

SOLID WASTE



Strategies

- SW1** Maximize diversion of common recyclable and organic materials
- SW2** Minimize solid waste generation
- SW3** Expand specialized items recycling
- SW4** Enhance communication and education with employees and tenants

Emissions: Scope 3

< 1%
of Port Maritime GHG
2019 emissions

1,300

Tons of garbage generated by the Port and Port tenants in 2019

1,100

Tons of material diverted 2019, yielding a waste diversion rate of 45%

Nearly 70% of the waste is generated at Shilshole Bay Marina and Fishermen's Terminal. Both campuses are occupied by tenants and open to the public. The Port has influence, but not direct control, over waste disposal at these sites.

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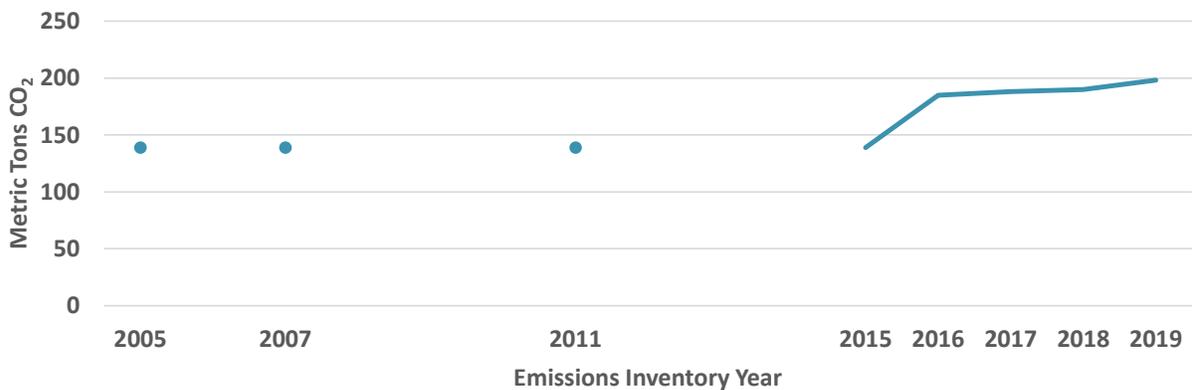


Context

This sector includes solid waste generated at Port Maritime campuses, which is the focus of the Port’s Maritime Solid Waste Management Plan. Nearly 70 percent of the waste is generated at Shilshole Bay Marina and Fishermen’s Terminal—two large sites that are occupied by tenants and open to the public. The Port aims to divert 60 percent of materials from the waste stream through recycling or composting. In 2019, 45 percent of materials was diverted.

Historical data on solid waste volumes and GHG reductions is limited. Since tracking began in 2015, GHG emissions from solid waste landfilling have increased each year. The data below does not include construction waste generated by contractors which is tracked separately on a project-specific basis.

Figure 18. Annual GHG emissions from Solid Waste



Emissions have trended upward in recent years.



Success Story: Solid Waste Management

To reduce garbage volumes and GHG emissions, the Port implemented a Maritime Solid Waste Management Plan in 2016 that has improved solid waste practices.

- Improved waste collection systems, signage, education, and event guidelines to ensure that City of Seattle recycling ordinances are followed
- Conducted waste audits at over half of the Port's maritime campuses
- Developed site-specific implementation plans with tenant and staff input for Marine Maintenance, and Shilshole Bay Marina.



Strategies to 2030

Figure 19. 2030 GHG emission reduction potential of Solid Waste strategies



The strategies identified for this sector are from the Port Maritime Waste Reduction Plan and will reduce GHG emissions, but the solid waste sector will not independently achieve the 2030 reduction target. Emission data from the 2020 inventory was not used in the analysis.

SW1

Maximize diversion of common recyclable and organic materials. Garbage service in Seattle includes recycling of paper, cardboard, plastics, glass, and metal, and composting of organics, compostable packaging, and plant material. Waste audits will be conducted on a 3-year cycle to assess proper waste disposal. The Port will work with staff and tenants to identify and address diversion barriers (e.g., proper sorting of recyclables and organics) and develop site-specific waste reduction plans.

MT CO₂ Reduced Annually by 2030

Approximately 60 MT CO₂ per year
by maximizing common recyclable and organics diversion

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|----------------|--|
| Actions | By 2025 |
| | <ul style="list-style-type: none"> ◆ Complete first round of waste audits at all Port campuses ◆ Develop and implement facility-specific waste reduction plans ◆ Re-audit each site every three years ◆ Update facility-specific waste reduction plans every three years |
| | By 2030 |
| | <ul style="list-style-type: none"> ◆ Continue to re-audit each site every 3 years ◆ Continue to update facility-specific waste reduction plans every 3 years |

SW2

Minimize solid waste generation. In addition to recycling and composting practices, other waste minimization practices are needed to reduce the amount of waste produced each year. Updating the Port's purchasing practices increasing focus on sustainability is a critical first step.

MT CO₂ Reduced Annually by 2030

Approximately 60 MT CO₂ per year
by minimizing amount of total waste generated at the Port

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|----------------|--|
| Actions | By 2025 |
| | <ul style="list-style-type: none"> ◆ Update the Port's environmental purchasing policy and procedures ◆ Evaluate internal Port department practices for materials management and reuse ◆ Evaluate waste reduction and reuse opportunities from industry-specific waste streams (e.g., restaurants, fishing nets) ◆ Monitor waste generation for all Port-controlled sites ◆ Develop a metric for tracking environmental purchasing policy success |
| | By 2030 |
| | <ul style="list-style-type: none"> ◆ Integrate circular economy approaches into Port policies and practices to extend the lifecycle of products |

SW3	
Expand specialized items recycling. Waste audits will identify specialized items that are potentially recyclable but are not accepted by the City’s recycling program. Examples include scrap metals, building materials, electronics, and furniture. Customized recycling programs can be added for these items when feasible.	
MT CO ₂ Reduced Annually by 2030	
Approximately 15 MT CO ₂ per year through expansion of recycling for special items (e.g., batteries)	
Actions	By 2025
	<ul style="list-style-type: none"> Identify specialized items with recycling needs via waste audits Begin tracking specialized waste items
	By 2030
	<ul style="list-style-type: none"> Continue to evaluate waste audits for additional specialized items that can be recycled
SW4	
Enhance communication and education with employees and tenants. Targeted communications and education will increase general awareness of waste management and provide clear instructions for employees and tenant on proper waste sorting.	
MT CO ₂ Reduced Annually by 2030	
GHG reduction potential is low, but strategy is critical to support other efforts	
Actions	By 2025
	<ul style="list-style-type: none"> Develop new solid waste training module for employees using the Port’s internal online Learning Management System Train new employees, and provide updates to all employees at least annually regarding waste minimization and recycling and composting efforts Engage with tenants to widen the impact of the Port’s recycling and composting efforts
	By 2030
	<ul style="list-style-type: none"> Continue training program for staff Continue tenant engagement to widen the impact of the Port’s waste minimization efforts

Emissions Remaining after 2030

The strategies and actions above propose a path to reduce GHG emissions from solid waste, but this sector will not independently achieve the 2030 reduction target. Per the emissions wedge analysis, the Solid Waste sector will emit over 100 MT of GHG in 2030. These remaining emissions will need to be addressed to achieve the Port’s longer-term GHG reduction goals through 2050. Continuing sources of emissions after 2030 include:

- Remaining solid waste after advanced waste reduction, recycling, and composting practices are put into place

Performance Metrics

Metrics	Targets / Objectives
Percent change in absolute waste tonnage relative to 2007 level	Continuous improvement
Percent of solid waste tonnage recycled or composted	