

2019 SOLID WASTE DIVISION ANNUAL REPORT



Per King County Code Sections 10.14.080 And 10.24.020



King County

Department of
Natural Resources and Parks
Solid Waste Division

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 **King County**
Department of
Natural Resources and Parks
Solid Waste Division

Waste Prevention • Resource Recovery • Waste Disposal

Message from the Director



Pat D. McLaughlin

Welcome to the 2019 King County Solid Waste Division Annual Report. This past year was a monumental one for the Solid Waste Division, and I cannot help but be proud of the work we accomplished and the objectives we met, while facing challenges head on and working together to get the right results.

Every day, hundreds of customers cross the scales at our recycling and transfer stations to dispose of garbage and recycling. It is a straightforward and easy process for our customers, but what they may not realize is that simple act of putting garbage on the tipping floor and recycling in designated bins is the culmination of work performed by a tireless workforce dedicated to providing safe, efficient and environmentally responsible solid waste management.

While a customer may only encounter a scale operator who weighs their vehicle or a transfer station operator who helps them navigate a facility or shows them what materials go where, in truth our customers are interacting with nearly 400 Solid Waste Division employees whenever they visit one of our facilities. This includes the program/project managers who work to develop new and innovative recycling programs; scientists and engineers who monitor and maintain environmental controls at the Cedar Hills Regional Landfill; communications specialists who help spread the word about “recycling right;” heavy equipment operators who maximize garbage disposal at the landfill; and many, many more.

The work these employees do on a daily basis is impressive on its own, but the work completed in 2019 was truly outstanding. From actively responding to a historic snowstorm, to taking bold steps to make recycling more efficient, to making our services more equitable for everyone, Solid Waste Division employees truly lived our mission: *We bring the best people together to deliver value to our customers and stakeholders and continuously improve waste prevention, resource recovery, and waste disposal.*

Of course, our workforce is never more productive than when it is actively collaborating with our stakeholders, and that was also evident in 2019 with the adoption of our *2019 Comprehensive Solid Waste Management Plan* by the Washington Department of Ecology.

For more than two years, the Solid Waste Division worked with our two advisory committees and partnering cities to develop a plan that would identify a clear path on immediate issues that need to be addressed, while providing the flexibility to react to the ever-changing solid waste management industry.

With adoption of the Comp Plan, the Solid Waste Division can now move forward with constructing a new recycling and transfer station in northeast King County. The plan also identifies actions for improving the quality of recycling collected in King County and allows us to move ahead with opening a new disposal area at the Cedar Hills Regional Landfill. Most importantly, the *2019 Comprehensive Solid Waste Management Plan* extends our ability to manage our waste locally at the lowest cost with least environmental impact and creates the planning runway to achieve our goal of Zero Waste of Resources.

Reviewing the achievements of 2019 makes me immensely proud of our employees and our division, but it is a stark reminder that the work is just beginning. As we look ahead to 2020 and beyond, the Solid Waste Division will continue to build on past successes while always looking ahead for new opportunities and meeting the challenges that come next.

It is a great privilege to serve people who care about our shared environment and who believe in our mission. Our work from this past year could not have been possible without the support of our customers, partnering cities, advisory committees, the King County Executive and the King County Council.

A handwritten signature in blue ink that reads "Pat D. McLaughlin". The signature is fluid and cursive, with the first letters of the first and last names being capitalized and prominent.

About the Solid Waste Division

The Solid Waste Division is guided by its vision to achieve Zero Waste of Resources by 2030, and to enhance the environment through collaboration and innovation. The division operates eight transfer stations, two rural drop boxes, and the Cedar Hills Regional Landfill – the only operational landfill in the county. Our stakeholders include residents and business owners in unincorporated King County and 37 cities throughout the county (all except the cities of Seattle and Milton, which are part of separate solid waste systems). Our mission is to deliver value our customers and stakeholders, and to continuously improve waste prevention, resource recovery, and waste disposal.

Waste Prevention and Recycling

Whether it's fostering the next generation of environmental stewards, encouraging customers to recycle more and recycle right, or working to divert recyclable materials away from the landfill, the Solid Waste Division is committed to enhancing waste prevention and recycling in King County.

Recycling Collection Increases by 5 Percent

In 2019, the division collected 33,921 tons of recyclable material at its transfer stations and drop boxes, a 5% increase compared to 2018. Yard waste continues to be the most recycled material with 18,604 tons collected, followed by scrap metal (4,769 tons), clean wood (3,882 tons), and cardboard (3,403 tons).

To further increase the amount of materials that are recycled, transfer station operators help customers “sort it out” by informing them of the requirement for self-haul customers who bring their waste to King County transfer stations and drop boxes to recycle cardboard, scrap metal, yard waste and clean wood at facilities where those materials can be recycled, and alerting customers to designated bins that make it convenient to recycle these three types of materials.

Responsible Recycling Task Force Provides Recommendations for Improving Regional Recycling

The Responsible Recycling Task Force was formed by King County in 2018 in response to strict new quality control rules established by international recycling markets, including China, and includes representatives from Seattle Public Utilities, cities in King County, garbage and recycling haulers, and other stakeholders. Following a 10-month study, in 2019 the Responsible Recycling Task Force issued a report outlining a series of recommendations the region could take to create a responsible recycling system.

Task Force recommendations include establishing responsible recycling policies; developing local recycling infrastructure; harmonizing recycling programs and messaging; increasing demand for recycled materials; creating clean and marketable feedstocks; and improving upstream design. In addition to these recommendations, the report also outlines a series of near-, mid-, and long-term actions the region can take to achieve responsible recycling goals.



In 2019, King County helped spread the message that recycling right matters.

‘Empty, Clean and Dry’ Messaging Makes 10 Million Impressions

From May through June, the Recycle Right Communications Consortium, a subgroup of the Responsible Recycling Task Force, ran a contamination reduction media campaign that focused on keeping recycling “empty, clean and dry.” This messaging was developed as a direct result of recommendations developed by the Task Force that sought to reduce contamination in curbside recycling. The primary message of the campaign was that taking a few easy steps to properly empty and clean recycling, as well as keeping materials dry, will vastly help ensure that what is put in curbside recycling bins will be recycled.



Plastic bags and wrap get caught in machines at material recovery facilities, slowing down operations and contaminating otherwise clean recycling. Bringing these materials to designated drop off locations ensures they will be recycled.

Using a newly developed “Recycle Right” brand, the campaign ran advertisements on buses, billboards, television, online, radio, print, and social media to spread the message about recycling right and keeping recyclable materials empty, clean and dry. The eight-week campaign garnered more than 10 million impressions and helped keep the public informed about the importance of recycling right.

Removing Plastic Bags and Wrap to Reduce Recycling Contamination

Based on recommendations by the Responsible Recycling Task Force, beginning January 1, 2020, garbage and recycling collection programs in King County will no longer accept plastic bags and wrap in curbside recycling bins. Plastic bags and wrap are often wet or have food waste on them when placed in the curbside recycling and contaminate other materials. Additionally, at recycling facilities, these plastics can jam sorting and processing equipment, leading to frequent shutdowns so workers can remove the tangled materials. Instead of putting plastic bags and wrap in curbside bins, customers will be asked to bring these materials to designated drop-off locations for recycling or put them in the garbage.

To prepare the public for this change, the Solid Waste Division and Seattle Public Utilities held a joint media event at Recology King County’s materials recovery facility to show the problems plastic bags and wrap can cause when put in curbside recycling bins, explain why bringing these materials to a drop-off location is a better alternative, and explain why putting the materials in the garbage is acceptable. The event was well attended by local media, and the public has already begun bringing these materials to drop-off locations.

Paint Stewardship Bills Passes Washington Legislature

After eight years of coordination between the Solid Waste Division and the Hazardous Waste Management Program, a Paint Product Stewardship bill (House Bill 1652) was passed by the Washington State Legislature in 2019. The bill will result in the establishment of more than 200 locations around the state for residents and small businesses to recycle their latex and oil-based paint. The program is funded through a small fee charged when paint is purchased and will begin operating in the fall of 2020. The fee has not been established but will be decided in 2020.



The newly passed Paint Product Stewardship bill will make recycling oil-based and latex paints easier.



Students from Enumclaw Middle School are all in for being the next generation of environmental stewards.

More Schools Than Ever Go “Green”

The King County Green Schools Program assists King County schools and school districts (not including Seattle Public Schools) to engage students and employees in conservation practices, including waste reduction, reuse, recycling, and energy and water conservation.

In 2019, a record 261 schools in 16 school districts and 33 cities, plus unincorporated areas, participated in the program. More than 160,000 students and employees had an opportunity to learn about resource conservation, and many Green Teams focused on strategies to reduce carbon emissions in their schools and communities. In 2019, a record 92 schools as well as two school districts were recognized as King County Green Schools and Districts. As of December 2019, six districts and 269 schools – 54% of eligible King County schools – have received recognition, and 63% of K-12 schools have received assistance from the program.

The program helped teach students and employees how to recycle right by keeping liquids, food, and non-recyclable items out of recycling bins. Overall quantities of school garbage decreased, while recycling rates increased. The program also helped schools initiate and expand food waste reduction strategies, including food rescue where students place uneaten, unopened and

packaged foods from the school lunch program on share tables for use by other students, or for donation to nonprofit organizations. Schools in Issaquah, Lake Washington, and Mercer Island together rescued more than 40,000 pounds of foods and drinks.

Construction and Demolition Waste Recycling

One in three truckloads of solid waste generated in King County consists of construction and demolition debris (C&D). King County requires that readily recyclable C&D materials (metal, cardboard, wood, concrete, asphalt paving, brick and drywall) be recycled, which furthers the division’s zero waste of resources goal and carbon emissions reduction efforts. In 2019, 12 privately managed facilities collected C&D generated in King County. The division’s C&D management program is funded by a fee of \$4.25 per ton that applies only to C&D that is landfilled, which further incentivizes recycling. The collected fees go into a dedicated fund that covers the division’s expenses related to C&D management. Approximately 210,000 tons of waste C&D was disposed through companies participating in the King County designated C&D facilities program in 2019, generating fees of approximately \$892,500. Due to a delay in reporting by the Washington State Department of Ecology the most recent year’s C&D recycling data for King County are not yet available.

The division contracts with the King County Sheriff’s Office to assist in enforcing the C&D recycling regulations. A King County Sheriff Detective monitors jobsites and C&D management facilities in order to ensure compliance with these regulations. In 2019, Sheriff’s Office support continued in the form of overtime support, rather than with a dedicated officer. This was a result of an ongoing shortage of available officers and the need to prioritize public safety services over regulatory support. Division staff and contractors partially fill the gap in enforcement efforts by periodically monitoring activities at C&D facilities and jobsites. Additionally, in 2020 the division plans to temporarily fill the enforcement position using a civilian employee with funding generated from the \$4.25 per ton fee on C&D materials taken to landfills.

Initial enforcement actions focus on education rather than fines to inform the construction industry of the need to send C&D to designated processing facilities. When potential violations are noted, immediate action is taken to inform

the responsible party of county regulations. In 2019, the division implemented monitoring and enforcement of the waste ban compliance plans at C&D transfer stations to address how the facilities will ensure compliance with C&D material bans. In addition, a small C&D recycling facility, Alpine Recycling, was removed from the list of designated C&D handling facilities due to non-compliance with reporting requirements. Finally, the division also holds regular stakeholder meetings to discuss the markets for C&D materials, the enforcement program and other issues impacting C&D recycling and disposal.

Designated Recyclables in King County

As specified in the Final 2019 Comprehensive Solid Waste Management Plan, King County’s list of designated recyclables is defined and updated by the Washington State Department of Ecology’s annual statewide survey of materials that have been recycled in Washington. Designated recyclables in King County include:

- Carpet and pads
- Clean wood
- Construction and demolition debris
- Electronics
- Furniture
- Glass
- Metal
- Moderate risk waste
- Organics
- Other materials (latex paint, toner and ink cartridges, photographic film, tires)
- Paper
- Plastic
- Gypsum



While paper, plastic, metal cans and glass are the most well-known recyclables, many items can be recycled in King County.

Transfer Stations

Providing customers with safe, efficient and responsible waste disposal and transfer is a key service of the Solid Waste Division. In 2019, the division continued its work to modernize its transfer system.

New South County Recycling and Transfer Station Being Designed

After making a siting decision on where to construct a new South County Recycling and Transfer Station in 2017, the division spent 2019 on preliminary design of the new facility, as well as forming a design advisory committee, and holding online and in-person open houses to inform the public about the project and hear feedback. A total of 157 people provided feedback on the project that included what services they would like to see offered; thoughts on proposed green building features; how the new facility can offer community benefits, such as meeting spaces; and how the division will mitigate traffic, odor and other impacts.



The new South County Recycling and Transfer Station will offer more services and contain sustainable green features, much like the new Factoria Recycling and Transfer Station pictured here.

The South County Recycling and Transfer Station will replace the outdated Algona Transfer Station and will include services the current station is unable to provide, such as recycling, yard waste and household hazardous waste disposal, while making these services more accessible and convenient for south county residents.

Planning for New Northeast County Recycling and Transfer Station Begins

Following adoption of the *2019 Comprehensive Solid Waste Management Plan*, the Solid Waste Division is set to begin work on siting, designing and constructing a new recycling and transfer station somewhere in northeast King County. The facility will continue the division's efforts to modernize its transfer system, and will replace the 50-year-old Houghton Transfer Station located in Kirkland. The new facility will be sustainably designed and offer expanded recycling, yard waste and garbage services, as well as improved operating efficiencies. In 2019, the division published a Request for Proposals to solicit proposals from interested consultants for siting and design services for the new station and began meeting with the cities of Kirkland, Redmond, Woodinville and Sammamish to initiate discussions on the siting process and public engagement.



Transfer Station Operators help customers sort it out and understand which materials go where and why.

each recycling bin and area. Short how-to videos were created to help customers use the services at Bow Lake and Shoreline recycling and transfer stations. In 2020, a video will be created for each of the other recycling and transfer stations operated by King County. Employees also gave customers durable, reusable shopping bags to thank them for recycling and following the recycling rule requiring cardboard, scrap metal, yard waste, and unpainted, unstained wood to be kept out of garbage and placed in recycling bins or areas at King County facilities offering recycling for those materials. More than 2,200 bags were distributed to customers.

Cedar Hills Regional Landfill

The Cedar Hills Regional Landfill has been in operation since the 1960s and is the last operating landfill in King County. Every day, more than 100 trucks deliver tons of garbage to the landfill for final disposal. The newly opened Area 8 is the current active area of the landfill, with the rest of the 920 acres devoted to administrative facilities and reclaimed landfill areas. An onsite gas processing facility operated by Bio Energy Washington (BEW) collects landfill gas and purifies it so it can be sold as a renewable energy source.

Education and Outreach at Transfer Stations and Drop Boxes

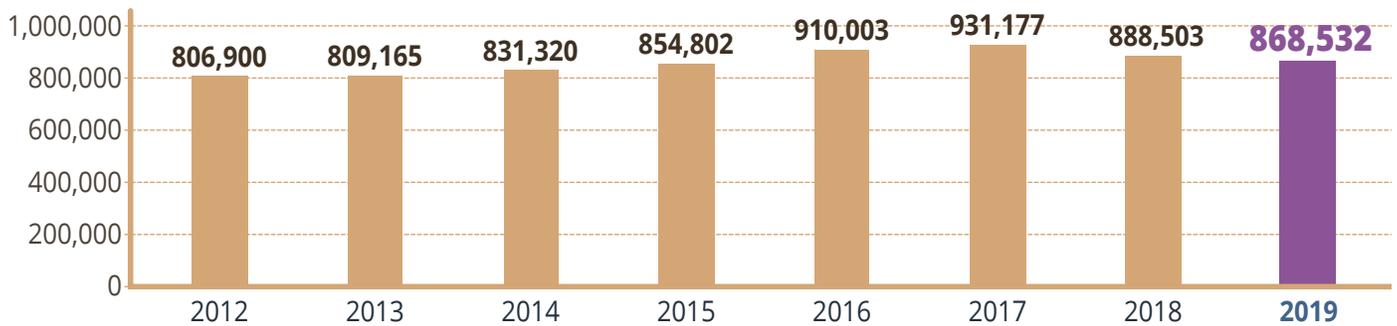
In 2019, new employees hired to work at the county's recycling and transfer stations received a half-day training focused on waste acceptance policies and recycling. The training prepared employees to answer customer questions about what items are accepted in garbage and in designated recycling bins or areas at each facility. Recycling bins and signs were improved to expand employee knowledge about available recycling services at each facility.

In 2019, a Spanish version of the Guide to King County Recycling and Transfer Facilities was completed, printed, and posted on division web pages. In 2020, Chinese, Korean, and Vietnamese versions of the guide will be completed. Recycling signs in English and Spanish were updated to reflect changes in materials accepted for recycling and placed near

Disposal Amounts

In 2019, 868,532 tons of garbage were disposed of at the landfill, a decrease of about 2% compared to 2018. An extended period of snow, a reduction in regional direct deliveries and increased recycling were responsible for that drop in the tonnage disposed.

Tons Disposed at Cedar Hills



Newest Disposal Area Begins Accepting Waste

The newest disposal cell, Area 8, at the landfill began accepting waste in August. Nearly 1.8 million cubic yards of soil was excavated to make the hole deep enough before installing protective liners and environmental controls like leachate and landfill gas collection pipes. The new area has capacity for an estimated 7.5 million tons of garbage and is expected to accept waste for about eight years.

Maximizing Landfill Capacity

In 2019 the division held a series of public meetings asking the public to comment on what to study in an environmental impact statement (EIS) for a proposal to maximize capacity of the landfill to meet the region's need for waste disposal as outlined in the *2019 Comprehensive Solid Waste Management Plan*. Scoping is the first step in the EIS process. The comments received will help the division determine what issues should be considered in its technical analysis of potential alternatives, what environmental impacts and potential mitigation measures should be considered and evaluated, and what permits may be required.



Employees instrumental in the construction of the landfill's newest disposal area held a dedication ceremony in August. The area is expected to accept waste for about eight years.

Waste-to-Energy at the Cedar Hills Regional Landfill Provides Revenue

BEW contracts with the division to process landfill gas into pipeline-quality Renewable Natural Gas (RNG) for sale to the marketplace. The RNG displaces fossil fuel-based natural gas in a wide variety of industrial applications – from transportation to power generation. The division sells the renewable attributes – “green credits” that signify how beneficial a program is to the environment – associated with some of these uses. From January through November, the division earned \$2 million from gas it delivered to BEW, plus \$4.1 million it made in sale of the renewable attributes.

Equity and Social Justice

Following the lead of Executive Dow Constantine, the division is committed to advancing equity and social justice for both its employees and customers.



Cleanup LIFT Makes Services More Equitable

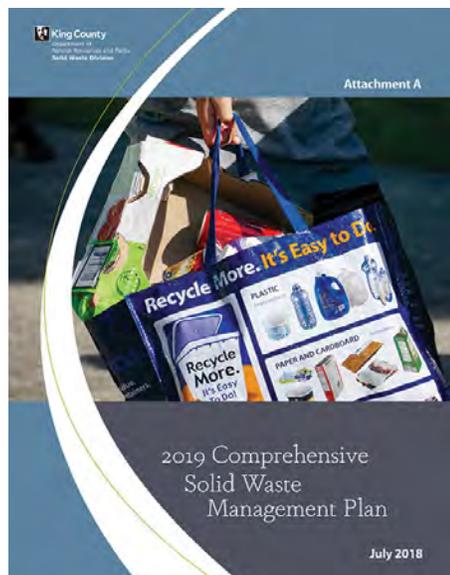
To make services more equitable for customers and to advance equity and social justice in King County, the Solid Waste Division implemented a new low-income discount program called Cleanup LIFT beginning January 1. This program provides a \$12 discount to customers who bring garbage and recycling to a King County facility, and who show ProviderOne (Medicaid), Electronic Benefits Transfer or ORCA LIFT cards. In the first year the program achieved 4,836 transactions, providing financial relief to our most financially vulnerable customers by saving them almost \$60,000.

Fostering Employee Growth and Development

Fostering employee growth and development is a key component of ensuring the Solid Waste Division remains an “employer of choice.” That’s why in 2019 the division developed an in-house Commercial Driver’s License training program. Obtaining a CDL can be costly and time-consuming for employees and being qualified for a truck driver position can be even more exclusive due to multi-year driving experience minimum qualifications. This program removes some of those hurdles by providing classroom training at reduced cost, as well as the necessary behind-the-wheel training from division truck drivers. This employee growth and development training program is the first of its kind for the division, and several other departments and divisions in King County have begun modeling this innovative approach to offering employees the chance to enhance their careers through in-house training.



The division developed an in-house Commercial Driver’s License training program in 2019.



Planning

Comp Plan Officially Adopted

The formal adoption of King County’s 2019 *Comprehensive Solid Waste Management Plan* by the Washington State Department of Ecology in November 2019 cleared the path for King County and its 37 partner cities to boost the regional recycling rate from 54% to 70%, continue to modernize the transfer system, and find new modes of garbage disposal after the Cedar Hills Regional Landfill reaches capacity. The plan preserves King County’s ability to manage its solid waste locally at the lowest cost with the least environmental impact by extending the life of the landfill past the mid-2020s. The next Comprehensive Solid Waste Management Plan update will include detailed analysis of these topics and is due in 2024.

Achieving Carbon Neutrality

In 2019, the Solid Waste Division developed a Climate Roadmap to map out how the division will achieve carbon neutrality by 2025. Actions identified by the division that would either decrease the sources of greenhouse gas (GHG) emissions or increase the removal of GHG emissions include moving toward electrifying the fleet, increasing recycling at transfer stations, and installing systems at closed landfills to further reduce the amount of GHGs emitted.

2020 Outlook

Looking ahead to 2020, the division will continue to strive for excellence in waste prevention, resource recovery and waste disposal.

To achieve its goal of zero waste of resources by 2030, as identified in the *2019 Comprehensive Solid Waste Management Plan*, the division will begin developing an implementation plan in 2020. The Zero Waste of Resources Plan will lay out a framework, and identify and analyze actions the division should take in order to reach this goal, including enhancing existing programs to further divert resources from going to the landfill; developing infrastructure needed to support identified actions; and restructuring rates to ensure the business model can support the goal of Zero Waste of Resources.

After review and consideration of the scoping comments provide by the public, the Solid Waste Division will prepare a draft EIS for the Cedar Hills Regional Landfill 2020 Site Development Plan.

The division will continue its work on designing the new South County Recycling and Transfer Station, which is expected to begin operating in late 2023, as well as identifying potential site locations for the new Northeast Recycling and Transfer Station.

The Recycle Right Communications Consortium will continue public outreach about the importance of keeping plastic bags and wrap out of curbside recycling bins, and other recycle right messaging, with a media campaign that will mimic the “empty, clean and dry” campaign.



McMicken Heights Elementary Green Team students.

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