

Tacoma Environmental Action Plan: 2018 Progress Report

In Tacoma, we're fortunate to be surrounded with an abundance of diverse ecosystems and natural beauty. Tacomans understand that when we protect our environment, we're also protecting the health of our families, economy and community as a whole. I am proud of the continued efforts by the City of Tacoma, its residents, and businesses to address environmental challenges and to embrace opportunities for sustainable growth. Together, we are working to improve health, foster stewardship, address equity, and build resiliency when it comes to our local environment.

Since introducing the City's Environmental Action Plan in 2016, we have been making significant strides toward environmental innovation and improvement. Electric vehicle registrations in Tacoma are at an all-time high, new funding has been put toward alternative transportation options like public transit, bicycle lanes and pedestrian walkways, and outdated transit infrastructure is being improved. These examples are just a few of many that demonstrate how investing in environmentally sustainable initiatives can help us achieve a healthier, more vibrant Tacoma.

As you explore the Year 3 progress report and learn more about the steps we've taken, I invite you to reflect on the idea that collectively, our individual actions can result in positive and long-lasting stewardship of our environment.

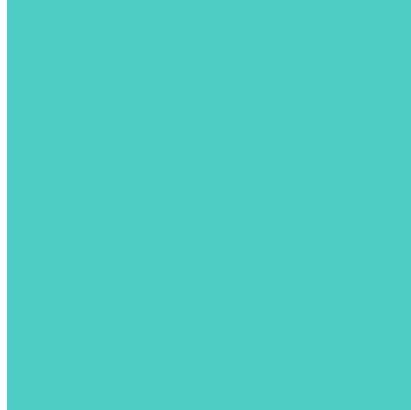
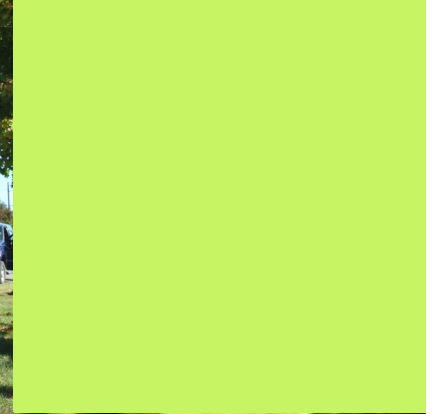
To learn more and join the effort, visit

www.cityoftacoma.org/sustainability.

Sincerely,



Victoria R. Woodards
Mayor



What is the Environmental Action Plan and Its Intent?

The Environmental Action Plan (EAP) is a list of meaningful, high-priority actions that the City of Tacoma, Tacoma Public Utilities (TPU), and our community will take between 2016 and 2020 to meet the environmental goals outlined in the Tacoma 2025 Strategic Plan.

The EAP was developed in 2015 over nine months in a collaborative process with staff from multiple City of Tacoma departments, representatives of partner organizations, and residents of Tacoma.

It replaces the 2008 Climate Action Plan and builds on the 2016 Climate Change Risk Assessment to present near-term sustainability targets and actions in six different categories.

Each year the City releases a progress report detailing progress made on each target and action.

Six Categories of Sustainability

Natural Systems

Acquiring and managing natural areas contributes to climate change resilience. Green spaces also offer Tacomans access to nature and can positively influence mental and physical health.



Air and Local Food

Clean air and safe, nutritious food are important to sustaining our local community.



Buildings and Energy

Building energy represents about 40% of emissions for Tacoma's homes and businesses mostly due to natural gas used for heating.



Transportation

Transportation accounts for 73% of GHG emissions in Tacoma. Single-occupancy passenger vehicles contribute significantly to overall transportation emissions.



Materials Management

In the waste hierarchy we must prioritize reducing, then reusing, then recycling. Sharing, leasing, borrowing, refurbishing and buying used and durable goods should be the first choices.



Climate Resiliency

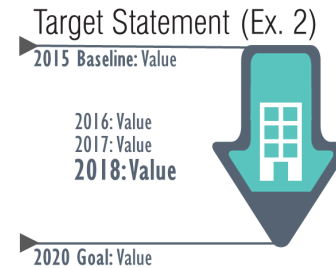
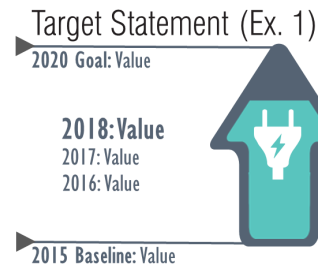
Climate change is having and will continue to have financial and social impacts to our built infrastructure and natural and social systems.



Reading the 2018 Progress Report



This report contains near-term **targets** for each of the six categories of sustainability. In most cases, the baseline was set using 2015 data, and 2020 is the target year. For each target, a graphic shows the baseline, goal, and progress so far:



When the 2018 value **exceeds the goal**, data and icon is shown in **green**.

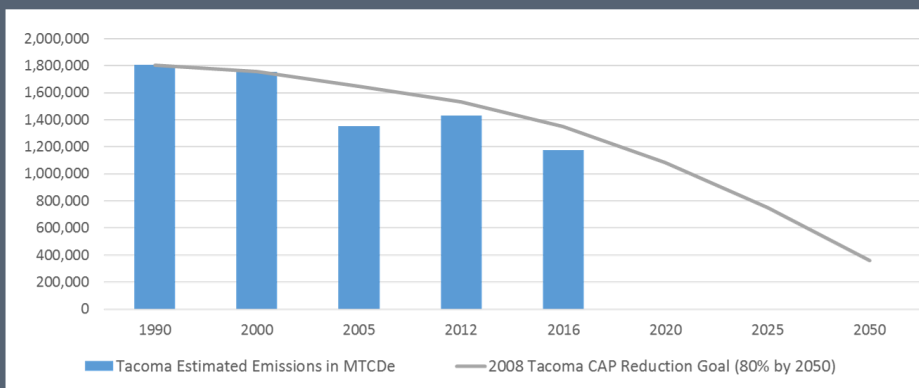
When the 2018 value is **behind the baseline**, data and icon is shown in **red**.

This report also contains **actions** that the City and community will take to reach the targets. Each action is given a **progress rating** and a **status update**:

1 None **2** Little Progress **3** Some Progress **4** Good Progress **5** Completed

Look for **stories of success** throughout the report to see some of the impactful accomplishments made this year in each EAP category.

Community Emissions Goals



The EAP recognizes that **climate change poses serious threats for life in Tacoma** and demands a strong and thorough response.

The targets and actions in the EAP are intended to improve the health and resilience of Tacoma by helping to reduce our greenhouse gas (GHG) emissions. The City of Tacoma set the goal of **reducing GHG emissions 40% below 1990 levels by the year 2020**. Tacoma's historic GHG emissions are shown in the graph to the left.



Natural Systems

TARGETS



Increase volunteers engaged in stewardship activities and programs by 20%.

2020 Goal: 4,105 volunteers

2018: 2,076 volunteers

2017: 3,888 volunteers

2016: 3,781 volunteers



2015 Baseline: 3,421 volunteers

Increase blocks of new permeable residential streets.

2020 Goal: 53 blocks

2018: 60.5 blocks

2017: 37.5 blocks

2016: 30 blocks



2015 Baseline: 28 blocks

Increase acres of actively managed open space ecosystem habitat by 52%.

2020 Goal: 87.5 acres

2018: 67.8 acres

2017: 62.5 acres

2016: 60.4 acres



2014 Baseline: 57.5 acres

Increase acres managed by Green Stormwater Infrastructure.

2020 Goal: 870 acres

2018: 925 acres

2017: 866 acres

2016: 860 acres



2014 Baseline: 290 acres

Increase tree canopy, focusing on low income neighborhoods and communities of color most susceptible to heat island effect.

2020 Goal: 212,500 trees

2018: 213,013 trees

2017: 212,371 trees

2016: 212,115 trees








2009 Baseline: 212,000 trees



Natural Systems

ACTIONS



Action	Progress Rating (1-5)	2018 Status
N1 Reduce stormwater quantity and/or increase quality in each of the city's watersheds by developing Management Plans that use best practices appropriate to each watershed's natural and built conditions.	 3	Existing condition reports and watershed plan outlines were completed for the Flett and Thea Foss Watersheds. The City also received nearly \$3.5M in grant funding to improve water quality for 43 acres in the Flett Creek Watershed.
N2 Implement code that discourages development on lands where such development would endanger life, property or infrastructure, or where important ecological functions or environmental quality would be adversely affected.	 4	In 2018 the City adopted amendments to limit development in biodiversity corridors to no more than 35% of the site. In 2019, these standards are proposed for inclusion in the Shoreline Master Program.
N3 Develop Urban Forestry Implementation Strategy for strategic and equitable planting locations, incentives, public engagement, retention strategies and maintenance. Create stable funding for implementation.	 2	The Request for Proposals (RFP) for the Urban Forest Management Plan was finalized, the Selection Advisory Committee was formed and the RFP will be advertised and awarded in the first quarter of 2019.
N4 Plan, create incentives for, and support green stormwater retrofit projects such as rain gardens and other low-impact designs.	 4	The 40th Street retrofit project was completed and various other street and stormwater projects implemented green stormwater infrastructure (GSI) techniques. The City is planning for upcoming GSI projects and provides technical assistance to private citizens and developers on GSI.
N5 Develop and manage an Open Space program based on watershed planning that seeks to own most valuable properties and effectively manages and restores habitat, using volunteers as appropriate.	 4	The City has an established Open Space Program that stewards approximately 500 acres in various capacities. All properties are managed for tree canopy and stormwater benefit. The City continues to educate, recruit and engage the public in open space property stewardship.



Action	Progress Rating (1-5)	2018 Status
N6 Improve regulations to encourage tree preservation and protection on private property and in the City right-of-way.		Staff have updated Critical Areas regulations to include new tree preservation requirements within Biodiversity Corridors. The Urban Forest Management Plan will include a package of Municipal Code updates, which will include tree preservation.
N7 Create a public education campaign, targeted outreach effort or incentives to inform residents and/or plant sellers about the benefits of native and pollinator-friendly species and the hazards of invasive species.		An education and outreach campaign will be implemented during the development of the Urban Forest Management Plan (UFMP). The UFMP will focus on "high priority actions" based on the recommendations from public engagement, and may focus on pollinators and invasive species.
N8 Adopt and implement Landscaping Manual and Integrated Pest Management Policy and Plan for all City facilities and train staff.		No progress made.
N9 Retrofit one public facility with Green Stormwater Infrastructure.		In 2018, the City completed the 40th St Green Stormwater Infrastructure. This project added 20.75 acres of stormwater quantity control and 13.5 acres of runoff treatment.

40th Street Green Stormwater Infrastructure Project

Several years ago, Environmental Services was contacted by a resident concerned about localized flooding in a neighborhood near the First Creek Lower Puyallup Watershed. To address flooding, safety, and connectivity concerns, the City received a grant from Ecology and worked with a number of City partners to retrofit the right of way by constructing new permeable roadway, biofiltration swales, shared use path, and 150 street trees. The project elements provide improved water quality to 36 acres of First Creek.

Construction began in July 2017 and ended June 2018. The project helped create a new sustainable roadway with increased safety elements that balanced the needs of the residents, schools, and businesses alike. The project exceeded resident expectations and achieved City Council Strategic Policy Priority for outstanding stewardship of the environment. This project also received numerous awards from other stormwater, infrastructure, and water quality groups, in recognition of the valuable benefits this project brings to the community.





Air and Local Food

TARGETS



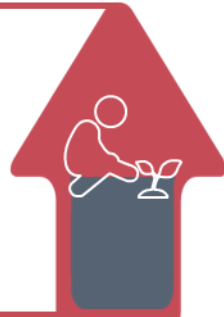
Increase number of low income neighborhoods and communities of color with community gardens by 14%.

2020 Goal: 16 gardens

2018: 15 gardens

2017: 12 gardens

2016: 14 gardens



2015 Baseline: 14 gardens

Meet healthy fine particle pollution levels 365 days a year (in 2015, 9 days were above healthy particle levels).

2020 Goal: 365 days

2018: 344 days

2017: 341 days

2016: 358 days



2015 Baseline: 356 days

Urban Agriculture is Sprouting

2018 brought new growth to urban agriculture programs in Tacoma! In partnership with Pierce Conservation District and Harvest Pierce County, funding from the City helped to expand and improve the Harvest Pierce County Gleaning Project. Gleaning helps to reduce produce waste, while addressing local food insecurity by making sure that more fresh food gets to community members in need.

In December 2018, The City received the Puyallup Watershed Initiative's Just and Healthy Food System Community of Interest's report on opportunities for and barriers to urban agriculture in Tacoma. The City is proud to support a number of community partners working together to promote small-scale urban agriculture and food equity programs. These programs are aimed at increasing accessibility, affordability, and sustainability of fresh food and produce.











Photo: Harvest Pierce County



Air and Local Food

ACTIONS



Action	Progress Rating (1-5)	2018 Status
A1 Continue to collaboratively seek federal and state funding for reducing wood smoke pollution.	 3	The City continues to promote the woodstove change out program administered by the Puget Sound Clean Air Agency. 60 stoves were scrapped or removed in Tacoma in 2018.
A2 Sustain and grow community garden program through enhanced garden support and education.	 4	Increased City funding for Pierce Conservation District's community gardening program supported completion of one new garden and reinvigorated four inactive gardens. Three gardens became inactive.
A3 Create and fund a reporting system and feedback forum for the city to hear from those suffering from food insecurity.	 4	With the help of City funding, The Puyallup Watershed Initiative's Just and Healthy Food System Community of Interest developed a report on food access and equity opportunities and presented recommendations to City Council. In response, City staff continues to work with communities on highest priority actions.
A4 Support gleaning (harvesting produce left over in fields and home and community gardens for donation) in Tacoma through funding and outreach.	 3	Increased City funding for Pierce Conservation District's gleaning program has helped to expand the program.
A5 Support urban agriculture and clear legal hurdles so citizens can sell produce grown in the city.	 3	In December, The City received Puyallup Watershed Initiative's Just and Healthy Food System Community of Interest's report on opportunities for and barriers to urban agriculture in Tacoma.
A6 Support innovative projects to encourage more disadvantaged citizens to shop at farmer's markets.	 4	City biennial funding for Senior Farm Share subsidy programs at farmer's markets was spent entirely in 2017. City outreach teams engaged 142 households in South Tacoma about their interest in local farmers markets and to improve awareness.
A7 Pilot 1 - 2 small-scale urban agriculture programs on public land.	 2	The City awarded funding to support a small-scale urban agriculture pilot project led by Hilltop Urban Gardens and Harvest Pierce County. The project has been navigating permitting issues, which remain obstacles to achieving success.
A8 Implement community supported agriculture (CSA) pick-up at 4 city facilities for employees.	 2	The City has allocated limited staff resources to develop a community supported agriculture pick-up at the Center for Urban Waters for employees in summer 2019 and plans for other City facilities in 2020.



Buildings and Energy

TARGETS



Reduce energy use in City & TPU buildings by 10%.

2013-15 Baseline: 213 mil kBTU

2016: 199 mil kBTU

2017: 216 mil kBTU

2018: 194 mil kBTU

2020 Goal: 192 mil kBTU



Reduce electricity use in City & TPU operations by 10%.

2013-15 Baseline: 274 mil kBTU

2016: 258 mil kBTU

2017: 265 mil kBTU

2018: 230.4 mil kBTU

2020 Goal: 247 mil kBTU



Decrease peak water use by 1,419 gallons per account.*

2017 Baseline: 64,576 gal/acct.

2018: 66,334 gal/acct.

2020 Goal: 63,157 gal/acct.

*This target was updated and added in 2018.



Reduce water use at City & TPU facilities by 10%.

2013-15 Baseline: 105,759 CCF

2016: 98,573 CCF

2017: 104,393 CCF

2018: 100,662 CCF

2020 Goal: 95,183 CCF



Increase solar power by 26%.

2020 Goal: 1,012 kW

2018: 2,881 kW

2017: 1,767 kW

2016: 1,600 kW

2015 Baseline: 784 kW



Certify 100% more buildings as Energy Star.

2020 Goal: 28 buildings certified

2018: 18 buildings certified

2017: 18 buildings certified

2016: 14 buildings certified

2015 Baseline: 14 buildings certified



Certify 20% more buildings as LEED.

2020 Goal: 49 buildings certified

2018: 44 buildings

2017: 44 buildings

2016: 44 buildings

2015 Baseline: 41 buildings certified











Buildings and Energy

ACTIONS



Action	Progress Rating (1-5)	2018 Status
B1 Meet I-937, the Washington State Energy Independence Act, energy conservation targets which require utilities to achieve all cost-effective energy conservation measures.		Tacoma Power exceeded I-937 targets for 2018, acquiring approximately 42.69 million kWh of energy conservation savings within Tacoma - saving enough power to heat and light 4,062 homes.
B2 Develop a pilot commercial program focused on reducing utility costs through improving building ops. & maintenance.		The new Commercial Strategic Energy Management program is currently underway with 7 business customers participating. Teams from each business are participating in workshops, and starting processes to measure electricity savings at targeted facilities.
B3 Continue to develop water conservation incentives, rebates and education for residential, commercial and industrial customers.		Tacoma Water engaged in community outreach events, fixture giveaways, and presented the new 10-year conservation plan to the Utility Board, City Council, and Sustainable Tacoma Commission. Groundwork was laid to roll out new peak demand reduction programs to meet the goal for 2018-2027.
B4 Hire a green building advocate for the City's Permit Office to identify incentives, remove barriers, and encourage green building practices.		Environmental Services will hire a green building advocate in 2019. The position description was finalized in late 2018, and ES began accepting applications in March 2019.
B5 Retain funding for low income energy efficiency programs.		The '18-'19 Conservation Plan includes a more targeted, tactical focus on low income and hard to reach residents (including multifamily). Funding for cost-effective low income residential conservation spending has been included in the '19-'20 biennium budget.
B6 Support efforts at the state and local level to incentivize conservation in rental properties.		There was no related legislation in 2018. TPU continues discussions with local leaders. Tacoma Power continues to work on solutions to address the split incentive challenge through the 18'-19' Conservation Plan, which include measures popular with multi-family housing. Tacoma Water offers efficient fixtures to individual tenant households.






Action	Progress Rating (1-5)	2018 Status
B7 Work with regional partners to increase cost effective energy efficiency standards in the State Energy Code. Participate actively to revise the State Building Code to Incorporate performance that targets net-zero energy by 2030.		Regular TAG meetings have concluded. Tacoma Power actively participated in the process including one ad-hoc meeting in October 2018. The TAG has fulfilled all of it's duties to the Building Code Council process. It is expected that the majority of the suggested language will be adopted.
B8 Develop community-owned solar projects and support distributed generation.		Four 75 kW Community Solar projects were completed in 2016. Absent legislative changes, new projects remain economically unviable. Approaches for low-income community solar were developed, which have been used as outreach materials with legislators, the Department of Commerce, the Governor's office, installers & other stakeholders.
B9 Promote transparency, investment and competition of energy and water performance by requiring commercial benchmarking and disclosure through EPA's Energy Star utility tracking system. Increase awareness of the system and provide technical assistance to customers to better track and monitor building energy use.		Tacoma Power has identified a solution to streamline access for customers to monitor their building's electricity accounts and use. A consultant was hired to implement the solution in Q1 2019.
B10 Upgrade all streetlights to LED where cost effective and use best practices when possible to reduce light pollution.		Approximately 16,050 streetlights were converted to LED, bringing the total conversion to roughly 18,100 LED streetlights. All standard streetlights (approx. 85% of all streetlights in the City) are now LED. In 2018, streetlight energy consumption was reduced by nearly 65%.
B11 Track and report city buildings' utility performance and Energy Star scores. Develop a Resource Conservation Management (RCM) Plan.		A General Government Resource Conservation Manager and TPU Facility Conservation and Planning Administrator were hired to monitor performance and develop a RCM Plan. They are active participants in Tacoma Power's pilot Strategic Energy Management Program.



Buildings and Energy

ACTIONS



Action	Progress Rating (1-5)	2018 Status
B12 Meet federal Better Building Challenge goal (5 year, 10% reduction) by implementing energy efficiency in city buildings where cost effective.	 3	The Resource Conservation Manager and TPU Facility Conservation and Planning Administrator are working with facility managers to implement resource saving opportunities focusing on three buildings; The Greater Tacoma Convention Center, Police/Fleet Warehouse and TPU Campus.
B13 Ensure all existing occupied LEED New Construction buildings comply with LEED Existing Building Operations and Maintenance guidelines.	 3	The Center for Urban Waters achieved LEED Existing Building Operations and Maintenance Gold certification in 2018; the first in Tacoma to achieve this recognition. The Solid Waste Administration Building is scheduled for review in 2019.
B14* Launch four new energy conservation initiatives to assist low-income and hard to reach customers	 5	Tacoma Power created four new initiatives focused on low income assistance in 2018: A ductless heat pump manufactured home pilot, weatherization rebates for rental properties, targeted energy audits, and a custom projects program. Tacoma Power maintains a focus on efficiency options for rental properties.

**This action was added in 2018, as a more measurable replacement for the previous target: "Achieve all cost-effective electricity community conservation savings"*

LED Street Lights

Thanks to an innovative partnership between Tacoma Power and Public Works, The LED street light project finished in September 2018, three months ahead of schedule and \$2 million under budget. Using LED street lights, the City will save \$620,000 per year in electricity costs, and even more in avoided maintenance costs.

In total, Public Works replaced nearly 16,000 light fixtures (the majority of the standard style light fixtures in the city) reducing costs, increasing safety, and saving energy. Other ornamental lights will take additional planning and resources to convert, but as of today, 85% of the streetlights in the city are LED, completing the LED streetlight project!





Transportation

TARGETS

Decrease community single occupancy vehicle trips by 7% of 2014 levels.

2014 Baseline: 77%

2016: 84%
2017: No new data
2018: 80%



2020 Goal: 70%

Decrease City & TPU employee single occupancy vehicle trips by 5% of 2014 levels.

2014 Baseline: 75%

2016: 75%
2017: No new data
2018: 77.5%



2020 Goal: 70%

Register 2,000 electric vehicles by 2020.

2020 Goal: 2,000 registered

2018: 878 registered
2017: 583 registered
2016: Data not available



2015 Baseline: 383 registered

Increase pedestrian counts by 15% of 2015 counts (as measured during annual Bicycle/Pedestrian Count Week).

2020 Goal: 4,188 pedestrians

2018: No new data
2017: 2,650 pedestrians
2016: 2,858 pedestrians



2015: 3,642 pedestrians

Increase miles of bicycle infrastructure by 35% of 2015 miles.

2020 Goal: 83 miles

2018: 70.6 miles
2017: 64.4 miles
2016: 62.1 miles



2015 Baseline: 61 miles

Reduce bicycle and pedestrian collisions in low income neighborhoods and communities of color by 50% of 2015 collisions.

2015 Baseline: 276 collisions

2016: 163 collisions
2017: 102 collisions
2018: 106 collisions



2020 Goal: 138 collisions

Decrease City & TPU fossil fuel use by 15% of 2014 levels.*

2015 Baseline: 1.96 mil DGE

2016: 1.90 mil gal
2017: 1.96 mil gal
2018: 1.93 mil DGE



2020 Goal: 1.67 mil DGE

*This target was updated for accuracy in 2018

Charging Ahead on Electric Vehicles

TPU and the City of Tacoma's Electric Vehicle Discount Program provided incentives and resources to customers looking to purchase new electric vehicles in 2018. By the end of the year, EV registrations had increased to 878—up nearly 50% from the prior year! Ride and Drive events hosted by the City, Puget Sound Energy, and TPU allowed Tacoma community members to test drive a number of full battery EV's, plug in hybrids, and electric bikes. Regular workshops helped educate residents on the benefits of switching to an EV including carbon reduction, decreased reliance on fossil fuels, and transportation cost savings. Not to mention, the increased fun and cutting edge technology of driving an EV!





Transportation

ACTIONS










Action	Progress Rating (1-5)	2018 Status
T1 Develop education programs and materials for the public on benefits and practicalities of electric vehicles (EVs).		TPU has developed multiple educational resources for EVs. EV workshops and Ride and Drive events are offered on an on-going basis, and a dealership EV Discount Program was piloted.
T2 Establish dedicated and stable funding for active transportation education, encouragement, safety programs, and infrastructure improvements.		Through the Tacoma Streets Initiative, \$2.5 million/year is dedicated to active transportation.
T3 Synchronize and recalibrate the timing of traffic signals on all Tacoma arterials. Repair, improve, or upgrade infrastructure as needed to maximize signal efficiency.		The City was successful in obtaining additional federal funding on several arterial corridors, and Public Works has obtained one-time funding to address signal timing and outdated infrastructure on the two highest use transit routes. Work will occur over the next 2 to 3 years.
T4 Become a Bicycle Friendly Silver Community by implementing the next 5 prioritized Mobility Master Plan roadway projects and next 3 trail projects.		Tacoma received grants to implement several projects from the Transportation Master Plan's Bicycle Priority Network between 2018 and 2020. Continued coordination of bikeway priorities will occur with the annual road stripe painting project.
T5 Support 4 multi-year Safe Routes to School (SRTS) Programs and infrastructure improvements.		A Safe Routes to School Coordinator was hired, and education and encouragement continued surrounding projects at Lister, First Creek, Stanley and Blix. Funding has been allocated in the City's 2019-20 budget for two elementary school infrastructure improvements, and a Safe Routes to School Grant was received for Mary Lyon Elementary.
T6 Create a grant program that supports walking, biking, and transit projects in business districts and designated centers.		No grant program has been developed.
T7 Develop sidewalk, curb ramp and crosswalk inventories to prioritize future investments, as part of a Pedestrian Mobility Strategy.		The City continues to inventory curb ramps, having evaluated 7,952 different curb ramps in 2018. This brings the total ramps inventoried to 15,500.
T8 Advocate at the state and national levels for policies and programs that provide incentives for Tacoma residents to use more fuel-efficient and alternative-fuel vehicles.		The City convened staff to work on a suite of policy changes that would encourage electric vehicle adoption in Tacoma. In 2018, the General Government worked to provide incentives and discounts from car dealers to spur electric transportation adoption.



Transportation

ACTIONS



Action	Progress Rating (1-5)	2018 Status
T9 Advocate for strong Sound Transit and Pierce Transit policies and funding, incl. South corridor ST3 projects & Pierce Transit bus rapid transit on Rt. 1.	 4	The City is a key partner in work groups developing the Tacoma Dome Link Extension, a Sound Transit 3 funded project in the South Corridor, and the Pierce Transit Bus Rapid Transit along Pacific Avenue.
T10 Equip operationally appropriate city vehicles with petroleum fuel saving and/or anti-idling technology.	 4	Installs are about 50% complete however, usage is not universally mandated at this time and has been left up to each fleet manager. Mandated usage is expected to come as a part of future EAPs.
T11 Convert solid waste trucks from diesel to renewable natural gas made from methane captured at the wastewater treatment plant.	 3	30 additional compressed natural gas (CNG) trucks went into service. 41% of the overall fleet of 74 is now fueled by CNG. Renewable CNG from the wastewater treatment plant is anticipated to be available in 2020.
T12 Develop, implement, and monitor a Fuel Reduction Policy and associated education and awareness campaigns for both employee commuting and city trips.	 3	An inter-departmental Fleet Team, established by the Resource Conservation Manager, has started developing a Sustainable Fleet Management Plan. The Plan provides guidance for reducing use of fossil fuels, minimizing emission pollutants, maintenance processes, and purchasing of vehicles.
T13 Update City's Telecommuting Policy and flexible work schedule to foster increased use when it meets City business needs.	 3	Under the direction of the Resource Conservation Manager, OEPS staff has been looking into existing policies and drafting suggestions for future updates to the policy. The Finance Department completed a telecommuting pilot study which will inform development of future policies.
T14 Join West Coast Electric Fleets at the Highway Lane Level in 2016.	 5	Tacoma joined West Coast Electric Fleets at the Highway Level in Q4 2018.
T15 Develop and incorporate contractor fuel emissions reduction standards into bids and contracts.	 3	The RCM and OEPS staff has begun talks with the Financing Department to create a sustainable development guide for construction project purchases, utilization of contractor fuel emission reduction and other green building best practices.



Materials Management

TARGETS

Decrease waste generation by 11% per capita per day.

2014 Baseline: 4.4 lbs.

2018: 5.1 lbs.

2017: 4.9 lbs.

2016: 4.8 lbs.



2020 Goal: 3.9 lbs.

Double commercial composting accounts.

2020 Goal: 220 accounts

2018: 344 accounts

2017: 277 accounts

2016: 270 accounts



2015 Baseline: 110 accounts

Increase multi-family recycling accounts.

2020 Goal: 1,160 accounts

2018: 1,111 accounts

2017: 1,143 accounts

2016: 1,026 accounts



2015 Baseline: 1,105 accounts

For the Love of Food: Commercial Composting

Food is the most common material found in Tacoma's garbage, which makes it a high priority for the City's waste reduction efforts. Tacoma grocers, restaurants, schools, offices, and other large facilities can participate in commercial composting to help recycle food and other organic waste back into nutrients for plants and soil.

In 2015, there were only 110 registered commercial composting accounts in Tacoma, and the City set a goal of doubling that number by 2020. That goal has now been surpassed two years in a row, with 344 commercial composting accounts registered by the end of 2018! Thanks to increased outreach and education efforts by our Solid Waste Management Division and a strong commitment from community members to reduce waste, together we're taking positive steps toward reducing food waste in Tacoma.












Materials Management

ACTIONS









Action	Progress Rating (1-5)	2018 Status
M1 Develop Construction and Demolition Diversion program that includes education, reporting, regulation and enforcement.	 2	Environmental Services will hire a green building advocate in Q2 2019. The position will assist in development of C & D diversion strategies, as well as
M2 Support and advocate for strong product stewardship policies at the state and national levels, minimizing environmental impacts of product and packaging throughout all lifecycle stages, especially manufacturing.	 4	The City helps fund the Northwest Product Stewardship Council and has staff on the Steering Committee. Bills are being prepared to bring to the 2019 state legislature around impacts of product packaging.
M3 Provide financial incentives to increase diversion of materials at the Tacoma Recovery and Transfer Center.	 2	Solid Waste Management has secured funding to purchase a grinder in 2019 to process additional diversion materials.
M4 Conduct and support education and outreach on waste prevention (including food) and toxic reduction, with focused outreach to communities of color.	 3	Waste prevention workshops were held at events such as T-Town, Sounds to Narrows, Ethnic Fest, Hilltop Street Fair, McKinley Street Fair, and Star Center. SWM also hired AmeriCorps staff to assist with ongoing education
M5 Incentivize the use of sink food grinders as a strategy for beneficial use of food scraps. Food sent to the wastewater treatment plant is	 2	Wastewater and OEPS departments met to discuss next steps.
M6 Provide recycling and composting education and outreach targeted at multifamily property managers and tenants.	 3	A new Multi-family Recycling Intern and AmeriCorps member were hired to perform outreach, and develop new education materials going into 2019.
M7 Require new buildings to provide adequate space and receptacles for recycling and organics storage and collection.	 2	Solid Waste is assessing proposed changes to commingled recycling. Any changes that could impact new building requirements shall be included in proposed City Municipal Code revisions.



Materials Management

ACTIONS



Action	Progress Rating (1-5)	2018 Status
M8 Enhance opportunities to sort and drop-off reusable and recyclable materials at the Tacoma Recovery and Transfer Center through better signage, enhanced floor sorts, and drop-off area.	 3	Solid Waste Management piloted a satellite food waste collection site at the EnviroHouse. Outside experts completed a review of Tacoma Recovery and Transfer Center operations and will present recommendations in March 2019.
M9 Reduce disposable bag use by shoppers.	 5	The Bring Your Own Bag ordinance went into effect in July 2017. Retailer and community surveys were conducted in November 2018, the results of which indicated community support for the ordinance.
M10 Ensure compliance with existing Sustainable Purchasing Policy, including increasing staff training.	 2	The Resource Conservation Manager began talks with Finance Department staff on how training and up-to-date sustainable purchasing resources will integrate with other purchasing process improvements.
M11 Conduct waste characterization audits at 4 City facilities in order to develop better strategies for waste minimization and diversion.	 4	Solid Waste Management assisted in the coordination of waste audits at four city facilities: TPU Admin Complex, Tacoma Municipal Building, Solid Waste Administration, and Center for Urban Waters.
M12 Increase materials surplus recovery and sale of City-owned goods and building demolitions.	 1	No progress made.
M13 Use low-carbon concrete or asphalt made with a percentage of recycled asphalt and/or recycled asphalt shingles in City projects, including streets, where feasible and applicable.	 4	Most contracted City projects use recycled materials in their products. The City's asphalt plant completed further upgrades in 2018 that make the use of recycled materials in its asphalt a possibility. Testing for mix designs using recycled materials will occur in 2019.



Climate Resiliency

TARGETS

Complete sea level and flooding studies.



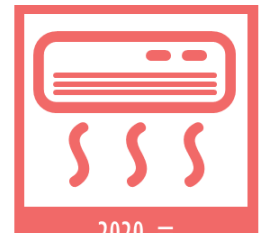
2020 = 2 studies

Incorporate climate risks into formal asset management, Capital Improvement Plans and implementation, and emergency management plans.



2020 = Planning and implementation

Have adequate and accessible cooling stations to address heat waves.



2020 = cooling stations

Use information from completed studies to modify development codes, ensuring safety and resiliency.



2020 = Improved safety and resiliency

Educate the public on risks of climate change and opportunities for climate resilience and adaptation.



2020 = Public education on climate

Identify which public infrastructures and facilities are at unacceptable risk from climate change; prioritize adaptations for these elements.



2020 = Assess infrastructure needs

Washington Coastal Resilience Project: Projected Sea Level Rise Assessment

In the coming decades, rising sea levels caused by climate change will have big impacts on coastlines in the Puget Sound region. The Environmental Action Plan recognizes that climate change poses serious threats to life in Tacoma, and the City is working to mitigate the risks. In 2018, the Washington Coastal Resilience Project (WCRP) released their Projected Sea Level Rise for Washington State assessment which details the state's capacity to prepare for coastal hazards related to sea level rise.

As a pilot community in this 3-year NOAA grant, the City partnered with the WA State Department of Ecology, Washington SeaGrant, the Climate Impacts Group and other stakeholders to provide examples and feedback for the assessment, and other potential tools for coastal communities. The City will use these data and tools in planning efforts and infrastructure projects.






As a result of this and other climate change studies, the City is actively working to enhance our capacity to prevent, respond, and adapt to threats posed by climate change.





Action	Progress Rating (1-5)	2018 Status
C1 Incorporate climate resilience actions into equity initiatives and programs, and consider future climate risk in emergency planning and hazard mitigation plan updates.	1	This will be a part of the City's Climate Adaptation Plan, which will be developed after more research specific to Tacoma informs the study. The new Equity GIS Index and Emergency Management will be useful resources.
C2 Preserve and expand urban forest canopies with climate resilient species based on heat island data analysis.	4	Open space continues to use native species to diversify our tree canopy over time. We do not use heat island data as our properties are focused in habitat corridors throughout the City.
C3 Prioritize the most vulnerable neighborhoods for capital improvement, development, and planning activities to ensure that these communities receive the services they need to build resilience to climate change and other stressors.	3	In 2015 the Comprehensive Plan was updated to incorporate equity and climate resiliency criteria into the Capital Facilities Program. These criteria continue to be operationalized in capital planning and service provision. Since 2015 the City has undertaken an equity analysis (2018-2019) and Climate Risk Assessments to better understand how and where to invest for climate resiliency.
C4 Begin a conversation with the business community around climate impacts and resilience.	3	The WA Coastal Resilience Grant project held workshops meetings in 2018 on the new relative and probabilistic sea level rise data and how to work with it, as well as ongoing efforts to develop models for shoreline storm surge and run-up. Key staff from TPU, Metro Parks and the Port of Tacoma, as well as internal staff, attended.
C5 Engage with and support community organizations that enhance community resilience.	3	Staff represent the City on the Steering Committee of the Puget Sound Regional Climate Collaborative, which developed its strategic plan. City staff are also actively involved in the Puyallup Watershed Initiative.
C6 Ensure that near-term capital improvement projects consider climate change risks.	4	With new data available, the City is sharing with internal partners and workgroups to better plan infrastructure projects. Metro Parks is committed to considering climate change effects in its planning and design of projects, in particular along Ruston Way.



Action	Progress Rating (1-5)	2018 Status
C7 Conduct additional studies (including data gathering, research, and mapping) to identify infrastructure that will be impacted by sea level rise (SLR) and flooding.	 3	The WCRP science team has developed more refined SLR projections based on the latest global greenhouse gas projections and regional land up rise and subsidence. The project is still active and communication and high level regulatory guidance is under development. We have been included in another NOAA grant request which will look at quantifying the economic impacts of climate change.
C8 Inspect, maintain, and upgrade critical infrastructure.	 3	The City continues to inspect all facilities after any rainfall event that is greater than a 10 year event (3 inches in 24 hours); however, regular inspections or upgrades of roadway infrastructure is less frequent.
C9 Preserve remaining natural areas, and provide more guidance and specifications on incorporating climate science in habitat restoration plans.	 4	Open Space looks for opportunities to acquire property in a cost effective manner. The City permitting department does allow climate adapted species on a case by case basis. PDS has updated code to increase the protection of biodiversity corridors.
C10 Evaluate the development code related to landslide and flooding hazards.	 3	Staff continues to work with SeaGrant and Climate Impacts Group to incorporate sea level rise considerations into flood hazard management. Amendments to Tacoma's Shoreline Management codes will be considered by City Council in 2019, including landslide and flooding hazards.
C11 Integrate climate change considerations (e.g., increased sediment, increased flow, increased sea level) into current and near-term work for Puyallup River flood planning.	 3	The City should be able to use the probabilistic SLR data from the WA Coastal Resilience Project (WCRP) to inform the effect of the Puyallup River on sea level rise and flooding in the tide flats. The new SLR data, maps and charts have been published and the WCRP continues.