

Introduction

Seattle Public Utilities (SPU) reports annually to Seattle City Council on the previous year's progress toward the City's solid waste goals, per Resolution 30990 (2007). The annual *Waste Prevention & Recycling Report* highlights key waste generation, disposal, recycling trends, and accomplishments in waste prevention, extended producer responsibility (EPR), product stewardship, and recycling. SPU's Solid Waste Advisory Committee (SWAC) comments on the annual report, which is due to City Council September 9, 2022. SWAC's comments appear in a letter to City Council at the end of this report. Highlights of the previous year's progress appear below, with additional details starting on page 3.

Key results

In the second year of the global pandemic, Seattle saw the economy start to recover as COVID-19 vaccines became widely distributed, capacity restrictions on all businesses were lifted, and workers began to return to their worksites. Seattle's *2021 Waste Prevention & Recycling Report* indicates that increased economic activity after a year of quarantine impacted municipal solid waste (MSW) and construction and demolition (C&D) debris levels across the City. 2021 highlights:

- Overall MSW generation ticked upwards (+3.3%), spurred by a rebounding commercial sector. As restrictions on businesses relaxed, the commercial sector regained its status as the largest MSWgenerating customer sector. Waste generation grew the most in the commercial sector—27,000 tons (+9.5%) from 2020 to 2021—primarily due to increased commercial recycling.
- MSW diversion increased but not to the extent of MSW disposal. Spurred by commercial sector activity, recycling grew by 22,000 tons (+11.4%), while composting declined 19,000 tons (-10.2%) overall. Reductions in single-family composting accounted for most of the decline, suggesting that residents spent less time on yardwork in 2021. However, the increase in diversion (3,000 tons or +0.8%) fell far short of the growth in landfilled tons.



Municipal solid waste (MSW) includes all the garbage, composting, and recyclables that Seattle customers set out for collection or haul to a City transfer station. It includes some materials and items that need special handling, such as old refrigerators and tires.

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- Landfilled MSW reached a 12-year high mark of 348,000 tons. Customers landfilled 20,000 more tons (+6.2%) in 2021 than in 2020. Those who "self-hauled" material to the transfer stations contributed more than half of the increase (57.4%) in disposed waste. With gains in landfilled tons far outweighing the increase in MSW diversion, the overall recycling rate dropped slightly to 52.7%.
- After reaching a high point in 2020, construction and demolition (C&D) debris generation declined substantially. C&D debris generation decreased 109,000 tons (-19.5%), possibly due to an 8.9% decline in demolition permits. Decreases in C&D debris recycling (-64,000 tons) accounted for 58.7% of the decline.
- Despite the pandemic, SPU helped pass statewide legislation that will help recycling and reduce plastic waste and pollution. The new laws created under Senate Bill 5022 aim to reduce use of single-use food service items, ban certain expanded polystyrene products, set minimum recycled content requirements for some plastic items, and remove certain recycling labeling requirements that are confusing to consumers.





Graphic courtesy of Washington State Senator Mona Das

An important part of SPU's climate change work, waste prevention includes actions such as designing products and systems for reuse and repair, sharing, donating, or re-selling items so others can use them, buying and using less, making and buying products that last longer, or advocating for legislation that prohibits use of certain materials.

Moving upstream to waste prevention

In SPU's vision of a zero-waste future, all resources have value, and we strive to waste nothing. Striving for zero waste means we look at the whole life cycle of materials so we can eliminate waste and toxic materials, prevent pollution and reduce carbon emissions, encourage product durability and reusability, conserve natural resources, and ultimately build a circular and inclusive economy.

In practice, this means building on a legacy of solid waste leadership, such as world-class recycling programs, and going further to support and promote policies and practices that *prevent* waste and *increase* waste diversion to reduce waste-based carbon pollution as fast as possible. To advance on the zero-waste vision, SPU is updating its comprehensive solid waste management plan, *Seattle's 2022 Solid Waste Plan Update: Moving Upstream to Zero Waste*, which will help prioritize waste prevention activities and measure their success, reducing the emphasis on the recycling rate as the key measure of solid waste outcomes in the City. **We get closer to zero waste by producing and using less, not by recycling more.**



Result details

Estimated overall MSW

- As Seattle emerged from quarantine, disposal reached a 12year high of about 348,000 tons, with customers self-hauling material to the transfer stations contributing more than half of the increase (57.4%).
- Recycling also increased by more than 22,000 tons or 11.4% overall, driven by commercial sector activity.
- At the same time, composting declined by more than 19,000 tons, or 10.2% overall, with single-family households responsible for two-thirds (66.6%) of the decline.
- With losses in composted tons mostly offsetting gains in recycled tons and landfilled waste up, the overall recycling rate fell to 52.7%.

About the results

- Percentages may not add up to 100% due to rounding
- The *recycle rate* is the estimated percentage of municipal solid waste (MSW) diverted from landfill by recycling, composting, and reuse
- To estimate some of the commercial and construction and demolition (C&D) debris tonnages, SPU relies on the self-reporting of commercial and C&D debris entities

| Year | Generated | Disposed | Recycled | Composted | Recycled + Composted | Recycle Rate |
|------|-----------|----------|----------|-----------|-------------------------|--------------|
| 2000 | 793,842 | 476,132 | 230,939 | 86,771 | 317,710 | 40.0% |
| 2001 | 782,974 | 475,270 | 211,591 | 96,113 | 307,704 | 39.3% |
| 2002 | 768,462 | 462,996 | 221,381 | 84,085 | 305,466 | 39.8% |
| 2003 | 741,337 | 458,011 | 186,439 | 96,888 | 283,326 | 38.2% |
| 2004 | 780,346 | 458,405 | 215,369 | 106,572 | 321,941 | 41.3% |
| 2005 | 790,456 | 440,694 | 241,896 | 107,867 | 349,763 | 44.2% |
| 2006 | 836,499 | 438,381 | 272,578 | 125,540 | 398,118 | 47.6% |
| 2007 | 848,759 | 439,407 | 280,515 | 128,838 | 409,353 | 48.2% |
| 2008 | 789,688 | 394,828 | 255,842 | 139,017 | 394,860 | 50.0% |
| 2009 | 719,424 | 351,689 | 201,814 | 165,921 | 367,735 | 51.1% |
| 2010 | 724,469 | 335,570 | 227,204 | 161,694 | 388,898 | 53.7% |
| 2011 | 715,996 | 319,341 | 229,828 | 166,826 | 396,655 | 55.4% |
| 2012 | 713,821 | 315,983 | 222,713 | 175,125 | 397,838 | 55.7% |
| 2013 | 724,385 | 317,259 | 232,281 | 174,845 | 407,126 | 56.2% |
| 2014 | 721,269 | 309,515 | 232,587 | 179,168 | 411,754 | 57.1% |
| 2015 | 720,705 | 302,467 | 226,337 | 191,901 | 418,238 | 58.0% |
| 2016 | 748,051 | 308,379 | 236,555 | 203,118 | 439,672 | 58.8% |
| 2017 | 800,380 | 343,922 | 243,936 | 212,522 | 456,458 | 57.0% |
| 2018 | 785,223 | 346,322 | N/A | N/A | 438,902* | 55.9% |
| 2019 | 757,466 | 345,559 | N/A | N/A | 411,907* | 54.4% |
| 2020 | 711,619 | 327,114 | 195,220 | 189,285 | 384,505 | 54.0% |
| 2021 | 735,182 | 347,549 | 217,563 | 170,070 | 387,634 | 52.7% |

Estimated Overall MSW Tons, 2000-2021



*SPU used an econometric regression analysis to estimate the open market portion of commercial diversion (recycled + composted) overall in 2018 and 2019 due to poor response rates of mandatory recycler reporting (Seattle Municipal Code 6.250). As such, a breakdown of recycled versus composted tonnage is not available for those years.



*This graphic has been designed using resources from Flaticon.com

- After declining 20% (69,000 tons) from 2019 to 2020, commercial sector waste generation grew nearly 9.5% (27,000 tons) last year. Recycling bolstered the increase for this sector.
- Still, the commercial sector has not rebounded to pre-pandemic levels. Commercial generation comprised 42.6% of MSW generation overall in 2021, down from 46.9% in 2019.
- Commercial disposal increased about 6% (6,000 tons) after reaching an all-time low in 2020 but remained lower than residential disposal for the second straight year.

| Year | Generated | Disposed | Recycled | Composted | Recycled + | Recycle Rate |
|------|-----------|----------|----------|-----------|------------|--------------|
| | | | | • | Composted | |
| 2000 | 391,406 | 228,417 | 150,949 | 12,040 | 162,989 | 41.6% |
| 2001 | 377,927 | 228,405 | 132,095 | 17,427 | 149,522 | 39.6% |
| 2002 | 366,224 | 217,195 | 140,475 | 8,554 | 149,029 | 40.7% |
| 2003 | 339,844 | 213,247 | 104,450 | 22,147 | 126,597 | 37.3% |
| 2004 | 375,739 | 216,112 | 130,345 | 29,282 | 159,627 | 42.5% |
| 2005 | 385,093 | 205,637 | 150,817 | 28,639 | 179,456 | 46.6% |
| 2006 | 416,564 | 201,231 | 178,309 | 37,023 | 215,333 | 51.7% |
| 2007 | 418,979 | 198,968 | 182,694 | 37,317 | 220,011 | 52.5% |
| 2008 | 390,267 | 176,774 | 165,432 | 48,060 | 213,493 | 54.7% |
| 2009 | 335,992 | 151,398 | 119,051 | 65,542 | 184,593 | 54.9% |
| 2010 | 345,692 | 142,180 | 145,450 | 58,061 | 203,511 | 58.9% |
| 2011 | 351,214 | 135,536 | 150,102 | 65,576 | 215,678 | 61.4% |
| 2012 | 347,673 | 134,089 | 143,296 | 70,288 | 213,584 | 61.4% |
| 2013 | 356,480 | 132,401 | 152,340 | 71,739 | 224,079 | 62.9% |
| 2014 | 369,407 | 139,457 | 151,982 | 77,967 | 229,950 | 62.2% |
| 2015 | 370,037 | 139,557 | 146,256 | 84,224 | 230,480 | 62.3% |
| 2016 | 385,846 | 138,804 | 153,871 | 93,171 | 247,042 | 64.0% |
| 2017 | 398,422 | 139,317 | 158,480 | 100,626 | 259,105 | 65.0% |
| 2018 | 384,139 | 138,009 | N/A | N/A | 246,130* | 64.1% |
| 2019 | 355,453 | 134,686 | N/A | N/A | 220,767* | 62.1% |
| 2020 | 286,036 | 109,891 | 108,190 | 67,955 | 176,145 | 61.6% |
| 2021 | 313,181 | 115,869 | 135,451 | 61,862 | 197,313 | 63.0% |

Estimated Commercial MSW Tons, 2000-2021



*SPU used an econometric regression analysis to estimate the open market portion of commercial diversion (recycled + composted) overall in 2018 and 2019 due to poor response rates of mandatory recycler reporting (Seattle Municipal Code 6.250). As such, a breakdown of recycled versus composted tonnage is not available for those years.

Self-haul MSW



*This graphic has been designed using resources from Flaticon.com

- In the second year of the pandemic, the amount of material self-hauled to the transfer stations by a mix of residential and nonresidential (e.g., businesses, non-profits, and institutions) customers increased 11,000 tons (+10.2%) to 121,000 tons. About 90% of that waste went to landfill.
- In fact, disposed tons of waste "self-hauled" directly to the City's two transfer stations reached a 22-year alltime high. Disposal at the transfer stations has been on an upward trajectory since 2015, except for 2020 when the transfer stations temporarily reduced hours due to COVID-19.

| Year | Generated | Disposed | Recycled | Composted | Recycled + Composted | Recycle Rate |
|------|-----------|----------|----------|-----------|-------------------------|--------------|
| 2000 | 123,024 | 101,883 | 7,109 | 14,032 | 21,141 | 17.2% |
| 2001 | 124,453 | 102,305 | 7,114 | 15,034 | 22,148 | 17.8% |
| 2002 | 125,620 | 102,891 | 8,363 | 14,366 | 22,729 | 18.1% |
| 2003 | 123,597 | 101,232 | 8,209 | 14,156 | 22,365 | 18.1% |
| 2004 | 122,835 | 99,766 | 8,164 | 14,905 | 23,069 | 18.8% |
| 2005 | 124,364 | 100,499 | 9,940 | 13,925 | 23,865 | 19.2% |
| 2006 | 127,444 | 103,429 | 9,738 | 14,277 | 24,015 | 18.8% |
| 2007 | 132,545 | 107,098 | 11,200 | 14,247 | 25,447 | 19.2% |
| 2008 | 111,309 | 90,894 | 8,522 | 11,893 | 20,415 | 18.3% |
| 2009 | 97,893 | 81,565 | 6,179 | 10,149 | 16,328 | 16.7% |
| 2010 | 91,618 | 79,293 | 4,643 | 7,682 | 12,325 | 13.5% |
| 2011 | 81,776 | 71,033 | 3,949 | 6,794 | 10,743 | 13.1% |
| 2012 | 80,568 | 70,474 | 3,501 | 6,593 | 10,094 | 12.5% |
| 2013 | 84,341 | 74,019 | 4,032 | 6,290 | 10,322 | 12.2% |
| 2014 | 64,681 | 57,847 | 2,635 | 4,199 | 6,834 | 10.6% |
| 2015 | 67,993 | 60,938 | 2,888 | 4,167 | 7,055 | 10.4% |
| 2016 | 73,923 | 65,840 | 3,693 | 4,390 | 8,083 | 10.9% |
| 2017 | 111,099 | 99,290 | 5,681 | 6,127 | 11,808 | 10.6% |
| 2018 | 112,550 | 100,827 | 5,595 | 6,127 | 11,723 | 10.4% |
| 2019 | 114,234 | 101,506 | 5,771 | 6,957 | 12,728 | 11.1% |
| 2020 | 109,844 | 97,320 | 5,744 | 6,780 | 12,524 | 11.4% |
| 2021 | 121,007 | 109,046 | 5,448 | 6,513 | 11,961 | 9.9% |

Self-haul MSW Tons, 2000-2021



Single-family MSW



*This graphic has been designed using resources from Flaticon.com

- Waste generation levels for single-family households fell 7.1% (~16,400 tons) after reaching their highest point in 2020, with all the decline coming from reductions in diversion, especially composted tons.
- Even with reductions in composted tons, the single-family sector continued to compost substantially more material than any other sector—57.6% of composted MSW overall. Yard waste accounts for most of the material in single-family compost.¹
- Single-family disposal increased slightly again, continuing a 6-year trend upward. Overall, the single-family sector created 19.3% of landfilled MSW, the second least amount of waste disposed behind multifamily households.

¹ According to Seattle's most recent <u>2016 Organics Stream Composition Study</u>, yard waste makes up nearly three-quarters (~74%) of single-family composting.

Single-family MSW Tons, 2000-2021

| Year | Generated | Disposed | Recycled | Composted | Recycled + Composted | Recycle Rate |
|------|-----------|----------|----------|-----------|-------------------------|-----------------|
| 2000 | 208,468 | 87,499 | 61,972 | 58,997 | 120,969 | 58.0% |
| 2001 | 211,982 | 91,072 | 59,107 | 61,803 | 120,910 | 57.0% |
| 2002 | 206,474 | 87,834 | 59,200 | 59,440 | 118,640 | 57.5% |
| 2003 | 205,748 | 87,426 | 59,433 | 58,889 | 118,322 | 57.5% |
| 2004 | 209,132 | 86,029 | 61,474 | 61,629 | 123,103 | 58.9% |
| 2005 | 208,675 | 80,478 | 63,715 | 64,482 | 128,197 | 61.4% |
| 2006 | 216,946 | 78,078 | 65,371 | 73,496 | 138,868 | 64.0% |
| 2007 | 220,128 | 77,494 | 66,121 | 76,513 | 142,634 | 64.8% |
| 2008 | 213,889 | 73,961 | 61,956 | 77,972 | 139,928 | 65.4% |
| 2009 | 215,015 | 67,229 | 58,786 | 89,000 | 147,786 | 68.7% |
| 2010 | 216,484 | 64,309 | 57,578 | 94,597 | 152,175 | 70.3% |
| 2011 | 212,861 | 62,779 | 57,234 | 92,848 | 150,082 | 70.5% |
| 2012 | 211,030 | 60,906 | 55,317 | 94,807 | 150,124 | 71.1% |
| 2013 | 206,603 | 60,302 | 55,023 | 91,278 | 146,301 | 70.8% |
| 2014 | 206,992 | 59,772 | 56,065 | 91,155 | 147,220 | 71.1% |
| 2015 | 204,397 | 52,529 | 54,314 | 97,554 | 151,868 | 74.3% |
| 2016 | 207,804 | 54,298 | 54,213 | 99,293 | 153,506 | 73.9% |
| 2017 | 213,709 | 56,541 | 55,123 | 102,045 | 157,168 | 73.5% |
| 2018 | 210,289 | 57,725 | 53,582 | 98,982 | 152,564 | 72.5% |
| 2019 | 207,538 | 58,191 | 50,505 | 98,842 | 149,347 | 72.0% |
| 2020 | 232,038 | 66,877 | 54,433 | 110,728 | 165,161 | 71.2% |
| 2021 | 215,678 | 67,073 | 50,677 | 97,928 | 148,605 | 68.9% |



Multifamily MSW



*This graphic has been designed using resources from Flaticon.com

- Multifamily households broke a new record for waste generation in 2021, creating more waste than in the past 21 years (85,000 tons).
- However, relative to other customer sectors, multifamily residents still generated (11.6%) and disposed of (16.0%) the least waste of any MSW sector.
- Predictions that multifamily waste would increase substantially with the enormous growth of multifamily housing, the number of units of which has increased 26%² since 2010, have largely not borne out.

| Year | Generated | Disposed | Recycled | Composted | Recycled + Composted | Recycle Rate |
|------|-----------|----------|----------|-----------|-------------------------|--------------|
| 2000 | 70,944 | 58,333 | 10,909 | 1,702 | 12,611 | 17.8% |
| 2001 | 68,611 | 53,487 | 13,275 | 1,849 | 15,124 | 22.0% |
| 2002 | 70,144 | 55,076 | 13,343 | 1,725 | 15,068 | 21.5% |
| 2003 | 72,149 | 56,106 | 14,347 | 1,696 | 16,043 | 22.2% |
| 2004 | 72,640 | 56,498 | 15,386 | 756 | 16,142 | 22.2% |
| 2005 | 72,325 | 54,080 | 17,424 | 821 | 18,245 | 25.2% |
| 2006 | 75,545 | 55,643 | 19,159 | 743 | 19,903 | 26.3% |
| 2007 | 77,108 | 55,847 | 20,501 | 760 | 21,261 | 27.6% |
| 2008 | 74,223 | 53,199 | 19,932 | 1,092 | 21,024 | 28.3% |
| 2009 | 70,524 | 51,497 | 17,798 | 1,230 | 19,028 | 27.0% |
| 2010 | 70,675 | 49,788 | 19,532 | 1,355 | 20,887 | 29.6% |
| 2011 | 70,145 | 49,993 | 18,544 | 1,608 | 20,152 | 28.7% |
| 2012 | 74,549 | 50,514 | 20,599 | 3,437 | 24,035 | 32.2% |
| 2013 | 76,960 | 50,537 | 20,886 | 5,538 | 26,423 | 34.3% |
| 2014 | 80,189 | 52,439 | 21,905 | 5,845 | 27,750 | 34.6% |
| 2015 | 78,278 | 49,443 | 22,880 | 5,956 | 28,835 | 36.8% |
| 2016 | 80,478 | 49,437 | 24,778 | 6,263 | 31,041 | 38.6% |
| 2017 | 77,150 | 48,773 | 24,652 | 3,725 | 28,376 | 36.8%* |
| 2018 | 78,245 | 49,760 | 24,520 | 3,965 | 28,485 | 36.4% |
| 2019 | 80,241 | 51,176 | 24,802 | 4,250 | 29,065 | 36.2% |
| 2020 | 83,701 | 53,026 | 26,853 | 3,822 | 30,675 | 36.6% |
| 2021 | 85,316 | 55,561 | 25,988 | 3,767 | 29,755 | 34.9% |

Multifamily MSW Tons, 2000-2021

² The April 1 housing estimates are produced by the Washington State Office of Financial Management (OFM). OFM housing estimates are derived from input from jurisdictions based on local census or annually reported permit data. The City of Seattle reports construction and demolitions of housing units every April 1. See <u>Citywide Growth Graphs Population</u>, <u>Households</u>, <u>Housing Units</u> (<u>https://seattlecitygis.maps.arcgis.com/apps/dashboards/c8cfcb827e564623a6fa3af6360141fe</u>) for Seattle housing unit data.

*Before 2017, the combined residential (single-family and multifamily) composted tonnage was measured and then attributed to either the single-family or multifamily sector based on estimates. Starting in 2017, composted tonnage data by individual residential sector became available. The adjustment in calculation methodology likely explains the shift in the recycling rate in 2017.



Residential MSW (single-family + multifamily)

- Residential waste generation fell 14,000 tons (-4.7%), with reductions in single-family composting accounting for most of this decline. Daily residential per person waste generation fell to 2.22 pounds per day, within the target in SPU's Strategic Business Plan (residential generation <2.5 pounds per person per day)³.
- But with residential disposal up slightly (2,700 tons or +2.3%), and residential recycling and composting both down, daily per person residential disposal to landfill increased to 0.91 pounds per person per day. Even so, Seattle continued to hit targets for waste disposal (<1 pound per person per day) in SPU's Strategic Business Plan.⁴
- Long-term trends show residential disposal declining over time despite staggering population growth. As
 detailed in recent articles, "<u>A Triple Win</u>" in *Resource Recycling*⁵ and "<u>Seattle's Winning Strategy for Managing
 Organics</u>" in *BioCycle*⁶, Seattle has achieved long-term declines in residential disposal due to strategic
 implementation of zero waste incentives, programs, and regulations.

³ SPU's Strategic Business Plan is available at <u>https://www.seattle.gov/utilities/about/plans/strategic-business-plan</u>. ⁴ Ibid.

⁵ Morris, Jeffrey. "A Triple Win." *Resource Recycling*, 2020 April, <u>https://resource-recycling.com/recycling/2020/05/14/a-triple-win/</u>.

⁶ Morris, Jeffrey. "Seattle's Winning Strategy for Managing Organics." *BioCycle*, 2020 May, <u>https://www.biocycle.net/seattles-winning-strategy-managing-organics/</u>.

| Residential MSW Tons | , Population, | and Per Person | Rates, 2000-2021 |
|-----------------------------|---------------|----------------|------------------|
|-----------------------------|---------------|----------------|------------------|

| Voar | Tons | | | Population | Pounds per person per day | |
|------|-----------|----------|-------------------------|------------|------------------------------|----------|
| Tear | Generated | Disposed | Recycled + Composted | estimate* | Generated | Disposed |
| 2000 | 279,412 | 145,832 | 133,580 | 563,286 | 2.72 | 1.42 |
| 2001 | 280,593 | 144,559 | 136,034 | 567,491 | 2.71 | 1.40 |
| 2002 | 276,618 | 142,910 | 133,708 | 572,854 | 2.65 | 1.37 |
| 2003 | 277,897 | 143,532 | 134,365 | 574,530 | 2.65 | 1.37 |
| 2004 | 281,772 | 142,527 | 139,245 | 576,906 | 2.68 | 1.35 |
| 2005 | 281,000 | 134,557 | 146,442 | 579,779 | 2.66 | 1.27 |
| 2006 | 292,491 | 133,721 | 158,770 | 587,755 | 2.73 | 1.25 |
| 2007 | 297,235 | 133,341 | 163,895 | 594,339 | 2.74 | 1.23 |
| 2008 | 288,112 | 127,160 | 160,952 | 599,055 | 2.64 | 1.16 |
| 2009 | 285,539 | 118,725 | 166,814 | 603,155 | 2.59 | 1.08 |
| 2010 | 287,159 | 114,097 | 173,062 | 608,660 | 2.59 | 1.03 |
| 2011 | 283,006 | 112,772 | 170,234 | 611,249 | 2.54 | 1.01 |
| 2012 | 285,579 | 111,420 | 174,159 | 614,283 | 2.55 | 0.99 |
| 2013 | 283,563 | 110,839 | 172,724 | 624,045 | 2.49 | 0.97 |
| 2014 | 287,181 | 112,211 | 174,970 | 638,784 | 2.46 | 0.96 |
| 2015 | 282,675 | 101,972 | 180,703 | 660,908 | 2.34 | 0.85 |
| 2016 | 288,282 | 103,735 | 184,547 | 684,136 | 2.31 | 0.83 |
| 2017 | 290,859 | 105,315 | 185,544 | 694,513 | 2.29 | 0.83 |
| 2018 | 288,534 | 107,485 | 181,049 | 707,555 | 2.23 | 0.83 |
| 2019 | 287,779 | 109,367 | 178,412 | 724,144 | 2.18 | 0.83 |
| 2020 | 315,739 | 119,903 | 195,836 | 737,015 | 2.35 | 0.89 |
| 2021 | 300,994 | 122,634 | 178,360 | 742,400 | 2.22 | 0.91 |

*SPU uses April 1 population estimates provided by the Washington State Office of Financial Management (OFM). For this report, SPU updated the population estimates for 2010-2020 using OFM's Intercensal Estimates of April 1 Population and Housing, 2010-2020: https://view.officeapps.live.com/op/view.aspx?src=https%3A%2F%2Fofm.wa.gov%2Fsites%2Fdefault%2Ffiles%2Fpublic%2Fdataresearch%2Fpop%2Fapril1

<u>%2Fhseries%2Fogmapril1_intercensal_estimates_2010_2020.xlsx&wdOrigin=BROWSELINK</u>. Current (2021) April 1 population estimates from OFM appear on the City of Seattle's website: <u>https://seattlecitygis.maps.arcgis.com/apps/dashboards/c8cfcb827e564623a6fa3af6360141fe</u>.



Estimated construction and demolition debris

- According to data self-reported to the City by construction and demolition debris collection, processing, and disposal vendors, C&D debris generation fell almost 20% in 2021 after reaching an all-time high in 2020.⁷ Demolition permits declined 8.9% in 2021, which could account for some of the decrease in C&D generation.
- Declines in C&D debris recycling tons (-64,000) comprised 58.7% of the decrease in C&D debris generation overall. Disposal dropped more than 41,000 tons (-27.9%).
- Despite a significant decrease in overall tonnage, the C&D sector generated more tons overall than any other individual MSW sector for the 11th straight year.

⁷ Per Seattle Municipal Code 6.250, Seattle requires recycling collectors and processors to report their recycling activities to obtain a <u>Recycler</u> <u>License</u> that allows them to operate in the City.

| Estimated | Construction | & Demolition | Debris Tons | . 2007-2021 |
|-----------|--------------|--------------|-------------|-------------|
| | | 0. 2 0 | | , |

| Year | Generated | Disposed* | Recycled** | Beneficial Use* | Recycle Rate | Diversion Rate |
|---------|-----------|-----------|------------|--------------------|-----------------|-------------------|
| 2007 | 415,801 | 201,156 | 204,907 | 9,738 | 49.3% | 51.6% |
| 2008 | 397,052 | 181,241 | 200,851 | 14,961 | 50.6% | 54.4% |
| 2009 | 288,551 | 115,446 | 162,742 | 10,362 | 56.4% | 60.0% |
| 2010 | 288,957 | 98,309 | 178,794 | 11,854 | 61.9% | 66.0% |
| 2011 | 359,390 | 118,216 | 227,049 | 14,125 | 63.2% | 67.1% |
| 2012 | 371,962 | 129,383 | 224,060 | 18,519 | 60.2% | 65.2% |
| 2013 | 386,200 | 127,040 | 234,982 | 24,178 | 60.8% | 67.1% |
| 2014 | 485,242 | 128,024 | 317,331 | 39,887 | 65.4% | 73.6% |
| 2015 | 437,883 | 117,343 | 280,205 | 40,336 | 64.0% | 73.2% |
| 2016 | 532,126 | 146,139 | 339,478 | 46,509 | 63.8% | 72.5% |
| 2017 | 514,858 | 125,074 | 342,755 | 47,029 | 66.6% | 75.7% |
| 2018*** | 476,433 | 112,900 | 328,568 | 34,965 | 69.0% | 76.3% |
| 2019*** | 507,793 | 110,275 | 348,032 | 49,486 | 68.5% | 78.3% |
| 2020 | 559,575 | 148,209 | 370,942 | 40,424 | 66.3% | 73.5% |
| 2021 | 450,686 | 106,882 | 307,052 | 36,752 | 68.1% | 76.3% |



*SPU estimates C&D debris disposal and beneficial use tons based on C&D companies' self-reporting via the <u>Qualified Facilities Monthly Report</u> and the <u>Annual Recycling and Reuse Report</u>.

**SPU estimates C&D debris recycled tons based on C&D companies' self-reporting in the Annual Recycling and Reuse Report.

***In 2020, SPU updated disposal estimates for 2018 and 2019 following additional data analysis.

Top accomplishments to advance waste prevention and recycling

SPU's Solid Waste Planning and Program Management Division provides strategic planning, customer programs, data and analytics, inspections and compliance, and contracts management for solid waste in Seattle. The following describes the division's top accomplishments to encourage waste prevention and diversion from landfill through recycling and reuse:

Waste prevention

- As part of SPU's focus on racial equity, expanded opportunities for small Women and Minority-owned Businesses (WMBE) to participate in the Waste Prevention Strategic Planning Initiative by splitting the scope of work into four contracts instead of a more traditional single contract. As a result, SPU hired four WMBE prime firms, who together brought with them a team of 13 WMBE subconsultants and one nonprofit subconsultant. The consultant team provides a breadth of experience and expertise that will help SPU deeply engage with diverse partners and customers and ensure that the planning effort results in equitable waste prevention outcomes and opportunities.
- Launched a new, targeted consumer food waste prevention digital media campaign to help Seattle residents better understand the savings opportunities in reducing food waste. Emphasizing the message that savings opportunities are not just about money, but about improving people's life experiences, the Love Food Stop Waste⁸ campaign focuses on inducing cheer—not shame—in the intended audience. SPU had strong engagement at the start of the campaign in 2021, designing social media posts in English and other languages such as Spanish, Chinese, Korean, and Somali with culturally appropriate images.



 Partnered with Safeway/Albertsons and PCC Community Markets to assess how food retailers could reduce food waste while improving donations of unsold, surplus food. The assessment took place at eight (8) Seattle store locations, resulting in <u>recommendations</u>⁹ to standardize operations for greater efficiencies and reduced food waste, collect data showing true costs and savings of donated food, and improve communication among stores and their hunger relief partners. Grocery retailers and nonprofits can explore the findings and recommendations in the <u>Grocery Rescue Assessment</u>.

Recycling

• Played a key role in passage of Senate Bill 5022 to reduce plastic pollution and increase plastics recycling. SPU also championed passage of the <u>Industrial Symbiosis Law</u>¹⁰, which will help create industrial symbiosis networks

⁹ The *Grocery Rescue Assessment* is available online at

⁸ Find the Love Food Stop Waste program website online at <u>https://www.seattle.gov/utilities/protecting-our-environment/sustainability-tips/waste-prevention/at-home/stop-food-waste</u>.

https://www.seattle.gov/documents/Departments/SPU/Documents/GroceryRescueAssessment2021.pdf.

¹⁰ https://app.leg.wa.gov/billsummary?BillNumber=5345&Year=2021

where the underutilized resources of one company, such as waste, byproducts, energy, water, logistics, capacity, expertise, equipment, and materials may be used as a resource by another.

- Supported implementation of <u>Washington's Plastic Bag Ban</u>, which SPU helped to pass in 2020. The statewide bag ban replaces the local bag ban ordinance that Seattle previously adopted.
- Worked with the Facilities and Administrative Services Department to achieve an all-time high compliance rate of 97% for annual commercial and C&D recycling and composting reporting (per Seattle Municipal Code 6.250).
 SPU relies on accurate and timely annual self-reporting of commercial and C&D recyclers so that the City may achieve the most cost-effective system for collection, processing, disposal, or recycling of all solid wastes generated in the City.
- Improved residential customer communications about proper sorting of materials, including developing a suite of tools, like new "Oops Tags," to alert customers to missorted materials, providing resources for adjusting solid waste services, and offering clear instructions on what goes where.

Solid Waste Advisory Committee comment letter

September 8th, 2022

Councilmember Alex Pedersen Chair, Transportation and Utilities PO Box 34025 Seattle, WA 98124-4025

Dear Councilmember Pedersen and Committee Members,

In August 2022, the Seattle Public Utilities (SPU) Solid Waste Advisory Committee (SWAC) had the opportunity to review SPU's Draft of the 2021 Annual Waste Prevention and Recycling Rate Report.

With businesses and restaurants reopening and residents feeling more comfortable with leaving their homes in the second year of the global pandemic, we see overall waste generation begin to follow the same patterns as we had in the previous years prior to the pandemic. Commercial generation was up 9.5% from 2020 with a decline in generation for the Residential sector.

In 2021, SPU was able to push forward and help pass the Senate Bill 5022 that will help reduce single use food service items, ban certain polystyrene products and remove confusing recycle labels that are confusing for consumers. It is clear that SPU is focusing on educating Seattle residents and businesses on waste prevention and upstream sourcing in 2021 in effort to eliminate residual and contamination in the recycle and organic waste stream before it is created.

We look forward to hearing more from SPU in the future on their Diversity, Inclusion and Equality to give voice and representation to all residents living in Seattle.

The SWAC committee reviewed the 2021 Annual Waste Prevention and Recycling Rate Report in detail and our comments and recommendations can be found below.

Commercial MSW

Commercial generation made a clear jump in 2021 with businesses and restaurants running at nearly pre-pandemic levels however, the overall generation is still below pre COVID averages. While we transition into our new "norms" post pandemic, we see this as an opportunity for SPU to educate staff and set up sustainable ordering protocols and clear and organized disposal stations for patrons in effort to maintain the reduced MSW tonnage we saw in 2021.

Single-Family MSW

Single Family generation is down 7% with more residents spending more time away from their homes two years after the start of the pandemic. The Single Family sector continues to have the highest compost generation at 58% overall generation. We recommend that SPU continues to focus on Waste Prevention with the Single Family residents in Seattle to help continue to increase the waste reduction levels we are

seeing in 2021. Continued efforts for educating single family residents on food waste prevention is great messaging for SPU to share the importance of reducing waste before it's created.

Self-Haul MSW

Self Haul tonnage increased 10% representing the highest MSW generation for that sector in 22 years. More than 90% of the material brought to the transfer station was disposed of in the landfill with the recycle rate at 9%. We see this as the lowest hanging fruit for SPU to make the highest level of impact in 2022 and year to come. We recommend that SPU uses a mixture of incentives, education, and policy changes to encourage Seattle Residents disposing at the transfer station to source separate and avoid valuable resources from ending up in the MSW waste stream.

Multifamily MSW

In 2021, Multifamily hit a new record in waste generation producing more waste than they had in the past 21 years. The Multifamily sector continues to represent the highest level of opportunity for SPU to reach a high volume of residents generating a fair portion of the overall waste generated in the City of Seattle. SWAC supports SPU's continued education, outreach, and waste prevention programs with specific focus for the multifamily sector.

Construction & Demolition Debris (C&D)

SWAC is pleased to see the slight increase in recycling and diversion rates for the estimated C&D material disposed of in 2021, despite also seeing a significant decrease in overall tonnage generated. The decline in demolition permits in 2021 could account for some of the decrease in the C&D generation. SWAC recommends continued policy steps supporting increased reuse and recycling: strengthening Salvage Assessment requirements to incentivize follow-through on salvage potential, as well as moving toward a deconstruction requirement on projects where high wood salvage potential is identified.

Extended Producer Responsibility (EPR) and Upstream Efforts

SWAC continues to support SPU's focus on upstream solutions and efforts to ensure a more sustainable, efficient, and equitable residential recycling system in WA. Extended Producer Responsibility (EPR) is proven to be an effective policy to increase recycling and reuse, not just for packaging and paper products, but for a wide range of products regularly found in our waste streams. EPR programs reduce costs to ratepayers, amplify access, education, and outreach efforts, which communities, particularly multi-family residents, would benefit from.

Legislation

Despite the pandemic, SWAC is pleased to see that SPU was able to pass statewide legislation SB 5022, that aims to reduce use of plastic waste and pollution and also successfully champion a passage of the Industrial Symbiosis Law that will help create networks where the underutilized resources of one company, may be used as a resource by another. SWAC looks forward to the continued effort and success on the legislative front, and views legislation as a powerful and effective means to drive and support progress on waste issues trends. SWAC congratulates SPU on their hard work in passing SB 5022.

Diversity, Equity, and Inclusion

SWAC is pleased to see that the feedback given by the committee last year, to consider including a more robust section on SPU's Diversity, Equity and Inclusion priorities and practices was very well highlighted in this year's 2021 report. SWAC recognizes SPU's efforts to expand opportunities for small Women and Minority-owned Business Enterprises (WMBE) to participate in the Waste Prevention Strategic Planning Initiative in order to be deeply engaged with our diverse partners and customers to ensure that planning efforts result in equitable waste prevention outcomes and opportunities. SWAC also applauds SPU for launching a consumer food waste prevention digital media campaign to help Seattle residents better understand the saving opportunities in reducing food waste through focusing on strong community engagement and designing media with culturally appropriate language and visuals. SWAC continues to encourage SPU to further expand their reach and relevance to Seattle's BIPOC, refugee, and immigrant communities through community-led programs, businesses and policies that promote innovation via reuse and repair. The committee strongly believes that efforts to build partnerships with existing and new community based organizations, will foster interagency collaboration and long term, sustainable community-based solutions.

Thank you for considering our comments and recommendations.

Sincerely,

Buch

Brie Kuhn, Chair, SWAC

Coline Fugipaura

Celine Fujikawa, Secretary, SWAC

SWAC is one of Seattle Public Utilities' Community Advisory Committees. Its members are appointed by the SPU CEO/General Manager. It is administered and staffed by SPU. This letter reflects the opinions of Committee Members, independent of SPU.

Cc: Debora Juarez,, President, Seattle City Council Andrew Lee, General Manager/CEO, Seattle Public Utilities Jeff Fowler, Deputy Director, Solid Waste Line of Business

Stephanie Schwenger, Solid & Hazardous Waste Lead Planner Quinn Appuzo, SWAC Coordinator and Solid Waste Community Affairs Strategic Advisor