

Tacoma Environmental Action Plan: 2017 Progress Report



The City of Tacoma, and its residents and businesses, care deeply about our local environment and the health of our families, economy, and natural spaces. We understand how global climate change impacts the things we love, and we have a responsibility to both reduce our carbon pollution and build a more resilient community. This Environmental Action Plan progress report demonstrates our commitment to these values. I am pleased by the efforts made the past two years, but am even more excited about the work that will be done over the next three years, during my tenure as Mayor.

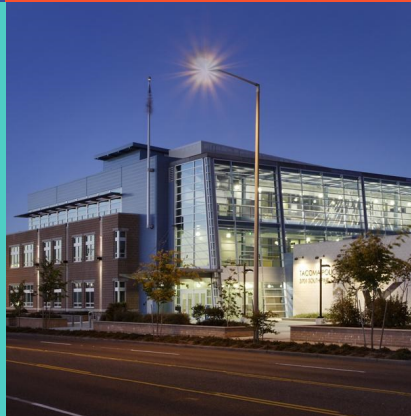
It is exciting to see how one environmental action can have so many co-benefits. Supporting the farmer's markets, for example, improves the ability of our seniors to have healthy, locally grown food, accessible in a community atmosphere. It helps to reduce carbon pollution, improve health, increase stewardship of the local environment, boost our economy, improve affordability, and address equity.

I am pleased to present the Year 2 progress report and hope that you find pride, meaning, and hope in the actions and stories contained.

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

Air and Local Food

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



Transportation

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



Climate Resiliency

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



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.



Buildings and Energy

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



Materials Management

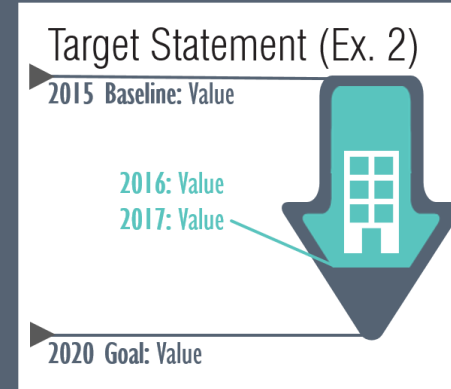
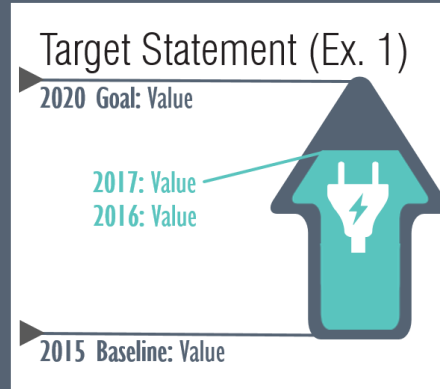
In the waste hierarchy we must prioritize reducing, then reusing, then recycling. Sharing, leasing, borrowing, refurbishing and buying used and durable goods should be the first choices.





Reading the 2017 Progress Report

The 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.



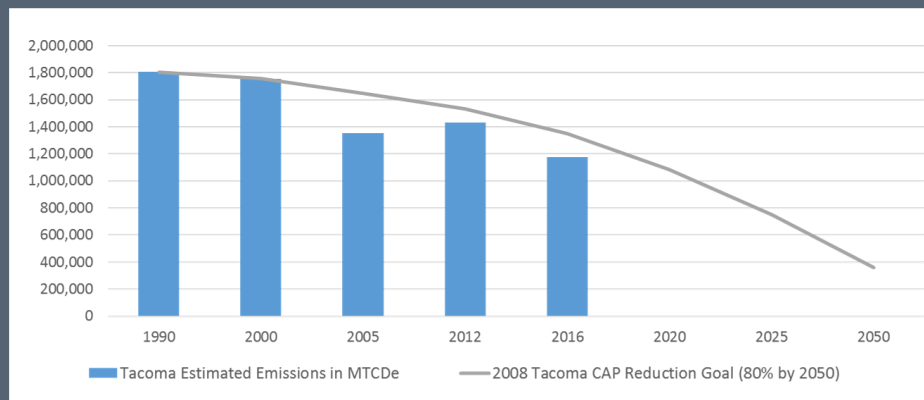
When the 2017 value **exceeds the goal**, data is shown in **green**.

When the 2017 value is **behind the baseline**, data 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** (1: None - 5: Completed) and a **status update**.

Also look for **stories of success** throughout the report to see some of the exciting 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.



Buildings and Energy

TARGETS



Achieve all cost effective electricity community conservation savings.

2017 Goal: 239 mil kWh conserved

2017: 252 mil kWh

2016: 222 mil kWh



2010-2015 Baseline: 196 mil kWh conserved

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

2013-15 Baseline: 213 mil kBTU

2016: 199 mil kBTU

2017: 216 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



2020 Goal: 247 mil kBTU

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

2013-15 Baseline: 105,759 CCF

2016: 98,573 CCF

2017: 104,393 CCF



2020 Goal: 95,183 CCF

Fund all cost-effective low income residential conservation spending.

2017 Goal: \$16.8 million

2017: \$15.4 million

2016: \$14.6 million



2010-2015 Baseline: \$13.4 million

Increase solar power by 26%.

2020 Goal: 1,012 kW

2017: 1,767 kW

2016: 1,600 kW



2015 Baseline: 803 kW

Increase community water conservation.

2017 Goal: 273 mil gal conserved

2017: 198 mil gal conserved

2016: 171 mil gal conserved



2011-2015 Baseline: 228 mil gal conserved

Certify 20% more buildings as LEED.

2020 Goal: 49 buildings certified

2017: 44 buildings certified

2016: 44 buildings certified



2015 Baseline: 41 buildings certified

Certify 100% more buildings as Energy Star.

2020 Goal: 28 buildings certified

2017: 18 buildings certified

2016: 14 buildings certified











2015 Baseline: 14 buildings certified



Buildings and Energy

ACTIONS



Action	Progress Rating (1-5)	2017 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.	 5	Tacoma Power exceeded I-937 targets for 2017, acquiring 30.75 million kWh of energy conservation savings within Tacoma - saving enough power to heat and light 2,460 homes.
B2 Develop a pilot commercial program focused on reducing utility costs through improving building ops. & maintenance.	 4	TPU developed contracting for Commercial Strategic Energy Management program implementer (launching Q2 2018).
B3 Continue to develop water conservation incentives, rebates and education for residential, commercial and industrial customers.	 4	Tacoma Water engaged in community outreach, workshops, fixture giveaways, and developed a new 10-year conservation plan and goal for 2018-2027. They also collaborated with local utilities to add a new commercial kitchen equipment rebate.
B4 Hire a green building advocate for the City's Permit Office to identify incentives, remove barriers, and encourage green building practices.	 2	Internal Green Building Stakeholder Group began meeting. Hired an AmeriCorps member to coordinate creation of a Green Building Roadmap (anticipated completion in 2018).
B5 Retain funding for low income energy efficiency programs.	 5	Tacoma Power provided low income assistance on 191 projects, saving 756,590 kWh at a cost of \$816,965. As more projects are completed, activating remaining potential customers becomes increasingly challenging. Staff partnered with TPU's Customer Solutions Office and Healthy Homes, Healthy Neighborhoods in efforts to activate eligible customers. The 2018-19 Power Conservation Plan more highly focuses on hard to reach residents, using innovative new tactics.
B6 Support efforts at the state and local level to incentivize conservation in rental properties.	 4	Developed 2018-19 Power Conservation Plan including (for the first time) a Rental Housing Program with measures typically popular with multi-family housing. Tacoma Water offers efficient fixtures to rental customers.
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.	 3	Planning and Development Services staff were trained on the 2015 energy code, and engage with the Regional Code Committee that looks at options to revise State Building codes to incorporate energy efficiency standards. Tacoma Power employee was appointed to the WA State Building Codes Technical Advisory Group.
B8 Develop community-owned solar projects and support distributed generation.	 5	In addition to TPU's community solar project, Tacoma Power's Residential Solar Plan has 10 potential elements to increase residential and low-income use. Implementation team formed. Revamped Evergreen Options to focus on community projects. First grant awarded to Zoo for solar installation.

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



Buildings and Energy

ACTIONS

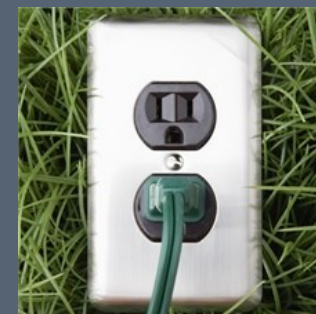


Action	Progress Rating (1-5)	2017 Status
B9 Promote transparency, investment and competition of energy and water performance by requiring commercial benchmarking and disclosure through EPA's Energy Star utility tracking system. Increase awareness of the system and provide technical assistance to customers to better track and monitor building energy use.	2	Due to City IT/financial system project backlogs and compatibility issues, Tacoma Power cannot yet provide monthly utility data to commercial customers through the Energy Star Portfolio Manager tracking system.
B10 Upgrade all streetlights to LED where cost effective and use best practices when possible to reduce light pollution.	4	General Government and Tacoma Power are upgrading three-quarters of Public Works' streetlights to LED. About 25% were upgraded (remaining should be completed in 2018).
B11 Track and report city buildings' utility performance and Energy Star scores. Develop a Resource Conservation Management (RCM) Plan.	2	City Council approved addition of a Resource Conservation Manager (RCM) to monitor performance and develop a RCM Plan.
B12 Meet federal Better Building Challenge goal (5 yr, 10% reduction) by implementing energy efficiency in city buildings where cost effective.	3	TPU internal stakeholder team working to identify and vet potential conservation opportunities in its buildings. New RCM will work with General Government Departments to reach this target.
B13 Ensure all existing occupied LEED New Construction buildings comply with LEED Existing Building Operations and Maintenance guidelines.	3	The Center for Urban Waters team completed necessary reporting and verification, and submitted in Q4 (certification is expected Q2 2018). Police Dept. Headquarters conducted initial audit and potential challenges emerged. No progress on Solid Waste Admin or Transfer Center buildings yet.

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

Evergreen Options Revamp

Tacoma Power relaunched its Evergreen Options program in the fall, increasing participation by 15% in three months. Customers can purchase renewable energy credits (RECs) that support the development of regional renewable energy projects for as little as \$3 extra per month on their utility bill. Customers can use the RECs to offset their carbon footprint beyond their electricity use. The Evergreen Options team also launched a grant program for local nonprofits, schools, and government agencies looking to generate their own renewable power. For the first grant award, Point Defiance Zoo and Aquarium received the most votes by Evergreen Options participants to receive \$50,000 toward a new solar project.



evergreen options



Transportation

TARGETS

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

2014 Baseline: 77%

2016: 84%
2017: No new data

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

2020 Goal: 70%

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

2014 Baseline: 1.96 mil gal

2016: 1.99 mil gal
2017: 1.91 mil gal

2020 Goal: 1.67 mil gal

Register 2,000 electric vehicles by 2020.

2020 Goal: 2,000 registered

2017: 583 registered
2016: Data not available

2015 Baseline: 383 registered

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

2020 Goal: 83 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

2020 Goal: 138 collisions

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

2020 Goal: 4,188 pedestrians

2017: 2,650 pedestrians
2016: 2,858 pedestrians








2015: 3,642 pedestrians



Transportation

ACTIONS



Action	Progress Rating (1-5)	2017 Status
T1 Develop education programs and materials for the public on benefits and practicalities of electric vehicles.	 3	EV info on TPU website and workshop held at the EnviroHouse. General Gov. & TPU held successful ride-and-drive event on 11/4 at the Zoo. As a sponsor of LeMay's Powering the Future exhibit, TPU staff provided information and educational experiences for the exhibit.
T2 Establish dedicated and stable funding for active transportation education, encouragement, safety programs, and infrastructure improvements.	 3	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.	 2	Utilizing grant funding to synchronize ~10% of the City's traffic signals. No dedicated funding for infrastructure specific to traffic signal efficiency upgrades has been identified.
T4 Become a Bicycle Friendly Silver Community by implementing the next 5 prioritized Mobility Master Plan roadway projects and next 3 trail projects.	 3	Received grants to implement several projects from the Transportation Master Plan's Bicycle Priority Network between 2018 and 2020.
T5 Support 4 multi-year Safe Routes to School (SRTS) Programs and infrastructure improvements.	 4	Completed SRTS Action Plan. City received grant funding for engineering, education, and enforcement improvements at Lister Elementary and First Creek Middle School. City allocated \$500k to engineering improvements at Blix Elementary and Stanley Elementary. School zone beacons were installed at 14 schools with City funding (approx. \$1.1M).
T6 Create a grant program that supports walking, biking, and transit projects in business districts and designated centers.	 1	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.	 2	The City acquired sidewalk inventory data, which needs to be field checked. Public Works inventoried and evaluated 3,560 curb ramps, bringing the total inventoried up to 7,548 (about 15% of total).
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.	 2	Electric vehicle support is in the City's Legislative Manual approved by the City Council. TPU's board provided legislative support for electrification of transportation, and TPU staff worked to gain support in Olympia this year. Tacoma Power also helped secure a WSDOT grant for a DC fast charger at the LeMay Museum.
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	State funding was secured. Conducted initial scoping, consultant selection, and public outreach for Bus Rapid Transit along Pacific Ave/Rt. 1.



Transportation

ACTIONS



Action	Progress Rating (1-5)	2017 Status
T10 Equip operationally appropriate city vehicles with petroleum fuel saving and/or anti-idling technology.		TPU is testing Automatic Vehicle Location solutions, began using blended biofuel products year round on main TPU campus. Previously, biofuel was not used in winter months. Tacoma Police replaced 50 patrol vehicles with more efficient models.
T11 Convert solid waste trucks from diesel to renewable natural gas made from methane captured at the wastewater treatment plant.		17 additional compressed natural gas (CNG) trucks went into service. 29% of the overall fleet of 94 is now fueled by CNG. Renewable NG from the wastewater treatment plant is anticipated to be available in 2019.
T12 Develop, implement, and monitor a Fuel Reduction Policy and associated education and awareness campaigns for both employee commuting and city trips.		City Council approved new Resource Conservation Manager (RCM) who will work with other departments, including Fleet, to develop a Policy and Program.
T13 Update City's Telecommuting Policy and flexible work schedule to foster increased use when it meets City business needs.		Existing policies were written in 2002 and 2009. City Council approved RCM will work to update policies and procedures.
T14 Join West Coast Electric Fleets at the Highway Lane Level in 2016.		Starting internal approval process to join. TPU's Power Superintendent began discussions with the Director on the best way to coordinate with the City Manager.
T15 Develop and incorporate contractor fuel emissions reduction standards into bids and contracts.		City Council approved RCM will work with Purchasing to develop such standards.

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

Electric Vehicle Ride & Drive at Point Defiance Zoo

73% of Tacoma's greenhouse gas (GHG) emissions come from fossil fuel dependent vehicles. In an effort to introduce community members to EVs and to reduce GHG emissions, the City hosted an Electric Vehicle (EV) Ride & Drive in collaboration with Tacoma Public Utilities, Point Defiance Zoo & Aquarium, Forth Mobility, and several local dealerships. The free public event took place in November 2017. 68 attendees were able to test out both electric cars and electric bicycles, and learned about government funded rebates for EV purchasers and the environmental benefits of these sustainable transportation options.





Materials Management

TARGETS

Decrease waste generation by 11% per capita per day.

2014 Baseline: 4.4 lbs.

2016: 4.8 lbs.

2017: 4.9 lbs.

2020 Goal: 3.9 lbs.



Double commercial composting accounts.

2020 Goal: 220 accounts

2017: 277 accounts

2016: 270 accounts

2015 Baseline: 110 accounts



Increase amount of waste diverted from the landfill by 5%.

2020 Goal: 60%

2017: No new data

2016: 55%

2015 Baseline: 55%



Increase multi-family recycling accounts.

2020 Goal: 1,160 accounts

2017: 1,143 accounts

2016: 1,026 accounts

2015 Baseline: 1,105 accounts



Bring Your Own Bag Ordinance Takes Effect

The City of Tacoma's Bring Your Own Bag (BYOB) ordinance went into effect in July 2017. The law helps keep our community clean, healthy, and responsible by reducing litter and addressing the trash and recycling waste generated by single-use plastic and paper shopping bags. To help Tacoma prepare for the change, the City's sustainability office conducted intensive educational outreach and engagement in the spring and summer months. The City gave out nearly 40,000 free reusable bags to shoppers, and distributed other materials to help people remember to bring their reusable bags with them shopping. City staff also engaged with businesses and provided materials to help employees prepare for the change. Between July - December, staff responded to 17 complaints of non-compliance and worked with businesses to get into compliance.





Materials Management

ACTIONS



Action	Progress Rating (1-5)	2017 Status
M1 Develop Construction and Demolition Diversion program that includes education, reporting, regulation and enforcement.	1	No progress made.
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	City staff sits on the NW Product Stewardship Steering Committee. The City funds its efforts through the Solid Waste Division. Several WA bills were tracked this year, including Paint Recycling, Medicine Return, Responsible Management of Postconsumer Waste, and implementation of the Solar Module Stewardship Law. The statewide Medicine Return bill did pass after reductions in the convenience standard.
M3 Provide financial incentives to increase diversion of materials at the Tacoma Recovery and Transfer Center.	2	Solid Waste Management (SWM) is planning to purchase equipment in the 2019-20 biennium to process additional diversion materials, and then rate incentives can be initiated.
M4 Conduct and support education and outreach on waste prevention (including food) and toxic reduction, with focused outreach to communities of color.	3	Conducted knock and talks in the Lincoln District featuring food waste prevention information. Waste prevention workshops were held in locations including the STAR Center. Staff provided education at events including Hilltop Street Fair and Ethnic Fest.
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 used as Tagro and can be turned into renewable natural gas.	1	The use of disposals is currently recommended when appropriate but no financial incentives are in place at this time. Updating code in 2018.
M6 Provide recycling and composting education and outreach targeted at multifamily property managers and tenants.	3	The Sustainability Office completed a multi-family property study looking at barriers to recycling. SWM conducted 882 commercial audits focusing on service levels, including multi-family accounts.
M7 Require new buildings to provide adequate space and receptacles for recycling and organics storage and collection.	2	Per WA State 2015 codes, adopted 2016, Planning and Development Services requires all new buildings to identify adequate space and access for garbage and recycling. Part of the plan review and inspection for new buildings, this is required to obtain certificate of occupancy. SWM wrote draft language for municipal code updates to go before Council in 2018 that will define adequate space and receptacles.

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



Materials Management

ACTIONS



Action	Progress Rating (1-5)	2017 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	SWM issued a request for proposals and anticipates having a contract in 2018 to review Tacoma Recovery & Transfer Center operating procedures.
M9 Reduce disposable bag use by shoppers.	5	The Bring Your Own Bag ordinance went into effect in July 2017. Extensive outreach and education ensured a smooth roll-out. 40,000 reusable bags were distributed to shoppers, focused on low income. Staff responded to 17 complaints through the rest of 2017.
M10 Ensure compliance with existing Sustainable Purchasing Policy, including increasing staff training.	1	City Council approved the addition of a Resource Conservation Manager (RCM). This position will work with Purchasing to develop such standards.
M11 Conduct waste characterization audits at 4 City facilities in order to develop better strategies for waste minimization and diversion.	3	SWM assisted in coordinating waste audits at four city facilities: TPU Admin Complex, Tacoma Municipal Building, Solid Waste Admin, and Center for Urban Waters. Will look to implement strategies.
M12 Increase materials surplus recovery and sale of City-owned goods and building demolitions.	1	City Council approved RCM will work with Purchasing to develop standards.
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.	3	Most all of our contracted projects use recycled materials in their products. Upgrades to the City's asphalt plant are underway to allow for manufacture of recycled content asphalt in 2018. Public Works uses recycled concrete aggregate in the residential street paving program.

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



Natural Systems

TARGETS



Increase acres managed by Green Stormwater Infrastructure.

2020 Goal: 870 acres

2017: 866 acres
2016: 860 acres



2014 Baseline: 290 acres

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

2020 Goal: 87.5 acres

2017: 62.5 acres
2016: 60.4 acres



2014 Baseline: 57.5 acres

Increase blocks of new permeable residential streets.

2020 Goal: 53 blocks

2017: 37.5 blocks
2016: 30 blocks



2015 Baseline: 28 blocks

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

2020 Goal: 4,105 volunteers

2017: 3,888 volunteers
2016: 3,535 volunteers



2015 Baseline: 3,421 volunteers

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

2020 Goal: 212,500 trees

2017: 212,371 trees
2016: 212,115 trees



2009 Baseline: 212,000 trees

Jennie Reed Elementary Tree Planting

The City of Tacoma, Pierce Conservation District, Tacoma Public Schools, and local community groups planted 58 trees at Jennie Reed Elementary on Green Tacoma Day, October 14th, to improve local air quality and reduce the urban heat island. Jennie Reed Elementary is located in a neighborhood that has a 9.5% tree canopy (well below the 30% city-wide canopy cover goal) and only 1% of the land area is park land available for the community. The trees planted at Jennie Reed Elementary by 80 community volunteers will increase the 5.3% canopy at the school to 20% when the trees mature.





Natural Systems

ACTIONS



Action	Progress Rating (1-5)	2017 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	The City's Surface Water Division established an internal watershed group to help support this goal, and received \$5M in grants to improve the North Tacoma and Flett Creek basins.
N2 Implement code that discourages development on lands where such development would endanger life, property or infrastructure, or important ecological functions.	 2	The City enforces construction requirements for development within the City's floodplain. The City adopted FEMA's new floodplain maps and is creating updates to the Open Space and Biodiversity Corridors that would limit development in important ecological habitats.
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 Urban Forest Management Plan budget was allocated in the 2017/18 biennium and is in the contract award process. The Urban Forestry program grew new partnerships and programs around strategic, equitable planting, resulting in 256 new trees in target neighborhoods in 2017.
N4 Plan, create incentives for, and support green stormwater retrofit projects such as rain gardens and other low-impact designs.	 4	The City trains on and implements low impact development (LID) techniques, provides technical assistance to citizens in understanding LID , and partners with Pierce Conserv. Dist. for rain garden and DePave assistance.
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 added another management plan - Salmon Beach Slope (currently in permitting) and implemented a passive open space volunteer program.
N6 Improve regulations to encourage tree preservation and protection on private property and in the City right-of-way.	 3	With input from stakeholders, staff are proposing updates to Critical Areas regulations to include new tree preservation requirements within Biodiversity Corridors that should be effective in 2018.
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.	 1	An education and outreach campaign will be implemented during the development of the Urban Forest Management Plan.
N8 Adopt and implement Landscaping Manual and Integrated Pest Management Policy and Plan for all City facilities and train staff.	 1	No progress made.
N9 Retrofit one public facility with Green Stormwater Infrastructure.	 3	The City continues to investigate sites for retrofitting in coordination with other site improvements. Due to limited number of City sites, the City approached Tacoma Public Schools to partner on retrofitting a school.

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



Air and Local Food

TARGETS



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

2020 Goal: 365 days

2017: 341 days

2016: 358 days

2015 Baseline: 356 days



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

2020 Goal: 16 gardens

2017: 12 gardens

2016: 14 gardens

2015 Baseline: 14 gardens



Senior Farm Share at Tacoma's Farmers Markets

The Tacoma and Proctor Farmers Markets received financial support from the City of Tacoma for their Senior Farm Share programs. With the City's funding, 150 senior community members who met low-income qualifications received \$60 worth of Senior Farm Share vouchers. With these benefits, they were able to purchase fresh fruits, vegetables, mushrooms, eggs, plant starts, and honey at the Broadway, South Tacoma, and Proctor Farmers' Markets.

The vouchers were provided in partnership with the Center on Aging and Disability's Senior Farmers Market Nutrition Program. The program has been an active community resource since 2014. With grant funding from the Taco Time Northwest Foundation, these benefits were also available to low-income seniors at the Eastside Farmers Market in Salishan.













Air and Local Food

ACTIONS



Action	Progress Rating (1-5)	2017 Status
A1 Continue to collaboratively seek federal and state funding for reducing wood smoke pollution.	 4	The City continues to support the woodstove change out program administered by the Tacoma-Pierce County Health Department. 524 stoves were scrapped or removed in 2017.
A2 Sustain and grow community garden program through enhanced garden support and education.	 4	The City provided funding and community organizing in the Lincoln District to continue to support community gardens and their many social and environmental benefits.
A3 Create and fund a reporting system and feedback forum for the city to hear from those suffering from food insecurity.	 3	The City co-wrote a grant successfully awarded to the Puyallup Watershed Initiative's Just and Healthy Food System Community of Interest to support and listen to those suffering from food insecurity.
A4 Support gleaning (harvesting produce left over in fields and home and community gardens for donation) in Tacoma through funding and outreach.	 2	The City increased funding to support Pierce Conservation District's successful gleaning program.
A5 Support urban agriculture and clear legal hurdles so citizens can sell produce grown in the city.	 3	The City awarded funding to Harvest Pierce County to research urban agriculture opportunities and barriers in Tacoma.
A6 Support innovative projects to encourage more disadvantaged citizens to shop at farmer's markets.	 3	The City provided funding for all farmer's markets to increase participation in their Senior Farm Share Subsidy program.
A7 Pilot 1 - 2 small-scale urban agriculture programs on public land.	 2	Initial research and analysis was conducted by Harvest Pierce County and Hilltop Urban Garden to identify potential sites. A pilot project is anticipated to begin in 2018.
A8 Implement community supported agriculture (CSA) pick-up at 4 city facilities for employees.	 1	No existing staff resources available to develop program.
1: None 2: Little Progress 3: Some Progress 4: Good Progress 5: Completed		



Climate Resiliency

ACTIONS



Complete sea level and flooding studies.



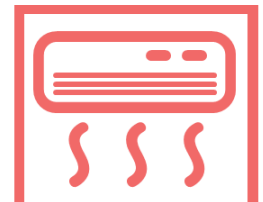
2020 = 2 studies

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

Puget Sound Climate Preparedness Collaborative

Staff from City's Office of Environmental Policy and Sustainability have met with peers within the four-county regional area over the last two years to discuss climate change adaptation. A formal organization, The Puget Sound Regional Climate Preparedness Collaboration, was kicked-off at The Northwest Climate Convention October 10, 2017. Resolution 39880 was passed by the Tacoma City Council in December, based on the Collaboration's pledge, formalizing the City's commitment to participate and pursue the following shared actions: capacity building; community engagement; coordinated research; funding and resources; and planning.










Action	Progress Rating (1-5)	2017 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	No progress made.
C2 Preserve and expand urban forest canopies with climate resilient species based on heat island data analysis.	3	The City uses resilient trees species on capital improvement projects and published a list of urban resilient trees in the Urban Forest Manual, which is updated periodically to accommodate new species.
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.	2	Tacoma Mall Subarea Plan was developed with community input to create a vision, goals, and strategies to guide sustainable and resilient growth and development. The Plan is nearing completion.
C4 Begin a conversation with the business community around climate impacts and resilience.	1	The WA Coastal Resilience Project (WCRP) grant will include a workshop in 2018 on the impact of sea level rise on the Tideflats, which will include members from businesses and the Port of Tacoma.
C5 Engage with and support community organizations that enhance community resilience.	3	City staff are involved in the Puyallup Watershed Initiative's Forest, Environmental Education and Just and Healthy Food Communities of Interest. The City funds efforts for better access to fresh food through programs with the farmer's markets, and supports improved public health and reduced greenhouse gas emissions through partnership with the Tacoma-Pierce County Health Dept.
C6 Ensure that near-term capital improvement projects consider climate change risks.	3	Two areas of study for the WCRP grant (Tideflats and Ruston Way) will have capital projects. The teams are focused on potential associated impacts of sea level rise.

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



Action	Progress Rating (1-5)	2017 Status
C7 Conduct additional studies (including data gathering, research, and mapping) to identify infrastructure that will be impacted by sea level rise and flooding.	 3	The WCRP science team developed probabilistic sea level rise scenarios based on localized measurements and vertical land lift. These will be used to develop guidance for GIS maps and regulations in 2018.
C8 Inspect, maintain, and upgrade critical infrastructure.	 3	The City continues to inspect all facilities after any rainfall event greater than a 10 year event (3 inches in 24 hrs), 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	The City is developing landscape management plans for its large tracts of open space properties. These plans target the best fit ecosystem for the sustainability of each site. In most instances, this involves planting a more resilient plant pallet to accommodate for changes over time, including climate susceptibility.
C10 Evaluate the development code related to landslide and flooding hazards.	 2	Postponed land use code updates due to numerous other high priority regulatory commitments by Council.
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.	 2	The City anticipates being able to use probabilistic sea level rise data from the WCRP to inform broader consideration of the effect of the Puyallup River on sea level rise and flooding in the Tideflats.

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