



# *Sustainability Plan – 2019 Update*

Building a better tomorrow

January 2019

# Sustainability Plan – 2019 Update

The 2019 update to Sound Transit's Sustainability Plan revises the agency's vision and demonstrates new opportunities to improve quality of life in Central Puget Sound. The plan sets short- and long-term goals to ensure that Sound Transit remains a regional and national sustainability leader.

## What does sustainability mean to Sound Transit?

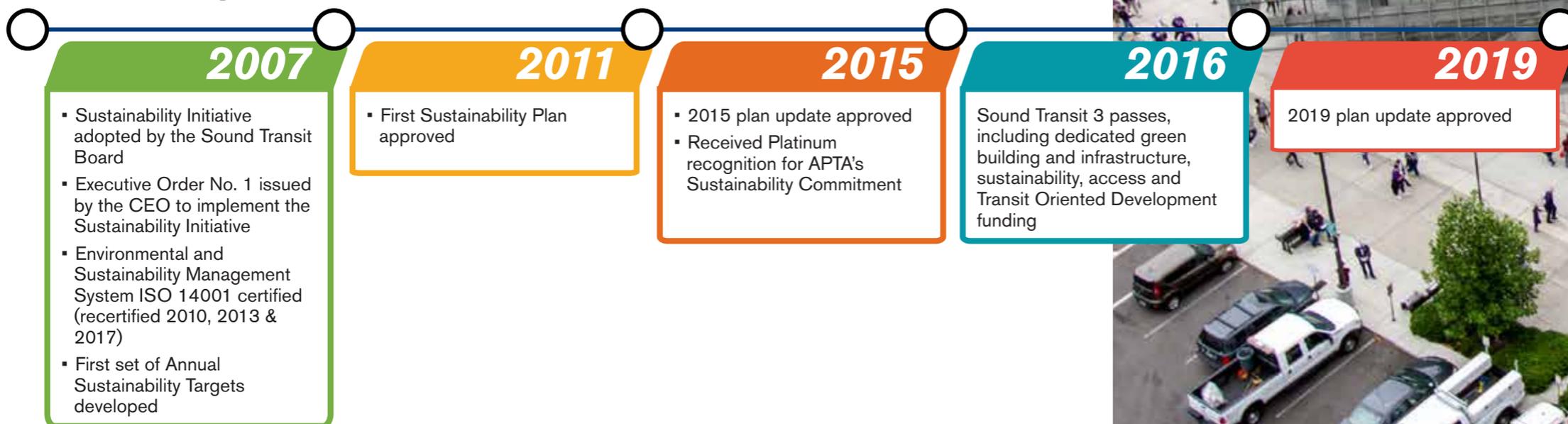
Sustainability is at the core of Sound Transit's mission to **connect more people to more places** efficiently, affordably, reliably and in an environmentally friendly manner. Investing in transit builds a better future, cleans the environment, and supports both healthy communities and vibrant economies.

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, we think about how to deliver our mission with respect to:

- We help **People** move freely, affordably and healthily by providing regional transit service.
- We promote stewardship that conserves the **Planet's** natural environment.
- We support community **Prosperity** by providing affordable mobility and access to opportunity.

## Sustainability at Sound Transit



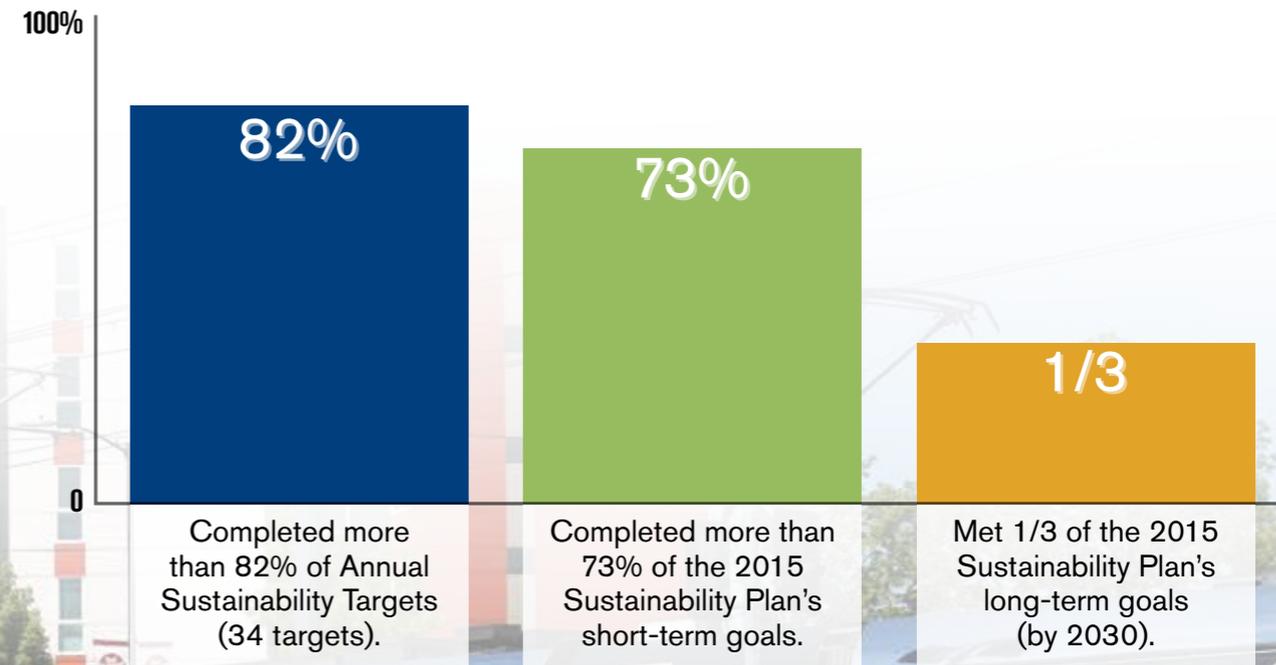
# Continually Improving

This update to the agency's sustainability vision reaffirms the agency's emphasis on environmental goals while focusing renewed attention on strengthening social and economic sustainability efforts.

**This update emphasizes new short-term goals to guide the agency's sustainability efforts for the next five years and amends long-term goals to set our high-level vision to 2050.** Since Sound Transit adopted its first Sustainability Plan in 2011 and through the 2015 update, the agency has continued to incorporate sustainability principles into its daily practices and strengthen areas of focus in response to community input.

*Voters approved a capital expansion plan that will provide 200 million rides by 2041, fund sustainable building and infrastructure, access improvements and provide development opportunities for affordable housing and Transit Oriented Development.*

## Sustainability Progress Since 2015, the agency has



Certified three facilities as LEED green buildings; planning six more.



Committed two projects to pilot ENVISION green infrastructure rating system.



Required clean diesel construction equipment for all projects.



Recertified Sound Transit Environmental and Sustainability Management System (ESMS) to the international ISO 14001: 2015 Standard.



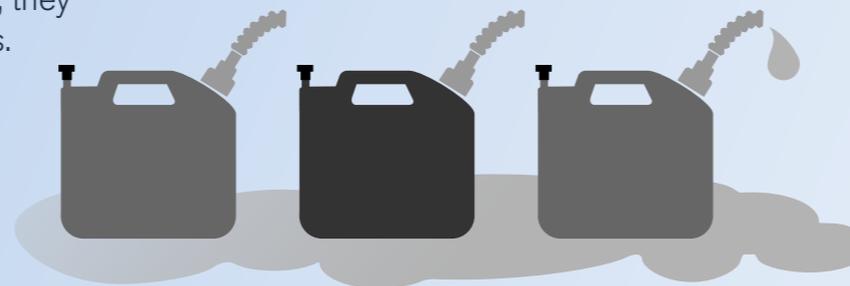
Achieved platinum-level recognition with the American Public Transportation Association's Sustainability Commitment to recognize sustainability achievements.

# Transit is sustainable

The agency's mission is connecting more people to more places. Sound Transit promotes sustainability by developing the regional transit system, increasing its ridership and promoting smart growth that supports ridership.

When people choose transit instead of driving alone, they reduce air pollutant emissions, among other benefits.

Tons of greenhouse gas emissions diverted	
IN 2017	BY 2041
425,000	793,000

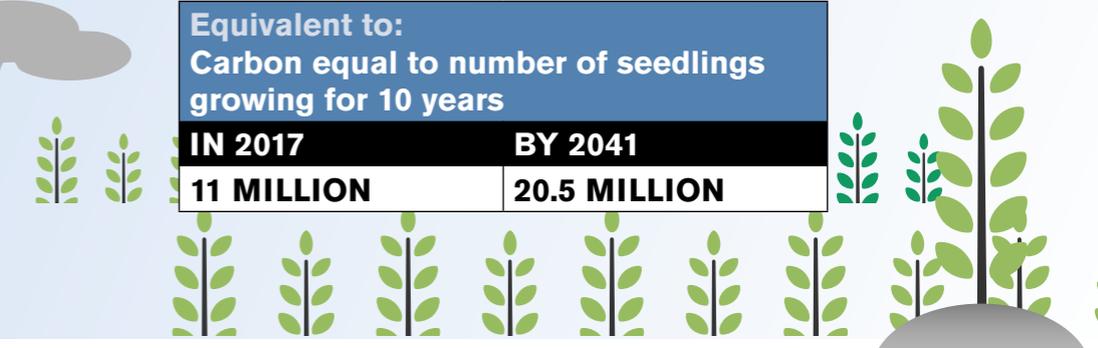


Equivalent to: Gallons of gasoline saved	
IN 2017	BY 2041
48 MILLION	89 MILLION

Equivalent to: Number of homes worth of electricity saved	
IN 2017	BY 2041
63,000	117,000



Equivalent to: Carbon equal to number of seedlings growing for 10 years	
IN 2017	BY 2041
11 MILLION	20.5 MILLION

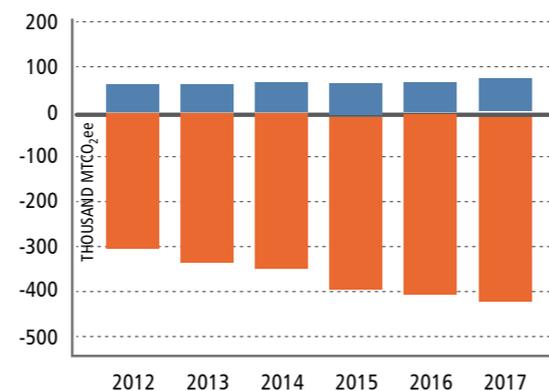


## Operating cleaner transit every year

Over the past six years Sound Transit has made considerable progress on our quantitative environmental goals. The agency's efforts resulted in:

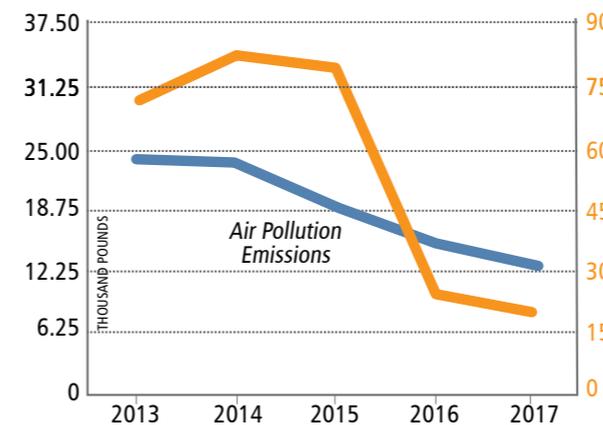
- Avoiding more greenhouse gas emissions from riders taking transit than emitted by agency operations,
- Reducing our particulate matter and carbon monoxide emissions, leading contributors to respiratory health issues and
- Using less energy per passenger mile travelled, operating our services more efficiently year over year.

Greenhouse gas emissions



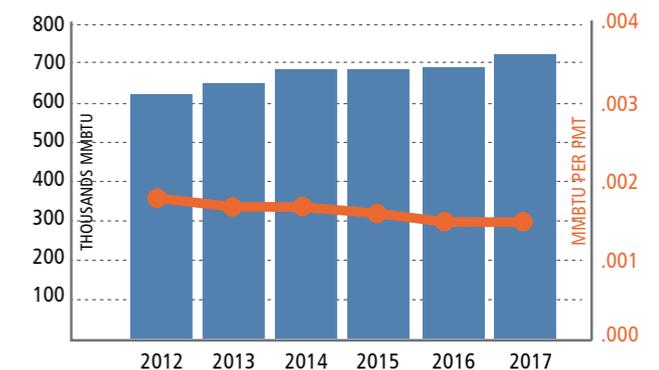
■ Agency emissions from operations  
■ Regional emissions avoided when residents take transit

ST Express and Sounder air pollution reduction



— PM10 — Carbon Monoxide

Revenue fleet energy use



■ Total energy use ■ Energy use per passenger-mile traveled

# Agency Sustainability

Sound Transit believes sustainability is fundamental to what we do. The 2019 plan update lays out how the agency will incorporate sustainability into how we do business.



Ensuring all regional communities have equitable access to Sound Transit services.



Working with contractors to ensure the agency uses the cleanest construction equipment on Sound Transit construction sites.



Reusing and repurposing salvaged materials and plants whenever possible.



Reducing resource use in agency operations.



Procuring environmentally-preferable products with the full lifecycle value in mind.



Providing a more fuel-efficient option for regional commuters than driving alone.



Enabling Transit Oriented Development so people can more easily access trains and buses.



Providing clear and equitable information to inform the public informed about upcoming projects.



Maintaining agency resilience to natural and human-made disasters.



Designing facilities to be as water and energy efficient as possible and meet green building standards.

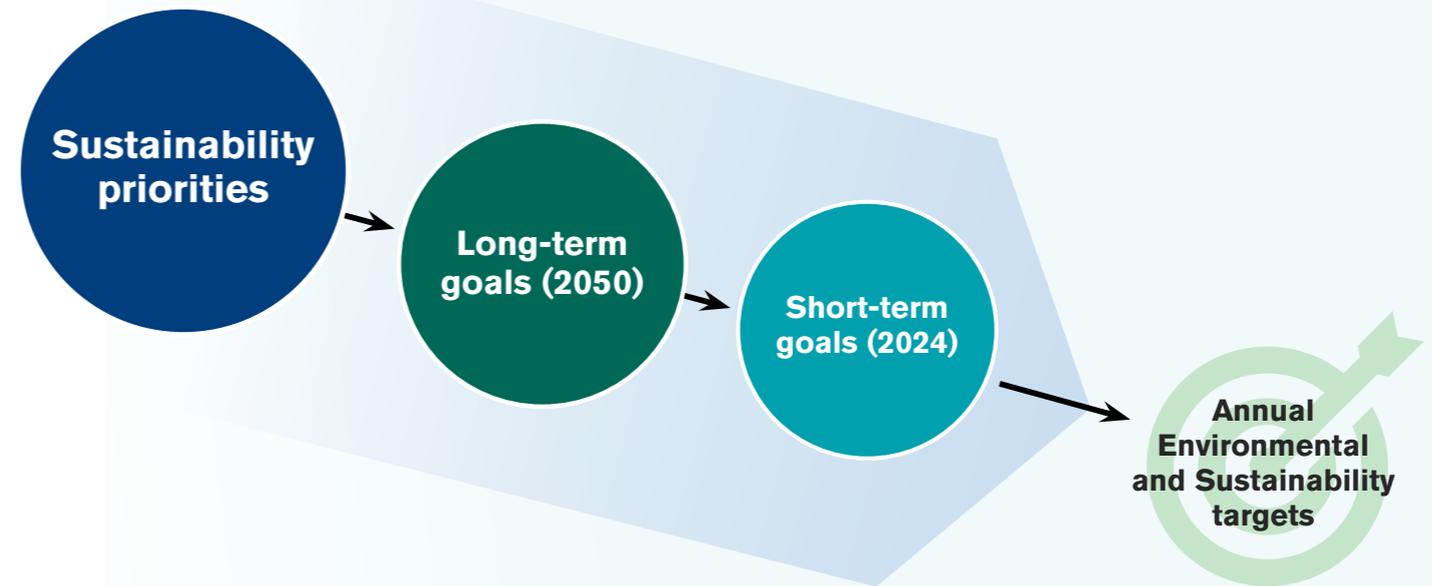


Wisely managing stormwater – on construction sites and new facilities – to maintain natural rainwater recharge.

# Prioritizing agency action

Sound Transit uses the Sustainability Plan to set the agency's high-level vision and priorities for improving regional quality of life. The Sustainability Plan also sets specific short- and long-term goals to guide the agency's efforts. The agency implements these goals through the Annual Environmental and Sustainability Targets that comprise the agency's sustainability work plan in each calendar year.

Sustainability staff annually monitor, measure and report on progress towards the agency's goals. The Sustainability Division also works with agency leaders to prioritize the staff efforts and financial investments that integrate sustainability into everyday business.



# Funding sustainability

Sound Transit is developing a number of innovative mechanisms to fund cost-effective sustainability efforts. Many of the plan's sustainability goals are low- and no-cost items accomplished through staff-driven research and analysis. However, some initiatives will require capital investment. In many cases, these initiatives may save money over their lifecycle, such as implementing energy efficiency projects or committing to higher green building standards.

The Sustainability Plan draws on the following funding sources:

- **Project allowances:** Capital projects include a sustainability cost allowance for green design, infrastructure and construction, consistent with industry best practices.
- **Efficiency and Sustainability Program fund:** The operations budget for the ST3 Plan includes funding for resource conservation and pollution mitigation projects, with a focus on efforts that reduce long-term operations and maintenance, utility and fuel costs.



# Charting our course

This plan update sets short- and long-term goals and key performance indicators for the agency's sustainability priorities.

**Long-term goals:** These long-term goals represent the agency's vision for the future, after the completion of ST3 projects. By 2050, the agency aims to meet these qualitative and quantitative goals for measuring progress. The long-term goal year is set in coordination with other regional planning efforts, and the goals are intended to be challenging yet achievable.

**Short-term goals:** Over the next six years, annual sustainability efforts will focus on meeting these short-term goals, which reflect the areas with the greatest potential impact. These efforts are aligned with the completion of ST2 projects, in 2024, and are intended to work toward achieving the agency's 2050 goals.

**Key Performance Indicators:** For the majority of goals, there are clear metrics to measure performance. A subset of these metrics are key performance indicators that reflect those used by other transit agencies and local governments, as well as those required by the Climate Registry and the American Public Transportation Association's Sustainability Commitment.

The goals in this Plan reflect on progress made in the Sustainability program at Sound Transit since 2007. To view details of previous Sustainability initiatives, visit [www.soundtransit.org/sustainability](http://www.soundtransit.org/sustainability).

## Key Performance Indicators

PRIORITY	KEY PERFORMANCE INDICATOR
<b>People</b>	# of dollars contributed to affordable housing revolving loan fund
	% of staff trained in equity and inclusion
	% of hours worked by diverse communities on ST job sites
	# of staff trained to sustainable professional accreditations
<b>Planet</b>	% change in greenhouse gas emissions
	% change in criteria air pollutants
	# of kW of renewable energy production
	% change in renewable electricity procurement
	% of facility energy reduced
	# of fineable environmental compliance violations
<b>Prosperity</b>	% change in agency water use
	% of staff trained in emergency preparedness
	% of projects that include Climate Change Vulnerability Assessments
	% of waste diverted
	% increase in # of and dollar value of procurements

\* 2018 will be the baseline year for each Key Performance Indicator.



Sound Transit implements sustainability initiatives through a robust Environmental and Sustainability Management System (ESMS). This tool helps the agency control environmental impacts, monitor compliance with environmental regulations, achieve annual environmental and sustainability targets and demonstrate continuous performance improvement. Since 2007, Sound Transit has been among a select number of transit agencies nationwide to achieve international ISO 14001 certification of its ESMS.

# People

## LONG-TERM GOAL

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

SHORT-TERM GOALS	METRICS
Explore strategies to enhance use of property designated for parking, such as shared use, integrated development or development of air rights	Yes/No recommendation made
Create affordable home ownership opportunities on surplus properties	# of surplus properties used for home ownership
Contribute to a revolving loan fund for affordable housing revolving loan fund	# of dollars contributed to affordable housing
Evaluate use of sustainable building strategies to reduce housing development costs	# of strategies identified
Implement an Equity and Inclusion Policy, Strategy and Steering Committee	Yes/No program implemented
Build staff awareness and capacity to integrate equity into all business lines	% of staff trained in equity and inclusion
Meet or exceed workforce diversity goals for construction contractors	% of hours worked by diverse communities on ST job sites
Implement Workforce Initiative by partnering with new organizations to increase retention of apprentices in the region	# of organizations partnered
Complete System Access Strategic Plan and adopt update to agency's System Access Policy	Yes/No policy and plan adopted



# People

## LONG-TERM GOAL

### All staff champion sustainability

#### SHORT-TERM GOALS

Certify key staff to green design and building management professional accreditations

#### METRICS

% of staff trained to sustainable professional accreditations

Develop program for agency staff to research new sustainability solutions

Yes/No program developed

Establish agency 'green team' to deepen staff engagement on sustainability

Yes/No team established

Develop a Well Being program to improve the attraction and retention of employees across demographic, social and economic profiles

Yes/No program developed

Enhance compensation and performance management programs while continuing to recognize staff equity in pay practices and career pathing

Yes/No program developed



## LONG-TERM GOAL

### Achieve carbon free operations (Carbon free electricity by 2030)

SHORT-TERM GOALS	METRICS
Reduce greenhouse gas emissions by 10 percent	% change in greenhouse gas emissions
Plan Sound Transit bus bases for convertability to accommodate future zero-emission technologies	Yes/no bases planned
Determine battery electric bus feasibility for ST bus services	Yes/no determination made
Collaborate in regional strategic planning and coordination for battery electric bus infrastructure	# of agreements that reference regional bus electrification
Increase production from solar panels to 750 kW	# of kW of renewable energy production
Purchase available cost-effective, carbon-free electricity	% change in renewable electricity procurement
Decrease total energy use 5 percent for all facilities built before 2018	% energy reduced
Incorporate low-carbon technology standards for facilities into design criteria	Yes/no standards incorporated
Evaluate feasibility of battery electric powered Sounder locomotives	Yes/no feasibility evaluated



## LONG-TERM GOAL

### Enhance ecosystem functions

SHORT-TERM GOALS	METRICS
Achieve 100 percent environmental compliance (zero fineable violations)	# of fineable environmental compliance violations
Establish a baseline to quantify 'ecosystem service' benefits	Yes/no baseline established
Reduce total water use by 10 percent at all existing facilities and sites established before 2018	% change in agency water use
Require 85 percent of eligible construction equipment to meet EPA's highest standards	% change in inclusion of construction equipment
Pilot an advanced environmental mitigation approach	Yes/no pilot completed
Plan two projects to the LEED Platinum certification level for green buildings	# of projects pursuing LEED Platinum
Evaluate new green building and infrastructure certifications and launch where appropriate	# of certifications piloted/adopted
Establish corridor-specific resource conservation goals	% of projects with specific resource conservation goals



# Prosperity

## LONG-TERM GOAL

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

#### SHORT-TERM GOALS

Complete tri-county Threat Hazard Identification Risk Analysis and publish a Hazard Mitigation and Response Plan

Develop staff awareness of individual roles in emergency preparedness to increase agency resilience during critical and emergency events

Update the Climate Adaptation Strategy to reflect current scientific data and regional design standards

Conduct a Climate Resilience Assessment as part of each major system capital expansion project

#### METRICS

Yes/no Plan published

% of staff trained in emergency preparedness

Yes/no strategy updated

% of projects that include Climate Change Vulnerability Assessment



# Prosperity

## LONG-TERM GOAL

### Maximize operational efficiency

SHORT-TERM GOALS	METRICS
Conduct a pilot to allow design and construction contractors to propose and implement sustainability improvements	Yes/no contracts piloted
Develop and implement an approach to financial analysis for material agency decisions that incorporates total life cycle costs, as well as social and environmental considerations where appropriate	Yes/no approach developed and implemented
Establish a scalable Asset Management Program	Yes/no program established
Establish a Safety Management System	Yes/no management system established
Divert 50 percent of office waste to recycling or compost	% of waste diverted
Implement sustainable design guidelines and processes for renovation projects	Yes/no guidelines established
Pursue LEED Existing Building Operations and Maintenance (EBOM) certification at Union Station	Yes/no certification achieved
Achieve paperless processes for agency procurements and human resource practices	# of procurements that don't require paper submittals
Incorporate sustainability priorities into the agreements process	Yes/no priorities incorporated
Include green methods or features in at least 75 percent of all new agency procurements	% of and increase in dollar value of new procurements that includes green methods and features



# Appendix – further detail on short-term goals

## People

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

Short-term goal	Further explanation
Explore strategies to enhance use of property designated for parking, such as shared use, integrated development or development of air rights.	<i>Design new parking facilities to be more dynamically integrated with development.</i>
Create affordable home ownership opportunities on surplus properties.	<i>Through TOD transactions, create opportunities for affordable homeownership alongside apartment rentals.</i>
Contribute to a revolving loan fund for affordable housing.	<i>Contribute a total of \$20 million over five years for tools and programs that advance affordable housing development around transit stations.</i>
Evaluate use of sustainable building strategies to reduce the cost of housing development.	<i>Explore and analyze tools and methods that reduce the costs of affordable housing construction and work with advocates, local jurisdictions and partners to advance policies to align with new technologies.</i>
Implement an Equity and Inclusion Policy, Strategy and Steering Committee.	<i>Through the new Office of Equity and Inclusion, develop and implement an agency-wide strategy on Equity and Inclusion. Charter a Steering Committee to guide policy and strategy development.</i>
Build staff awareness and capacity to integrate equity into all business lines.	<i>Conduct trainings at various staff levels and across various topic areas to increase staff awareness to incorporate equity into all business lines.</i>
Meet or exceed workforce diversity goals for construction contractors.	<p><i>Sound Transit's Project Labor Agreement contains the following workforce diversity goals for all of our Capital Construction projects:</i></p> <ul style="list-style-type: none"> <li>▪ <i>21% of all construction hours worked should be worked by People of Color</i></li> <li>▪ <i>12% of all construction hours worked should be worked by Women</i></li> <li>▪ <i>20% of all construction hours should be worked by Washington State approved apprentices</i> <ul style="list-style-type: none"> <li>▪ <i>33% of all apprentice hours should be worked by women or people of color</i></li> <li>▪ <i>50% of all first period apprentice hours should be worked by women or people of color</i></li> </ul> </li> </ul>

Implement Workforce Initiative by partnering with new organizations to increase retention of apprentices in the region.	<i>Strategically invest \$850,000 across Pierce, King, and Snohomish counties to address the upcoming workforce shortage. Partner with organizations across the region to ensure we are building and maintaining a necessary pipeline of apprentices. Expand our network and reach to ensure success by partnering with new organizations that are key partners in this work.</i>
Complete System Access Strategic Plan and adopt update to agency's System Access Policy.	<i>The System Access Strategic Plan outlines the agency's approach to investments in passenger access to Sound Transit and partner agency services. The Plan will provide a clear basis for equitably allocating resources and implementing investments. The agency's existing System Access Policy may be updated, as per the findings and outcomes of the Plan.</i>

### All staff champion sustainability

Short-term goal	Further explanation
Certify key staff to green design and building management professional accreditations.	<i>Support key staff to receive training and accreditation to green building and sustainable infrastructure professional certifications such as ENVISION SP, LEED GA/NC/EBOM, Sustainable Sites.</i>
Develop a program for agency staff to research new sustainability solutions.	<i>Identify and enable staff interested in developing independent research projects allowable time to conduct research.</i>
Establish agency 'green team' to deepen staff engagement on sustainability.	<i>Recruit a "Green Team" from across the agency. Provide team with change management training and enable them to lead sustainability-focused staff events to increase participation in recycling, green design trainings, and other Sustainability events.</i>
Develop a Well Being program to improve the attraction and retention of employees across demographic, social and economic profiles.	<i>Expand wellbeing program to cover areas of interest to various demographic groups of employees, such as enhancing programs for flexible schedules.</i>
Enhance compensation and performance management programs while continuing to recognize staff equity in pay practices and career pathing.	<i>Continue to evaluate staff pay equity across gender, race, age and other demographics. Make meaningful changes to address any identified disparities in pay equity.</i>

# Appendix – further detail on short-term goals

## Planet

### Achieve carbon neutral operations

Short-term goal	Further explanation
Reduce greenhouse gas emissions by 10 percent.	<i>Reduce greenhouse gas emissions by increasing direct purchases of clean energy from utility providers, upgrading Sounder locomotives, and replacing ST Express buses with newer technology.</i>
Plan Sound Transit bus bases for convertibility to accommodate future zero-emission technologies.	<i>Plan how future Sound Transit bus bases can accommodate zero-emission technologies, including costs and evaluation of risks.</i>
Analyze battery electric bus feasibility for ST bus services.	<i>Evaluate feasibility, including cost-effectiveness and maturity, of battery electric bus technology. If analysis proves feasible, pilot battery electric bus.</i>
Collaborate in regional strategic planning and coordination for battery electric bus infrastructure.	<i>Collaborate with partner agencies and jurisdictions to develop strategic, coordinated efforts to implement battery electric bus infrastructure across the region.</i>
Increase production from solar panels to 750 kW.	<i>Plan and implement 750 kW of solar panel arrays at existing and new stations.</i>
Purchase available cost-effective, carbon-free electricity.	<i>Work with energy utilities to purchase renewable and carbon-free electricity via alternative rate structures and programs such as power purchase agreements.</i>
Decrease total energy use 5 percent for all facilities built before 2018.	<i>Implement energy efficiency projects at existing facilities (prior to 2018) to reduce energy use by 5 percent.</i>
Incorporate low-carbon technology standards for facilities into design criteria.	<i>Design buildings to reduce the need for fossil fuels for heating, ventilation and cooling.</i>
Evaluate feasibility of battery-electric powered Sounder locomotives.	<i>Assess the viability of powering Sounder locomotives with battery electric engine technology.</i>

### Enhance ecosystem functions

Short-term goal	Further explanation
Achieve 100 percent environmental compliance (zero fineable violations).	<i>Ensure that facilities and construction sites are within compliance for applicable environmental permits.</i>
Establish baseline to quantify ecosystem service benefits.	<i>Determine the value of ecological services provided by the agency's environmental mitigation sites.</i>
Reduce total water use by 10 percent at all existing facilities and sites (as of 2018).	<i>Implement conservation across all agency facilities to reduce overall water consumption by 10%.</i>
Require 85 percent of eligible construction equipment to meet EPA's highest standards.	<i>Mandate contractors to use 85 percent of Tier 3 and 4 equipment on all construction sites.</i>
Pilot an advanced environmental mitigation approach.	<i>Mitigate for environmental impacts by developing sites in advance of project construction.</i>
Plan two projects to the LEED Platinum certification level for green buildings.	<i>Identify and plan to implement LEED for New Construction at the Platinum level for two new facilities.</i>
Evaluate new green building and infrastructure certifications and launch where appropriate.	<i>Assess and pilot green building and infrastructure standards beyond LEED and ENVISION.</i>
Establish corridor-specific resource conservation goals.	<i>Develop energy, water, and waste conservation goals for the design and construction of capital projects.</i>

# Appendix – further detail on short-term goals

## Prosperity

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

Short-term goal	Further explanation
Complete tri-county Threat Hazard identification Risk Analysis and publish a Hazard Mitigation and Response Plan.	<i>Coordinate with all three counties to identify and rank possible hazards. Draft a plan to mitigate or respond to those identified issues and maintain ongoing awareness of issues to change or adapt as needed.</i>
Develop staff awareness of individual roles in emergency preparedness to increase agency resiliency during critical and emergency events.	<i>Coordinate with Communications unit to develop internal marketing plan to increase employee awareness of emergency management issues. Increase involvement in agency wide events, and training opportunities to support employee awareness and knowledge.</i>
Update Climate Adaptation Strategy to reflect current scientific data and regional design standards.	<i>Ensure that agency climate adaptation resources and design criteria reflect latest climate science and regional design standards that have been amended to reflect best available science.</i>
Conduct a Climate Resilience Assessment as part of each major system expansion project.	<i>Assess whether projected climate change impacts such as localized flooding should be incorporated into project alignment and design considerations.</i>

### Maximize operational efficiency

Short-term goal	Further explanation
Conduct a pilot to allow design and construction contractors to propose and implement sustainability improvements.	<i>The Sustainability Cost Allowance for capital projects will fund betterments to incentivize the creativity and expertise of construction contracts teams in achieving additional sustainability goals beyond what's included in the project requirements on major light-rail expansion projects.</i>
Develop and implement an approach to financial analysis for material agency decisions that incorporates total life cycle costs, as well as social and environmental considerations where appropriate.	<i>Create a methodology for agency staff to calculate total life cycle costs as well as guidance about what decisions warrant this analysis.</i>
Establish a scalable Asset Management Program.	<i>Implement an agency-wide Asset Management Program in alignment with ISO 55001 to ensure the agency provides safe, reliable, sustainable service for many years to come.</i>
Establish a Safety Management System.	<i>Implement a Safety Management System in compliance with 49 CFR 673 to ensure a continuously improving safety program and culture.</i>
Divert 50 percent of office waste to recycling or compost.	<i>Increase staff engagement efforts and implement logistical waste collection changes to increase diversion rates.</i>
Implement sustainability design guidelines and processes for renovation projects.	<i>Similar to the sustainability chapter of the Design Criteria Manual, create a parallel process for renovation projects to ensure Sustainability is integrated.</i>
Pursue LEED Existing Building Operations and Maintenance (EBOM) certification at Union Station.	<i>Seek certification to the LEED EBOM for one of the agencies key facilities.</i>
Achieve paperless processes for agency procurements and HR practices.	<i>Establish electronic processes to negate the need for paper copies in both the procurements process and for Human Resources.</i>
Incorporate sustainability priorities into the agreements process.	<i>Identify and incorporate sustainability into the process for agency agreements such as interlocal, intergovernmental and third party agreements.</i>
Include green methods or features in at least 75 percent of all new agency procurements.	<i>Continue to grow the green procurement program so that 75 percent of agency procurements utilize a green procurement method, including design criteria, lifecycle assessment, green standards, or weighted evaluation criteria.</i>



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

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