



# 2022 Sustainability Progress Report

Building a better tomorrow

August 2023





# At a glance



**ENVISION  
PLATINUM  
CERTIFICATION**

on the Downtown  
Redmond Link Extension

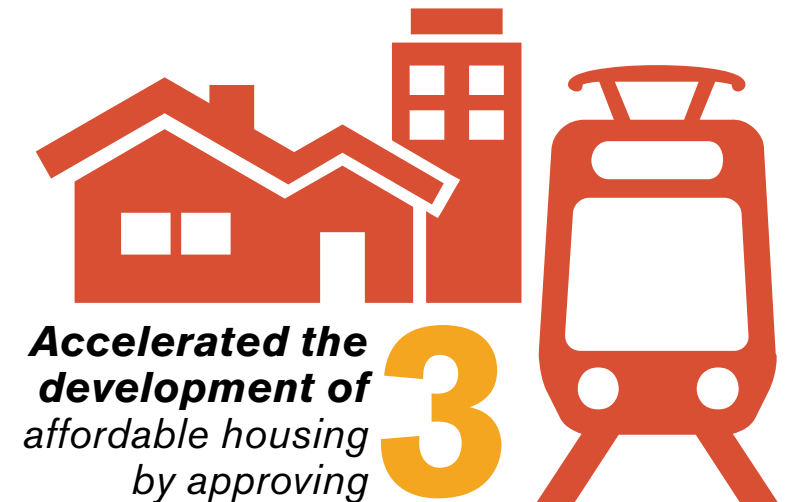


AVOIDED NEARLY  
**194K**  
TONS

of greenhouse  
gas emissions

*FROM PASSENGERS  
TAKING TRANSIT*

SAVED NEARLY  
**\$1M**  
**ANNUALLY FROM**  
**48** ongoing resource  
efficiency projects



**Accelerated the  
development of**  
affordable housing  
by approving

**3**

advancing construction on  
**450 units** of affordable  
housing.



IMPLEMENTED  
**RACIAL EQUITY  
TOOLKITS**

ON **2** PROJECTS

**REDUCED**  
OPERATIONAL  
GREENHOUSE GAS  
EMISSION BY

**24%**

compared to  
**2018** BASELINE

**AWARDED**  
**\$9.3M**  
FTA GRANT TO  
PURCHASE



battery electric buses for the  
**Stride Bus Rapid Transit**  
program

DIVERTED  
**73%**

**of waste**

IN AGENCY  
HEADQUARTERS  
BUILDINGS







# Sustainability

## Sustainability at Sound Transit

**Sustainability is at the core of our mission: connecting more people to more places to make life better and create equitable opportunities for all.** Investing in transit builds a better future by supporting a clean environment, connecting communities, and fostering vibrant economies. Sound Transit supports regional sustainability by continuing to serve the riders who depend on transit the most.

Sustainability helps further our mission by:

- Providing affordable, safe regional transportation options.
- Promoting stewardship that conserves the planet's natural environment.
- Supporting community prosperity by helping residents and businesses save time and money.

Sound Transit uses a robust Environment and Sustainability Management System to guide our 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

**This year's Annual Progress Report summarizes our efforts to achieve long- and short-term environmental and sustainability goals, and it highlights the ongoing challenges of the agency's recovery to a new normal.**

Analysis and performance measures in this report focus on how Sound Transit uses its resources — including through capital project planning and design — and how we operate our services. (This report does not include resource use from agency construction.)

The pandemic dramatically altered travel patterns throughout the region, as clearly reflected in ridership and resource use trends. While 2020 and 2021 data illustrated an abrupt break from the agency's improving efficiency and sustainability performance over the past five-plus years, 2022 data shows the agency's ongoing recovery and adjustment to a new normal.

The data in this report focuses on the metrics set by Sound Transit's Sustainability Plan, which established 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 and key performance indicators.

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.

**Sustainability helps further our mission by providing affordable, safe, and environmentally friendly regional transportation options.**



14001:2015

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







# Transit is sustainable

**Sound Transit's regional system expansion is essential to Central Puget Sound's sustainable future.** We promote sustainability by developing and operating regional transit and fostering smart growth. The agency's focus on rebounding ridership to pre-pandemic levels is also an integral component of our sustainability goals.

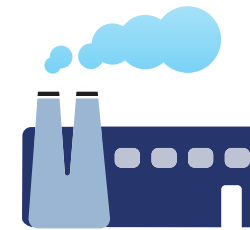
Capital expansion will help more people travel affordably and reliably on environmentally friendly buses and trains throughout the region's growing communities. Expanding mass transit services benefits everyone by offering a less carbon-intensive means of travel, which decreases air and water pollution. Plus, transit also:



**SAVES TIME**



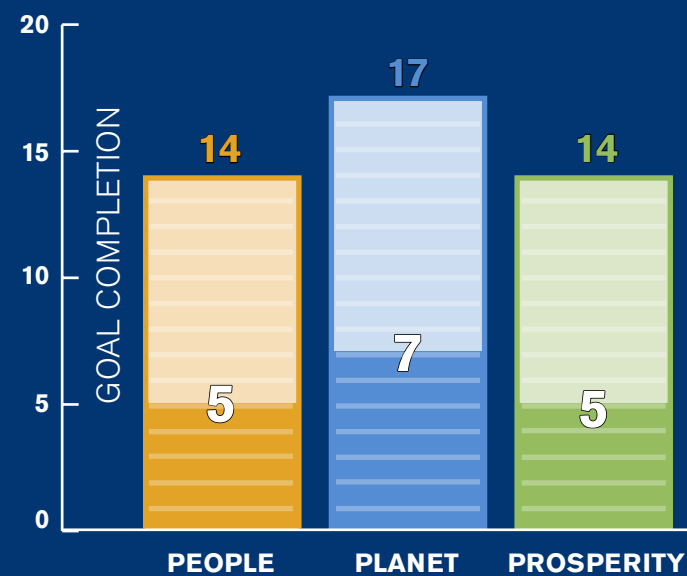
**SAVES FUEL**



**IMPROVES  
AIR QUALITY**



**SAVES MONEY**



## Progress toward the Sustainability Plan

This report includes both data on Sound Transit's operational performance from a resource-use perspective and progress on short-term goals in the Sustainability Plan. As of 2022, **Sound Transit has completed 17 of the plan's 45 short-term goals, and we're on track to complete the majority of these by 2024.**

# TOTAL # COMPLETED

## Key accomplishments

We achieved a number of important sustainability accomplishments over the last year that leverage social, environmental, and financial benefits for the region's future. In 2022, Sound Transit:

- Was awarded for having the "Most Transformative" Sustainability Plan by the FTA's Healthy Planet Challenge.
- Received Envision Platinum certification for the Downtown Redmond Link Extension.
- Avoided nearly 194,000 tons of greenhouse gas emissions from passengers taking transit, nearly four times the amount of emissions the agency produced from operations. This is more than double the amount of emissions avoided than in 2021.
- Saved nearly \$1M from 48 new and existing sustainability and resource efficiency projects.
- Accelerated the development of affordable housing by approving three new sites for mixed use TOD development and advancing construction on 450 units of affordable housing.

## Continual improvement

Sound Transit is committed to improving sustainability performance year after year. In the next year, we'll focus our sustainability efforts on:

- Continuing planning efforts to decarbonize the agency's revenue fleet, prioritizing internal and partner agency coordination.
- Prioritizing green procurement by reducing the use of materials with high carbon content.
- Demonstrating our policy commitment to reducing emissions from transportation by participating in the Washington State Clean Fuel Standard and other policy mechanisms.
- Preparing for the expansion of publicly accessible electric vehicle charging at Sound Transit parking facilities per compliance with the Washington State's new building code.
- Prioritizing strategies to address the greenhouse gas emissions that are difficult to reduce, including refrigerants and facilities' natural gas use.



# People

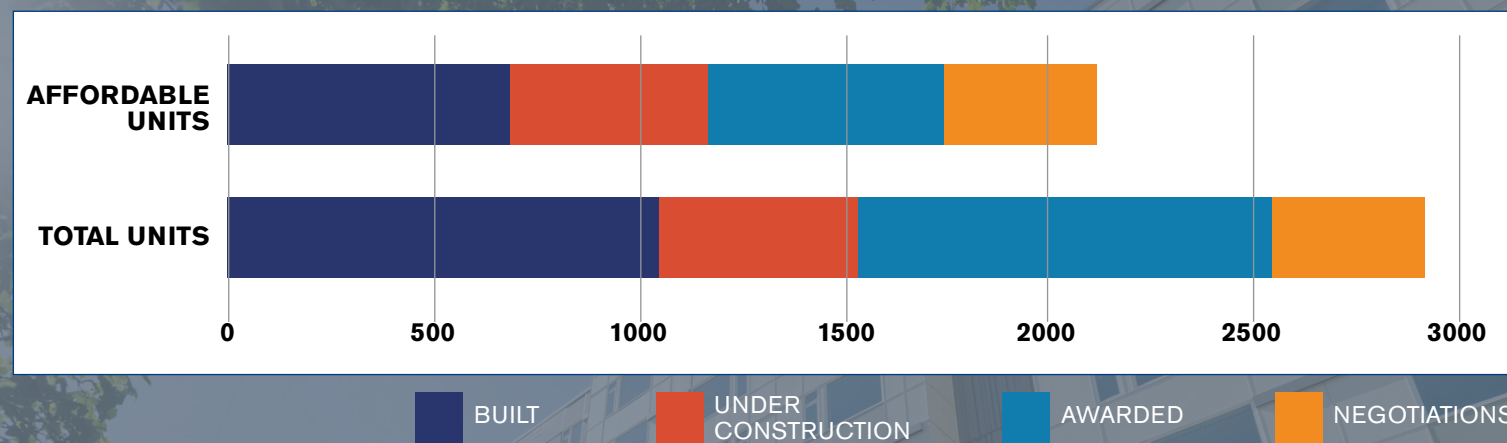
Helping people move freely, affordably and healthily by providing regional transit service

## Supporting affordable housing

**Sound Transit's Transit-Oriented Development program creates diverse, vibrant, and mixed-income communities around transit.** To achieve these outcomes, the agency offers its surplus properties — those acquired for building and operating the transit system but no longer provide a transit use — as development opportunities for affordable housing or other developments with public benefits.

In 2022, TOD at Sound Transit was advanced by:

- Welcoming residents to new affordable homes at the Cedar Crossing building at the Roosevelt Station TOD site.
- Partnering with the Washington State Housing Finance Commission on aligning \$200M in the Commission's bond financing for affordable housing built on ST TOD sites.
- Approving three new sites for mixed use TOD developments: Overlake Village, Kent Des Moines, and U District stations.
- Advancing construction on more than 450 units of affordable housing, including units for families, formerly unhoused seniors, and LBGTO+ seniors.
- Awarding three former Sound Transit surplus properties as home building sites to the Rainier Valley Affordable Housing Initiative via the City of Seattle.



## Key performance indicators

### Dollars contributed to affordable housing revolving loan fund:

\$4 million

### Staff trained in equity and inclusion:

95% of staff completed Equal Employment Opportunity Training.

78% of staff completed Implicit Bias Training.

48% of staff completed Inclusion Training.

11% of staff completed Microaggressions in the Workplace Training.

### Total hours worked on ST job sites in 2022:

36% by people of color.

8% by women.

18% by apprentices.

### Staff who have earned sustainable professional accreditations:

47 Envision Sustainability Professionals.

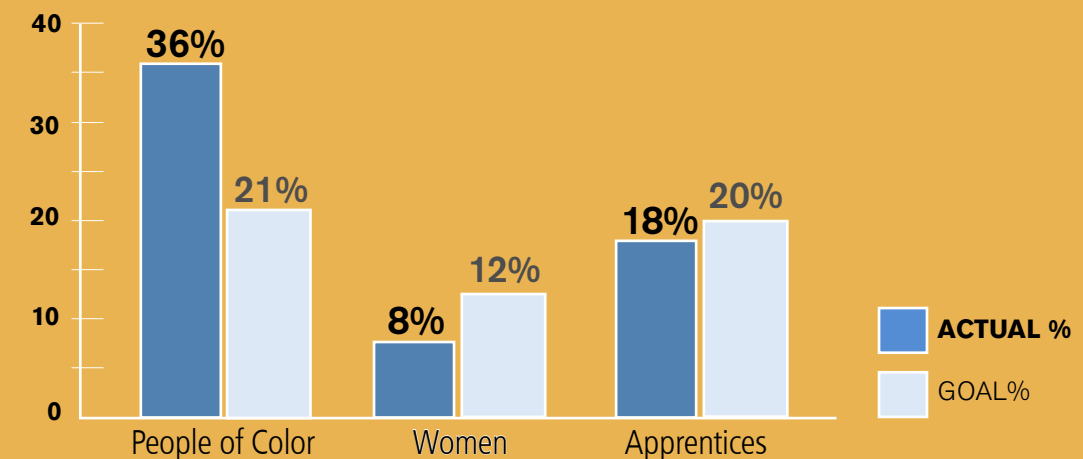
11 LEED Accredited Professionals.

12 other sustainability certifications.

## Employing Puget Sound residents

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

In 2022, Sound Transit's construction projects directly employed more than 8,737 people who worked 3.8 million hours and earned \$198 million in wages.







## Social equity addressed and implemented as an agency value



### Implementing an agency Racial Equity Toolkit (RET)

In Feb. 2022, Sound Transit's Office of Civil Rights, Equity, and Inclusion officially published the agency's first Racial Equity Toolkit. They spent much of the year building staff and stakeholder awareness about the tool and training for implementation via a broad internal stakeholder process. By the end of the year, two major capital projects Everett Link Extension and Tacoma Dome Link Extension were implementing RETs, with several more slated for 2023. The tool requires thinking beyond the traditional topics of "scope, schedule, and budget" for large infrastructure projects. CREI and the agency emphasize that the value of the RET is as much about the process as it is about the product; stakeholders should expect that implementing a RET often means grappling with topics and issues that may elicit uncertainty and discomfort.

The tool requires thinking beyond the traditional topics of "scope, schedule, and budget" for large infrastructure projects.

### Positioning Sound Transit to implement anti-racist values

In the spring of 2022, the Office of Civil Rights, Equity, and Inclusion procured a racial equity consultant to help support the development and implementation of Sound Transit's Anti-Racist Strategy. PRR (the primary consultant) and Racing to Equity (R2E) spent much of the year uncovering the agency's current employee profile, including demographic data, employee surveys, and a variety of other related material. In the late summer/early fall they also conducted a round of listening sessions with a small number of Sound Transit employees. This culminated in a summary report that will be used to inform the next phase which is development of the ARS work plan.



## All staff champion sustainability

### Receiving national recognition for promoting sustainability at all levels

The FTA launched the Sustainable Transit for a Healthy Planet Challenge to encourage transit agencies to take bold action to further reduce GHG emissions from public transportation to support national GHG reduction goals. The challenge called on transit agencies to develop climate, sustainability, or electrification or zero-emission transition plans that included strategies with measurable goals to achieve GHG emission targets. On Earth Day 2022, FTA recognized the exemplary efforts of 10 transit agencies that are reducing greenhouse gas emissions with unique strategies that work for their systems and communities. Sound Transit received the "Most Transformative" award for developing a plan demonstrating sustainability throughout the agency, including fleets, facilities, and operations.





# Planet

Promoting stewardship to conserve the planet's natural environment

## Increasing environmental benefits

**Sound Transit and our partner services provide tangible environmental benefits for the region's growing communities.** For example, when residents choose transit instead of driving alone, they reduce air and water pollution.

Passengers taking Sound Transit avoided nearly 194,000 tons of greenhouse gas emissions annually. This represents a 59% increase in avoided emissions since 2021, illustrating a ridership rebound as the region recovers from the COVID-19 pandemic. In 2022, Sound Transit avoided nearly four times the amount of emissions the agency produced, compared to nearly six times the emissions produced in 2019.

**The avoided emissions are equivalent to:**



Burning nearly 22 million gallons of gasoline.

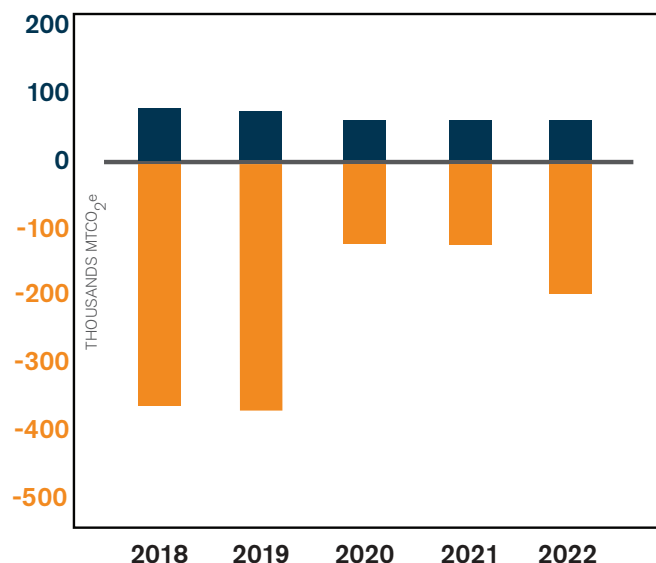
Providing electricity for nearly 38,000 homes for a year.

The carbon captured by growing more than three 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.

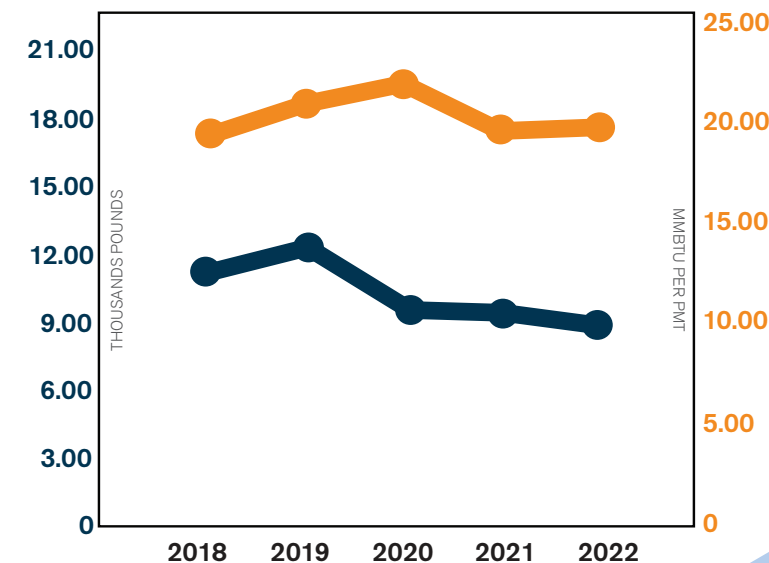
■ Agency emissions from operations  
■ Regional emissions avoided when residents take transit



### Reducing air pollution

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

■ PM10  
■ Carbon monoxide



## Key performance indicators

### Greenhouse gas emissions:

24% reduction

### Criteria air pollutants:

Particulate matter: 22% decrease / volatile organic compounds: 15% decrease / nitrogen oxides: 1% decrease / carbon monoxides: 1% increase / sulfur oxides: 10% decrease

### kWh renewable energy production:

265,161 kWh produced in 2022

### Energy used in facilities built before 2018:

0% reduction

### Number of fineable environmental compliance violations:

0 violations in 2022

### Agency water use:

12% decrease

90%  
of Sound Transit's  
electricity comes from carbon free  
sources





## Achieve carbon-free operations

### Investing in electric buses

**In 2022, the Biden-Harris administration announced over \$1.6 billion in bipartisan infrastructure law funding to nearly double the number of clean transit buses on roads in the United States.** Sound Transit received \$9.3 million for our Stride Bus Rapid Transit program. This funding will support our purchase of electric buses and associated charging equipment for new bus rapid transit service along the SR 522 corridor. “With today’s awards, we’re helping communities across America — in cities, suburbs, and rural areas alike — purchase more than 1,800 new buses, and most of them are zero-emission,” said U.S. Transportation Secretary Pete Buttigieg.



“Funded through President Biden’s Bipartisan Infrastructure Law, this announcement means more good jobs for people across the country, cleaner air in our communities, and more affordable and reliable options to help people get where they need to go.”

U.S. Transportation Secretary Pete Buttigieg

### Committing to sustainable infrastructure

**The Institute for Sustainable Infrastructure (ISI) awarded Sound Transit’s Downtown Redmond Link Extension it’s highest award - Envision Platinum - for sustainable infrastructure for improvements to the social, economic, and environmental conditions of its community.** The project is the first transit project in the Pacific Northwest to receive verification by ISI and only the ninth Envision Platinum-rated transportation project in the nation. Envision is an internationally recognized rating system for sustainable infrastructure projects and addresses a wide range of project factors such as quality of life, management, planning, materials, energy, water, environmental impacts, emissions, and resilience. “We are proud of this achievement and look forward to continuing our work to provide environmentally friendly public transit that connects people throughout the Puget Sound region to where they live, work, and play” Said Kimberly Farley, Sound Transit’s chief system officer at the time.



“Doing this well on the first attempt at Envision verification is a testament to Sound Transit’s long and deep commitment to excellence in sustainability,”

Kimberly Farley, former ST chief system officer

## Enhance ecosystem functions

### Quantifying ecosystems services

**Sound Transit is a committed steward of the natural environment.** One area where the agency is beginning to evolve our approach and understanding is through the measurement of ecosystem services. Ecosystem services refer to the various benefits that humans derive from the natural environment such as monetary assets like timber, water, fish, and soil, as well as nonmonetary benefits like recreation, water purification, and flood management. Measuring ecosystem services is a useful way to understand the contributions of ecosystem functions and consider environmental, social, and cultural benefits.

Sound Transit is working towards developing tools that will allow us to assess what services our projects provide for communities. In the future, this can allow us the guide future project actions to maximize public benefits beyond what is required by regulatory agencies and permits.





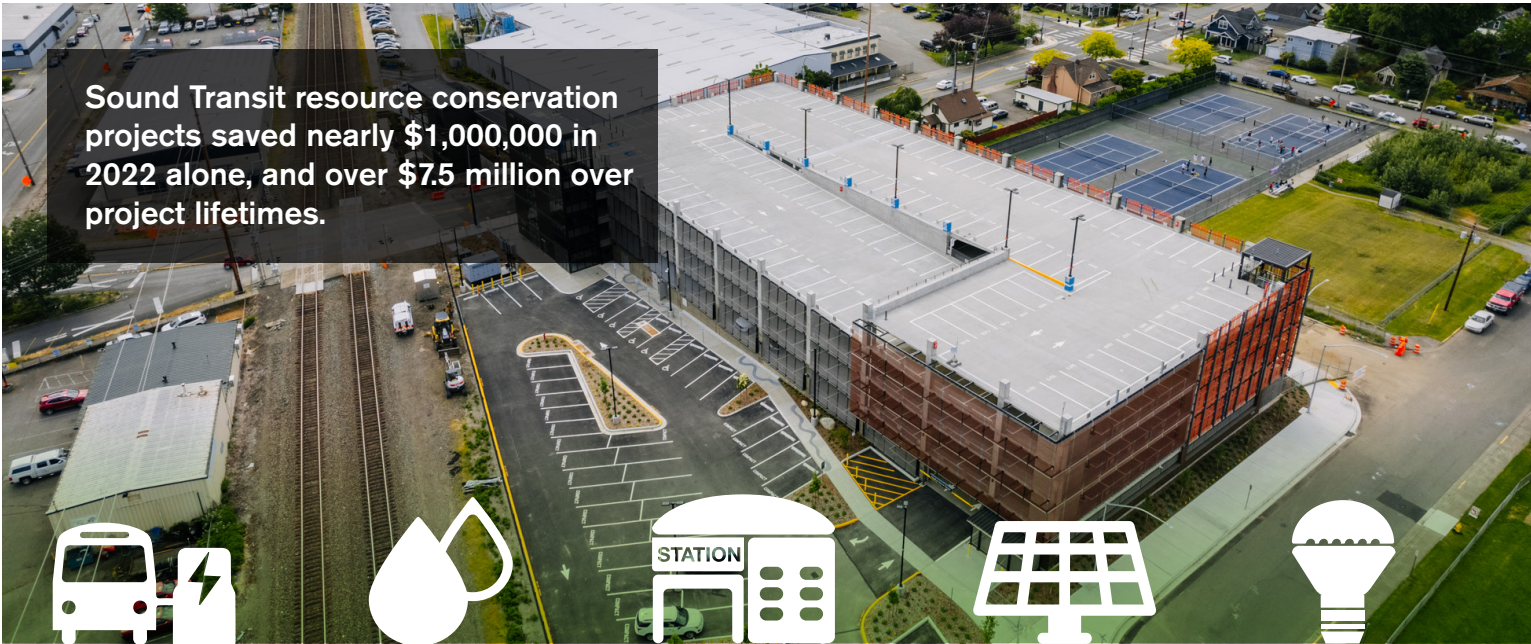


# Prosperity

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

## Saving taxpayer dollars

**Sound Transit invests in sustainability — and sustainability pays us back.** Over the past 10+ years, we’ve invested in many projects that save natural resources and save the agency money. These projects include operational improvements like using electric wayside power units on Sounder trains to reduce the idling of diesel engines and upgrading inefficient lighting to LEDs. This sample of the agency’s resource conservation projects saved Sound Transit nearly \$1,000,000 in 2022 alone, and over \$7.5 million over project lifetimes.



<b>\$652K</b>	<b>\$47K</b>	<b>\$48K</b>	<b>\$22K</b>	<b>\$217K</b>
Fleet Upgrade Projects	Irrigation Projects	Facilities Upgrade Projects	Solar Installations	LED Lighting Upgrade Projects

	2022 Savings	Savings to date
Fleet upgrade projects	\$651,866	\$5,673,312
Irrigation projects	\$46,951	\$378,985
Facilities upgrade projects	\$47,925	\$255,534
Solar installations	\$21,921	\$58,874
LED lighting upgrade projects	\$217,242	\$1,179,041

More details on sustainability cost savings are located in Appendix B.



## Key performance indicators

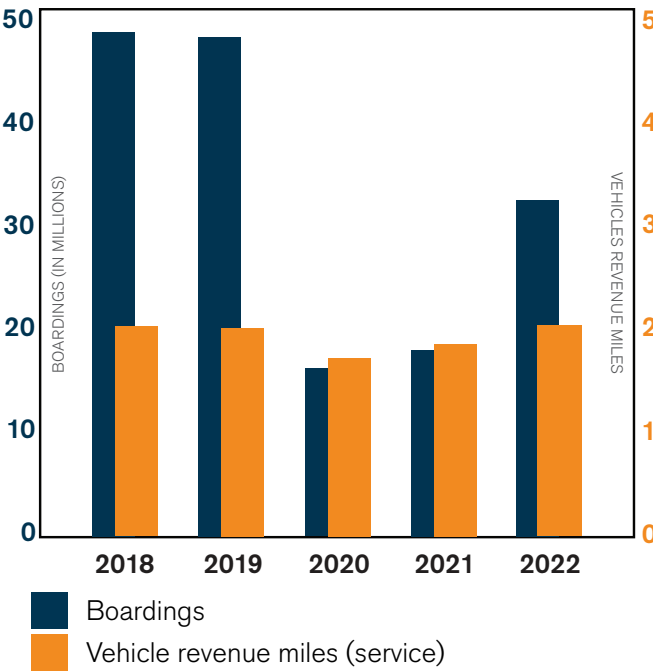
**Staff trained in emergency preparedness**  
1,050 staff trained in core safety training.  
173 staff attended safety lunch and learns.  
187 staff trained in a non-revenue vehicle safe driving course.  
38 staff certified in First Aid/CPR/AED.  
85 staff trained in Stop The Bleed.

**Projects that include Climate Change Vulnerability Assessments:**  
100% of eligible projects.

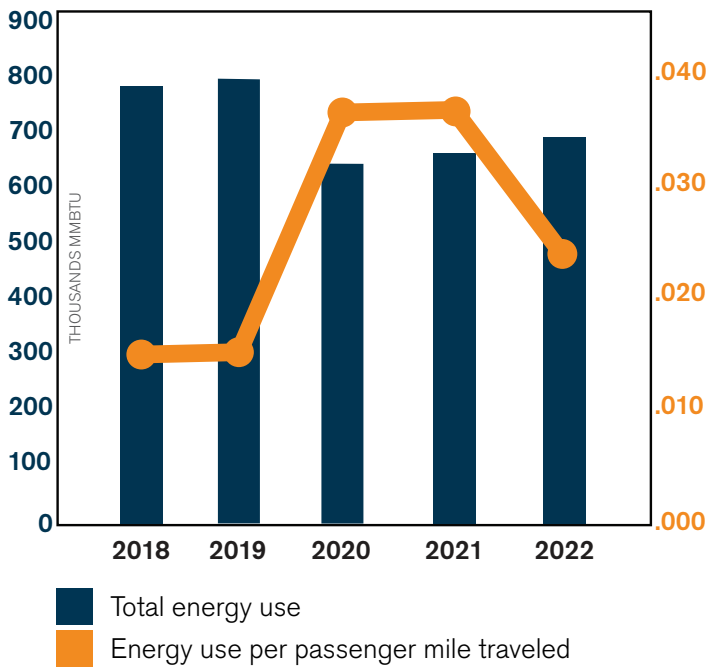
**Waste diverted**  
35%

**Percentage of and increase in dollar value of new procurements that include green methods and features:**  
10% of procurements included green methods | 121% decrease in dollar value from 2018, 70% increase in dollar value from 2021.

**Boardings and service**  
Sound Transit carried more passengers per service levels every year, until the disruption of the COVID-19 pandemic.



**Revenue fleet energy use**  
All services continued to operate efficiently by carrying passengers further while using fuel more efficiently, until the disruption of the COVID-19 pandemic.







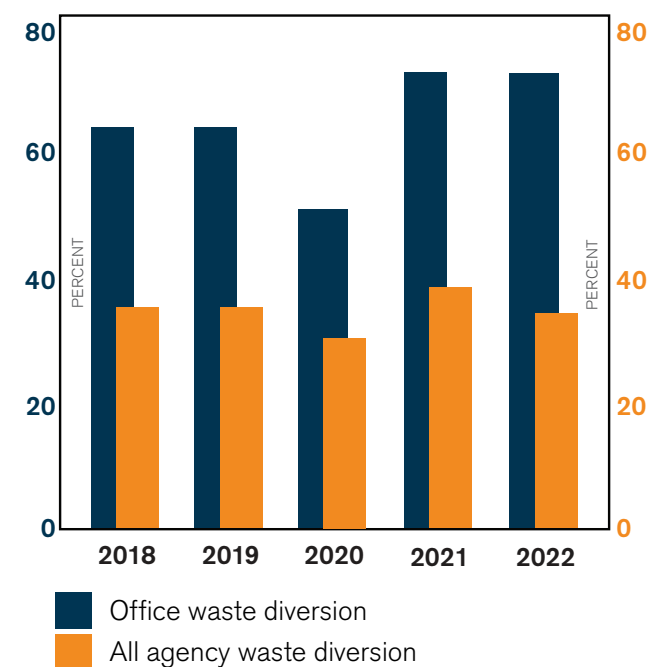
## Build resilience to climate change and natural or humanmade disasters

### Integrating resiliency into agency design requirements

**Sound Transit initiated its effort to integrate climate vulnerability considerations into the revision of its design requirements.** Sustainability staff worked with subject matter experts across the agency to ensure that the design requirements address future heat, localized flooding, and sea level rise impacts into the agency's design standards. This approach ensures that the agency not only prepares for the current climate, but also makes the agency resilient to the increased occurrence of climate change impacts that are expected in our region.

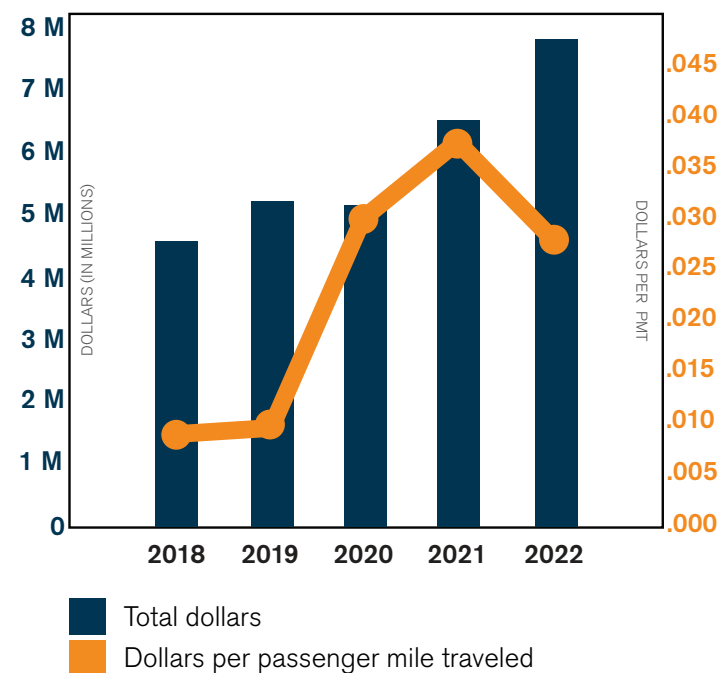
### Waste diversion

*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, until the disruption of the COVID-19 pandemic.*



## Maximize operational efficiency

### Pursuing continuous process improvements

**Sound Transit believes in the continuous improvement power of management systems.** In addition to the agency's long standing Environmental and Sustainability Management System, we are also pursuing asset management systems and safety management systems. In 2022 Sound Transit made progress on these developing management systems through a number of advancements:

- Our CEO Julie Timm signed Sound Transit's Asset Management Policy, which establishes a commitment to safety, reliability and sustainability by preventing assets from deteriorating below a state of good repair and taking a whole lifecycle approach to strategically manage assets and asset knowledge.
- The Safety team developed an ISO 45001 and FTA Safety Management System Implementation Plan to prioritize and address high-risk items in pursuit of ISO certification.





# 2022 Sustainability Targets

Sound Transit Year in Review

## People

- ☐ Create potential delivery approaches for joint-development projects integrated with new park-and-ride facilities. \*
- ☒ Support the opening of more than 600 affordable rental housing units.
- ☐ Finalize sustainability guidelines for transit-oriented development projects. \*
- ☒ Begin anti-racist strategy work plan implementation.
- ☒ Launch the Racial Equity Toolkit and Equitable Engagement Tool implementation plan.
- ☒ Host five anti-racism workshop cohorts for ST employees.
- ☒ Enhance training and technical opportunities to prepare DBEs to lead ST contracts.
- ☐ Define options for implementing flexible access improvements for delayed parking facilities. \*
- ☐ Expand the permit parking program's authority to include daily permits. \*
- ☒ Establish agencywide sustainability networking and educational forum for all staff.

- ☒ Identify key DECM and PSO staff to pursue sustainability professional accreditations.
- ☒ Refine hybrid workforce standards and conduct trainings on hybrid best practices.
- ☒ Launch self-service resources for IT service desk.
- ☒ Support retirement readiness program.
- ☐ Launch Passenger Information Management System. \*
- ☒ Set up job-description platform with revised ADA requirements.

## Planet

- ☒ Propose carbon-free operational design standards for new facilities.
- ☒ Draft a roadmap for achieving carbon-free operations for facilities and fleets by 2050.
- ☐ Develop zero-emissions implementation plan for agency bus fleets. \*
- ☒ Evaluate the potential to use renewable diesel fuel in agency bus fleets.
- ☒ Increase green building standard to LEED Gold for new facilities.
- ☒ Set low-carbon concrete requirements for three new facilities.
- ☒ Refine the cataloguing of ecosystem services to be evaluated for ST mitigation sites.
- ☒ Survey SBE/DBE contractors' equipment inventory to determine air quality emissions.
- ☒ Evaluate two new green building standards.
- ☒ Clarify and document Tribal engagement protocols for capital projects.

\* These partially completed targets are on track for finalization in 2023





# 2022 Sustainability Targets

Sound Transit Year in Review



## Prosperity

- ☐ Initiate Snohomish County Threat Hazard Identification Risk Analysis. \*
- ☐ Revamp staff emergency preparedness plans for hybrid workforce. \*
- ☒ Standardize climate vulnerability assessment implementation for capital projects.
- ☒ Incorporate sustainability into non-system expansion projects by including screening criteria in the Portfolio Review Board and department-level pre-screening processes, as appropriate.
- ☒ Update and approve Asset Management policy.
- ☒ Prioritize and address high-risk items for safety management system ISO certification.
- ☐ Implement centralized hazard database to streamline safety and security hazard management. \*
- ☒ Draft operating plans to support LEED EBOM certification at Union Station.
- ☒ Expand the Green Procurement program to include all staff.
- ☒ Embed sustainability into the evaluation criteria for all Architecture and Engineering and Qualifications-Based Construction procurements.
- ☒ Develop and implement the Procurement & Contracts Division electronic contract library for all agency access.

*\* These partially completed targets are on track for finalization in 2023*





# 2023 Environmental and Sustainability Targets

— Supporting people, planet and prosperity

## People

- ☐ Identify resources and partnership opportunities to restore a stream on Sound Transit's transit-oriented development property next to Lynnwood Transit Center.
- ☐ Support a minimum of five staff in earning new LEED and Envision credentials.
- ☐ Enhance employee wellness benefits with expanded support for mental and physical health.
- ☐ Launch Talent Guard, career path, succession management and employee career profile initiatives.

## Planet

- ☐ Create a sustainability dashboard to track operational greenhouse gas emissions.
- ☐ Purchase first battery electric truck for the agency's non-revenue vehicle fleet.
- ☐ Begin bus procurement for Stride, the agency's first battery electric bus fleet.
- ☐ Generate revenue from electric transit service under Washington state's Clean Fuel Standard.
- ☐ Design Stride's Bus Base North to operate as a fossil fuel-free facility.

- ☐ Conduct zero-emission locomotive feasibility study for Sounder rail service.
- ☐ Identify and evaluate ecosystem services on a representative Sound Transit project.
- ☐ Begin water use reduction feasibility study by reviewing landscape standards that are less water dependent.
- ☐ Initiate LEED Platinum and Fitwel feasibility studies for the West Seattle and Ballard Link Extensions & Operations and Maintenance Facility South.
- ☐ Update environmental commitment tracking system tools for improved efficiency and effectiveness.
- ☐ Implement the Preliminary Environmental Site Assessment for due diligence studies on the West Seattle and Ballard Link Extensions and Everett Link Extension.
- ☐ Review and revise Environmental Corrective Action Report system to enhance construction contractor environmental compliance.
- ☐ Establish framework for agency Stormwater Management Program.

## Prosperity

- ☐ Reevaluate King and Pierce counties' Threat Hazard Identification Risk Analysis.
- ☐ Reevaluate floor captain responsibility for a hybrid work environment.
- ☐ Integrate climate resiliency into design requirements.
- ☐ Identify and prioritize construction materials where the carbon content can be reduced.
- ☐ Meet 2023 competitive grant assumptions, including at least one sustainability grant.
- ☐ Evaluate renewable diesel feasibility for use in emergency power generation at Sound Transit facilities.
- ☐ Build model to determine transportation efficiencies in labor deployment management.
- ☐ Hire an Energy Manager and develop a strategic plan for compliance with the Washington Clean Buildings Performance Standard.
- ☐ Begin incorporating climate change adaptation strategies in Tacoma Link Asset Management Plan.
- ☐ Educate all staff about green procurement options for micro-purchases.
- ☐ Finish Procurement, Contracts and Agreements e-file library development and migrate required legacy contracts and Agreements to the new system.