



# SEP-TAINABLE

ANNUAL REPORT (April 2020)



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LETTER FROM  
SEPTA LEADERSHIP



As we celebrate the 50th anniversary of Earth Day, the mood of our region is understandably somber. What we anticipated would be a milestone event to recognize our collective environmental progress has been overshadowed by the profound crisis that has overtaken our community. COVID-19 has impacted our society in dramatic and potentially long-lasting ways, requiring individuals and organizations to take unprecedented action to protect public health and curtail economic activity. Appropriately, this has become our focus.

During this crisis, public transit has again proven its fundamental value as essential infrastructure, helping to keep hospitals, grocery stores, and other life-sustaining businesses functional. SEPTA's heroic front-line employees have contributed to ensuring that this crisis hasn't become even worse, and we are so proud of their service to our community.

It can be tempting in these times of crisis to look only to the day ahead, but we believe that now more than ever, it is also our responsibility to plan for the future. For SEPTA, part of what that means is re-committing to sustainability objectives. Transit is inherently sustainable, and that will continue to be true as we emerge from this crisis. SEPTA will be a foundational element of strategies to restore economic stability and social well-being while continuing to improve environmental conditions.

SEPTA is improving environmental conditions every day. This Annual Sustainability Report details the past year of significant progress towards a more environmentally, socially, and economically sustainable future for southeastern Pennsylvania and Pennsylvania as a whole. Highlights from 2019 include:

- 1) Entering into a virtual power purchase agreement for 35 MW of solar power to be developed in Franklin County, PA, zeroing out nearly 20 percent of SEPTA's greenhouse gas emissions inventory.
- 2) Commissioning of two rooftop solar power installations, which have generated more than 500 megawatt-hours of clean electricity to date.
- 3) Introduction into service of 25 battery-electric buses, one of the largest such zero-emission transit fleets in the United States.
- 4) Progress on a whole-building energy efficiency retrofit of SEPTA's headquarters.
- 5) Completion of an eight-acre stormwater management project, nearly doubling SEPTA's acreage of greened property.
- 6) Recertification of two maintenance facilities under the rigorous and globally recognized ISO 14001 standard for environmental management.
- 7) Hosting of farmer's markets at eight SEPTA properties to improve availability of fresh, healthy food to our service communities.

Today, on the 50th anniversary of Earth day, we are pleased to share this progress report with you as we recommit to SEPTA to its leadership role in providing an environmentally, socially, and economically sustainable future for southeastern Pennsylvania.

Pasquale T. Deon,  
SEPTA Board Chairman

Leslie S. Richards,  
SEPTA General Manager



Southeastern Pennsylvania Transportation Authority (SEPTA) is the primary mass transit provider in the Philadelphia region, serving Bucks, Chester, Delaware, and Montgomery Counties, and the City of Philadelphia. SEPTA’s service territory covers 4 million people across 2,200 square miles.

SEPTA is the fifth largest mass transit system in the U.S., and the largest in Pennsylvania. Service extends to Trenton and West Trenton in New Jersey, and Wilmington and Newark in Delaware. The Authority is an integral part of the regional transportation network. SEPTA passengers can connect directly with New Jersey Transit bus and rail service, the Port Authority Transit Corporation (PATCO) High Speed Line to New Jersey, and Delaware Authority for Regional Transit (DART) bus service. Intermodal connections are also available with Amtrak passenger rail service, intercity bus lines, and both domestic and international air travel from Philadelphia International Airport.



In 2011, SEPTA launched its Sustainability Program, entitled SEP-TAINABLE: The Route to Regional Sustainability. In 2017, SEPTA launched its second-generation plan, SEP-TAINABLE 2020, which established goals and targets for performance improvements across a triple bottom line approach:

**NATURAL ENVIRONMENT**

Transit is inherently sustainable. Initiatives to improve performance expands this environmental dividend.

**HEALTHY COMMUNITIES & WORKFORCE**

Transit is equitable. Initiatives to support healthy communities and our workforce reinforce social well-being.

**ECONOMIC VITALITY**

Transit drives the economy. Initiatives that support economic vitality help to leverage the region's density and productivity.

The 2020 SEP-TAINABLE Annual Report provides an update on progress, highlighting current and future efforts that represent a commitment to continual improvement in each pillar of the plan. Additional updates about SEPTA’s Sustainability Program can be found on the SEPTA Sustainability website at [www.septa.org/sustain](http://www.septa.org/sustain).

The plan document and website are designed to be accessible and relevant to all riders and residents of Southeastern Pennsylvania. We hope that you enjoy discovering how SEPTA is contributing to a more sustainable region and what you can do to help support SEPTA’s sustainability efforts.

HOW YOU CAN HELP SEPTA’S SUSTAINABILITY PROGRAM

READ SEPTA’S SUSTAINABILITY WEBSITE & ANNUAL REPORT  
[septa.org/sustain](http://septa.org/sustain)

USE PUBLIC TRANSPORTATION

SUPPORT SEPTA’S WASTE MANAGEMENT STRATEGIES

PROVIDE SUGGESTIONS  
[sustainability@septa.org](mailto:sustainability@septa.org)





Solar Installation at Berridge Shop

# NATURAL ENVIRONMENT

Public transportation is inherently sustainable. SEPTA reduces greenhouse emissions by lessening private auto use and congestion, and supporting compact, energy efficient development. SEPTA also engages in its own internal sustainability efforts to deepen its environmental dividend.

The Natural Environment chapter of this annual report provides an update on progress towards goals focused on reducing greenhouse gas emissions, energy and water consumption, mitigating stormwater runoff, and waste minimization and diversion strategies.

2020 GOAL	GOAL 1	GOAL 2	GOAL 3	GOAL 4	GOAL 5	
	Decrease Normalized GHG Emissions 20%	Decrease Normalized Energy Consumption 10%	Decrease Normalized Water Consumption 25%	Increase Green Acreage by 25 Acres	Reach a 25% Diversion Rate for Waste Produced by Passengers at Stations	Reach An 80% Diversion Rate for Waste Produced by Employees at Facilities
	LBS CO2-E / PMT	KBTU / PMT	GALLONS / PMT	NEW GREENED ACRES	TONS RECYCLED/ TONS TOTAL WASTE	TONS RECYCLED/ TONS TOTAL WASTE
BASELINE (FY2015)	0.555 (CY14)	2.75	0.094	0	22%	77%
FY2016	0.541 (CY15)	2.56	0.089	3.2	24%	87%
FY2017	0.536 (CY16)	2.89	0.088	8.7	25%	70%
FY2018	0.562 (CY17)	2.99	0.079	8.7	20%	54%
FY2019	<b>0.536 (CY18)</b>	<b>2.79</b>	<b>0.083</b>	<b>17.1</b>	<b>5%</b>	<b>4%</b>
FY2020	-	-	-	-	-	-
2020 TARGET	0.440	2.48	0.067	25	25%	80%



NATURAL ENVIRONMENT



REDUCE SEPTA'S CARBON FOOTPRINT

DECREASE NORMALIZED GHG EMISSIONS BY **20%** BY 2020

HOW WE'RE DOING:

From baseline year CY2014 through CY2018, SEPTA reduced its gross greenhouse gas emissions (GHG) by more than 115 million lbs of CO<sub>2</sub>-e, from 854 lbs CO<sub>2</sub>-e to 738M lbs CO<sub>2</sub>-e. Normalized emissions per passenger mile decreased approximately 3% during this period.

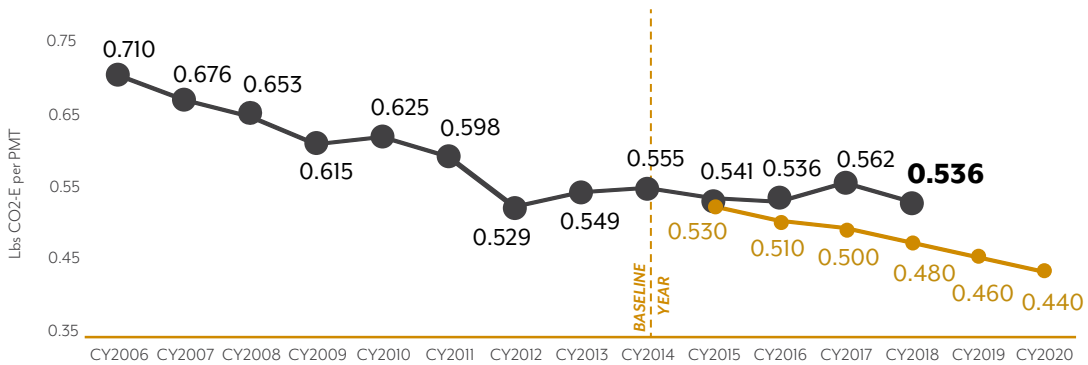
SEPTA is a net reducer of transportation greenhouse gas (GHG) emissions, which contribute to global climate change by trapping heat and making the planet warmer. SEPTA produces GHG emissions in daily vehicle and heating operations; however, by moving people on more efficient, lower carbon modes than automobiles, SEPTA is a key tool in regional efforts to reduce GHG.

SEPTA aims to minimize its emissions while maintaining high-quality service and increasing ridership, with a goal of reducing emissions by 20% by 2020 from baseline year 2014. SEPTA measures progress toward this goal on a per passenger mile basis. Normalizing emissions in this way ensures efforts to reduce GHG emissions are tied back to SEPTA's core business of moving people. SEPTA made significant gains in reducing overall emissions since the baseline year; declining ridership held the percent decrease in normalized GHG emissions to approximately 3%.

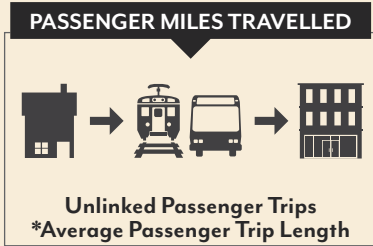
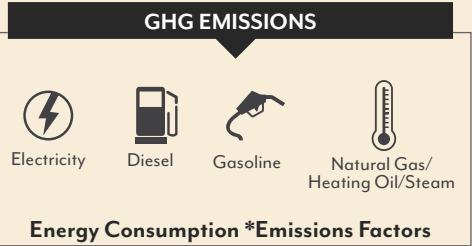
In order for SEPTA to meet the 2020 emission reduction goal, SEPTA must continue to look for ways to reduce emissions while growing ridership. SEPTA will continue to reduce its footprint with initiatives summarized in this section and in the 2018 Energy Action Plan, while growing ridership to meet its 2020 goal for GHG emission per passenger mile travelled.

NORMALIZED GHG EMISSIONS

PERFORMANCE  
2020 GOAL

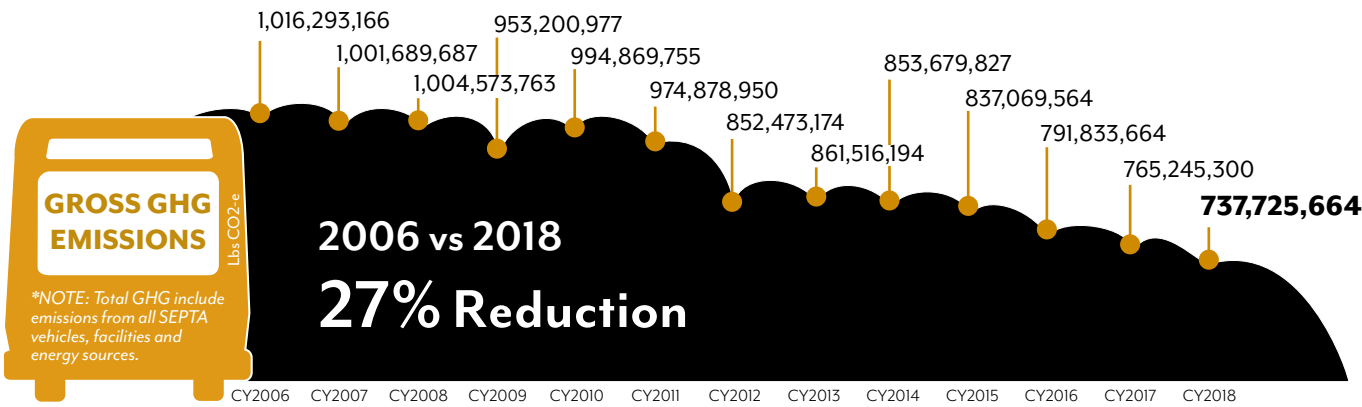


CALCULATING SEPTA'S GHG EMISSIONS



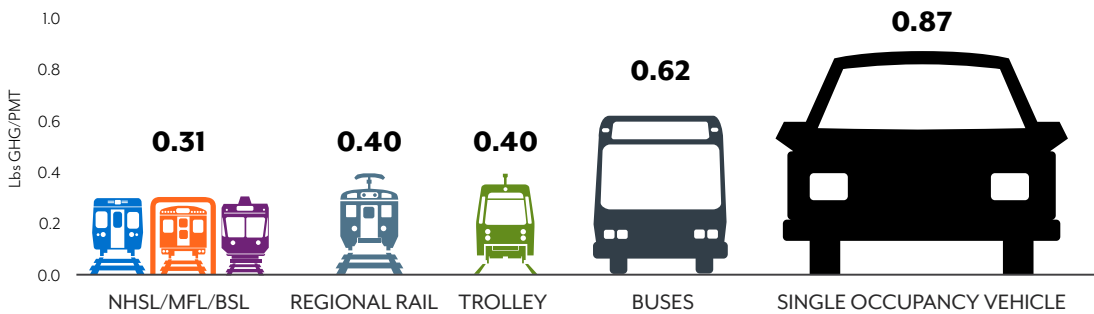
SEPTA PERFORMANCE

In CY2018, buses and rail modes together accounted for 83% of SEPTA's energy consumption, and therefore account for the majority of SEPTA's emissions. SEPTA has reduced its emissions across both bus and rail modes through various initiatives like installing wayside energy storage batteries at SEPTA's substations, upgrading the Silverliner V Fleet, and investing more in low or no emission buses.



EMISSIONS BREAKDOWN BY MODE

Source: SEPTA GHG Inventory & U.S. Energy Information Administration (EIA)





GLOBAL IMPACT OF TRANSPORTATION

Transit is inherently sustainable as a transportation mode by shifting transportation away from private automobiles, providing congestion relief, and supporting dense, compact land uses. In CY2018, SEPTA prevented 2,516,416,821 lbs of carbon dioxide emissions that otherwise would have occurred if SEPTA riders had instead traveled by single-occupancy vehicle.

By reducing the number of single-occupancy vehicles on the road, SEPTA's services simultaneously provide congestion relief and reduce idling time in high-traffic conditions. Additionally, SEPTA's high-capacity service produces what is known as the "multiplier effect," which increases density and reduces dependence on private vehicle use.

CY2018 PREVENTED GHG EMISSIONS

23%	MODE SHIFT	578,796,781 Pounds CO2-E
5%	CONGESTION RELIEF	128,907,134 Pounds CO2-E
72%	LAND USE & DEVELOPMENT	1,808,712,907 Pounds CO2-E
100%	TOTAL EMISSIONS PREVENTED	2,516,416,821 Pounds CO2-E



Rendering of Franklin County Solar Project

SOLAR POWER PURCHASE AGREEMENT

Installation of 1.29 MW of roof-mounted solar panels at the Berridge bus maintenance facility in North Philadelphia was completed in 2019. The 3,500 solar panels now generate the equivalent of 21% of the Berridge bus maintenance facility annual electricity usage. In addition to Berridge, Callowhill bus maintenance facility in West Philadelphia had 955 KW of solar panels installed on the 200,000 square foot roof.

The Berridge and Callowhill installations are part of a larger solar project plan being implemented through a Power Purchase Agreement (PPA) with Con Edison Solutions. Through the agreement, roof-mounted solar panels will be installed at two more SEPTA facilities, Fern Rock rail shop and Roberts rail shop, both located in North Philadelphia. SEPTA will purchase power produced from the solar installations through Con Edison at each of the four sites for a contract term of 20 years. Combined, the solar panels will produce 3MW worth of energy annually and reduce SEPTA's emissions by more than 3 million lbs CO2-E.

RENEWABLE ENERGY VIRTUAL POWER PURCHASE AGREEMENT

SEPTA has entered into a 20-year power purchase agreement (PPA) to support the development of local renewable energy in Franklin County, Pennsylvania. Upon completion, two solar farms will generate up to 35 MW of power, making this one of the largest solar projects in Pennsylvania to-date. With a planned operational date of 2021, the solar farms will be financed, built, owned and operated by Lightsource BP with SEPTA as the sole recipient of the energy produced. The agreement will help SEPTA meet its sustainability goals and reduce its GHG emissions by an estimated 55,750 metric tons of CO2 annually. In addition to the solar power, SEPTA will receive renewable credits in the amount matching the production.

SOLAR POWER REINFORCEMENT FOR REGIONAL RAIL SIGNAL SYSTEM

In 2019, SEPTA committed to reinforcing the rail signal systems on the Warminster, Doylestown, and West Trenton Lines with solar power and battery storage technology. The technology was initially tested on the Chestnut Hill West Line, with positive results. By undertaking this work, SEPTA's system will be able to run for 48 hours if the normal power source is lost.

The \$16.2 million project is funded in part by a grant from the Federal Transit Administration under the 2013 Disaster Relief Appropriations Act. The Act is designed to improve transit systems during severe weather events. SEPTA will become the first major transportation agency to use solar technology to reinforce power for rail signal systems at this scale.

BATTERY ELECTRIC BUSES

In June 2019, SEPTA began operating 25 battery-electric buses on Routes 29 and 79, which previously operated with trackless trolleys. The purchase of the 25 battery-electric buses, manufactured by Proterra, Inc., was funded in part by a \$2.6 million Federal Transit Administration (FTA) grant under the "Low or No-Emission Program." Combined with 38 trackless trolleys in North and Northeast Philadelphia, SEPTA now has the largest zero-emission bus fleet on the U.S. East Coast. SEPTA has an FTA grant to acquire 10 additional battery-electric buses, recently submitted a grant application to increase power capacity at its largest bus district, and is now working on a comprehensive master plan to assess the future potential of battery electric buses in the fleet.



NATURAL ENVIRONMENT



IMPROVE ENERGY EFFICIENCY

DECREASE NORMALIZED ENERGY CONSUMPTION BY **10%** BY 2020

HOW WE'RE DOING:

From baseline year FY2015 to FY2019, SEPTA reduced its gross energy consumption by 230,837 mmBtu, from 4,206,252 mmBtu to 3,975,415 mmBtu. Normalized energy consumption per passenger mile increased from FY2015 to FY2019 by approximately 2% due to decreased ridership.

SEPTA uses energy for every aspect of its operations—from powering railcars and buses to heating facilities and illuminating track signals. Efficient energy use can help SEPTA manage increasing energy costs and reduce greenhouse gas emissions associated with energy generation and use. SEPTA is working to increase energy efficiency and decrease energy consumption by transitioning to lower-carbon forms of energy that reduce greenhouse gases and implementing energy efficiency measures throughout our facilities.

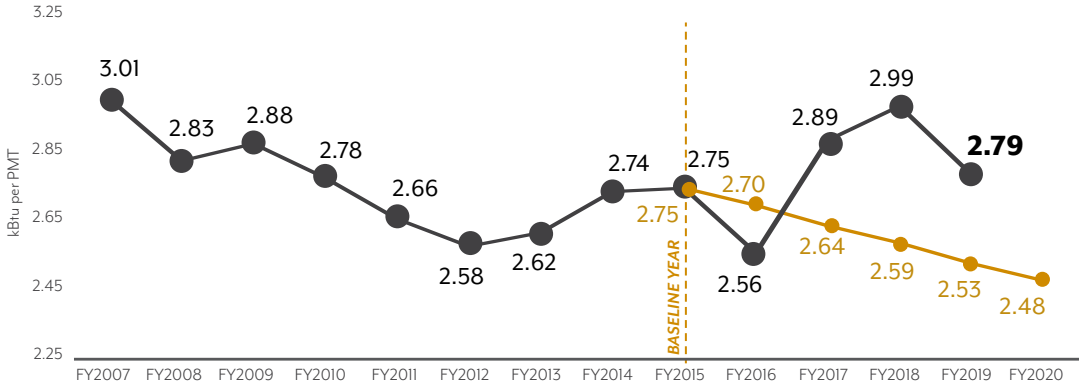
SEPTA will continue to reduce its energy consumption with initiatives summarized in this section and in its 2018 Energy Action Plan, while growing ridership to meet its 2020 goal for energy consumption per passenger mile travelled.



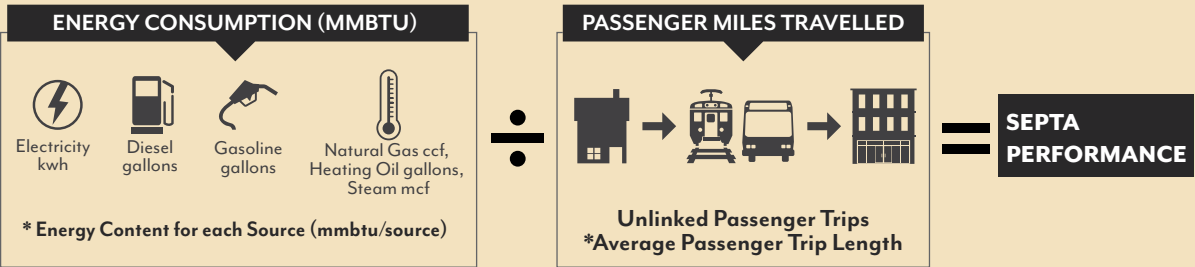
SEPTA Headquarters at 1234 Market Street in Philadelphia

NORMALIZED ENERGY CONSUMPTION

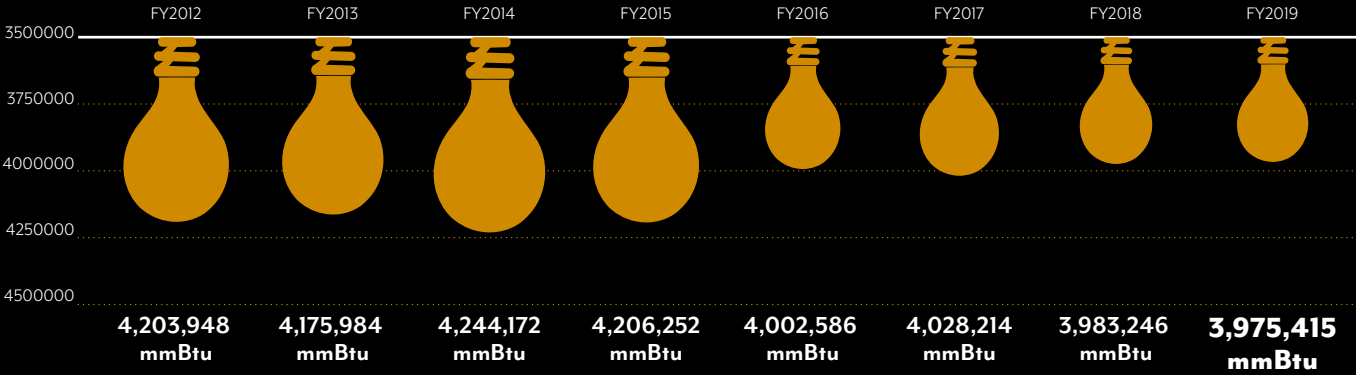
PERFORMANCE  
2020 GOAL



CALCULATING SEPTA'S ENERGY CONSUMPTION

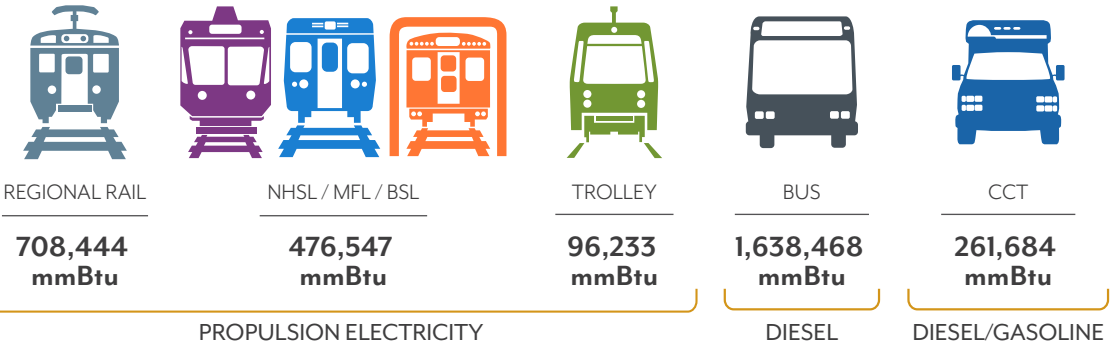


GROSS ENERGY CONSUMPTION



SEPTA's energy consumption profile is roughly split between electrically powered vehicles and diesel or gasoline-powered buses. SEPTA has been able to significantly reduce energy consumption by investing in energy efficient fleets, such as trains and locomotives with regenerative braking and wayside energy storage, and buses with hybrid-and battery-electric drives.

ENERGY BREAKDOWN BY MODE





## GOAL HIGHLIGHTS



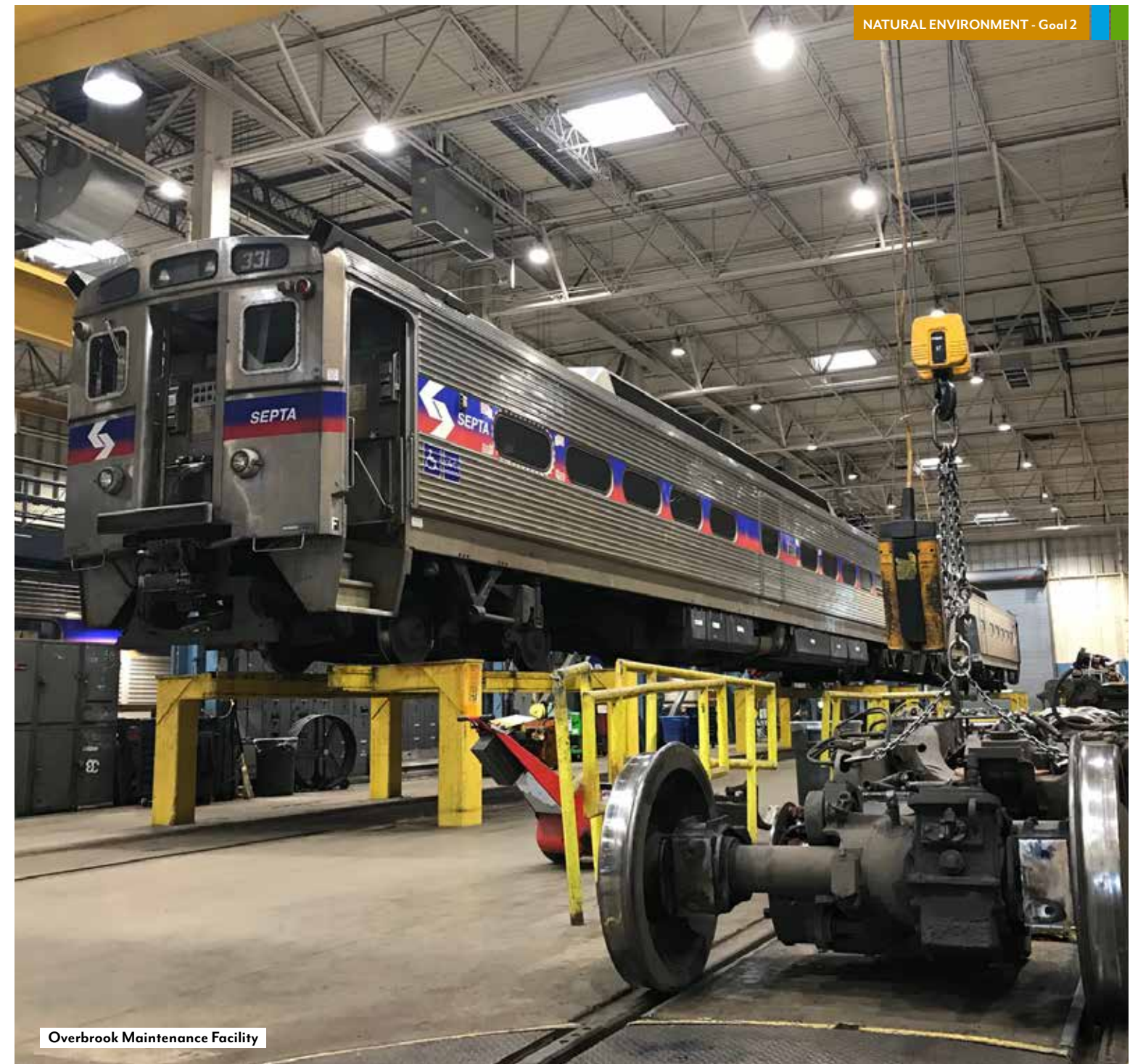
SEPTA Headquarters at 1234 Market Street in Philadelphia

### ENERGY EFFICIENCY PROJECT AT SEPTA HEADQUARTERS

In January 2018, SEPTA signed an agreement with Constellation New Energy, to deliver an energy performance contract at SEPTA's headquarters in Center City Philadelphia. SEPTA leveraged the Pennsylvania Guaranteed Energy Savings Act (GESA), which makes it possible for public agencies to partner with an Energy Services Company (ESCO), such as Constellation New Energy, to finance energy-saving capital upgrades at no upfront cost to the agency.

During 2019, SEPTA began implementing the recommended energy conservation measures at 1234 Market Street. Improvements to the headquarters building underway include perimeter weather sealing and installation of LED ceiling lights and lighting controls, solar controlled electronic window shades, and updated heating and cooling systems.

NATURAL ENVIRONMENT - Goal 2



Overbrook Maintenance Facility

### WAYSIDE ENERGY STORAGE SYSTEM

The Wayside Energy Storage System (WESS) buildout project is now complete, and SEPTA now has the largest such system in the U.S. transit industry. These batteries, combined with two pre-existing pilot WESS systems already installed on the Market-Frankford Line, provide a total of 10.75 MW of energy storage on SEPTA's subway/elevated system. These systems capture and reuse energy created by braking trains that would otherwise be wasted.

### FACILITY RELIGHTING PROJECTS

Overbrook Maintenance Facility received an energy efficient lighting upgrade in 2019. To improve safety and working conditions at the facility, the existing high-pressure sodium light fixtures were replaced with energy efficient LED fixtures. A total of 193 fixtures were replaced and are expected to provide over \$9,000 per year in energy savings. Additionally, the project qualified for PECO's Commercial and Industrial Solutions Rebate Program and generated a rebate of over \$18,000 to partially cover project costs.



NATURAL ENVIRONMENT



IMPROVE WATER EFFICIENCY

DECREASE NORMALIZED WATER CONSUMPTION BY **25%** BY 2020

HOW WE'RE DOING:

From baseline year FY2015 to FY2019, SEPTA reduced its gross water consumption by 25.8 million gallons (18%), from 144,319,457 gallons to 118,499,680 gallons. Normalized water consumption per passenger mile also decreased during this time by 12%.

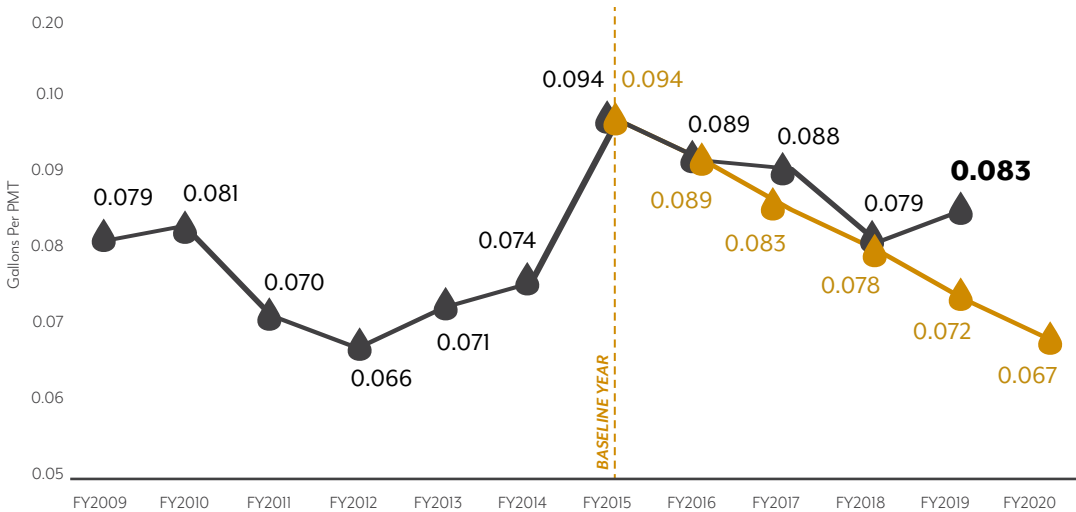


Water is an essential part of SEPTA's operations, from bus washers to passenger bathrooms. Clean, fresh water is a limited resource and SEPTA recognizes our responsibility to use the region's water sources efficiently and sustainably. SEPTA aims to decrease freshwater consumption by using water responsibly, implementing water efficiency projects, and seeking opportunities to use alternative water sources in our operations. By using less freshwater in our operations, we can help to protect limited freshwater sources, and reduce utility bills.

NORMALIZED WATER CONSUMPTION

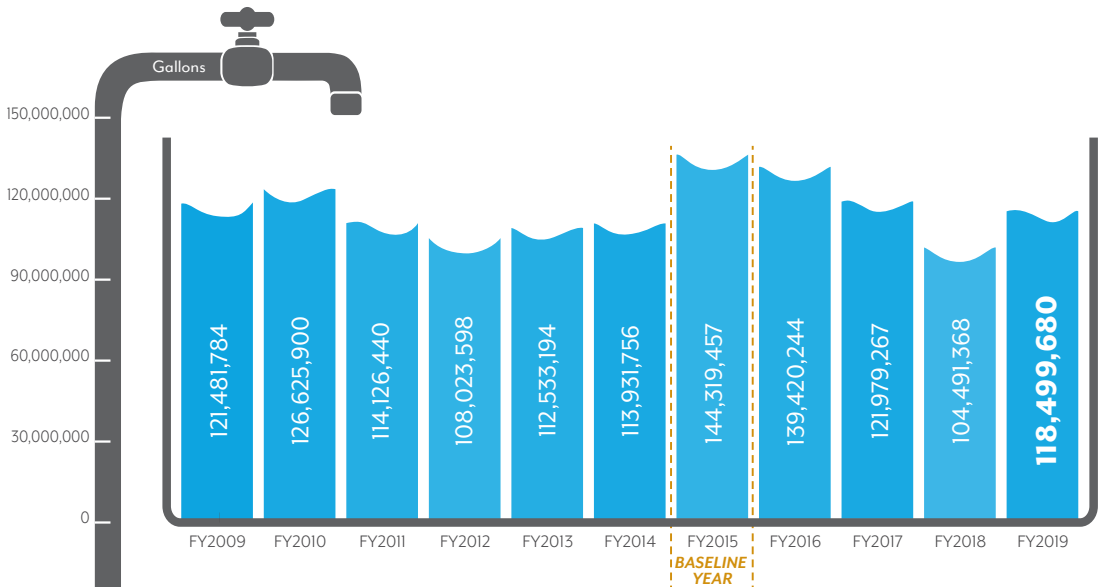
PERFORMANCE

2020 GOAL

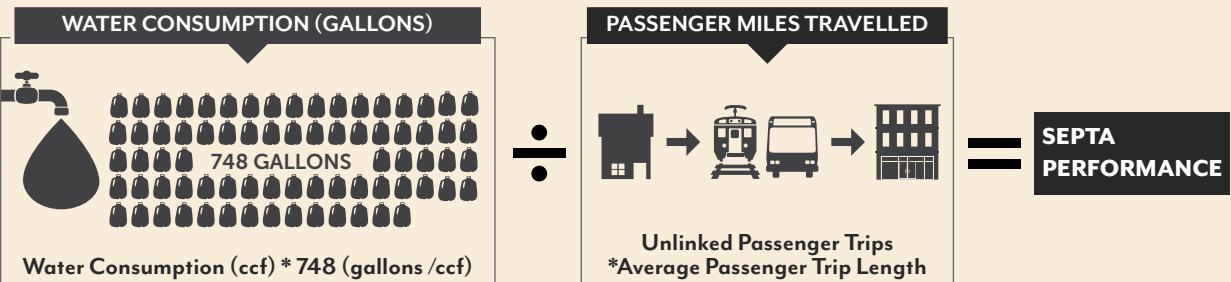


SEPTA's gross water consumption increased in FY2019. SEPTA has over 300 water accounts that service many types of locations – from station buildings to bus washers. A goal for SEPTA's Sustainability program is to identify accounts that have inconsistent or high usage to understand how SEPTA can incorporate water conservation measures.

GROSS WATER CONSUMPTION



CALCULATING SEPTA'S WATER CONSUMPTION





GOAL HIGHLIGHTS



BUS WASHER REPLACEMENTS

At SEPTA's Frontier Bus District in Montgomery County, two 30,000 gallon underground storage tanks have been installed to collect rainwater. The reclaimed rainwater is used to wash buses, reducing freshwater consumption requirements by approximately one million gallons annually.

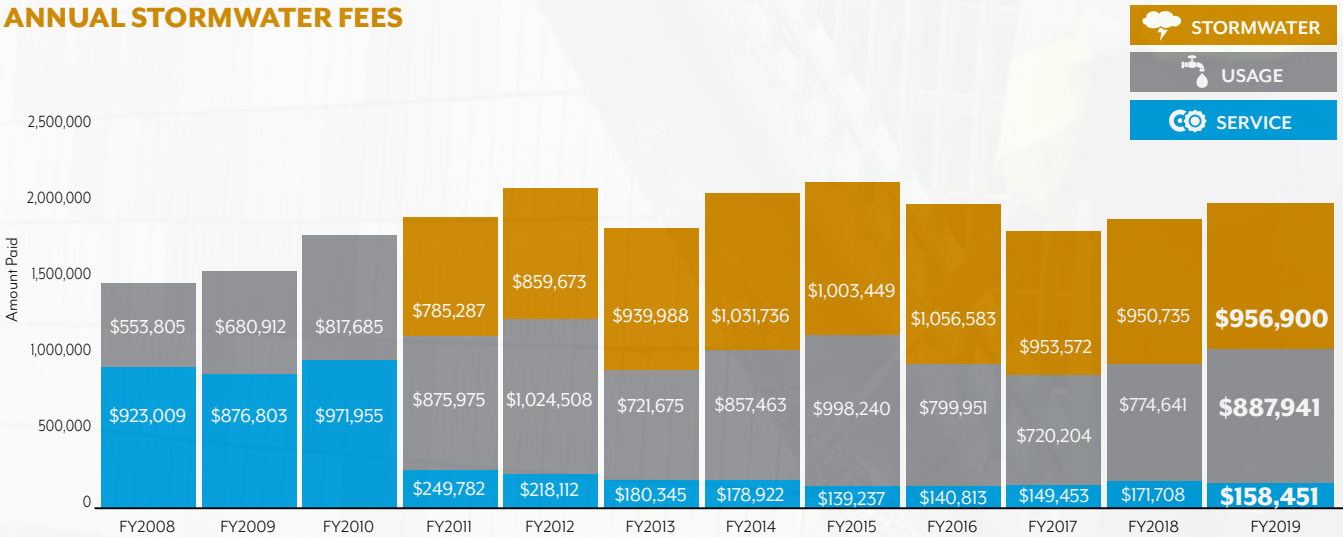
WATER EFFICIENT APPLIANCES

In 2019, SEPTA began implementing energy efficiency measures at its headquarters building at 1234 Market Street under the guidance of Constellation New Energy, an Energy Services Company (ESCO). In addition to energy conservation measures, the project also includes upgrades that will support water conservation. New features currently being installed include low-flow toilets and urinals, and new water fixtures.

COST OF WATER

The cost of water to SEPTA is a function of three factors: service charges, usage charges, and stormwater charges. The relative magnitude of these charges have changed over time. Goal 3 deals with the impact of water service and usage, while Goal 4 of this plan deals with the impact of stormwater. In both cases, efforts to reduce environmental impacts through water consumption and stormwater runoff have a positive financial return to SEPTA's annual operating budget.

ANNUAL STORMWATER FEES





NATURAL ENVIRONMENT



REDUCE STORMWATER RUNOFF

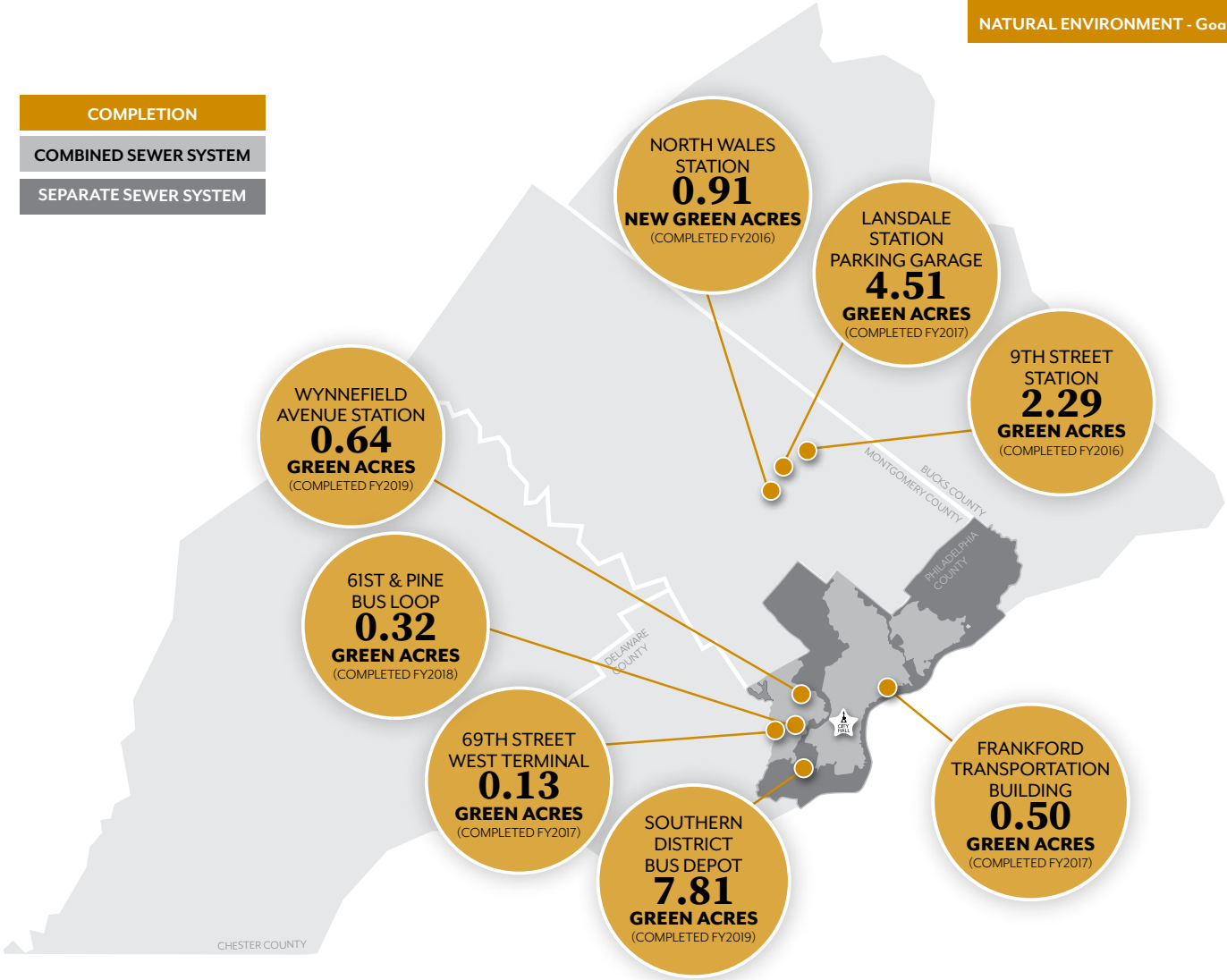
INCREASE GREEN ACREAGE BY  
**25 ACRES** BY 2020

HOW WE'RE DOING:

During FY2019, SEPTA increased green acreage by 8.45 acres, reaching a total of 17.1 acres greened since FY2015.

SEPTA supports efforts to mitigate the impact of stormwater runoff by retrofitting its facilities to slow the flow, thereby easing the burden on sewer systems. SEPTA partners with the City of Philadelphia and municipalities across the region to incorporate stormwater management features into capital projects wherever possible. Between FY2015 and FY2019, SEPTA greened 17.1 acres of land to reduce the impact of stormwater runoff.

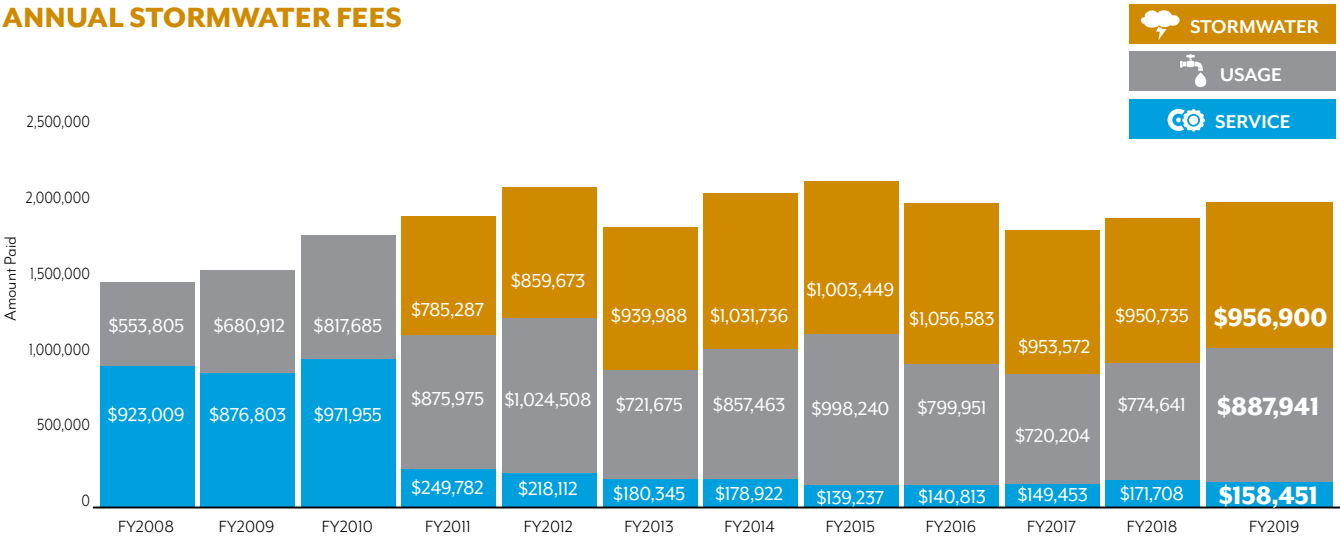
COMPLETION
COMBINED SEWER SYSTEM
SEPARATE SEWER SYSTEM



COST OF STORMWATER

In 2011, the City of Philadelphia began charging stormwater fees based on square footage of impervious surface. Since then, SEPTA's green stormwater infrastructure, such as green roofs and bioretention basins, have helped to reduce the total square footage of impervious surface on SEPTA properties thereby reducing the budgetary impact of stormwater fees. Efforts to-date have reduced SEPTA's stormwater fees to \$956,900 in FY2019, approximately five percent below their peak.

ANNUAL STORMWATER FEES





GOAL HIGHLIGHTS



SOUTHERN DISTRICT STORMWATER RETROFIT

In 2019, SEPTA completed construction of the Southern District Stormwater Retrofit Project in South Philadelphia. The project was completed in partnership with the Philadelphia Water Department (PWD), which manages the city’s “Green Cities, Clean Waters” stormwater management plan. The new stormwater system at Southern consists of a bioretention basin and two underground detention basins to manage runoff from the site. The system is designed to capture stormwater and slowly release it, significantly reducing the rate and volume of stormwater entering the city’s sewer system. The completion of this work marks SEPTA’s largest stormwater management project to date by capturing a total of 7.81 acres of runoff.

WHY MANAGE STORMWATER?

**COMBINED SEWER SYSTEM:** Stormwater runoff is combined with wastewater collected from residential, commercial, and industrial facilities and piped to a wastewater treatment plant. When the capacity of the system is exceeded, such as during a heavy rainfall event, the sewer system overflows and untreated wastewater flows directly into local waterways.



**SEPARATE SEWER SYSTEM:** Wastewater collected from residential, commercial, and industrial facilities is piped directly to a wastewater treatment plant. Stormwater runoff is collected separately and piped directly from streets to local waterways.



WYNNEFIELD AVENUE STATION RECONSTRUCTION

The reconstruction of Wynnefield Avenue Station was completed in 2019. The project included high-level platforms, ADA accessible ramps, a new parking lot, and a complete stormwater system upgrade. The stormwater system upgrades involved the construction of inlets, manholes, and an underground infiltration basin, which supports the management of 0.64 acres of stormwater runoff. The improvements also increased overall greenspace by planting 22 trees and entranceway vegetation.

TREE PLANTINGS

Trees are a tool for beautification, carbon sequestration, and stormwater runoff mitigation. One mature tree can intercept approximately 1,000 gallons of water annually. In 2019, SEPTA planted 22 trees at Wynnefield Ave Station and 6 trees at Ambler Station, bringing the total placed since 2008 to 1,352. SEPTA will continue to plant as many trees as possible within the footprint of capital projects.



Wynnefield Avenue Station





REDUCE & REUSE WASTE

- 1. REACH A **25%** DIVERSION RATE FOR WASTE PRODUCED BY PASSENGERS AT STATIONS BY 2020
- 2. REACH AN **80%** DIVERSION RATE FOR WASTE PRODUCED BY EMPLOYEES AT FACILITIES BY 2020

HOW WE'RE DOING:

SEPTA's passenger diversion rate is 5%. SEPTA's employee and facility diversion rate is 4%.

SEPTA aims to minimize the amount of waste generated at passenger stations, facilities, and construction sites, and maximize the amount of that waste that is reused or recycled. Recycling avoids filling landfills, decreases pollution, and reduces life-cycle energy and raw material use.

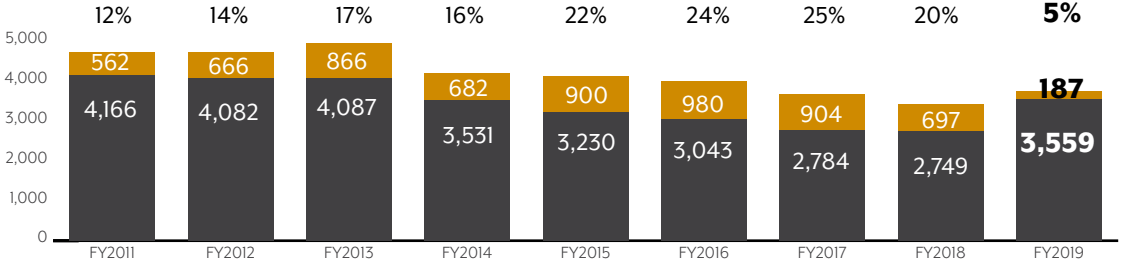
SEPTA has established two waste management goals, one for waste produced by passengers at stations, and one for waste produced by employees at facilities and construction sites. The goals are expressed as diversion rates: the percentage of total waste that is reused or recycled.

In FY 2019, both the passenger and employee diversion rates decreased significantly from previous years. This was due in part to tightened standards for contamination in response to changes in the global recycling market. If SEPTA hopes to sustain the gains made in previous years, it is imperative that both passengers and employees "recycle right." Additionally, SEPTA needs to continually audit work procedures to identify opportunities to reduce waste.

SEPTA will continue to support recycling programs at facilities, seek new ways to reduce and reuse its waste products, and improve recycling accessibility for passengers. SEPTA is proud that educational outreach and investments in combo waste and recycling units have produced significant growth in both employee and passenger recycling rates to date.

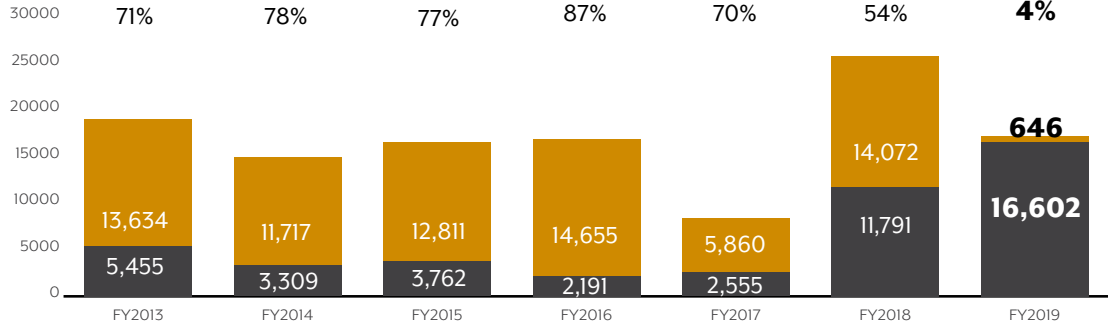


GOAL 1 - TOTAL PASSENGER WASTE & RECYCLING

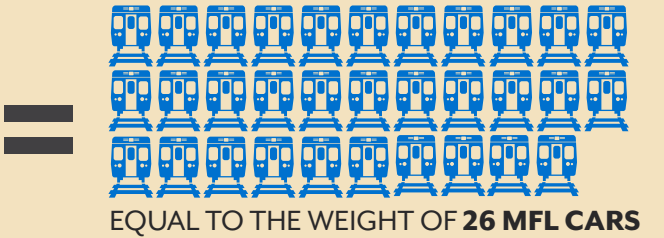


GOAL 2 - TOTAL EMPLOYEE & FACILITY WASTE & RECYCLING

WASTE (TONS)  
RECYCLING (TONS)



RECYCLING AT SEPTA



RECYCLED MATERIALS IN FY2019



GOAL HIGHLIGHTS

ELECTRONIC WASTE

According to the Environmental Protection Agency (EPA), 2.8 million tons of consumer electronic waste (e-waste) was generated in the U.S. in 2017. SEPTA is committed to the responsible disposal of outdated or unusable technology from our offices. SEPTA works with an ISO 14001 certified electronics recycling company to collect and recycle our electronics, preventing this waste stream from entering a landfill. During 2018 and 2019, SEPTA recycled more than 1,000 pieces of electronic equipment, including computers, monitors, printers, keyboards, and other items.

PHILADELPHIA ZERO WASTE AND LITTER ACTION PLAN

The City of Philadelphia launched the Zero Waste and Litter Cabinet in December 2016. The goal of the cabinet is to move the city of Philadelphia toward a Zero Waste and litter-free future by 2035. SEPTA has been an active participant on the cabinet since its inception and is committed to meeting the goals in the Zero Waste and Litter Action Plan. As part of SEPTA's commitment to the Zero Waste and Litter Action Plan, SEPTA has conducted litter surveys at all passenger stations on the Market-Frankford Line, Broad Street Line and Regional Rail Stations within the City of Philadelphia. SEPTA will also undertake an intensive system-wide cleaning initiative in 2020. For more information about the City of Philadelphia's Zero Waste and Litter Action Plan, including SEPTA's role, please visit [cleanphl.org](http://cleanphl.org).





# HEALTHY COMMUNITIES & WORKFORCE

SEPTA strives to provide equitable and accessible transportation service throughout Southeastern Pennsylvania. SEPTA's social sustainability platform positively impacts its employees, customers, and communities throughout the region.

The Healthy Communities & Workforce chapter of this annual report provides an update on progress towards goals to increase participation of disadvantaged business enterprises, improve food access, long-term investments in employee health and professional development, and participation in ongoing local and regional planning efforts.

2020 GOAL	GOAL 6		GOAL 7	GOAL 8	GOAL 9
	Lead 3 Planning Studies Per Year	Collaborate with 30 External Planning Efforts Per Year	Host Five Farmers Markets on SEPTA Property by 2020	Implement Five-Year Human Resources Master Plan	Increase FFY2016 Baseline of Contracting Dollars Committed to Small, Minority and Women-Owned Companies by 20%
BASELINE (FY2015)	NEW GOAL: NO BASELINE		4	NEW GOAL: NO BASELINE	NEW GOAL: NO BASELINE
FY2016	Led 4 Planning Studies	Collaborated with 38 Planning Efforts	4	Master Plan Adopted With 16 Initiatives	16% (FFY2017)
FY2017	Led 5 Planning Studies	Collaborated with 45 Planning Efforts	4	Progress Towards HR Master Plan Completion	16% (FFY2017)
FY2018	Led 4 Planning Studies	Collaborated with 44 Planning Efforts	5	Progress Towards HR Master Plan Completion	16% (FFY2018)
FY2019	<b>Led 3 planning studies</b>	<b>Collaborated with 31 planning efforts</b>	<b>8</b>	<b>Progress towards HR Master Plan Completion</b>	<b>14%</b> (FFY2019)
FY2020	N/A	N/A	N/A	N/A	N/A
2020 TARGET	Lead a Total of 15 Planning Studies	Collaborate on a Total of 150 Planning Studies	5	N/A	19.2%



## GOAL 6



### INTEGRATE WITH LIVABLE COMMUNITIES

1. LEAD **3** PLANNING STUDIES PER YEAR
2. COLLABORATE WITH **30** EXTERNAL PLANNING EFFORTS PER YEAR

#### HOW WE'RE DOING:

During FY2019, SEPTA led a total of 3 planning studies and collaborated on a total of 31 planning efforts. Both SEPTA-led and collaborative planning efforts contribute to more livable communities.

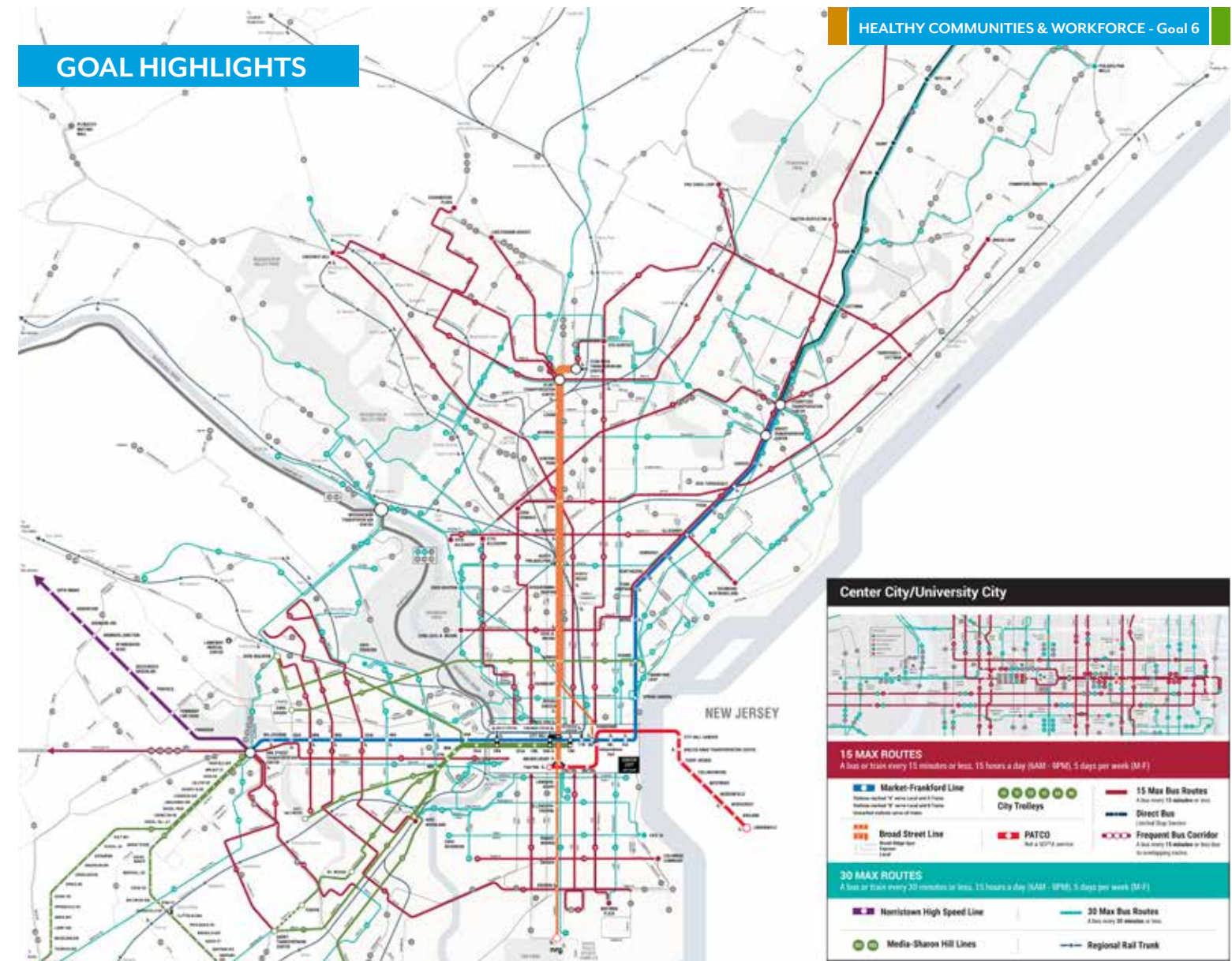
SEPTA-led long range planning efforts support a shared vision for livable communities by spurring economic development through improved access to jobs and services. Similarly, collaborative planning efforts with non-profit organizations, municipalities and cities improve the quality of life in the communities SEPTA serves through the development of better transportation services, streetscape design and transit-oriented development opportunities.

For SEPTA, long range planning ensures that the Authority can continue to provide Southeastern Pennsylvania with better services that benefit all residents.

#### FY2019 SEPTA Led Planning Studies

Broad Street Line Extension to the Navy Yard	Completed
Frequency Project	Ongoing
King of Prussia Rail	Ongoing

### GOAL HIGHLIGHTS



### BUS FREQUENCY PROJECT

In FY2019, SEPTA worked internally to develop a frequent bus network – two dozen bus routes that come every 15 minutes or less, 15 hours a day (6:00am to 9:00pm), 5 days per week (Monday through Friday). SEPTA released new maps showing the entire bus network by frequency with new colors, brands, and logos. SEPTA also launched new colorful bus schedules that more easily advertise consistent frequency. From now on, SEPTA maps will show frequent bus routes (now known as 15MAX routes) in thick red lines, so they are central and noticeable. These are the routes you can rely on all day long for quick and convenient service.

Frequency is freedom, and when you know a route comes frequently all day, you don't have to look at a schedule – just show up and ride! Consistent frequency throughout the day, not just during rush hour, is important for SEPTA customers who don't work 9-to-5, or are simply running errands, making appointments, or visiting friends. This enables local residents to travel efficiently, easily, and affordably, reducing vehicle congestion, air pollution, crashes, and improving public health.

The new maps will also serve as a “baseline” for SEPTA's upcoming bus network redesign project. After all, how can you imagine a new bus network if you can't see the one we have today? This project will kick off in 2020, and will be driven by full participation from our customers. Much of SEPTA's bus network has remained the same for decades – what do our customers, and the whole region, need from a transit network in 2020, 2030, and beyond? This project will give all of us an opportunity to re-imagine SEPTA services to better meet the needs of today.

To learn more about SEPTA's frequent bus network, new maps, and new schedules, visit [www.septa.org/frequency](http://www.septa.org/frequency).

To learn more about SEPTA's upcoming bus network redesign, visit [www.septa.org/bus-network](http://www.septa.org/bus-network).



## GOAL 7



### IMPROVE ACCESS TO LOCAL FOOD VIA TRANSIT

HOST FIVE FARMERS MARKETS  
ON SEPTA PROPERTY BY 2020

#### HOW WE'RE DOING:

SEPTA hosted or in some way supported eight farmers markets on or near SEPTA property.

Supporting farmers markets is one way SEPTA contributes to healthy communities in Southeastern Pennsylvania. In FY2019, SEPTA hosted or in some way supported eight farmers markets within two blocks of SEPTA properties.

Many Philadelphians face challenges to accessing quality fresh food on a regular basis because it often requires traveling significant distances or paying more, creating a burden for those living in low-income communities. In an attempt to improve food accessibility for all, SEPTA hosts several farmers markets in places where large numbers of people transfer or board transit every day. Hosting markets in convenient and highly visible locations provides a way for Philadelphians to more easily access quality fresh food as part of their daily commute.



BRYN MAWR STATION



SWARTHMORE STATION

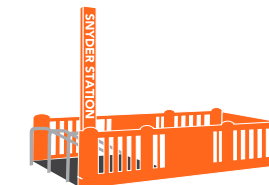
#### FOOD ACCESS VIA TRANSIT

SEPTA Seasonal Farmers  
Market Locations\*

\*Farmers Markets are  
operated by the following  
partners: The Food Trust  
& The Enterprise Center



AMBLER STATION



BROAD & SNYDER



OLNEY TRANSPORTATION CENTER



46TH STREET STATION



FRANKFORD TRANSPORTATION CENTER



ALLEGHENY DEPOT

#### GOAL HIGHLIGHTS



Walnut Hill Community Farm

#### COOKING DEMONSTRATIONS

As a way to encourage Philadelphians to discover new types of produce sold at the farmers markets, The Food Trust has organized pop-up cooking demonstrations. The demonstrations focus on healthy recipes that incorporate seasonal ingredients from the market and also feature low-cost cooking ideas. Frankford Transportation Center, Allegheny Depot and Olney Transportation Center have hosted cooking demonstrations for customers – many of whom are SEPTA customers and employees.

#### WALNUT HILL COMMUNITY FARM

The Walnut Hill Community Farm is located on a SEPTA property next to 46th Street Station on the Market-Frankford Line in West Philadelphia. The community farm has been run by The Enterprise Center since 2010 and provides healthy food access in the Walnut Hill neighborhood and surrounding areas of West Philadelphia. The farm generates fresh, local produce for community members and has distributed thousands of pounds of food to CSA participants. The Walnut Hill Community Farm also has 12 garden beds where neighborhood residents can maintain plots and grow their own produce.



HEALTHY COMMUNITIES  
& WORKFORCE

GOAL 8



DEVELOP A HIGHLY  
SKILLED, HEALTHY  
& VERSATILE  
WORKFORCE

IMPLEMENT FIVE-YEAR HUMAN  
RESOURCES MASTER PLAN

HOW WE'RE DOING:

SEPTA is implementing a comprehensive Human Resources Master Plan.

In FY2019, SEPTA made progress towards implementing a comprehensive Human Resources Master Plan, with seven focus areas (see next page for a description of each).

Key initiatives include progress towards restructuring SEPTA's New Employee Orientation program and streamlining the recruitment process that enables SEPTA to hire new employees.

A key theme in the master plan is transitioning Human Resources operations at SEPTA from "transactional" to "strategic". The HR Master Plan will help attract and retain a healthy and versatile workforce in addition to streamlining business processes associated with maintaining talent at SEPTA and ensuring it remains an employer of choice for the next generation of transit professionals. The master plan is structured based on mapping the "employee experience" and recommends initiatives to close gaps between existing and leading industry practices.

ONBOARDING  
NEW EMPLOYEES

Reimagine employee orientation and new employee classes.

ABSENCE MANAGEMENT  
& WELLNESS

Improve tracking of long-term absences. Grow wellness offerings to SEPTA employees.

BENEFITS SUPPORT &  
PERFORMANCE MANAGEMENT

Evaluate the current performance management and policies of SEPTA employees.



RECRUITMENT

Market SEPTA as an employer of choice.

WORKFORCE  
PLANNING & HIRING

Streamline all aspects of hiring process.

INFORMATION SYSTEMS

Obtain new applicant tracking, core HR System

TRAINING & CAREER  
ADVANCEMENT

Expand training and apprenticeship opportunities for SEPTA employees.

TRAINING &  
CAREER ADVANCEMENT



RECRUITMENT



SEPTA VOLUNTEERS



- **13 EMPLOYEES COMPLETED** their degrees in FY 2019
- SEPTA has **PARTNERSHIPS WITH** more than **40 COLLEGES AND UNIVERSITIES**
- **128 FRONT-LINE EMPLOYEES** were coached and counseled on interview preparation and resume writing in FY2019

- **956 SEPTA HIRED** employees in FY2019
- **THREE HIGH SCHOOL INTERNS** are participating in the elevator/escalator training program
- **ELEVEN BOOT CAMP GRADUATES** have applied and been accepted into the bus operator ranks. An additional cohort of 25 students is planned for the Spring 2020

- **SPRING CLEAN UP** 166
- **FLOWER SHOW** 204
- **SOUTHWEST CONNECTION IMPROVEMENT PROGRAM** 687



## GOAL HIGHLIGHTS



Overbrook Maintenance Facility

## WOMEN BUILDING SEPTA: TRADES AND TECHNICAL CAREER FAIR

As part of SEPTA's ongoing initiative to bring more women into skilled trades, SEPTA hosted a Women Building SEPTA Trades & Technical career fair targeted towards women interested in or currently working within the skilled trade and technical fields.

The event took place at SEPTA Headquarters in June 2019 and attracted over 200 attendees. SEPTA hiring managers and women currently working in the trades at SEPTA were present to discuss career opportunities. Recruiters were available to review applications. Representatives from area technical schools provided attendees with information regarding skilled trades and technical programs at their schools.



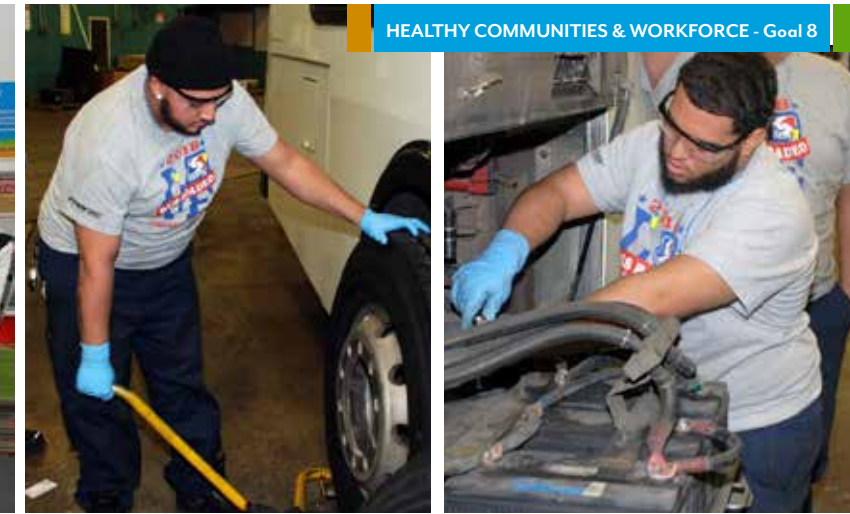
High School Internship Partnership Program

## APPRENTICESHIPS AND INTERNSHIPS

In FY2019, SEPTA continued to emphasize cultivating the next generation of skilled transit workers. SEPTA conducted a variety of initiatives including apprenticeships, high school internships, trade school initiatives, and co-ops to introduce potential employees to a wide variety of trade positions. In November 2018, SEPTA kicked off a high school internship for students interested in the Automotive Maintenance and Elevator-Escalator field. An Elevator-Escalator apprenticeship began in February 2019. Hiring more women in the trades was also top priority. SEPTA tradeswomen and instructors visited trade schools in the five counties throughout 2019 to encourage women to start careers in the skilled trade and technical fields.

## CAREER RESOURCE CONNECTION

The Career Resource Connection (formerly known as the Testing Center) was created to serve the next generation of transit professionals. The CRC conducts pre-employment testing and has modernized the testing experience by digitizing all pre-employment tests, hosting interviews for frontline and skill trades positions, as well as offering career coaching sessions, and New Employee Orientation. It is the hub of the new employee experience and a place for current employees to gather information, which will assist in their career path growth.



## STUDY SMARTER, NOT HARDER

In September 2019, the Training Department launched a pilot program focused on effective study habits. The goal of the program was to teach study habits that would ultimately improve retention during career training programs. The pilot program targeted 20 Conductors, Assistant Conductor, and Engineers that were currently undergoing training. An expanded online program for all employees preparing for testing or training is currently in development.

## VOLUNTEER OPPORTUNITIES

SEPTA has continuously established a culture of volunteerism by providing opportunities for employees to service the community. In 2019, approximately 1,300 SEPTA employees volunteered in 13 different events throughout the region, such as the Philly Spring Clean-Up, the Southwest Connection Improvement Program, and the Flower Show.



## HEALTHY COMMUNITIES & WORKFORCE

### GOAL 9

## SUPPORT REGIONAL BUSINESS EQUITY

INCREASE FFY 2016 BASELINE OF  
CONTRACTING DOLLARS COMMITTED  
TO SMALL, MINORITY WOMEN-OWNED

COMPANIES BY **20%**

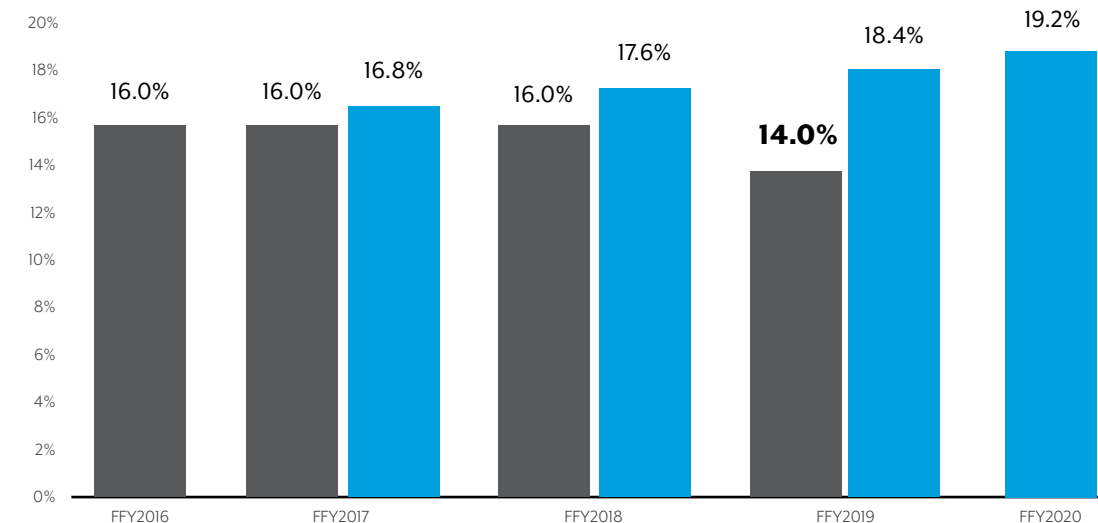
### HOW WE'RE DOING:

In Federal Fiscal Year (FFY) 2019, SEPTA awarded  
14% of its contracting dollars to DBEs.

### DBE CONTRACTING DOLLAR PERCENTAGE

PERFORMANCE

2020 GOAL



**\$21,965,067**



TOTAL CONTRACT DOLLARS  
COMMITTED TO SMALL,  
MINORITY & WOMEN-OWNED  
COMPANIES IN FFY 2019

NUMBER OF NEW  
DBE CERTIFICATIONS  
AWARDED IN FFY 2019



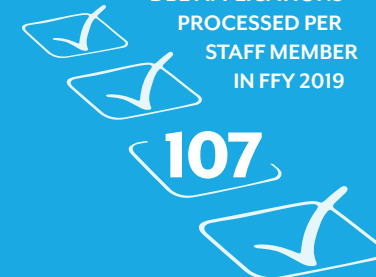
**391**



NUMBER OF DBE FIRMS  
GRANTED CONTINUED  
ELIGIBILITY IN FFY 2019

AVERAGE NUMBER OF  
DBE APPLICATIONS  
PROCESSED PER  
STAFF MEMBER  
IN FFY 2019

**107**



## GOAL HIGHLIGHTS

### EDUCATION & AWARENESS

In FFY 2019, SEPTA sent more than 85 email notices alerting small, minority and women-owned businesses of upcoming contracting opportunities. These emails, in combination with the three workshops that SEPTA hosted, help to ensure that DBEs are continually made aware of SEPTA contracting opportunities.

In addition to making DBEs aware of contracting opportunities, SEPTA helps to educate potential and currently certified DBEs about the certification process by participating in certification workshops.

### OUTREACH EVENTS

SEPTA's DBE Program Office participated in 13 outreach events and activities in FFY 2019. Among them, staff hosted two major events. The first, "Elevationships – Building Strategic Relationships to Boost Your Bottom Line", held in conjunction with the City of Philadelphia's Annual Minority Enterprise Development Week (MEDWeek) celebration, promoted effective relationship building, mentoring and networking amongst the small and diverse business community. The second, "Heavy Construction Contractors Match Maker Event", held in collaboration with the Contractors' Association of Eastern Pennsylvania, connected majority contractors with small, minority and woman-owned construction firms, in addition to highlighting contracting opportunities with SEPTA, PennDOT, PhilaPort, the City of Philadelphia and the Philadelphia International Airport.

SEPTA is committed to expanding opportunities for small, minority and women owned businesses through the Disadvantaged Business Enterprise (DBE) program. This program is intended to create an even playing field for these businesses by reducing burdens and fostering equal opportunity for the award of SEPTA contracts. SEPTA's DBE office is one of only five certification agencies in the state, making it an essential resource for small, disadvantaged businesses in Pennsylvania. By providing DBE certifications free of charge and committing to award a certain percentage of SEPTA's annual contract dollars to DBEs, SEPTA is able to provide support to regional small businesses.





# ECONOMIC VITALITY

SEPTA operations support the vitality and economic growth of Southeastern Pennsylvania. The Economic Vitality chapter of this annual report provide an update on progress towards positive economic impact. Institutionalizing sustainability best practices, increasing ridership throughout the region, and expanding the positive financial impacts of sustainability at SEPTA will support a fiscally efficient organization and region.

2020 GOAL	GOAL 10	GOAL 11	GOAL 12		GOAL 13
	Increase Passenger Trips Per Capita 6% by 2020	Outperform Industry Annualized Growth Rate	Achieve ISO-14001 at Two Shops	Institute an Environmental Management Checklist for Capital Projects	Grow Positive Financial Impacts of Sustainability Initiatives Annually
BASELINE (FY2015)	80.6 UPT PER CAPITA	\$3.90 (\$0.50 BELOW MOST RECENT INDUSTRY DATA)	1 SHOP CERTIFIED	N/A	GRANTS: \$86,800,000 REVENUE: \$418,696 SAVINGS: \$219,662
FY2016	79.6 UPT per capita	\$4.04 (\$0.36 below most recent industry data)	1 Shop Certified	Checklist models evaluated	Grants: \$2,600,000 Revenue: \$278,675 Savings: \$9,607,240
FY2017	74.8 UPT per capita	\$4.39 (\$0.15 below most recent industry data)	1 Shop Certified	Checklist models evaluated	Grants: N/A Revenue: \$1,761,475 Savings: \$15,594,681
FY2018	73.3 UPT per capita	\$4.53 (\$0.12 below most recent industry data)	2 Shops Certified	Checklist models evaluated	Grants: N/A Revenue: \$1,902,530 Savings: \$339,320
FY2019	70.9 UPT PER CAPITA	\$4.75 (\$0.18 BELOW MOST RECENT INDUSTRY DATA)	2 SHOPS CERTIFIED	CHECKLIST MODELS EVALUATED	GRANTS: \$6,300,001 REVENUE: \$2,089,240 SAVINGS: \$112,019
FY2020	N/A	-	-	-	-
2020 Target	85.6 UPT per capita	-	2 Shops Certified	All Capital Projects Evaluated with Checklist	-



## ECONOMIC VITALITY



### INCREASE RIDERSHIP

INCREASE PASSENGER TRIPS PER CAPITA

BY **6%** BY 2020

#### HOW WE'RE DOING:

From baseline year FY2015 to FY2019, SEPTA's normalized ridership decreased by 12%. This is consistent with trends across the transit industry.

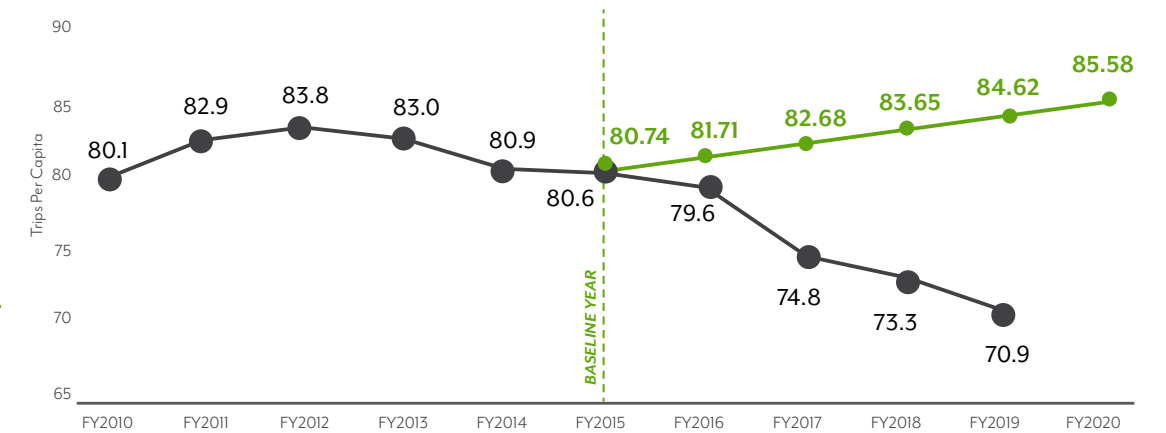
Growing ridership makes both SEPTA and the region more sustainable. SEPTA is responsible for transporting 1 million passenger trips across Southeastern Pennsylvania each weekday. For SEPTA, ridership growth means more cost-effective service. For the region, ridership growth means lower emissions from fewer cars on the road and reduced traffic congestion.

While rail ridership has held steady, SEPTA has been experiencing bus ridership loss since 2012. This is consistent with trends across the transit industry. To encourage ridership, SEPTA is committed to developing programs and initiatives that make public transit the preferred mode of transportation for visitors and residents of Southeastern Pennsylvania.

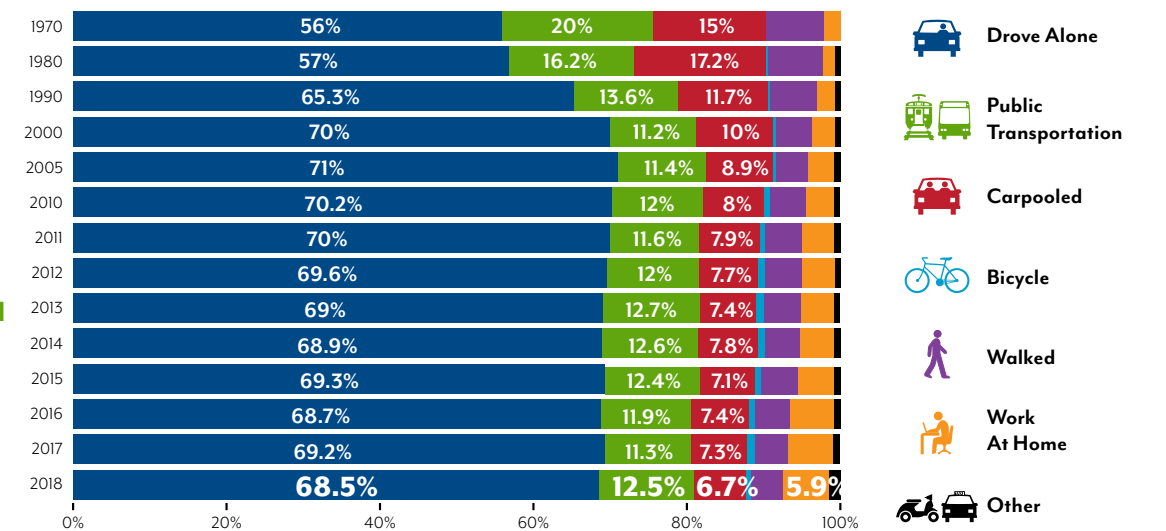
### AVERAGE NUMBER OF ANNUAL SEPTA RIDES FOR EACH RESIDENT OF SOUTHEASTERN PENNSYLVANIA

PERFORMANCE

2020 GOAL



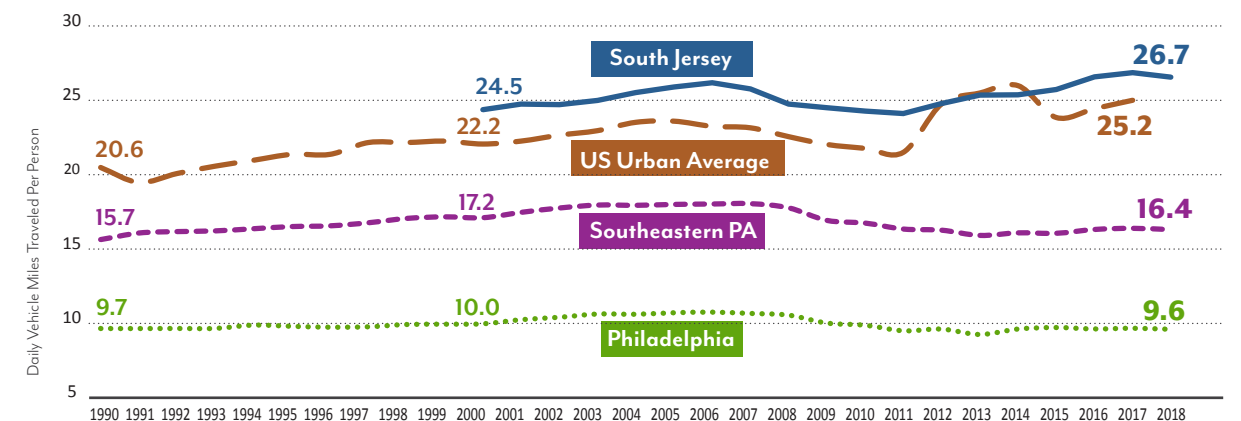
### COMMUTE TO WORK SHARE, SOUTHEASTERN PENNSYLVANIA



### ENVIRONMENTAL VALUE OF TRANSIT ORIENTED DEVELOPMENT

In the United States, daily vehicle miles travelled (DVMT) per person within urban areas has risen from 20.6 in 1990 to 25.2 in 2017, marking a 22% increase. Over the same period, the DVMT for Philadelphia remained relatively flat at approximately 9.7 miles per day and increased 4% in Southeastern Pennsylvania from 15.7 to 16.4. Both Philadelphia and Southeastern Pennsylvania's vehicle miles travelled remains lower than the national average in part due to the walkability of the city and a regional transit network that connects people to their places of employment throughout the region.

### DAILY VEHICLE MILES TRAVELED (DVMT) PER PERSON







### RIDERSHIP GROWTH INNOVATION TEAM

In 2018, SEPTA launched an internal Ridership Growth Innovation Team tasked with executing programs and partnerships to increase passengers per revenue hour by 5%. In 2019, working from the most recent customer satisfaction survey, the multidisciplinary team brought about improved detour communications to customers and additional advertisement of multi-lingual services. As the culture of “walking in the customers’ shoes” builds momentum, the team will further address a broad base of improvements to make existing services more attractive and useful. Ridership growth initiatives lower the environmental impact of customer travel: well-utilized transit services create fewer emissions per passenger, especially when substituting for trips in private or shared cars.

### GROWING RIDERSHIP THROUGH PARTNERSHIPS: SEPTA, LYFT, AND THE PENNSYLVANIA WINERY ASSOCIATION

To increase ridership, SEPTA launches initiatives that showcase public transit as the preferred choice. During October 2019, SEPTA teamed up with Lyft to make it safer and easier to celebrate Pennsylvania Wine Month with a program called “Visit the Vines.” The program provided discounted Lyft rides for SEPTA riders traveling to more than 25 wineries in Bucks, Chester, Delaware, and Montgomery Counties. The wineries are all located within a short ride from over a dozen SEPTA Regional Rail Stations, highlighting SEPTA’s reach within the Southeastern Pennsylvania and accessibility to a variety of destinations.

### REAL TIME APP

The official SEPTA apps for iPhone & Android take the real-time tools found on the [septa.org](http://septa.org) website and make them available on mobile devices. Using the app, customers can create customized alerts for their favorite routes and visually track the location of more SEPTA vehicles than ever using TrainView and TransitView features. During 2019, SEPTA made updates to the app that provided more frequent updates for vehicle and train locations. Additionally, SEPTA Key was integrated into the SEPTA mobile app during 2019. This enhancement allows customers to log into their SEPTA Key account and see their Travel Wallet balance, add funds or purchase a pass, review trip history, and set up autoloan for Travel Wallet or pass products.

### CONTINUED SEPTA KEY DEPLOYMENT

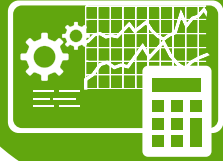
The SEPTA Key is a convenient way for customers to pay for a ride on SEPTA. The Key Card is a reusable, contactless chip card that can be loaded and reloaded with travel funds and fare passes. During 2019, SEPTA continued rolling out initiatives related to the SEPTA Key including the launch of a new SEPTA Key website and incorporating SEPTA Key within the official SEPTA app. SEPTA also started integrating the SEPTA Key on the Regional Rail network during 2019. Moving forward, SEPTA’s goal is to reach system-wide deployment of the Key Fare Program in 2020.

### SUPPORTING MULTILINGUAL COMMUNITIES THROUGHOUT SERVICE AREA

SEPTA has recently implemented several initiatives in an effort to make the system more accessible for all riders and better serve the multilingual communities throughout its service area. SEPTA now makes service announcements in both Spanish and English on the Market-Frankford and Broad Street Subway Lines. The announcements also play at City Trolley stations on the 10, 11, 13, 34 and 36 routes. In addition to the announcements, SEPTA has increased the number of bilingual and multilingual signs throughout the system to inform customers about safety, construction, service changes, as well as the SEPTA Key Program. SEPTA’s Transit Watch App, which allows riders to discreetly report security and safety issues, is offered in Spanish, Chinese, French and English. SEPTA also launched the Language Ambassador Program as another means to support diverse communities. With this program, bilingual SEPTA employees serve as ambassadors to assist with multilingual events and message sharing.



## GOAL 11



### IMPROVE OPERATING EXPENSE PERFORMANCE

#### OUTPERFORM INDUSTRY ANNUALIZED GROWTH RATE

##### HOW WE'RE DOING:

SEPTA spends \$0.18 less per unlinked passenger trip than the industry average.

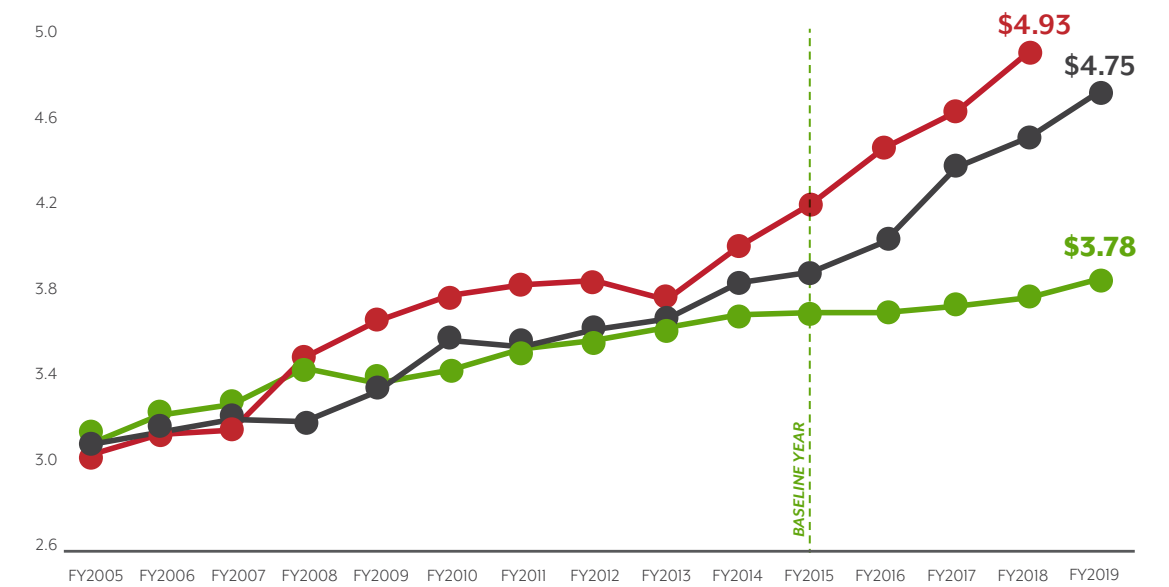
Operating expense per trip is used as a measure of SEPTA's economic efficiency and can be evaluated by comparing the cost of SEPTA's operations to the transportation industry. SEPTA has traditionally spent less money to operate services for unlinked passenger trips than peer agencies in the United States, and SEPTA is committed to continuously outperform the industry in the future.

SEPTA calculates its operating expenditure by adding all of the expenses used to operate its transportation services, including overhead. This includes costs of fuel for buses, electricity for buildings and rail cars, and salaries of the employees who operate and maintain the vehicles. SEPTA's sustainability programs and initiatives yield savings that help to lower operating costs, which is important to ensure that SEPTA remains economically viable and is able to continue to offer low cost fares to customers.



#### OPERATING EXPENSES OUTPERFORM INDUSTRY GROWTH RATE

SEPTA
INDUSTRY
PHILA CPI-U



In FY 2019 SEPTA reduced diesel fuel consumption by more than 270,000 gallons as compared to the previous year. At 2019 fuel prices, **SEPTA realized a savings of more than \$65,000.**

## GOAL HIGHLIGHTS

### THIRD PARTY RETAIL ENERGY SUPPLY CONTRACT

Energy consumption is SEPTA's third largest operating expense. Pennsylvania's energy markets are now deregulated, allowing institutional consumers such as SEPTA to procure energy on competitive retail supply markets. While SEPTA continues to drive down energy costs through solar power purchase agreements (see Goal 1) and energy efficiency initiatives (see Goal 2), additional opportunities are continually evaluated to reduce overall utility expenses through sourcing of lower-cost retail energy supply. In 2019, SEPTA successfully achieved this objective by entering into new three-year electricity supply contracts, which reduced SEPTA's rates by more than 21% on average. These expense reductions, combined with aforementioned savings from energy efficiency and renewable energy projects, significantly contribute to SEPTA's ability to keep expenses per passenger trip below industry average.

### INVENTORY MANAGEMENT

SEPTA is committed to expense reductions throughout the business. One area identified for in-depth review is inventory management. SEPTA has initiated a series of initiatives to increase efficiency and control over storeroom practices to drive down costs and improve productivity. These initiatives will help keep SEPTA's expenses per passenger trip below the industry average.



# GOAL 12



## INSTITUTIONALIZE ENVIRONMENTAL MANAGEMENT PRACTICES

1. ACHIEVE ISO 14001 CERTIFICATION AT 2 SEPTA FACILITIES
2. INSTITUTE AND COMPLETE AN ENVIRONMENTAL MANAGEMENT CHECKLIST FOR CAPITAL PROJECTS BY 2020

### HOW WE'RE DOING:

SEPTA has achieved and maintained ISO 14001 certification at two locations.

Successful environmental management practices mitigate risks to employees and the natural environment, and reduce both financial and material waste. SEPTA's Environmental and Sustainability Management System (ESMS) provides tools to ensure successful business operations while meeting or exceeding environmental compliance obligations.

ISO 14001 is the international standard for environmental management. Achieving ISO 14001 certification is a signal to regulators, vendors, legislators, and community members that SEPTA takes its commitments to the environment seriously. The Berridge bus and print shops have been continually ISO 14001 certified since 2013. In December 2018, SEPTA achieved its goal of earning ISO 14001 certification at a second location, Wayne Junction Complex, home to the Wayne electric railcar shop, traction power, and signal maintenance functions. Both facilities have since been re-certified via regular annual audits.

SEPTA continues to evaluate design standards and construction guidelines in order to strengthen language that promotes building efficiency and waste reductions in both construction and operations.



Berridge Shop

## GOAL HIGHLIGHTS

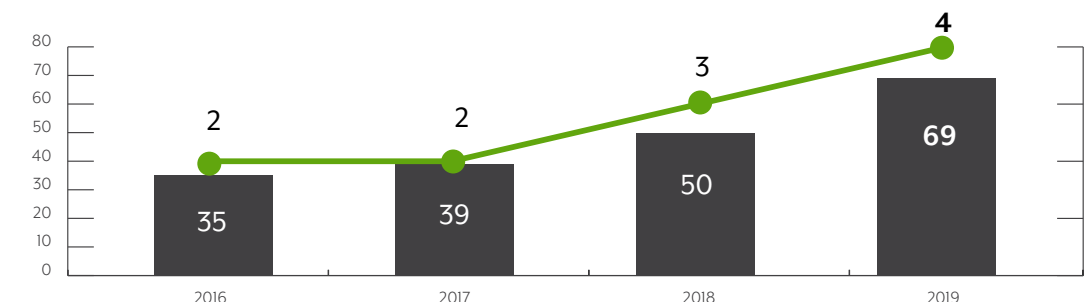
LEO Training

### EFFECTIVE ESMS TRAINING

Location Environmental Officers (LEOs) are the environmental eyes and ears on the front lines of SEPTA's operations. They complete weekly environmental inspections, and ensure that all regulatory compliance requirements are met. SEPTA's annual full-day in-person LEO training has undergone significant improvement and expansion over the past few years. More shop directors, assistant directors, and maintenance managers are LEO-trained than ever before, and the course material has been expanded to include stormwater management, effective recycling, and visits from waste contractors and subject matter experts.

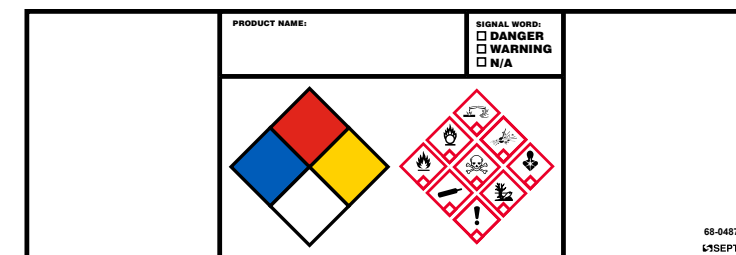
#### LEO TRAINING

# EMPLOYEES TRAINED  
# OF SESSIONS OFFERED



### HAZARD COMMUNICATION

SEPTA uses lessons learned at its two ISO 14001-certified locations to identify improvement opportunities throughout the system. One example: this container label, created to address the common audit finding that spray bottles and other temporary containers were missing chemical names and hazards. Designed by safety staff and produced in SEPTA's own print shop, this label was rolled out system-wide during Right-To-Know training on Safety Day in October 2019.



Wayne Spill Drill

### SPILL PREVENTION & RESPONSE

Emergency preparedness and response is a cornerstone of effective environmental management. Each SEPTA maintenance facility maintains a spill-response team, trained annually, to manage and clean up material spills. A specialized hazmat response team based out of Frankford Depot is also on-call to handle larger spills, at backshops or on the road. Wayne Junction's spill response team enhances their training with full-scale annual drills, including a simulated spill, activation of the spill response team, and a system safety representative to observe and lead a debrief/critique session. SEPTA environmental staff are working to expand the use of spill drills system-wide.





GOAL 13



FINANCIAL VALUE OF SUSTAINABILITY

GROW POSITIVE FINANCIAL IMPACTS OF SUSTAINABILITY INITIATIVES

HOW WE'RE DOING:

From FY2016 to FY2019, SEPTA generated more than \$6 million in revenue and more than \$25 million in savings as a result of sustainable initiatives.

SEPTA's triple bottom line approach to sustainability requires initiatives that improve environmental and social sustainability to also have a positive impact on the financial bottom line. This principle is grounded in an effort to rigorously track and report on the financial impact of Sustainability Program implementation. By tracking and transparently reporting key indicators of financial impact, SEPTA has demonstrated over the years that sustainability has a net-positive impact on the business.

Fiscal Year	GRANTS	REVENUE	SAVINGS
FY2009	\$-	\$-	\$-
FY2010	\$-	\$70,207	\$-
FY2011	\$27,640,000	\$123,780	\$-
FY2012	\$-	\$179,675	\$-
FY2013	\$1,280,000	\$273,312	\$400,993
FY2014	\$-	\$322,263	\$2,182,628
FY2015	\$86,800,000	\$418,696	\$219,662
FY2016	\$2,600,000	\$278,675	\$9,607,240
FY2017	\$-	\$1,761,475	\$15,594,681
FY2018	\$-	\$1,902,530	\$339,321
FY2019	\$6,300,001	\$2,089,240	\$112,019
TOTAL	\$124,620,001	\$7,419,854	\$28,456,544

\*FTA's Resilience Grant

TOTAL POSITIVE FINANCIAL IMPACT  
\$160,496,398



GRANTS

Federal Transit Administration (FTA) Low or No Emission Electric Bus Grant  
Pennsylvania Department of Environmental Protection (PA DEP) Class 8 Vehicle Program (VW Settlement Funding)  
Delaware Valley Regional Planning Commission (DVRPRC) Congestion Mitigation and Air Quality (CMAQ) Competitive Program



REVENUE

Act 129 Rebates  
Wayside Energy Storage  
Resale Of Waste Oil  
Metal Recycling  
Print Shop Recycling  
Surplus Equipment Auctions



SAVINGS

Facility Energy Retrofits  
Recycling Hauling  
Stormwater Fee Reduction  
Savings On Fuel Expenses Due To Hybrid-Electric Buses

GOAL HIGHLIGHTS

SURPLUS EQUIPMENT AUCTION

In August 2017, SEPTA began utilizing auction liquidation services, such as Gov Deals and Municibid, to auction surplus items to the public. The program was so successful that SEPTA has continued auctioning items in 2018 and 2019. Auctioned equipment includes items such as parts for buses that SEPTA no longer has in the fleet, retired vehicles, and used computer equipment. Auctioning surplus equipment not only provides a revenue source for SEPTA but also promotes reuse and diverts valuable materials from landfill.

ELECTRIC BUS GRANT

In FY2019, SEPTA was awarded a \$1.5 million FTA Low or No Emission Program grant for the purchase of 10 new battery electric buses. SEPTA and the bus manufacturer, New Flyer of America, partnered on the application, and the \$1.5 million grant represents the differential in price between diesel-electric hybrid buses and the battery-electric buses. The new buses will be part of a pilot program evaluating the viability of battery-electric buses on SEPTA's diverse service territory. Grants such as these help SEPTA to innovate and test new technologies.

ACT 129 REBATES

Pennsylvania Act 129 of 2008 enables utilities to offer rebates to organizations that invest in energy efficiency initiatives. SEPTA has leveraged PECO's Smart Ideas program to generate more than \$430,000 in Act 129 rebates for facility lighting improvements across the system.



SEPTA GHG EMISSIONS OVERVIEW

CALENDAR YEAR	EMISSIONS PRODUCED BY SEPTA	EMISSIONS PREVENTED BY SEPTA	EMISSIONS SAVINGS MULTIPLIER
CY2006	1,016,293,166	2,616,358,006	2.57
CY2007	1,001,689,687	2,704,226,835	2.70
CY2008	1,004,573,763	2,810,186,803	2.80
CY2009	953,200,977	2,832,515,631	2.97
CY2010	994,869,755	2,903,907,804	2.92
CY2011	974,878,950	2,973,724,850	3.05
CY2012	852,473,174	2,944,100,753	3.45
CY2013	861,516,194	2,866,109,250	3.33
CY2014	853,679,827	2,809,782,695	3.29
CY2015	837,069,564	2,826,628,117	3.38
CY2016	791,833,664	2,702,445,512	3.41
CY2017	765,245,300	2,492,509,574	3.26
CY2018	737,725,664	2,516,416,821	3.41

EMISSIONS PRODUCED BY SEPTA

CALENDAR YEAR	EMISSIONS (LBS CO2-E)	PER VM	PER RVH	PER PMT
CY2006	1,016,293,166	10.97	153.68	0.710
CY2007	1,001,689,687	10.69	149.97	0.676
CY2008	1,004,573,763	10.51	146.98	0.653
CY2009	953,200,977	9.82	138.00	0.615
CY2010	994,869,755	10.21	143.81	0.625
CY2011	974,878,950	9.94	139.28	0.598
CY2012	852,473,174	8.63	122.36	0.529
CY2013	861,516,194	8.63	218.91	0.549
CY2014	853,679,827	8.49	119.16	0.555
CY2015	837,069,564	8.30	114.30	0.541
CY2016	791,833,664	7.88	107.59	0.536
CY2017	765,245,300	7.68	103.47	0.562
CY2018	737,725,664	7.34	98.38	0.536

GHG INVENTORY BY SOURCE

SOURCE	EMISSIONS PRODUCED (LBS CO2-E)	PERCENTAGE OF TOTAL EMISSIONS
Revenue Vehicles	320,944,888	40.53%
Maintenance Vehicles	19,945,742	2.52%
On-Site natural gas	32,391,229	4.09%
Heating oil	4,550,794	0.57%
Steam	271,331,051	34.27%
Propulsion Electricity	71,335,907	9.01%
Building Electricity	4,194,634	0.53%

EMISSIONS PREVENTED BY SEPTA

CALENDAR YEAR	EMISSIONS SAVINGS DUE TO CONGESTION RELIEF (LBS CO2-E)	EMISSIONS SAVINGS DUE TO MODE SHIFT (LBS CO2-E)	EMISSIONS SAVINGS DUE TO LAND USE (LBS CO2-E)	TOTAL EMISSIONS SAVINGS (LBS CO2-E)
CY2006	132,456,100	LBS	LBS	LBS
CY2007	136,130,924	602,164,856	1,881,737,050	2,704,226,835
CY2008	141,568,680	622,575,755	1,945,520,156	2,810,186,803
CY2009	142,723,301	646,945,052	2,021,673,071	2,832,515,631
CY2010	144,885,790	652,078,251	2,037,714,079	2,903,907,804
CY2011	148,363,894	668,861,395	2,090,160,619	2,973,724,850
CY2012	148,280,932	684,943,745	2,140,417,212	2,944,100,753
CY2013	144,467,677	677,782,176	2,118,037,644	2,866,109,250
CY2014	141,563,015	659,799,367	2,061,842,206	2,809,782,695
CY2015	142,659,535	646,848,459	2,021,371,222	2,826,628,117
CY2016	138,644,689	621,534,509	1,942,266,313	2,702,445,512
CY2017	132,292,746	572,180,255	1,788,036,574	2,492,509,574
CY2018	128,907,134	578,796,781	1,808,712,907	2,516,416,821

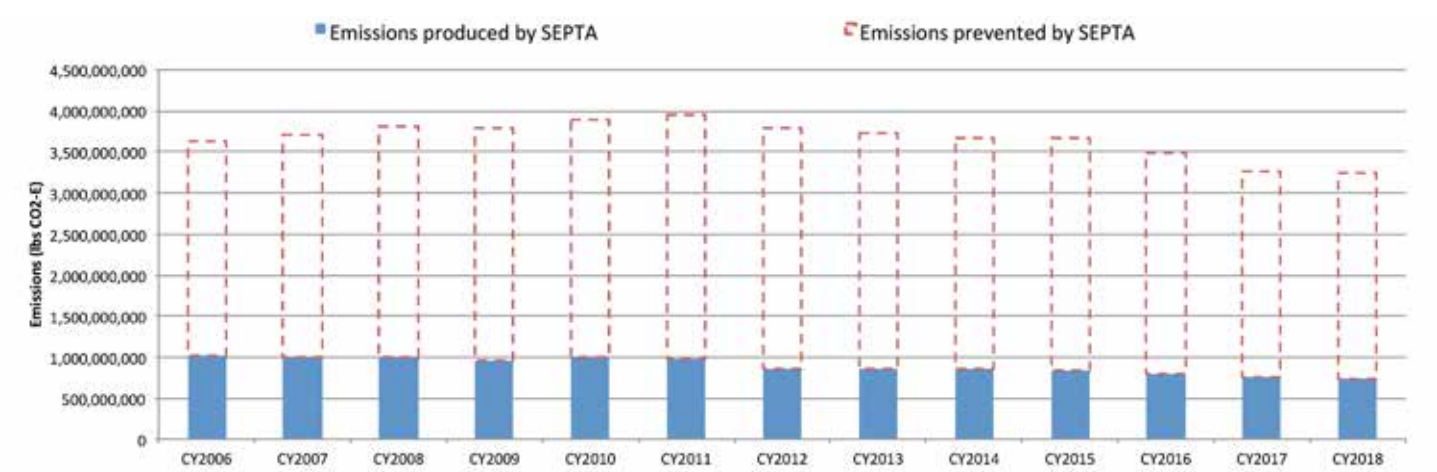
SEPTA ENERGY CONSUMPTION

	MMBTU	MMBTU PER VM	MMBTU PER RVH	MMBTU PER PMT
FY2007	4,305,974	46.13	647.94	3.01
FY2008	4,335,844	46.14	645.87	2.83
FY2009	4,447,115	45.80	639.26	2.88
FY2010	4,324,309	44.56	630.54	2.78
FY2011	4,319,489	44.15	619.03	2.66
FY2012	4,203,948	42.76	598.78	2.58
FY2013	4,175,984	42.10	604.11	2.62
FY2014	4,244,172	42.24	599.38	2.74
FY2015	4,206,252	41.77	580.40	2.75
FY2016	3,993,605	39.51	539.67	2.55
FY2017	4,028,214	40.37	550.37	2.89
FY2018	3,983,246	40.08	533.08	2.99
FY2019	3,975,415	39.16	528.32	2.79

FY2019 ENERGY CONSUMPTION BREAKDOWN

SOURCE	MMBTU	% OF ENERGY MAKEUP
Diesel	1,715,773	43.16%
Gasoline	287,320	7.23%
Electricity		
79% used for propulsion	1,632,424	41.06%
21% used in buildings		
Natural Gas	277,852	6.99%
Heating Oil	26,111	0.66%
Steam	35,936	0.90%

GHG EMISSIONS OVERVIEW





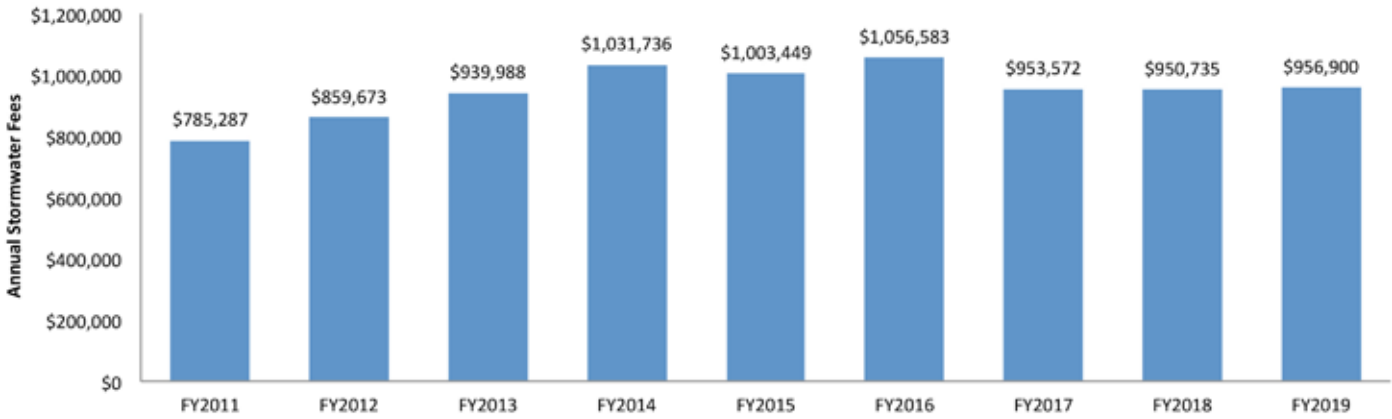
WATER USE PERFORMANCE

FISCAL YEAR	CCF	GALLONS	GALLONS PER VM	GALLONS PER RVH	GALLONS PER PMT
FY2009	162,409	121,481,784	1.25	17.46	0.079
FY2010	169,286	126,625,900	1.30	18.46	0.081
FY2011	152,575	114,126,440	1.17	16.36	0.070
FY2012	144,417	108,023,598	1.10	15.39	0.066
FY2013	150,445	112,533,194	1.13	16.28	0.071
FY2014	157,180	113,931,756	1.13	16.09	0.074
FY2015	192,940	144,319,457	1.43	19.91	0.094
FY2016	186,391	139,420,244	1.38	18.84	0.089
FY2017	163,074	121,979,267	1.22	16.67	0.088
FY2018	139,694	104,491,368	1.05	13.98	0.079
FY2019	158,422	118,499,680	1.17	15.75	0.083

ANNUAL STORMWATER FEES

FISCAL YEAR	FY2011	FY2012	FY2013	FY2014	FY2015	FY2016	FY2017	FY2018	FY2019
Stormwater Fee	\$785,287	\$859,673	\$939,988	\$1,031,736	\$1,003,449	\$1,056,583	\$953,572	\$950,735	\$956,900

SEPTA CITY OF PHILADELPHIA ANNUAL STORMWATER FEES



AUTHORITY-WIDE WASTE & DIVERSION (TONS)

	FY2013	FY2014	FY2015	FY2016	FY2017	FY2018	FY2019
Trash	9,543	6,840	6,992	5,234	5,339	14,541	20,161
Recycling	14,500	12,399	13,711	15,635	6,764	14,769	833
Total Waste	24,043	19,239	20,704	20,868	12,103	29,310	20,994
Diversion	60.31%	64.45%	66.23%	74.92%	55.89%	50.39%	3.97%

EMPLOYEE GENERATED WASTE (TONS)

	FY2013	FY2014	FY2015	FY2016	FY2017	FY2018	FY2019
Trash	3,238	2,262	2,736	1,481	2,063	2,336	2,339
Recycling	372	342	347	328	368	335	260
Diversion	10.30%	13.13%	11.27%	18.11%	15.14%	12.54%	10.00%

PASSENGER GENERATED WASTE (TONS)

	FY2013	FY2014	FY2015	FY2016	FY2017	FY2018	FY2019
Trash	4,087	3,531	3,230	3,043	2,784	2,749	3,559
Recycling	866	682	900	980	904	697	187
Diversion	17.48%	16.19%	21.79%	24.36%	24.51%	20.23%	4.99%

C&D GENERATED WASTE (TONS)

	FY2013	FY2014	FY2015	FY2016	FY2017	FY2018	FY2019
Trash	2,218	1,047	1,026	710	492	9,456	14,263
Recycling	13,262	11,375	12,464	14,327	5,492	13,737	386
Diversion	85.70%	91.60%	92.39%	95.28%	91.78%	59.23%	2.63%



COLLABORATIVE PLANNING EFFORTS

		FY 2016	FY 2017	FY 2018	FY 2019
Bicycles Access & Trails	Abington Township Bike Plan	X			
	Bike MontCo		X	X	
	Chester Valley Trail/Enola Low-Grade Trail Feasibility Study				X
	Cobbs Creek Trail Study		X		
	Cynwyd to Parkside Rails to Trails			X	
	Delaware County Bike to Transit			X	X
	Forge to Refuge Trail Feasibility Study	X	X	X	X
	Fox Chase Lorimer Trail Feasibility Study	X	X	X	
	High Trail Study		X		
	Manayunk Bridge Trail Lighting			X	
	Mantua Greenway	X	X		X
	Market/JFK Protected Bike Lanes			X	
	Octoraro Greenway Feasibility Study	X	X		
	Parkside Cynwyd Trail Feasibility Study	X			
	Spruce/Pine Bike Lane Coordination			X	
	Trail Access to Wawa Station Feasibility Study	X			
Complete Streets and Streetscape Studies	Broad & Olney Complete Streets Study				X
	DRWC Waterfront Transit Study			X	X
	Fox Chase Complete Streets Study				X
	Frankford Avenue/ Arrott Transportation Center Streetscape Plan	X		X	
	Frankford Avenue Multi-Modal Study				X
	Market Street Transformation Study		X		
	North American Street Corridor Study		X		
	Oregon Avenue Transit First Study			X	
	Reviving Vine			X	
	Route for Change – Roosevelt Boulevard Study	X	X	X	X
	Tacony Connector Street Study	X			
	Torresdale Station / Glen Foerd Access		X		
	West Girard Avenue Streetscape Plan	X			
	Wyoming Avenue Streetscape Plan	X			
Other	America 250			X	
	Bartram's Choice Neighborhood Plan				X
	City of Philadelphia Connect Transportation Plan			X	X
	City of Philadelphia Vision Zero Plan			X	X
	Connections2045		X		
	DVRPC Regional Transit Priority Screening Platform				X
	I-95 Corridor Improvements		X	X	X
	Lansdale Borough Comprehensive Plan		X	X	
	Lower Eastwick Public Land Strategy		X		
	Media Economic Development Strategy & Implementation Plan		X		
	NEC FUTURE		X	X	
	North Central Choice Viaduct Treatments			X	X
	Northeast Corridor Through-Ticketing Study		X		
	Old City Vision 2026	X			
	University City Transportation Study	X			
	Upper Merion Comprehensive Plan		X	X	
	Walk Park Train Abington		X		

COLLABORATIVE PLANNING EFFORTS (CONT.)

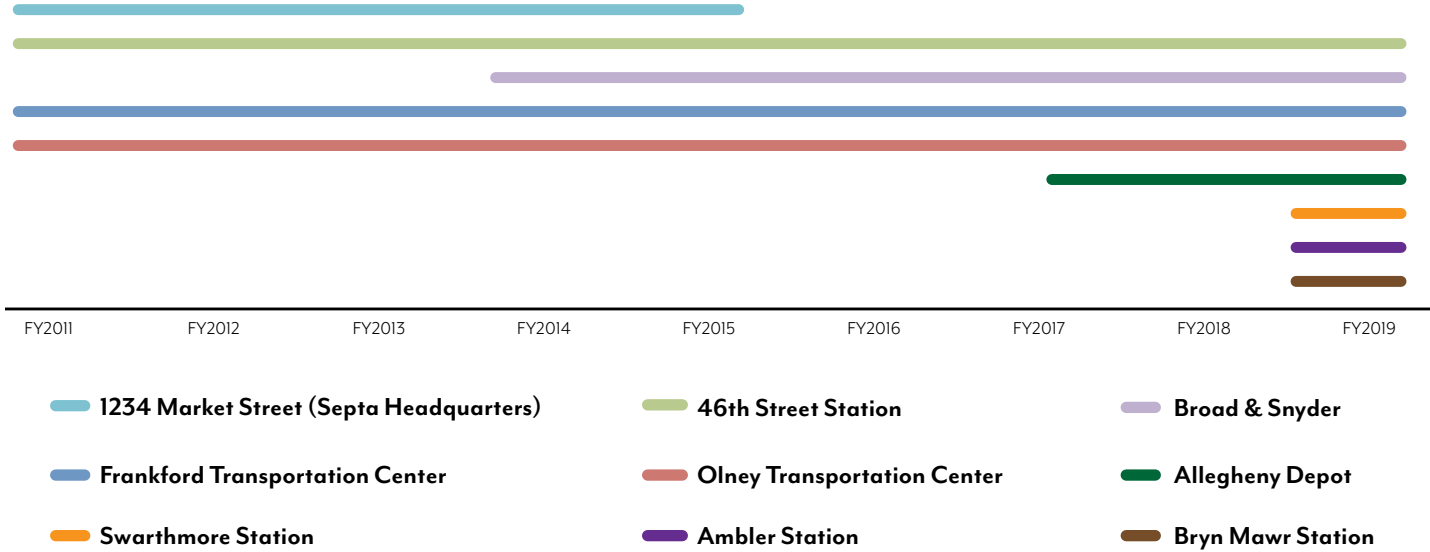
		FY 2016	FY 2017	FY 2018	FY 2019
Philadelphia 2035 District Plans and Follow-Up Studies	52nd Street Gateway		X	X	
	Broad & Erie Task Force		X	X	X
	Far Northeast District Plan	X	X		
	Lower Southwest District Plan	X			
	North Delaware District Plan	X			
	North District Plan		X		
	Tioga Goals & Strategies Report	X			
	Transportation and Community Development Initiative Intersection Studies: 20th & Moyamensing; 40th & Market	X			
	Upper North District Plan	X	X	X	
	West District Plan		X	X	
	Wissahickon Gateway		X	X	
Service Extensions	MARC/SEPTA Commuter Rail Service Extension Ridership Analysis	X	X	X	
	Paoli-Thorndale Regional Rail Extension Forecast Memo		X	X	
	Philadelphia Zoo Passenger Rail Study	X	X	X	X
	Pheonixville Rail Service				X
	East Whiteland Train Station Feasibility Study				X
TOD & Station Area Plans	30th Street Station District Plan	X	X	X	
	Abington Township Walk, Park, Train			X	
	Access the Keystone		X		
	Building on our Strengths: Evaluating Transit-Oriented Development (TOD) Potential in Greater Philadelphia	X			
	Conshohocken Station Area Improvements	X	X		
	Darby Transportation Center – Access & Development Opportunities Study	X			
	DVRPC Transit Oriented Development Policy Research				X
	Eastwick Inter-Modal Center		X	X	X
	Exton Station – Phases II & III	X	X	X	
	Hatboro Station Safe Routes to Transit				X
	Hughes Park Safe Routes to Transit			X	
	Ivy Ridge: Creating a Multi-Modal Hub	X	X		
	King of Prussia Rail Station Area Planning		X	X	X
	Middletown TRID			X	
	North Philadelphia TCDI Study				X
	Radnor Station Connectivity Study		X		
	South Philadelphia Transportation Center Study		X	X	X
	ULI North Philadelphia Station			X	
	ULI TAP 69th Street Transportation Center			X	X
Trolley Modernization	Centennial District: Trolley Service Evaluation		X	X	X
	I-95 Richmond Street Improvements	X	X	X	X
	Island Avenue Reconstruction	X	X	X	X
	Light Rail on Delaware Avenue: a Renewed Look	X			X
	Modern Trolley Station Design Guide: City Routes	X	X	X	
	Modern Trolley Station Design Guide: Media / Sharon Hill Lines	X	X	X	
	Route 15 Trolley Modernization and Operations Analysis			X	X



FY2019 FARMERS MARKETS

FY2019 FARMERS MARKETS	PRODUCE SOURCING	SEPTA ROUTES	ADDRESS
Frankford Transportation Center	Root Mass Farm	3, 4, 5, 8, 19, 20, 24, 25, 26, 50, 58, 59, 73, 84, 66, 67, 88, R,M FL (Frankford TC)	Bustleton Ave. & Frankford Ave., Philadelphia
Olney Transportation Center	McCann Farms	6, 8, 16, 18, 22, 26, 55, 80, L, BSL (Olney TC)	Broad St. & Olney Ave., Philadelphia
46th Street Station	On-site (Walnut Hill Community Farm)	21, 31, 64, MFL (46th St. Station)	4610 Market St, Philadelphia
Broad & Snyder	Solly Bros. Farm	4,37, 79, BSL (Snyder Station)	Broad St. & Snyder Ave., Philadelphia
Allegheny Depot	McCann Farms	32, 54, 60	26th & Allegheny, Philadelphia
Swarthmore Station	Farm to City	109, Media/Elwyn Line	Park Ave. & Chester Rd., Swarthmore
Ambler Station	Farm to City	94, Lansdale/Doylestown Line	35 W. Butler Ave., Ambler
Bryn Mawr Station	Farm to City	Paoli/Thorndale Line	54 N. Bryn Mawr Ave., Bryn Mawr

TIMELINE OF SEPTA FARMERS MARKETS



NUMBER OF SEPTA VOLUNTEERS

	FY2011	FY2012	FY2013	FY2014	FY2015	FY2016	FY2017	FY2018	FY2019
Spring Clean-Up	675	650	630	697	729	634	712	150	166
Flower Show	208	211	241	222	224	222	165	231	204
Southwest Connection Improvement Program									687

UNLINKED TRIPS PER CAPITA

FISCAL YEAR	REGIONAL POPULATION	UNLINKED PASSENGER TRIPS	UPT PER CAPITA
FY2000	3,849,647	300,707,480	78.1
FY2001	3,868,053	305,171,840	78.9
FY2002	3,882,567	295,270,159	76.1
FY2003	3,896,671	298,325,816	76.6
FY2004	3,914,630	301,018,217	76.9
FY2005	3,929,505	298,730,503	76.0
FY2006	3,946,328	296,587,290	75.2
FY2007	3,969,582	307,188,000	77.4
FY2008	3,991,897	325,118,000	81.4
FY2009	4,012,573	329,581,000	82.1
FY2010	4,008,994	320,984,000	80.1
FY2011	4,033,874	333,966,000	82.8
FY2012	4,053,776	339,288,000	83.7
FY2013	4,067,946	337,314,000	82.9
FY2014	4,081,026	330,155,000	80.9
FY2015	4,093,906	330,119,000	80.6
FY2016	4,095,710	326,085,000	79.7
FY2017	4,119,268	308,300,000	74.8
FY2018	4,127,734	302,702,000	73.3
FY2019	4,127,734	292,858,000	70.9

FY2019 RIDERSHIP BREAKDOWN

MODE	UNLINKED PASSENGER TRIPS	VEHICLE MILES TRAVELED	PASSENGER MILES TRAVELED
Regional Rail	34,730,053	21,290,301	465,744,543
Demand Response	1,513,129	12,112,139	10,507,130
NHSL/MFL/BSL	90,754,189	17,228,995	399,698,849
Trolley	27,312,760	3,973,328	67,439,579
Bus	153,956,505	46,844,036	479,782,469

Note: Modal ridership is sourced from National Transit Database and differs from total unlinked passenger trips sourced from SEPTA Revenue counts due to reporting methodology.



OPERATING EXPENSES OVERVIEW

YEAR	OPEX (000S)	UPT (000S)	OPEX/UPT	INDUSTRY OPEX/UPT	PHILADELPHIA CPI-U
FY2005	\$923,369	298,730	\$3.09	\$3.04	\$3.09
FY2006	\$933,904	269,590	\$3.15	\$3.14	\$3.23
FY2007	\$985,146	307,190	\$3.21	\$3.16	\$3.28
FY2008	\$1,041,623	325,120	\$3.20	\$3.50	\$3.45
FY2009	\$1,101,497	329,580	\$3.34	\$3.67	\$3.38
FY2010	\$1,147,754	320,980	\$3.58	\$3.79	\$3.44
FY2011	\$1,184,551	333,970	\$3.55	\$3.84	\$3.54
FY2012	\$1,232,262	339,290	\$3.63	\$3.86	\$3.58
FY2013	\$1,239,886	337,310	\$3.68	\$3.77	\$3.64
FY2014	\$1,270,436	330,160	\$3.85	\$4.02	\$3.70
FY2015	\$1,287,658	330,120	\$3.90	\$4.22	\$3.71
FY2016	\$1,318,576	326,090	\$4.04	\$4.48	\$3.71
FY2017	\$1,353,073	308,300	\$4.39	\$4.65	\$3.74
FY2018	\$1,371,790	302,702	\$4.53	\$4.93	\$3.78
FY2019	\$1,391,239	292,858	\$4.75	\$-	\$3.87

\* Two year lag in industry performance information

GRANTS

FY2011	EPA National Clean Diesel Campaign	\$1,200,000
FY2011	FTA State of Good Repair (Hybrid Buses)	\$15,000,000
FY2011	FTA Livability (33rd & Dauphin Loop)	\$5,000,000
FY2011	FTA Clean Fuels (Hybrid Buses)	\$5,000,000
FY2011	FTA TIGGER (Waysise Energy Storage)	\$1,440,000
FY2013	FHWA CMAQ (Locomotive Engine Repower)	\$1,280,000
FY2015	FTA Resilience Grant	\$86,800,000
FY2016	FTA NoLo (Electric Bus)	\$2,600,000
FY2017	-	-
FY2018	-	-
FY2019	FTA Low-No Emission Electric Bus Grant	\$1,500,000
FY2019	PA DEP Class 8 Vehicle Program (VW Settlement Funding)	\$1,000,001
FY2019	DVRPC CMAQ Competitive Program	\$3,800,000

TOTAL \$124,620,001

REVENUE

FY2010	Waste Oil Resale	\$70,207
FY2011	Waste Oil Resale	\$123,780
FY2012	Waste Oil Resale	\$144,969
FY2012	ACT 129 Rebate	\$34,706
FY2013	Waste Oil Resale	\$139,597
FY2013	ACT 129 Rebate	\$133,715
FY2014	Waste Oil Resale	\$148,169
FY2014	ACT 129 Rebate	\$29,383
FY2014	WESS: grid regulation	\$144,711
FY2015	Waste Oil Resale	\$93,462
FY2015	ACT 129 Rebate	\$2,712
FY2015	WESS: grid regulation	\$322,522
FY2016	Waste Oil Resale	\$21,006
FY2016	ACT 129 Rebate	\$29,123
FY2016	WESS: grid regulation	\$228,546
FY2017	Waste Oil Resale	\$24,976
FY2017	ACT 129 Rebate	\$181,471
FY2017	Print Shop Recycling Revenue	\$2,047
FY2017	Gov Deals	\$41,052
FY2017	Metal Recycling Revenue	\$1,434,444
FY2017	WESS: grid regulation	\$77,486
FY2018	Waste Oil Resale	\$35,112
FY2018	Print Shop Recycling Revenue	\$2,405
FY2018	Asset Recovery	\$93,791
FY2018	Metal Recycling Revenue	\$1,733,869
FY2018	WESS: grid regulation	\$37,354
FY2019	ACT 129 Rebate	\$18,105
FY2019	Waste Oil Resale	\$36,852
FY2019	Print Shop Recycling Revenue	\$2,750
FY2019	Asset Recovery	\$1,068,736
FY2019	Metal Recycling Revenue	\$886,661
FY2019	WESS: grid regulation	\$76,135
Total Revenue		\$7,419,854

SAVINGS

FY2013	Hybrid/Electric Bus Fuel Savings: 2012 vs. 2013	\$368,721
FY2013	Savings from Recycling	\$32,272
FY2014	Hybrid/Electric Bus Fuel Savings: 2013 vs. 2014	\$2,138,659
FY2014	Savings from Recycling	\$43,883
FY2014	Stormwater Fee Savings	\$86
FY2015	Hybrid/Electric Bus Fuel Savings: 2014 vs. 2015	\$146,213
FY2015	Savings from Recycling	\$73,449
FY2016	Hybrid/Electric Bus Fuel Savings: 2015 vs. 2016	\$9,532,316
FY2016	Savings from Recycling	\$74,924
FY2017	Hybrid-Electric Bus Fuel Savings: 2016 vs. 2017	\$15,441,951
FY2017	Savings from Stormwater	\$2,031
FY2017	ESCO #1*	\$-
FY2017	Savings from Recycling	\$148,699
FY2017	Savings from Paper Reduction	\$2,000
FY2018	ESCO #1*	\$288,662
FY2018	Savings from recycling	\$50,658
FY2019	Stormwater Fee Savings	\$46,768
FY2019	Hybrid-Electric Bus Fuel Savings: 2018 vs. 2019	\$65,251

TOTAL \$28,456,544



**American Public Transportation Authority (APTA):** A non-profit organization that advocates for the progression of public transit in the United States.

**British Thermal Unit (BTU):** A measure of the heat content of fuels or energy sources.

**Carbon Dioxide Equivalent (CO2e):** A measure of carbon dioxide equivalence used to measure greenhouse gas emissions; determined by converting the global warming potential of various greenhouse gases to the equivalent amount of CO2 with the same global warming potential.

**Centum Cubic Feet (CCF):** One hundred cubic feet; standard unit of water consumption.

**Climate Change:** Changes in global and regional climate patterns in response to increasing levels of atmospheric greenhouse gases produced by fossil fuels.

**Combined Sewer Overflow (CSO):** Occurs when sewer system capacity is exceeded and overflow sewage is released to the natural environment instead of reaching the wastewater treatment plant.

**Combined Sewer System (CSS):** A sewer system designed to collect and transport stormwater runoff, domestic wastewater, and industrial wastewater in the same pipe.

**Contract Dollars:** The amount of money SEPTA allocates to external contractors within a given year.

**Disadvantaged Business Enterprise (DBE):** A small, minority or woman-owned business.

**Energy Service Company (ESCO):** A company specializing in the implementation of energy savings measures that partners with public agencies to provide them with private capital and savings guarantees in return for the implementation of energy reduction solutions.

**Environmental Management Checklist:** A framework of performance objectives to help identify sustainable opportunities during planning, design, construction and operation.

**Environmental and Sustainability Management System (ESMS):** Internal SEPTA program based on principles of the ISO 14001 Standard.

**Facility Diversion Rate:** The percentage of municipal solid waste and construction & demolition waste recycled by employees.

**Federal Transit Authority (FTA):** A public agency within the U.S. Department of Transportation; provides financial and technical assistance to local public transportation systems.

**Green Acre:** An area equivalent to one acre that consists of pervious surfaces, semi-impermeable surface, and/or surfaces fitted with other stormwater infrastructure.

**Greenhouse Gas (GHG):** Gases in the Earth's atmosphere that trap heat and contribute to an increase in temperature.

**Impervious Surface:** A surface, typically man-made, that does not allow liquid or precipitation to pass through.

**International Organization for Standardization (ISO):** An international non-governmental standard-setting body composed of representatives from various standards organizations. ISO 14001 is the international standard for environmental management.

**Kilowatt Hours (KWH):** Standard unit of energy, used specifically to measure energy that is being transmitted at a constant rate over a period of time.

**Miles per Gallon (MPG):** A standard unit of fuel efficiency; measures vehicular miles traveled per gallon of fuel.

**Normalized Energy Consumption:** Energy consumption (kBtu) divided by passenger miles traveled (PMT); used to ground performance in SEPTA's core business of transporting people.

**Normalized Ridership:** Number of unlinked passenger trips (UPT) divided by the population of the five counties SEPTA serves.

**Normalized Water Use:** Water consumption (gallons) divided by ridership (PMT); used to ground performance in SEPTA's core business of transporting people.

**Operational Expenditures (OpEx):** Money spent on a day-to-day basis to maintain operations.

**Passenger Diversion Rate:** The percentage of material that is recycled from SEPTA's passenger stations.

**Passenger Miles Traveled (PMT):** Number of miles traveled by all passengers on a transportation mode; used as an efficiency metric.

**Pervious Surface:** A surface that allows liquid and precipitation to pass through.

**Planning Effort:** Collaboration with community projects involving SEPTA; can include participation in Transit Oriented Development (TOD) or area study plants with external parties.

**Planning Study:** A comprehensive analysis of an aspect of SEPTA's system. Planning studies may be Station Area Plans evaluating the impacts of a specific station on the surrounding community, or a Long-Range Transit Plan analyzing service routes and ridership trends.

**Revenue Vehicle Hours (RVH):** Total number of hours that a vehicle is in revenue service; used as an efficiency metric.

**Wastewater:** Liquid waste generated by residential, commercial, and industrial properties.

**Semi-Impermeable Surface:** A surface that allows some liquid or precipitation to pass through.

**Separate Sewer System:** A sewer system designed to collect and transport stormwater runoff separately from domestic wastewater and industrial wastewater; prevents the overflow of the sewer system during periods of high precipitation.

**Single Occupancy Vehicle (SOV):** A privately owned and operated (non-commercial) motor vehicle car whose only occupant is the driver.

**Stormwater:** Water that originates from rain, snow melt, or ice melt and flows over the ground surface.

**Stormwater Fees:** Fees billed to property owners based on the area of impervious surface covering the property and used by the municipality to finance stormwater management programs and projects.

**Transit Oriented Development (TOD):** A type of community development that includes a mixture of residential, commercial, and leisure space integrated into a walkable neighborhood and located within a half-mile of quality public transportation.

**Unlinked Passenger Trips (UPT):** The number of passengers who ride public transportation vehicles regardless of the type of fare paid or transfer presented.

**Vehicle Miles (VM):** Total mileage traveled by vehicles including miles traveled while out of service; used as an efficiency metric.



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For more information about SEPTA's Sustainability Program,  
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