5817 238th St SE	Woodinville	King
Value Village Woodinville	14160 NE Woodinville Duval Road	Woodinville	King
Bainbridge Island Recycling & Garbage Facility	7215 Vincent Rd	Bainbridge	Kitsap
Goodwill Bainbridge Island Don. Center	NE High School Road	Bainbridge	Kitsap
Bremerton St. Vincent dePaul	Corner of 13th and Wycoff	Bremerton	Kitsap
Goodwill Bremerton Store	4209 Wheaton Way	Bremerton	Kitsap
Olympic View Transfer Station	9380 SW Barney White Rd	Bremerton	Kitsap
Peninsula All Shred	5800 W. Werner Rd. Ste B	Bremerton	Kitsap
Goodwill Port Orchard Store	1720 SE Mile Hill Road	Port Orchard	Kitsap
Goodwill Silverdale Store	10001 Mickelberry Rd NW	Silverdale	Kitsap
Goodwill Ellensburg Store	400 W. Washington Avenue	Ellensburg	Kittitas
Republic Services Div 4178 - Goldendale Transfer	1205 W Broadway	Goldendale	Klickitat
Goodwill Centralia Store	519 Harrison Ave	Centralia	Lewis
Tiger Mountain Technologies	208 2nd St	Morton	Lewis
Lincoln County Transfer Station	34735 SR 2 E.	Davenport	Lincoln
Goodwill Shelton Store	301 Wallace Kneeland Plaza Blvd Ste. 210	Shelton	Mason
Pay More Recycle and Salvage Inc Shelton	2278 East Brockdale Road	Shelton	Mason
Delano Regional Transfer Station	22152 Alcan Dr NE	Grand Coulee	Okanogan
Nespelem Recycling Center	64 Schoolhouse Loop Rd	Nespelem	Okanogan
Omak Community Center	5th Ave E. Benton St	Omak	Okanogan
Sunrise Main	330 Ferry St	Omak	Okanogan
Green Okanogan	3 Rodeo Rd	Tonasket	Okanogan
Methow Recycles	12 Twisp Airport Rd	Twisp	Okanogan
Pacific Solid Waste Disposal	4404 67th Pl	Long Beach	Pacific
Royal Heights Transfer Station	876 State Route 105	Raymond	Pacific
Ione Transfer Station	1712 Sullivan Lake Road	Ione	Pend Oreille
Newport Transfer Station	9494 Deer Valley Rd	Newport	Pend Oreille
Usk Transfer Station	661 Jared	Usk	Pend Oreille
Goodwill Bonney Lake Store	21153 Hwy 410 E	Bonney Lake	Pierce

COLLECTION SITES

Collector Name	Address	City	County
Joint Base Lewis-McChord Recycle Center	Bldg 5290	Ft Lewis	Pierce
Goodwill Gig Harbor Store	5500 Olympic Dr NW, Bldg E	Gig Harbor	Pierce
Upgrade Stations	9644 Bujacich Rd	Gig Harbor	Pierce
Goodwill Lakewood Store	6002 Mount Tacoma Dr SW	Lakewood	Pierce
McChord Recycling Center	Bldg 516 South Gate Road	McChord AFB	Pierce
Deseret Industries - Puyallup	716 South Hill Park Drive	Puyallup	Pierce
Goodwill Puyallup Store	1200 4th Street NW	Puyallup	Pierce
Goodwill South Hill Store	12915 Meridian Ave E	Puyallup	Pierce
Value Village Puyallup	1124 River Road	Puyallup	Pierce
Goodwill Spanaway Store	14918 Pacific Ave. S	Spanaway	Pierce
Goodwill 38th Street Store	3121 South 38th St	Tacoma	Pierce
Goodwill North Tacoma Store	5401 6th Ave, Ste 600	Tacoma	Pierce
Goodwill South Tacoma Store	8025 S Hosmer St	Tacoma	Pierce
Goodwill Tacoma Outlet Store	3120 S Pine St	Tacoma	Pierce
Green PC	3627 S 54th St	Tacoma	Pierce
Oakland Affordable Computers	3901 Center St	Tacoma	Pierce
Recycling Resources	5317 131st Street Ct E	Tacoma	Pierce
St. Vincent de Paul S. 56th St.	4009 S. 56th st.	Tacoma	Pierce
Video Only Tacoma	2218 S. 41st St	Tacoma	Pierce
Value Village University Place	6802 19th St W	University Place	Pierce
Orcas Recycling Services	3398 Orcas Road	Eastsound	San Juan
San Juan Transfer Station	212 Sutton Road	Friday Harbor	San Juan
Lopez Solid Waste Disposal District	2419 Fisherman Bay Road	Lopez Island	San Juan
Anacortes Aktion Club	1911 Commercial Ave	Anacortes	Skagit
Goodwill Mount Vernon Store	242 East College Way	Mount Vernon	Skagit
Pacific Power Batteries Mount Vernon	107 E Cedar St	Mount Vernon	Skagit
Clutter Cops Warehouse	13213 Farm to Market Rd	Mt Vernon	Skagit
Sedro-Woolley City Recycling Facility	1675 third Street	Sedro-Woolley	Skagit
Stevenson Transfer Facility	1332 Ryan Allen Rd.	Stevenson	Skamania
Underwood Transfer Facility	1402 Little Buck Creek Rd.	Underwood	Skamania
Mt. Pleasant Transfer Facility	1111 Mt. Pleasant Rd	Washougal	Skamania
Goodwill Edmonds Store	10117 Edmonds Way	Edmonds	Snohomish
Goodwill Everett Store	3002 Hoyt Avenue	Everett	Snohomish
Goodwill South Everett Store	228 SW Everett Mall Way	Everett	Snohomish
Pacific Power Batteries Everett	3729 Broadway	Everett	Snohomish

COLLECTION SITES

Collector Name	Address	City	County
St. Vincent de Paul Everett	6424 Broadway	Everett	Snohomish
Value Village Everett	6220 Evergreen Way	Everett	Snohomish
Truck On Call	(pick-up only)	Lake Stevens	Snohomish
Goodwill Lynnwood Store	4027 198th Street Southwest	Lynnwood	Snohomish
Goodwill Martha Lake Donation Center	710 164th Street	Lynnwood	Snohomish
Value Village Lynnwood	17216 Hwy 99	Lynnwood	Snohomish
Video Only - Lynnwood	19220 Alderwood Mall Parkway	Lynnwood	Snohomish
Goodwill Marysville Store	9315 State Avenue	Marysville	Snohomish
Pacific Power Batteries Marysville	720 Cedar Ave	Marysville	Snohomish
The Junkluggers of North Puget Sound	3410 64th Ave NE	Marysville	Snohomish
Value Village Marysville	1334 State Ave	Marysville	Snohomish
Eman computer Care	119 West Main St	Monroe	Snohomish
Goodwill Monroe Store	14751 Chain Lake Road SE	Monroe	Snohomish
St. Vincent de Paul Monroe	17150 West Main Street	Monroe	Snohomish
E-Waste, LLC - Mountlake Terrace	22313 70th Ave W Ste L4	Mountlake Terrace	Snohomish
Pacific Power Batteries Mountlake Terrace	6702 220th St SW	Mountlake Terrace	Snohomish
Ace Metal Company and Mukilteo Recycling Center	11110 Mukilteo Speedway #202	Mukilteo	Snohomish
Appliance Recycling Outlet	10105 Airport Way	Snohomish	Snohomish
Eman Computer Care	402 Maple Avenue	Snohomish	Snohomish
Goodwill Snohomish Donation Center	823 Avenue D	Snohomish	Snohomish
Kiwanis Recycle	27001 94th Dr NW, D1	Stanwood	Snohomish
North Sound Hauling and Reload Facility	6211 234th St SE	Woodinville	Snohomish
Goodwill Cheney Donation Center	6 South Cheney Spokane Rd	Cheney	Spokane
DeVries Business Services	601 E. Pacific	Spokane	Spokane
Goodwill Downtown Spokane Donation Ctr	130 E Third Avenue	Spokane	Spokane
Goodwill North Nevada Store	9832 North Nevada Street	Spokane	Spokane
Goodwill NW Blvd Store	1617 W. NW Blvd	Spokane	Spokane
Goodwill South Hill Store Donor Service Ctr	2929 E. 27th Ave	Spokane	Spokane
Goodwill Spokane Warehouse/Outlet	1406 E. Front Ave	Spokane	Spokane
The Salvation Army Thrift Store, Spokane	2020 N Division	Spokane	Spokane
Value Village Spokane W Boone	W 708 Boone	Spokane	Spokane
Video Only Spokane	7755 N. Division St	Spokane	Spokane
Goodwill Spokane Valley Store	13721 East Sprague	Spokane Valley	Spokane
Inland ReTech	7203 E. Nora Ave., Ste. 100	Spokane Valley	Spokane

COLLECTION SITES

Collector Name	Address	City	County
Recycle Techs	6810 E. Appleway Blvd	Spokane Valley	Spokane
Salvation Army Spokane Valley	11211 E Sprague	Spokane Valley	Spokane
The Salvation Army Thrift Store, Spokane Valley	11211 E Sprague	Spokane Valley	Spokane
Value Village Spokane E Sprague	12205 East Sprague Ave	Spokane Valley	Spokane
Goodwill Colville Store	168 North Main Street	Colville	Stevens
Goodwill South Lacey Store	4800 Yelm Highway SE	Lacey	Thurston
Value Village Lacey	604 Sleater-Kinney Rd SE	Lacey	Thurston
4th Dimension Computers	3315 Pacific Ave Suite B2	Olympia	Thurston
Goodwill Olympia Outlet	4014 Martin Way E	Olympia	Thurston
Goodwill Olympia Store	400 Cooper Point Rd SW	Olympia	Thurston
Regency Technologies	7827 Arab Dr SE	Olympia	Thurston
Midway Recycling	7834 Old Hwy 99 SE	Tumwater	Thurston
State Surplus Tumwater Site	7511 New Market St SW	Tumwater	Thurston
Goodwill Yelm Store	906 E Yelm Ave	Yelm	Thurston
Goodwill College Place	1017 NE C St	College Place	Walla Walla
CEP Recycle Walla Walla	871 West Rose	Walla Walla	Walla Walla
Goodwill Walla Walla Store	217 E. Alder St	Walla Walla	Walla Walla
Lillie Rice Center, Inc	2616 E. Isaacs Avenue	Walla Walla	Walla Walla
Walla Walla Recycling	827 North 12th Ave	Walla Walla	Walla Walla
1PC LLC	809 W. Orchard Drive, Suite 6	Bellingham	Whatcom
Goodwill Bellingham Store	1115 East Sunset Drive	Bellingham	Whatcom
Value Village Bellingham	150 East Bellis Fair Parkway	Bellingham	Whatcom
Recycling & Disposal Services, Inc.	4916 LaBounty Dr	Ferndale	Whatcom
Goodwill Pullman Donor Service Center	815 S Grand Ave	Pullman	Whitman
Pullman Disposal Shop	135 NW Harold Dr	Pullman	Whitman
Yakima Waste Systems - Granger	340 SR 223	Granger	Yakima
Goodwill Selah Store	503 S First St	Selah	Yakima
Goodwill Sunnyside Store	2840 E. Lincoln Ave	Sunnyside	Yakima
Sunnyside Christian Thrift Shop	305 North Ave	Sunnyside	Yakima
Goodwill Union Gap Store	1907 1st Ave S	Union Gap	Yakima
Goodwill Yakima Store	3710 Tieton Drive	Yakima	Yakima
The Salvation Army Thrift Store, Yakima	9 S 6th Ave	Yakima	Yakima
Union Gospel Mission Yakima	1300 N 1st St	Yakima	Yakima
Yakima Waste Systems - Yakima	2812 1/2 Terrace Heights Drive	Yakima	Yakima

COLLECTION EVENTS

E-Cycle Washington Covered Electronic Products were collected from the public at these events in 2022.

EVENT HOLDER	DATE	LOCATION
BECU Everett	4/16/2022	BECU Everett 3900 Broadway Everett, WA 98201
BECU Everett	10/22/2022	BECU Everett 3900 Broadway Everett, WA 98201
BECU Federal Way	4/16/2022	411 Pacific Hwy S Federal Way, WA 98003
BECU Federal Way	10/22/2022	411 Pacific Hwy S Federal Way, WA 98003
BECU Tukwila	4/16/2022	BECU Tukwila 12770 Gateway Dr S Tukwila, WA 98168
BECU Tukwila	10/22/2022	BECU Tukwila 12770 Gateway Dr S Tukwila, WA 98168
City of Algona	4/9/2022	Algona City Hall Parking Lot 200 Washington Blvd. Algona, WA 98011
City of Arlington	9/24/2022	City of Arlington 18204 59 th Ave NE Arlington, WA 98223
City of Carnation	6/11/2022	Carnation Church of LDS 32751 NE 45th St. (Entwistle) Carnation, WA 98104
City of Covington	7/21/2022	Kentwood High School 25800 164th Ave SE Covington, WA 98042
City of Covington	9/10/2022	Kentwood High School 25800 164th Ave SE Covington, WA 98042
City of Des Moines	3/26/2022	Moines Marina 22307 Dock Avenue South Des Moines, WA 98198

COLLECTION EVENTS

EVENT HOLDER	DATE	LOCATION
City of Des Moines	11/5/2022	Moines Marina 2307 Dock Avenue South Des Moines, WA 98198
City of Duvall	7/16/2022	Holy Innocents Church 26526 NE Cherry Valley Rd Duvall, WA 98019
City of Kenmore	6/11/2022	Kenmore Lutheran Church 6620 NE 185th St Kenmore, WA 98028
City of Kenmore	10/8/2022	Kenmore Lutheran Church 6620 NE 185th St Kenmore, WA 98028
City of Mercer Island	10/29/2022	Mercer Island City Hall 9611 SE 36 th St Mercer Island, WA 98040
City of New Castle	4/2/2022	Hazelwood Elementary 7100 116th Ave SE Newcastle, WA 98056
City of New Castle	9/24/2022	Hazelwood Elementary 7100 116th Ave SE Newcastle, WA 98056
City of Normandy Park	5/7/2022	WA State Criminal Justice Training Center 19010 1st Ave South Burien, WA 98148
City of Normandy Park	10/1/2022	WA State Criminal Justice Training Center 19010 1st Ave South Burien, WA 98148
City of North Bend	5/14/2022	Snoqualmie Middle School 9200 Railroad Ave SE Snoqualmie, WA 98065
City of Pacific	10/15/2022	Pacific City Hall Parking Lot 100 3rd Avenue SE Pacific, WA 98047
City of Sammamish	4/9/2022	Eastside Catholic High School 232 228th Ave SE, Sammamish, WA 9807

COLLECTION EVENTS

EVENT HOLDER	DATE	LOCATION
City of Sammamish	9/18/2022	Eastside Catholic High School 232 228th Ave SE, Sammamish, WA 9807
City of SeaTac	5/7/2022	Tyee High School 4424 South 188th St. SeaTac, WA 98188
City of SeaTac	10/22/2022	Tyee High School 4424 South 188th St. SeaTac, WA 98188
Lewis County Public Works	9/24/2022	Pe Ell Town Hall 111 Main St Pe Ell, WA 98572
Lewis County Public Works	10/8/2022	Winlock Drop Box 1105 Winlock-Vader Road Winlock, WA 98596
Quincy Valley Lions Club	4/10/2022	City of Quincy 128 Division St W Quincy, WA 98848



OTHER COLLECTION SERVICES

Collection services for covered electronic products are required in all Washington State counties and cities with a population greater than 10,000 (RCW 70A.500.090).

City, Town or County	City or Town Population*	CEP Collection Service (2022)
Airway Heights	11,040	Collection sites are located in Spokane approximately 10 miles away.
Arlington	21,260	Collection event completed.
Bothell	48,940	Collection sites and events are available in the adjacent city of Kenmore.
Camas	27,250	A collection site is available in the adjacent city of Washougal.
Cheney	12,920	Collection sites are available approximately 14 miles away in Spokane.
Dupont	10,180	Collection sites are available approximately 8 miles away in Lakewood.
Covington	21,200	Collection events completed.
Des Moines	33,160	Collection events completed.
Edgewood	13,520	Collection sites are available in the adjacent city of Puyallup.
Fife	11,130	Collection sites are available in the adjacent cities of Tacoma and Puyallup.
Grandview	11,020	Collection sites are available approximately 8 miles away in Sunnyside.
Kelso	12,720	A collection site is available in the adjacent city of Longview.
Kenmore	24,090	Collection event completed.
Lake Forest Park	13,620	Collection sites are available in the adjacent city of Shoreline.
Lake Stevens	40,700	Collection sites are available in the adjacent cities of Marysville and Snohomish.
Liberty Lake	12,870	Collection sites are available approximately 7 miles away in Spokane Valley.
Lynden	16,150	Collection sites are available approximately 13 miles away in Ferndale and 15 miles away in Bellingham.
Mill Creek	21,510	A collection site is available approximately 2 miles away in Lakewood.
Newcastle	13,560	Collection event completed.
Poulsbo	12,180	A collection site is available approximately 8 miles away in Silverdale.
Ridgefield	13,640	Collection sites are available approximately 7 miles away in Vancouver and Battleground.
Sammamish	68,150	Collection events completed.
SeaTac	31,910	Collection events completed.
Snoqualmie	14,490	Collection event completed.
Sumner	10,800	Collection sites are available in the adjacent city of Puyallup.
Tumwater	26,360	Collection sites are available approximately 3 miles away in Olympia
Wahkiakum County	N/A	A collection site is available in Long Beach approximately 30 miles outside of the county.

RECYCLED POUNDS BY PROCESSOR

Including Un-recycled Residuals and Reuse

	ACE METAL COMPANY	E-WASTE	ERI	EWC GROUP	METRO METALS TACOMA	METRO METALS VANCOUVER	URT	2022 TOTAL	
	POUNDS								%
CEP pounds recycled by each processor and on hand awaiting processing	3,055,821	1,829,829	0	2,052,873	2,653,196	2,378,724	376,872	12,347,315	92.75%
CEP pounds processor sent to reuse through refurbishment or re-sale	0	0	0	0	0	0	0	0	0.00%
Un-recycled residuals such as wood, un-recyclable plastic and floor sweep	439,222	73,200	0	25,789	181,747	229,469	15,505	964,932	7.25%
TOTAL	3,495,043	1,903,029	0	2,078,662	2,843,943	2,608,193	392,377	13,312,247	100.00%



PROCESSOR PROCESSES AND METHODS

Processing methods and locations of all registered, participating electronic waste processors that were utilized in 2022.

ACE METAL COMPANY, 11110 MUKILTEO SPEEDWAY #202, MUKILTEO, WA 98275 (425) 493-6802			
Material Of Concern	Recycling Process	Fate of Recycling Process	End of life processing- Destination Country
CRT Glass	Removed from CEP by hand dismantling. Panel and funnel separated and all metal removed	Materials reused in concrete products, Separated, smelted and used for glass tiles and other products	Korea
Circuit Boards	Removed from CEP by hand dismantling	Precious metals recovery	Japan
Batteries	Hand removed from CEP, and sorted by type and packaged	Make new batteries	USA
Mercury Devices	Hand removed from CEP, managed as universal waste	Retort, Mercury Recovery	USA
Non-Materials of Concern	Recycling Process	Fate of Recycling Process	Destination
Steel	Hand removed from CEP and sorted	Metal Recovery	USA
Plastics	Hand removed from CEP and sorted	Plastic Recovery	Malaysia
Insulated Wire	Hand removed from CEP and sorted	Metal Recovery	USA
Aluminum	Hand removed from CEP and sorted	Metal Recovery	USA
Wood	Hand removed from CEP and sorted	Wood Recovery	USA

E-WASTE LLC, 12424 BEVERLY PARK RD SUITE A-4, LYNNWOOD, WA 98036 (425) 239-4118			
Material Of Concern	Recycling Process	Fate of Recycling Process	End of life processing- Destination Country
CRT Glass	It is removed from CRT TV's and monitors during disassembly process	Product manufacturing for production of ceramic tiles	Korea
Circuit Boards	Removed from CEP by hand-dismantling	Precious metals recovery	Belgium, Korea
Batteries	Removed manually and sorted by type.	Metal Recovery	USA, Canada
Mercury Containing Lamps	Hand-removed from CEP by hand dismantling, managed as universal waste.	Mercury Recovery	USA
Non-Materials of Concern	Recycling Process	Fate of Recycling Process	Destination
Steel	Removed from CEP by hand-dismantling.	Metal Recovery	USA
Plastics	Removed from CEP by hand-dismantling.	Plastic Recovery	Malaysia
Insulated wire	Removed from CEP by hand-dismantling.	Metal Recovery	Japan
Aluminum	Removed from CEP by hand-dismantling.	Metal Recovery	Japan

PROCESSOR PROCESSES AND METHODS

**EWG GROUP, 410 ANDOVER PARK E., TUKWILA, WA 98188
(206) 767-9950**

Material Of Concern	Recycling Process	Fate of Recycling Process	End of life processing-Destnation Country
CRT Glass	Manually removed from CEP; separate panels, metals, and all other residuals	Glass to glass; all materials reused in new glass products or tiles	Mexico, South Korea
Circuit Boards	Manually removed from CEP	Primary smelter for precious metal recovery	USA, Japan
Batteries	Manually removed from CEP and sorted by type	Metal Recovery	USA
Mercury Devices	Manually removed from CEP and managed as Universal Waste	Mercury recovery	USA
Non-Materials of Concern	Recycling Process	Fate of Recycling Process	Destination
Steel	Manually removed from CEP	Metal recovery	USA
Plastics	Manually removed from CEP	Plastic Recovery	Canada
Insulated Wire	Manually removed from CEP	Metal recovery	Japan, USA
Aluminum	Manually removed from CEP	Metal recovery	USA

**METRO METALS, 2202 EAST RIVER ROAD, TACOMA, WA 98421
METRO METALS, 2401 ST. FRANCIS LANE, VANCOUVER, WA 98660
(253) 272-2364**

Material Of Concern	Recycling Process	Fate of Recycling Process	End of life processing-Destnation Country
CRT Glass	Hand dismantle and remove intact whole tube from CEP, package to prevent release	Smelter. Byproducts used as cement or tile additive	Mexico, USA
Circuit Boards	Removal of batteries, sort, and/or shred	Primary smelter for recovery of metals	USA, Japan
Batteries	Hand sort by type and package for shipment	Metal recovery via recycling (lithium, nickel)	USA
Mercury Devices	Hand removed from CEP, package to prevent release	Mercury retort, elemental mercury recovery, crush to extract phosphor	USA
Non-Materials of Concern	Recycling Process	Fate of Recycling Process	Destination
Steel	Removed from CEP by shredding or hand dismantling	Metal Recovery	USA
Plastics	Shredded and included with the circuit boards	Primary smelter	Japan
Insulated Wire	Removed by hand or shredding process	Metal Recovery	USA, Japan
Aluminum	Removed by shredding or by hand from the CEP	Metal Recovery	Japan, USA

PROCESSOR PROCESSES AND METHODS

URT, LLC, 10151 SE JENNIFER ST., CLACKAMAS, OR 97015 (503) 722-2236			
Material Of Concern	Recycling Process	Fate of Recycling Process	End of life processing- Destnation Country
CRT Glass	Glass is crushed and inserted into the tile making process	Tile and lead recovered	USA
Circuit Boards	Removed from CEP by automated separation and shred process	Smelted/refined for precious metal recovery	USA, Japan, Belgium, France, Korea
Batteries	Hand removed from CEP or received in as batteries separately. Hand sorted by type	Metal Recovery	USA
Mercury Devices	Received in as mercury devices separately. Hand sorted by type and shipped	Mercury recovery/retort	USA
Non-Materials of Concern	Recycling Process	Fate of Recycling Process	Destination
Ferrous Metals	Removed from CEP by automated separation process	Metal recovery	USA
Plastics	Manual Sorting, Washing/Drying, Shredding/ Granulation, Blending, Compounding of plastic materials	Plastics recovery	USA, Malaysia
Non-Ferrous Metals	Removed from CEP by automated separation and sorting process	Metal recovery	USA, Japan

Note: Environmental compliance audit reports for direct processors of covered electronics are on file with Washington Ecology and available by request.

DIRECT PROCESSOR SUBCONTRACTORS

Proprietary information regarding subcontractors is on file with the Department of Ecology but is not included on the public annual report for E-Cycle Washington.

PROCESSORS CEP MASS BALANCE REPORT

INBOUND: TOTAL POUNDS 2022	Computers	Laptops	E-Readers	E-Tablets	Monitors	Televisions	OTHER (non-covered)	TOTAL
Pounds collected and processed:	1,280,242	204,465	400	8,407	1,752,252	10,057,612	8,869	13,312,247
OUTBOUND: DECEMBER 31, 2022 FOR CALENDAR YEAR 2022								
RECOVERED / RECYCLED / IN PROCESS								
CRT GLASS	3,153,579							
CIRCUIT BOARDS	1,029,043							
BATTERIES	10,547							
MERCURY LAMPS	9,169							
PLASTIC	2,452,600							
METALS	5,130,472							
WOOD	6,572							
CEPs in storage awaiting processing	533,709							
CEPs in transit awaiting downstream processing	21,624							
TOTAL RECOVERED / RECYCLED / IN PROCESS:	12,347,315							
REUSED								
COMPUTERS - (Desktop or integrated units)	0							
LAPTOPS	0							
TELEVISIONS	0							
MONITORS	0							
PARTS - SWAPPED OUT TO WORKING UNIT	0							
OTHER:	0							
TOTAL REUSED:	0							
UNRECYCLED RESIDUAL (TO LANDFILL)								
WOOD	619,769							
NON-RECYCLABLE PLASTIC	159,846							
OTHER: Trash, etc	185,317							
TOTAL RESIDUAL:	964,932							
TOTAL RECOVERED, RECYCLED, REUSED, RESIDUAL:	13,312,247							

SUMMARY OF PROCESSOR CLOSURE PLANS

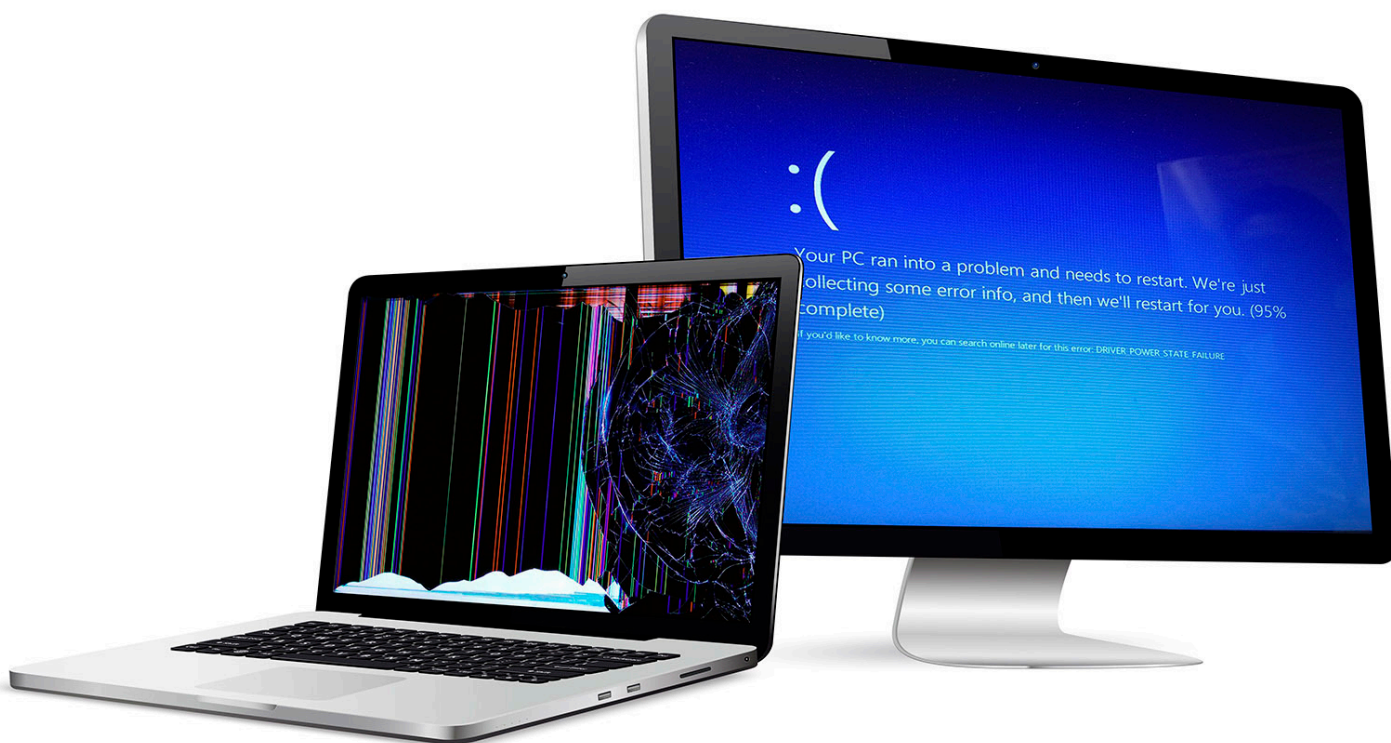
The Preferred Processing Standard requires registered processors to have adequate closure plans and a sufficient financial instrument to prevent the abandonment of CEPs and related materials.

CLOSURE PLAN ITEMS	ACE METAL	E-WASTE LLC	EWC GROUP	ERI	METRO METALS (TACOMA AND VANCOUVER)	URT
Clean up and engineering labor included	x		x	x	x	x
Maximum CRT inventory on hand identified		x	x	x	x	x
Wood, batteries, lamps pounds estimated	x	x	x		x	x
Transportation	x	x	x			x
Hazardous Materials handling and disposition		x	x	x	x	x
Downstream contingency plan				x	x	x
Closure schedule				x	x	
Clean up standards identified and outlined				x	x	
CLOSURE COST ESTIMATES:						
Material removal	x	x	x	x	x	x
Transport	x	x	x	Haz Mat only	Haz Mat Only	x
CRT glass disposal	x	x	x	x	x	x
Disposal of other materials	x	x	x	N/A	N/A	x
FINANCIAL MECHANISM:	Assignment of Account / Time Deposit	Standby Trust	Non assigned bank account reserve	Irrevocable Standby Letter of Credit	Financial Assurance Letter of Guarantee	Assurance Bond

MATERIALS OF CONCERN EXPORT INFORMATION

The preferred environmental standards, that all processors contracted with the WMMFA must subscribe to, require that any materials of concern (materials that present potential risk to human health or the environment) exported to a Non-OECD (Organization for Economic Co-operation and Development) member country have approval from the destination country and confirmation from the US Environmental Protection Agency.

The total weight of all materials of concern, including unwanted electronic products, electronic components, and electronics scrap collected by the WMMFA that have been exported from Washington state for plan year 2022, from processors used by the WMMFA, to countries that are not members of the Organization for Economic Co-operation and Development or the European Union = 0. This information is provided to WMMFA by each processor.



PROCESSOR VOLUME ALLOCATION FACTORS

The information below is excerpted from the WMMFA Standard Plan and describes some of the factors used in determining collected CEP volume allocation to participating processors.

COMPETITIVE RATES

- Rates by commodity make sense in comparison to freely bid rates by others, or suggested rates based on market conditions?
- Does processor transport in their proximity that would allow lower overall rate or better value?
- Has processor justified rates via quality of downstream vendors destinations?

ENVIRONMENTAL

- Are there any red flags in audit - how important are they?
- What is current inventory of materials requiring processing, and is it low or high in comparison to others?
- Does processor have reasonable assurance from downstream vendors as to ultimate disposition? Audits?
- What is the perceived RISK to the WMMFA of using processor? Are they in good standing in their communities?
- Considerations: Insurance, Litigation, Capital, Capacity, Expertise, Experience

CREATIVITY

- Does the processor use truck, ocean vessel, or train for lower environmental impact and expense?
- Does the processor use local vendors to save cost / environmental impact?
- Does the processor have multiple options in order to sustain plan compliance?
- Does the processor seem knowledgeable and have expertise in their field?
- Are their quality differences, perceived or real, of processors - by collectors that result in collector "requests" to use a certain processor?
- Does the Processor have a "re-use" component to their business?
- How much of the total weight of materials provided the processor is landfilled?
- Does the processor engage in public collection events coordinated by them?

PROCESSOR VOLUME ALLOCATION FACTORS

CAPACITY: TRANSPORTER & PROCESSOR

- Does the processor require volume corrections (plus or minus) from the authority due to their own operational or staffing issues?
- Can the processor adjust to downturns and upturns given unpredictable collection volumes by region?
- Is the processor easy to work with?
- Does the processor have enough dock doors and staff to accept multiple deliveries at the same time?
- Does the processor ever turn away transporters for its own operational convenience?
- Do collectors or other transporter vendors complain about processors service when receiving?
- Will transports deliver to the processor for a reasonable rate? Do we incur detention charges?

PROXIMITY TO COLLECTOR

- The higher density of collection sites without self transport = great transport opportunity for processors
- Location of processor extremely important for both cost (length of transport) and environmental considerations
- Does proximity of processor trump actual commodity prices via lower transport cost?
- What is the weighted average processing cost by collector, by processor, and are other constraints (capacity, etc.) hit before this consideration?

AUXILIARY SERVICES: TRANSPORTATION

- Can the processor make small and large collector pick ups timely using the correct equipment (liftgate, box truck, semi)?
- How far, in miles, will a self transporting collector transport his materials, and, at what cost, before the WMMFA moves to use a processor in closer proximity for their (collector)
- Can the processor handle mistakes by collectors, transporters, the WMMFA or the public with a reasonable approach?
- Is the transporter getting sufficient volume from the WMMFA to remain interested in hauling favorable, and unfavorable, transport lanes?

PROCESSOR VOLUME ALLOCATION FACTORS

BILLING ACCURACY TIMELINESS

- Does the Processor communicate effectively if there are questions or problems?
- Is the processor timely and accurate with invoices?
- Is the processor “high maintenance” in terms of WMMFA staff time?
- Does the processor provide feedback to the Authority when it encounters problems?
- Does the processor provide enough detail on invoices to identify all relevant recyclable downstreams by commodity type?
- Do processors invoiced weights match collectors estimated or actual weights where applicable?
- Is the processor responsive with informational requests?

EXISTING INFRASTRUCTURE

- Is the processor establishing operational plans that take business from an existing vendor with no value added?
- Are there competing services to what the processor offers that are a better value given any duplication of effort?

FAIRNESS PER RCW & WAC

- Is re-use or recycling the first option prior to disposal or incineration? (RCW 70A.500.250)
- Is the business located in the State? (RCW 70A.500.060 (5))
- Are all registered processors being utilized? (RCW 70A.500.270 (7))
- Is the processor continuously improving its practices and processes? (RCA 70A.500.250)
- Does the authority avoid the creation of new infrastructure by using processor/transporter/collector? (RCW 70A.500.300 (2))
- Is the authority following policy per its own Standard and Operating Plans? (RCW 70A.500.310)
- Is the processor listed as in compliance with the “preferred” standards by Ecology? (WAC 173-900-650)
- Is the processor in compliance with WMMFA contractual terms? (WAC 173-900-600 (3))

DESIGN FOR RECYCLING

WMMFA is required to document “...work done with processors used by the plan to promote and encourage the design of electronic products that are less toxic and contain components that are more recyclable;” (WAC 173-900-800). This category of this work is often termed “design for recycling”.

In 2022, electronic waste processors that are registered in the E-Cycle Washington program were surveyed on the topic of Design for Recycling. The survey questions and a summary of responses are below.

SURVEY QUESTIONS

What general or specific changes to new CEPs would reduce the time required to break them down for recycling?

Which “materials of concern” currently used within CEPs, if revised or eliminated would have the most positive impact on your direct or downstream costs?

Which types or specific models of CEPs present the most challenges in the recycling process in terms of handling time, cost and/or toxicity?

In the last 5 years, what design changes have had a positive impact on the time and cost required to recycle CEPs?

Would your organization be interested in sharing your thoughts about design for recycling with manufacturers at a WMMFA board meeting?

SUMMARY OF RESPONSES

Reduction of screws and adhesives.
Uniformity of screw heads.

CRT glass is the most expensive materials to manage, although it has been greatly reduced since program inception.

Depending on the manufacturer, LED and LCD products take the most time to dismantle. Console TVs that contain oil or wood also are also labor intensive.

The removal of mercury-containing lights in LCD products.

Most respondents did not wish to speak at a WMMFA board meeting or did not respond in time to speak at the designated board meeting.

The overall weight of processed electronics is a primary driver of program cost and the amount of electronic waste entering landfills. The reduction in weight of individual electronic products is a design change that makes them less toxic and more recyclable. While the population of Washington State has grown, the total weight of collected Covered Electronic Products (CEPs) has consistently decreased over the last ten years. In 2013, collected CEPs in Washington State was approximately 45 million pounds. In 2022, the weight of collected CEPs was approximately 13.3 million pounds.

Drivers of the reduced weight and toxicity of electronics include:

- The decreased use of cathode ray tube (CRT) monitors and televisions. This technology has been almost completely replaced with lighter LCD and LED technologies.
- The growing preference for laptop computers over desktop computers.
- The decrease in the number of circuit boards in televisions is being achieved through expanded software on individual boards.
- The reduction of toxic, mercury-containing lamps in LCD products.

Although it is unclear how much these trends are driven by manufacturers responding to consumer preference vs. environmental benefit, the resulting designs have led to reduced e-waste recycling volume, and less e-waste in landfills.

EDUCATION AND OUTREACH

The WMMFA conducted outreach activities in 2022 that were designed to raise program awareness in both urban and rural areas of the state.

In fall of 2022, outreach campaigns consisted of streaming audio spots and internet display ads.

E-Cycle posters and brochures are not considered to be program outreach materials because they are required to be used at collection sites by program rules. All new collection sites are provided with laminated posters with the E-Cycle Washington logo and messages about the recycling program. A tri-fold brochure is also provided at no-charge to municipalities, collection sites and others, on request. Replacement posters and brochures are provided at no charge.

2022 AUDIO SPOTS

Three, 30-second audio spots were aired over streaming devices. These audio spots ran on internet radio stations and podcast networks such as:

INTERNET RADIO STATIONS:

- CBS SPORTS
- CNN TV
- FOX NEWS
- KIRO-AM
- KISW-FM
- KKWF-FM
- KNDD-FM

PODCAST NETWORKS:

- Cadence13
- Pineapple Street Studios
- The Audacy Podcast Network

PODCASTS FEATURED ON THESE NETWORKS INCLUDE:

- Wolves Among Us
- We Can Do Hard Things with Glennon Doyle
- Dana Carvey & David Spade Fly On a Wall
- Reflections of History with Jon Meacham
- The Catch and Kill Podcast with Ronan Farrow
- Happier with Gretchen Rubin
- I've Got Questions with Mike Simpson

CAMPAIGN DATES	IMPRESSIONS
August 15 – October 15	1,158,638

EDUCATION AND OUTREACH

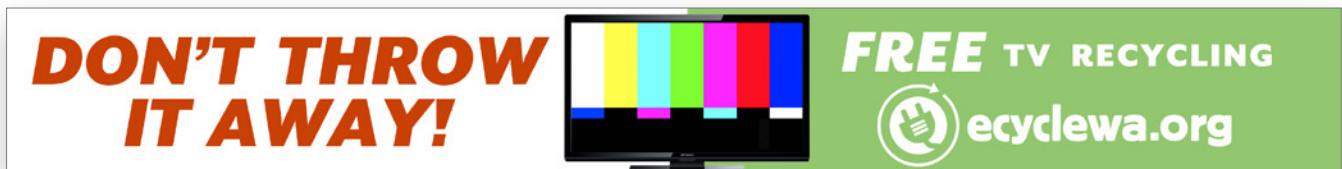
2022 INTERNET DISPLAY ADS

Internet display ads, sized for phones, tablets and computers, were run in every county of Washington State. The landing page for internet display was the collection site locator at ecyclewa.org.

SPECIFIC WEBSITES THAT DISPLAY E-CYCLE WASHINGTON ADS INCLUDED:

- foxnews.com
- offerup.com
- tumblr.com
- weather.com
- yahoo.com
- bleacherreport.com
- reddit.com
- pandora.com

CAMPAIGN DATES	IMPRESSIONS
September 7 – October 18	1,267,108



RE-USE OF COLLECTED CEPs

Based on phone interviews and informal surveys of collectors that typically refurbish or re-sell used electronics the ratio of reused to recycled products varies considerably by type of collector, and type of product. An estimated 20-25% of the computer and flat screen products are given a cursory review for candidacy for either repair or re-sale. A subset, those that are thought to be the most valuable as used products, are considered for repair or re-sale. If they power on and appear to work, they go directly to re-sale. Some collectors that specialize in computer refurbishment may have higher repair rates than other collectors.

Non-profit collectors are performing less testing and repair than they had been in the initial years of the E-Cycle Washington program. Testing is normally reserved for high value products and/or products in pristine condition.

The E-Cycle Washington program was designed primarily as an end-of-life program for unwanted electronics and most of our collectors primarily focus on getting CEPs to the program for responsible recycling. None of the E-Cycle Washington registered processors were engaged in re-use or refurbishment of end-of-life products in 2022. Therefore, 100% of reuse and refurbishment for resale was done at the collector level.

The WMMFA does not have the authority to require collectors to provide re-use statistics on collected CEPs. Our estimates are based on reported collection and processing data, and informal conversations with collectors with collectors and processors.

MANUFACTURERS PARTICIPATING IN THE STANDARD PLAN IN

Manufacturers are invoiced a portion of program expenses based on market share information that is provided to WMMFA by Washington Ecology.

3M Touch Systems
3MD Inc.
4th Dimension Computer
Acer America Corp
ADT LLC dba ADT Security Services
Afunta LLC
Amazon Fulfillment Services, Inc.
AMDOE, LLC
Amelia World Corp d/b/a LINSAY
American Future Tech Corp dba iBuypower
Angel Computer Systems Inc
Apple
ASA Electronics
Associated Computer Specialists
Asus Computer International
Atyme Corporation, Inc.
AWA Technology Inc.
Axess Products
Azpen Innovation, Inc.
Azulle
Bang & Olufsen
Barco, Inc.
Barnes&Noble.com LLC
BenQ America Corp
Bereson USA
Best Buy
BLU
Bosch Security Systems, Inc.
Cabeli Team America Limited
Caytan Enterprise (Vilros)
Cellco Partnership dba Verizon Wireless
Coastline Micro Inc.
Computer Connections
Computer Nut Hut
Computer Technology Link
Computer Works of Yakima Inc
Corsair
Craig Electronics, Inc
Curtis International Ltd
Custom Computer Sales & Svc
Cutting Edge Computer Solutions
CWD limited

CyberPower
Cybertron International, Inc
Cycrest Systems Inc.
Dat-a-Way Computer Solutions
Deli Stationery, Inc.
Dell Computer Corp
Diaotec
DigiLand Products
Digimaxis LLC
DPI Inc
Durabook Americas Inc.
Dynabook Americas, Inc.
EIZO Inc.
Element TV Company, LP
Elite Lux Technologies Inc.
Elitegroup Computer Systems
Elo Touch Solutions, Inc
Eluktronics, Inc.
Ematic
Envision Peripherals Inc
Epik Learning, LLC
Equus Compute Solutions
EverFocus Electronics Corporation
Evervue USA
F5CS LTD LLC
Facebook Technologies LLC
Falcon Northwest
Friendly Computers / Computer Renaissance
Fujitsu America, Inc.
Funai Corporation, Inc.
General Digital
Google LLC
Grays Harbor Computer Svc
GVISION USA, Inc.
Haier America
Himalaya Trading Inc
Hisense USA Corp
Hitachi America, LTD. Digital Media Division
HK Contrum Electronic Limited
HP Inc
HTC America, Inc.
Huawei Device USA, Inc.

MANUFACTURERS PARTICIPATING IN THE STANDARD PLAN IN

ICI Touch Technology Inc.
ICON Health & Fitness, Inc.
IGEL America Sales Corporation
Ikegami Tsushinki Ltd.
InFocus Corp
Inspira Technologies LLC
Integrity Computers and Networking
Intel
International Business Machines Corp.
J & N Computer Service
Johnson Health Tech Co., Ltd
JVC KENWOOD USA Corp
Kaser Corp.
KD Group
Kobo Inc
L&S Enterprise Group Corp.
Last Stop Computers
Lenovo
Lexibook America
LG Electronics USA Inc
Lilliput Electronics Co, Ltd
Lorex Technology Inc.
Macari Baby, Inc.
Main Business Systems
Majestic Global USA
Mambate USA Inc
Marvel Entertainment, LLC
Mattel, Inc.
Microsoft Corporation
Mimo Inc
Minno LLC
Mitsubishi Electric US, Inc.
Modern Office Equipment
Motorola Mobility LLC
MSI Computer
MTM Trading LLC
Music Computing
Naxa Electronics, Inc.
NCS Technologies, Inc
NEC Display Solutions
Nixeus Technology, Inc.
NVIDIA Corp
Optoma Technology Inc
Oracle America Inc
OREI

Osram Sylvania
Pacific IT Services LLC
Panasonic Corporation of North America
Parsec Computer
PC Recycle
PDi Communication Systems, Inc.
Peerless-AV
Pelco
Peloton
Perfection PC Inc.
Philips Electronics
Planar Systems Inc
Plantronics
Plexon, Inc.
PLR IP Holdings, LLC
Precor Incorporated
Premio, Inc
Prostar Computer, Inc
Puget Sound Systems Inc.
Purism, Inc
Pyramid Distributing
Quality Computers & Svc
QuantumFX
QubicaAMF
Razer USA, Ltd.
Re-Pc Recycled Computers
RJ Technology, Inc
Sager Midern Computer Inc.
Samsung Electronics Co
Sceptre, Inc.
School Zone Publishing Company, Inc.
Sensormatic Electronics LLC
Seura, Inc.
Sharp Electronics Corp
Shenzhen Avis Electronics Technology Co.
Shenzhen Haina Tianyuan Ecommerce Co., Ltd.
Shenzhen Siwei Shikong Technology Co. Ltd.
Shenzhen Valuelink E-Commerce Co.,Ltd.
Shenzhen Wave Multimedia Co., Ltd
Shuttle Computer Group
Simbans Limited
Singreen International Corporation Ltd.
SkyVue
Skyworth USA Corporation
SMART Technologies ULC

MANUFACTURERS PARTICIPATING IN THE STANDARD PLAN IN

Sony Electronics Inc
Source Code Corporation
Southern Telecom Inc
SunBriteTV LLC
Sungale Electronics
Supercircuits, Inc
Supersonic, Inc.
TCT Mobile, Inc
TekVisions, Inc
Tongfang Global
ToteVision
Trans Cosmos America
TTE Technology Inc
Tyco Integrated Security
Unisys Direct
Up Time Technology
US Micro PC Inc
VAR Corporation

Venturer Electronics Inc
VGH Computer Services
ViewSonic Corp World HQ
Vizio Incorporated
VOXX International Corp.
VTech Electronics North America, LLC
Wacom Technology
Walmart Inc.
Worldwide V7 Private Label
Worryfree Gadgets LLC
Xplore Technologies Corp
Yakima Networking
Zalmen Reiss & Associates, Inc.
Zebra Computers
ZOTAC USA, Inc.
ZTE USA



REVENUE AND EXPENSES

TOTAL REVENUE (Payments received from participating manufacturers, FY 2022)	\$4,334,185	
OPERATIONAL EXPENSES		
Collection - registered collectors and covered events	1,246,437	25.09%
Transportation - registered transporters and collector transport	763,699	15.37%
Processing - to registered CEP processors	2,628,311	52.91%
Outreach ³ - including advertising and promotional materials	33,140	0.67%
TOTAL OPERATIONAL EXPENSES	\$4,671,587	94.04%
ADMINISTRATIVE EXPENSES		
Salaries and wages	242,456	4.88%
Professional services - legal, accounting and consulting	6,200	0.12%
Audit and CPA review	12,746	0.26%
Rent	10,740	0.22%
Travel - hotels, meals and related expenses	895	0.02%
Office supplies	4,032	0.08%
Insurance	4,807	0.10%
Telephone and internet	4,943	0.10%
Meetings and seminars	1,200	0.02%
Postage and delivery	1,460	0.03%
Office hardware, software and equipment	5,181	0.10%
Utilities	0	0.00%
Bank service charges	1,004	0.02%
Miscellaneous	497	0.01%
TOTAL ADMINISTRATIVE EXPENSES	\$296,161	5.96%
TOTAL OPERATIONAL AND ADMINISTRATIVE EXPENSES	\$4,967,748	100.00%

ADDITIONAL FINANCIAL INFORMATION		
1. Total pounds collected and cost per pound for FY 2022		
CEP pounds collected in 2022		13,312,247
Total program cost per pound in 2022		\$0.373
2. Other program financial details		
Financial reserve carry forward from 2021		\$914,789
Financial reserves December 31, 2022		\$222,142
Settlement funds carry forward from 2021		\$102,970
3. Use of settlement funds		
Graphic Design		\$3,565
Web Development		\$1,500
CEP Tracking service		\$15,718
4. Outreach activities in 2022 that were paid for in 2023		
Audio Spots		\$3,925

APPENDIX A:

Additional information available

POUNDS PROCESSED VERIFICATION

This document is over 200 pages long and includes processor invoice data for 2022.

PROCESSOR ENVIRONMENTAL COMPLIANCE AUDITS

All registered electronic waste processors that participate in the E-Cycle Washington program are required to provide environmental audits annually. The audits are posted on the Washington Ecology website here:

<https://ecology.wa.gov/Regulations-Permits/Guidance-technical-assistance/Electronics-Ecycle-guidance-and-reports/Processors>

To receive a copy of these documents, please send a request to the WMMFA or Washington Ecology:

info@wmmfa.net (WMMFA)

clac461@ECY.WA.GOV (Washington Ecology)

APPENDIX B:

Materials Shipped to the United Arab Emirates (UAE)

In 2022, the WMMFA deployed GPS trackers in covered electronic products that were dropped off at registered collection sites. The drop-offs occurred without notification to the collection site or electronics processor. The use of trackers by the WMMFA was voluntary and is not required by law or program rules. One of the trackers was shipped to the UAE.

It is unclear whether the tracker was still inside a product or if it had been removed. The product containing the tracker had been sent by a registered processor to their downstream vendor for recycling. The shipment of the tracker to the UAE was unauthorized by the processor. As a result, the vendor that sent the product to the UAE is no longer being used as a downstream vendor by the processor.