



# 2019 Sustainability Progress Report

*Building a better tomorrow* JUNE 2020



2019

# Sustainability

## Sustainability at Sound Transit

Sustainability is at the core of Sound Transit's mission to connect more people to more places to make life better and create equitable opportunities for all. Investing in transit builds a better future and supports a clean environment, connected communities and vibrant economies.

At Sound Transit, sustainability is about more than the natural environment. Sustainability is a holistic goal that protects and enhances people, planet and prosperity.

At Sound Transit, sustainability helps implement our agency's mission with respect to:

- Enabling **people** to move freely and affordably by providing regional transit service.
- Promoting stewardship that conserves the **planet's** natural environment.
- Supporting community **prosperity** by enabling residents and businesses to save time and money.



Sound Transit uses a robust Environmental and Sustainability Management System (ESMS) to guide its environmental and sustainability initiatives. The system holds the agency accountable for controlling potential environmental impacts, achieving annual environmental and sustainability targets, and demonstrating continual improvement in performance. Since 2007 Sound Transit's ESMS has maintained international ISO 14001 certification for accountability in controlling environmental impacts, maintaining environmental compliance and demonstrating enhanced sustainability performance.



## About this report

Sound Transit's Environmental Policy requires staff to update the Board and the public annually on the progress of the agency's environmental compliance and sustainability efforts. This Annual Progress Report summarizes agency efforts to achieve long-term and short-term environmental and sustainability goals.

Sound Transit's 2019 update to the agency's Sustainability Plan set short-term goals for the years 2019 through 2024 and extended the agency's long-term goals to 2050. The year 2018 serves as the baseline for the agency's short-term goals.

The analysis and performance measures in this report focus on the agency's resource use, including the planning and design of capital projects as well as the operations of Sound Transit's services. This report does not include the resource use of the agency's construction activities.

These metrics reflect multiple reporting frameworks and standards, including those used by other transit agencies and local governments, as well as the American Public Transportation Association's Sustainability Commitment and The Climate Registry.

**Sustainable Business Practices and strategies will be integrated throughout the Sound Transit organization, including planning, designing, constructing, operating existing and new transit systems and facilities. Executive Order No. 1, 2007**

# Transit is sustainable

Sound Transit's work to expand the regional transit system is essential to Central Puget Sound's sustainable future. Sound Transit promotes sustainability by developing and operating the regional transit system and fostering smart growth.

The agency's capital expansion plan will enable more people to travel affordably and reliably on environmentally friendly buses and trains throughout the region's growing communities. Expanding mass transit services benefits everyone by offering a less carbon-intensive means of travel, which decreases air and water pollution, among other benefits.



**SAVES TIME**



**SAVES FUEL**



**SAVES MONEY**

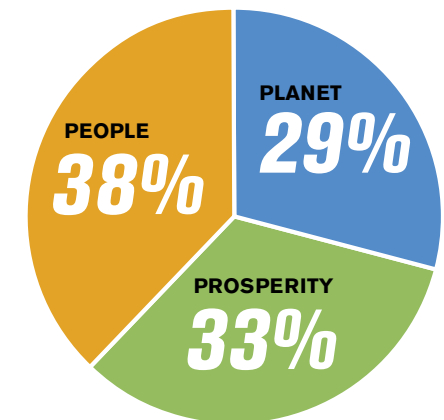


**IMPROVES  
AIR QUALITY**

## Progress toward 2019 Sustainability Plan

This report includes both data on Sound Transit's operational performance from a resource use perspective, as well as progress on short-term goals in the 2019 update to the Sustainability Plan. In 2019 Sound Transit worked on targets that addressed 55% of the Plan's short-term goals; the agency completed 80% of those targets. 2019 targets addressed the priority areas in the following distribution (illustrated to the right).

## Progress toward short-term goals per priority



## Key accomplishments

In 2019 Sound Transit achieved a number of important sustainability accomplishments that leverage social, environmental and financial benefits for the region's future. The agency:

- Grew its environmental benefit to the region by averting more than 392,000 metric tons of greenhouse gas emissions, equivalent to the reduction of 44 million gallons of gasoline.
- Reduced total greenhouse gas emissions for the first time and also achieved reductions in agency water use and facilities energy use.
- Saved nearly \$620,000 through 23 ongoing resource efficiency projects in 2019, three of which Sound Transit implemented in 2019.
- Adopted an agencywide internal Equity & Inclusion Policy.
- Initiated a battery electric bus feasibility study for Sound Transit bus services.

## Continual improvement

The agency's sustainability performance continues to improve annually. However, there are always new sustainability targets to develop to further progress. In the next year, the agency will focus its sustainability efforts on:

- Delivering a cost-effective Sustainability Program that supports the agency's realignment efforts.
- Finalizing guidance for sustainability in ST3 projects within the context of changing budgets and timelines.
- Enhancing collaboration with the Office of Civil Rights, Equity & Inclusion, with a focus on supporting the use of equity tools on capital projects.
- Implementing resource efficiency and carbon-reduction projects within the existing system, including planning for battery electric bus adoption.



# People

Helping people move freely, affordably and healthily by providing regional transit service

## Sustaining ridership

While the impact of COVID-19 will create challenges for transit agencies going forward, Sound Transit's success to date in increasing ridership is the agency's most sustainable achievement. Central Puget Sound residents have consistently chosen transit to get to where they need to go. More than 48 million people took trips on Sound Transit trains and buses in 2019, a relatively steady rate of ridership compared to 2018.

**+90%**

**Ridership growth since 2011**

**+2%**

**Increase in passenger miles traveled since 2018**

**-1%**

**Drop in ridership since 2018 for all services**

**+1%**

**Increase in light rail ridership since 2018**

**48 Million**

**Annual rides**

## Key Performance Indicators

### Dollars contributed to affordable housing revolving loan fund

*\$4 million*

### Staff trained in equity and inclusion

*32% of staff trained*

### Hours worked by diverse communities on ST job sites

*27% by people of color*

*7% by women*

*21% by apprentices*

### Staff trained to sustainable professional accreditations

*30 Envision Sustainability Professionals*

*18 LEED Accredited Professionals*

*8 other sustainability certifications*



## LONG-TERM GOAL:

### Social equity addressed and implemented as an agency value

#### Affordable housing revolving loan fund

Sound Transit created a regional revolving loan fund (RLF) to support affordable housing as part of its ST3 Plan commitments. Starting in 2019, Sound Transit will contribute \$4 million a year to RLF for a total of \$20 million. The agency will leverage its contribution with other funding sources to create a larger pool of money, use the funds to develop equitable transit-oriented development (TOD) on Sound Transit properties, and support strategies to minimize the displacement of residents and businesses from properties near Sound Transit investments.

#### Strategically planning for equity

In 2019 Sound Transit officially adopted its first internal Equity & Inclusion Policy as part of the Office of EEO, Equity & Inclusion's strategic plan. The policy describes Sound Transit's commitment to equity and inclusion, and was signed by CEO Peter Rogoff in December 2019. In 2020, the newly named Office of Civil Rights, Equity & Inclusion will focus on developing an agencywide implementation plan for the policy and pilot tools focused on racial equity and equitable engagement.

# People

Helping people move freely, affordably and healthily by providing regional transit service

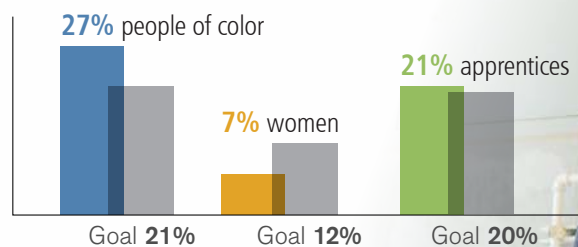
## LONG-TERM GOALS:

### Social equity addressed and implemented as an agency value

#### Employing Puget Sound residents

Sound Transit's capital expansion projects bring construction employment opportunities to communities across the Puget Sound region.

In 2019 Sound Transit's construction projects directly employed more than 9,000 people working 3.8 million hours earning \$175 million in wages. These employees included:



### All staff champion sustainability



#### Training staff for equity

Sound Transit continued to offer additional trainings to ensure all staff are well-versed in equal opportunity, equity and inclusion. In the past year the agency offered training to staff on topics of inclusion competency and undoing institutional racism. In 2019, 32% of staff took these important trainings.

#### Building flexibility into the workplace

Even prior to the Covid-19 pandemic, Sound Transit recognized the importance of a flexible workplace. In 2019 Sound Transit fully implemented a Flex Work Program to help employees decrease commute times, reduce work/life stressors and improve organizational communications. Sound Transit now offers additional IT resources like laptops, an employee chat platform and streamed all-staff meetings to support staff now working from home.

# Planet

Promoting stewardship to conserve the planet's natural environment

## Increasing environmental benefits

Sound Transit and partner services provide tangible environmental benefits for the regional's growing communities. When residents choose transit instead of driving alone, they reduce air pollutant emissions, among other benefits.

Passengers taking Sound Transit diverted more than 392,000 tons of greenhouse gas emissions annually — a 2% increase since 2018. This is equivalent emissions to:



Burning more than 44 million gallons of gasoline.



Providing electricity for more than 66,000 homes for a year.

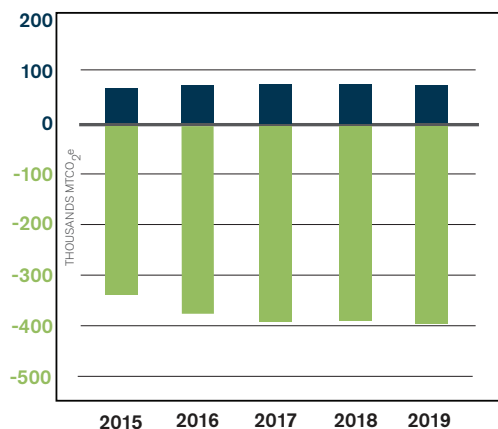


The carbon sequestered by growing more than 6 million tree seedlings for 10 years.

### Greenhouse gas emissions

Every year the benefits of Sound Transit's service far exceeds the emissions associated with operating that service

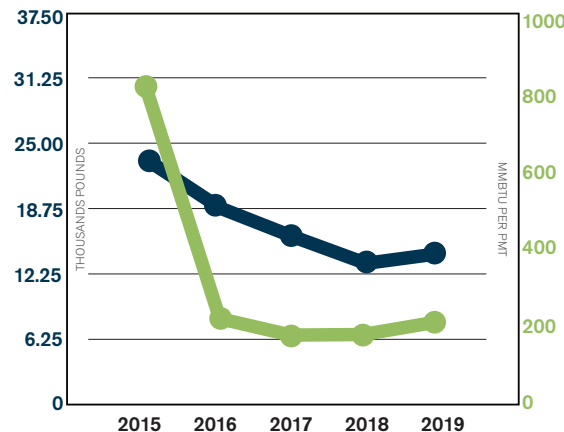
- Agency emissions from operations
- Regional emissions avoided when riders take Sound Transit



### Reducing air pollution

Updates to Sounder engines and phasing out older ST Express diesel buses have significantly reduced Sound Transit's air pollution.

- PM10
- Carbon Monoxide



## Key Performance Indicators

### Greenhouse gas emissions

4% reduction

### Criteria air pollutants

Particulate Matter: 6% increase | Volatile Organic Compounds: 5% increase  
NOx: 4% increase | CO: 7% increase | Sox: 3% increase

### kWh renewable energy production

72,210 kWh produced in 2019

### Renewable electricity procurement

89% electricity from renewables in 2019

### Energy used in facilities built before 2018

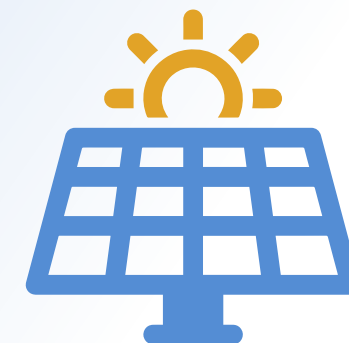
1% reduction

### # of fineable environmental compliance violations

Zero violations in 2019

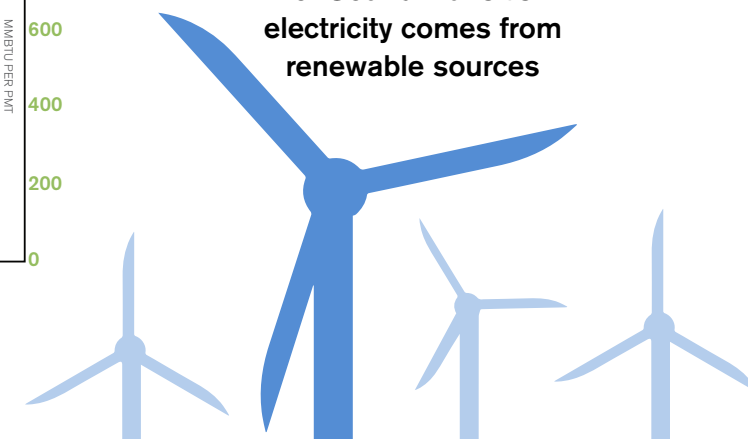
### Agency water use

5% reduction



# 89%

of Sound Transit's electricity comes from renewable sources



# Planet

Promoting stewardship to conserve the planet's natural environment

## LONG-TERM GOALS:

### Achieve carbon-free operations



#### Analyzing electric bus feasibility

To advance the agency's efforts toward carbon-free operations, in 2019 Sound Transit analyzed the feasibility of battery electric bus technology on STExpress and future BRT routes. The agency compared the performance of battery electric buses available today to current agency bus services to determine what percentage of routes could theoretically transition to carbon-free technology. Sound Transit will build on this analysis to inform future fleet procurement plans and infrastructure planning.



#### Electrifying the nonrevenue fleet

Sound Transit formalized its commitment to electrify the nonrevenue fleet in 2019 by joining the West Coast Electric Fleets initiative. Sound Transit joined this pledge at the Diamond Lane Partner level — which means the agency is committed to make more than 40% of new nonrevenue fleet purchases zero-emission vehicles. Over the next five years, Sound Transit will replace less efficient vehicles at the end of their life with electric vehicles. Electric vehicles emit zero carbon and have lower operating and maintenance costs, making them a clean and cost-effective alternative.



WEST COAST  
ELECTRIC  
FLEETS



#### Reducing energy use

In 2019 Sound Transit continued efforts to reduce energy use at agency facilities. One project this year retrofitted parking lot lights at Edmonds Station with energy-efficient LED lights. These lights use 60% less energy, and the project will save the agency money in both utility costs and annual maintenance.



### Enhance ecosystem functions

#### 2019 Progress:

Protecting regional ecosystems with mitigation projects

- ▶ Enhancing a section of Coal Creek to restore salmon habitat in the city of Bellevue as part of the East Link Extension Project. This mitigation project included installing large woody debris, stream gravel and riparian plantings to improve the physical stream features. In 2019 the city of Bellevue confirmed Chinook salmon were spawning in the enhanced section of Coal Creek within weeks of the project's completion.
- ▶ Returning two large areas of Ronald Bog Park in Shoreline to wetland, as part of the Lynnwood Link Extension Project. This project will improve water quality, increase flood storage and improve habitat for a diversity of wildlife.
- ▶ Correcting a fish passage barrier on Bingamon Creek, a salmon-bearing tributary to the Green River. This large box culvert will provide juvenile salmon access to high-quality upstream habitat for foraging and refuge during high flows.

# Prosperity

Support local economic prosperity by enabling residents and businesses to save time and money

## LONG-TERM GOAL:

Build resilience to climate change and natural or manmade disasters

### Assessing climate vulnerability for West Seattle and Ballard Link Extensions

Sound Transit is building its new Link light rail extensions with resiliency in mind. For the West Seattle and Ballard Link Extension, planners and engineers began a climate resiliency assessment in 2018 to ensure the project's design incorporates the latest scientific information about projected climate change impacts, such as sea level rise, increased precipitation events and localized flooding. The first phase of the project in 2019 was to update the agency's data regarding current and future climate impacts. In 2020 the team will apply this information to identify and provide solutions to potentially vulnerable locations and infrastructure that may be impacted and amend engineering directives to ensure resiliency.



## Key Performance Indicators

### Staff trained in emergency preparedness

37% of staff trained

### Projects that include Climate Change Vulnerability Assessments

100% of eligible projects

### Waste diverted

36%

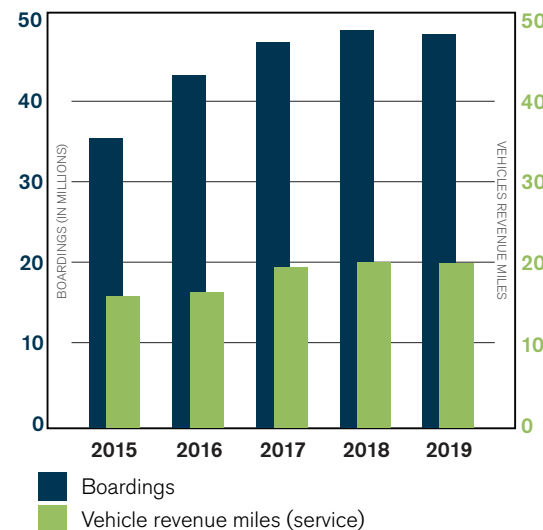
### % of and increase in dollar value of new procurements that include green methods and features

19% of procurements included green methods

48% decrease in dollar value from 2018

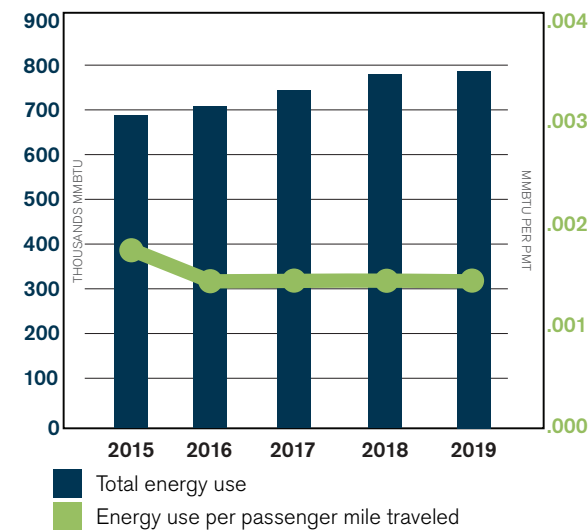
### Boardings and service

Sound Transit continues to carry more passengers per service levels every year.



### Revenue fleet energy use

All services continue to operate efficiently by carrying passengers further while using fuel more efficiently.





# Prosperity

Support local economic prosperity by enabling residents and businesses to save time and money

## LONG-TERM GOAL:

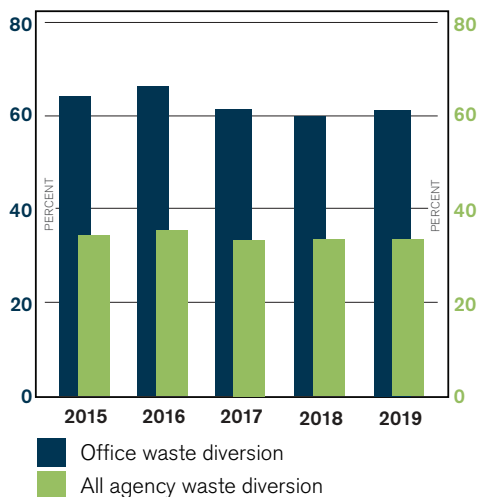
### Maximize operational efficiency

#### Applying total cost of ownership agencywide

To get a better handle on how to balance capital costs with long-term operating costs, the Finance Department, in collaboration with staff across the agency, created a template to evaluate total cost of ownership (TCO) and standardize the evaluation process. Additionally, the agency performed a handful of TCOs to evaluate the ORCA Next Gen, 130th St. Link Light Rail Infill Station and Everett Parking Garage projects as well as the Low Income Fare Program. To establish this as agency practice, Finance created an agency strategic plan goal to ensure the development of value engineering, service level changes and nonsystem expansion projects with total cost in mind.

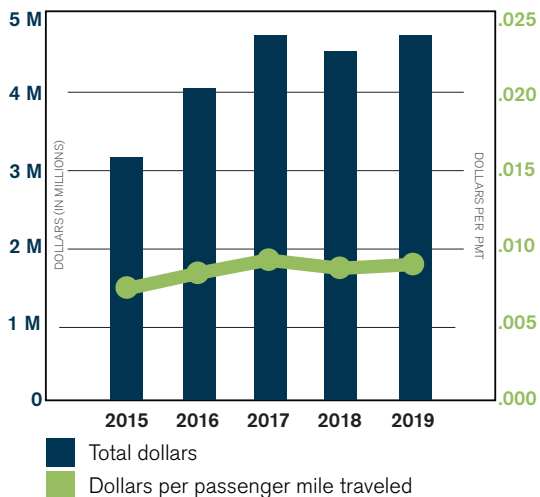
#### Waste diversion

Sound Transit continues to maintain a high waste diversion rate in our office buildings and is exploring ways to increase waste diversion from service operations.



#### Utility costs

Sound Transit is a growing agency, but has been able to keep costs per level of service relatively steady.



#### Reducing embodied carbon through LEED

As part of Sound Transit's Lynnwood City Center Station LEED Silver certification efforts, the design will reduce the station's embodied carbon by 10% over business as usual approaches. This achievement is the result of collaboration between Sound Transit's sustainability team, the project architect and contractor. Together they determined the most cost-effective approach to reducing the GHG emissions from the station's material use would be to use Portland Limestone Cement, which produces significantly lower GHG emissions in the production process over standard cement.

#### Advancing the Green Procurement Program

In 2019 Sound Transit continued efforts to advance our Green Procurement Program. The agency pursued additional capability to utilize electronic signatures on contracts. This will save the agency from printing lots of paper in the contracting process, as well as saving valuable time to execute contracts. The agency also implemented processes to receive informal procurements electronically — saving the printing of nearly 5,000 sheets of paper a year.

# 2019 Sustainability Targets

Sound Transit Year in Review

## People

- Contribute \$4 million to an affordable housing revolving loan fund.
- Sign agreement with the Seattle Office of Housing for affordable home ownership projects on agency surplus property in the Rainier Valley.
- Adopt Equity Policy and strategic plan.
- Fully implement inclusion and EEO staff training.
- Conduct a pay equity audit.
- Implement workplace flexibility policy.
- Complete System Access Strategic Plan.
- Update the noise mitigation policy and associated project delivery noise and vibration protocols.

## Planet

- Power Link light rail with 100% clean energy.
- Initiate battery electric bus feasibility study for ST bus services.
- Develop and initiate nonrevenue fleet electrification plan.
- Join West Coast Electric Fleets, pledging to expand use of zero-emission vehicles.
- Complete four energy efficiency projects at existing sites/facilities.
- Evaluate agency properties for known or potential contamination and establish a closeout strategy.

## Prosperity

- Conduct Climate Vulnerability Assessment for West Seattle to Ballard Link Extension project.
- Initiate LEED Existing Building Operations and Maintenance certification process for Union Station.
- Enable Procurement and Contracts staff to use e-signature to execute contracts.
- Receive 30% of informal Procurement and Contracts offers (bids, quotes or proposals) electronically.
- Increase the number of solicitations that use green procurement methods by 10% over 2018 levels.
- Document protocols for archaeological compliance during construction.
- Propose a procedure to implement Total Cost of Ownership analysis within the agency.

*\* These partially completed targets are on track for finalization in 2020*

# 2020 Environmental and Sustainability Targets

Supporting people, planet and prosperity

## People

- Evaluate surface parking for future development with Tacoma Dome Link Extension as case study
- Analyze use of cross-laminated timber and modular housing for equitable transit-oriented development
- Launch Racial Equity Tool and accountability-based outcome trainings
- Initiate workforce pre-apprenticeship programs with three new partner organizations
- Implement new Employee Assistance Plan and well-being platform
- Create distinct career paths for management, professional and technical track staff

## Planet

- Define long-term strategy for battery electric bus implementation
- Pilot low-carbon strategies in Sounder Maintenance Base design
- Catalogue environmentally beneficial features of agency mitigation sites
- Implement program to address ST properties listed as contaminated; complete evaluation of 10 sites
- Update tracking and reporting system for environmental and permitting commitments
- Upgrade irrigation controls at four facilities
- Develop and implement interagency agreement to identify potential fish passage barriers early during capital project development
- Conduct feasibility study for LEED Platinum and other certifications for Operations and Maintenance Facility South

## Prosperity

- Launch emergency preparedness employee awareness campaign
- Conduct climate vulnerability assessment for Tacoma Dome Link Extension project
- Implement advanced utility monitoring and reporting systems
- Launch Internal Innovation Grant Program
- Implement the Agency Safety Plan
- Initiate a strategic Asset Management Plan
- Enable Procurement and Contracts to receive paperless proposals and other related or relevant documents
- Transition the Procurement and Contracts Division to an electronic filing system (vs. hard copy files) for 50% of solicitations





For more information contact [esms@soundtransit.org](mailto:esms@soundtransit.org)  
or visit [soundtransit.org/environmental](https://www.soundtransit.org/environmental)

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