

TO: Public Utility Board

FROM: Jackie Flowers, Director of Utilities

DATE: April 12, 2023

RE: TPU SD5 (Environmental Leadership) Annual Update

Measurement 1. Climate Action Plan (Formerly the Environmental Action Plan).

[Contributor: Jay Donnaway, LaTasha Wortham]

On November 30, 2021, the Tacoma City Council adopted a resolution approving the 2030 CAP. Since then, TPU has continued collaboration with General Government and is represented on the CAP Implementation and Reporting Committees. While this report will not outline all CAP implementation activities, some notable actions are below. In addition, some activities not being led by TPU are not yet implemented. We will continue to stay active in supporting those efforts when they begin.

TPU is directly responsible for seven CAP actions and supports 15 additional efforts. Current CAP actions include:

- Support zero-emission technology innovation in the marine, trucking, and rail sectors. (Power & Rail)
 - Staff is working on innovative ideas with our business and industrial sector to support adopting zero-emission technologies. Tacoma Rail was awarded \$3.645M to acquire a battery-electric locomotive. It continues to move forward with seeking additional funding toward the completion of the project to add two battery-electric locomotives to its locomotive fleet.
 - Tacoma Power staff continues to support the Northwest Seaport Alliance's South Harbor Electrification Road Map process and is vetting opportunities to connect state and federal funding to customers seeking to participate in a zero-emission vehicle drayage pilot.
 - Tacoma Power finalized a project in 2022 to provide electric vehicle charging to support six newly electrified yard tractors – the first in either the Port of Tacoma or the Port of Seattle.
- Seek federal and state grant funding to support electric vehicle and e-bike use in low and very-low-opportunity neighborhoods. (Power)
 - Tacoma Power installed fifteen new streetside chargers in the Neighborhood Business Districts. A collaboration between Tacoma Power, the City of Tacoma Public Works Department, the City's Parking Services, and its Community and Economic Development Office made the EV chargers possible. According to the City of Tacoma's Equity Index, eight of these chargers are in historically underinvested areas.
 - Tacoma Power has purchased an additional 30 streetside EV chargers to locate in the City of Tacoma in 2023-2024. In addition, Tacoma Power plans to solicit



- community input for suggestions of locations to install more chargers with a preference for historically underinvested areas.
- Staff continues to seek partnerships and grant funding to make installing EV charging equipment and other zero-emitting transportation infrastructure more affordable.
- In 2024, Tacoma Power Integrated Resource Plan will analyze the net-zero carbon scenario to ensure adequate electricity supply for transportation, building heating, and industrial process load. Include an analysis of ways to upgrade or manage the distribution system to enable electrification. (Power)
 - Tacoma Power started the process of hiring a consultant to develop the data needed to include this scenario in the 2024 IRP.
- Use new advanced water meter infrastructure data to communicate and educate residents and businesses about water consumption patterns and probable leaks.
 Encourage and support timely leak repair. (Water)
 - Several customers have benefitted from quickly learning that they are experiencing water leaks. Tacoma Water established a notification process for customers with high consumption indicating a leak. To help customers afford repairs that ultimately help conserve water while assisting customers with costs, Tacoma Water implemented a water conservation grant or loan program to replace an aged or leaking water line.
- Collaborate with private and public partners to prioritize, support, and create residential and commercial building low-carbon retrofit solutions. (Power)
- Provide support to Pierce Transit to develop a zero-emission transit plan and help Pierce Transit compete effectively for state & federal funding opportunities. (Power)
 - Staff is working as a part of the Pierce Transit led Zero-emission Bus Roundtable to identify and support projects and funding.
- Provide green businesses with recognition and technical support for their participation in the EnviroStar program and other similar efforts. (Power/Water)

The following CAP actions are ones TPU will support but is not responsible for implementing:

- Assess seawalls, piers, revetments, shoreline infrastructure, open spaces, parks, and habitat conditions to identify the length of service, repair, and maintenance. Work with partners to develop a Sea Level Rise Master Plan and monitoring program to track sealevel and shoreline changes at key locations (e.g., Tideflats, Ruston Way, Titlow, Foss) to determine needed adaptation actions. (Power)
- Continue to update zoning and development standards to ensure that new development supports active transportation, transit ridership, and integrated public and private urban design that minimizes parking requirements and parking management strategies to meet City affordability and sustainability goals. (Power)
- Work with existing networks and organizations to create and support Sustainable
 Industrial and Manufacturing Collaborative/Roundtable. Assist in developing low-carbon



- transition opportunities for existing businesses, including funding, incentives, technical assistance, and education on electrification, new fuels, and technology. (Power)
- Tacoma Power staff have continued to support the development of a green economy in the South Sound by serving on the board and offering mentorship with startup organizations like the Tacoma Maritime Innovation Incubator and ZEV Co-op Carshare. In addition, they supported events that promote clean transportation and new technology: the Green Transportation Summit and Expo, the City of Tacoma Sustainability Expo, the South Sound Technology Conference, and the Tacoma Home and Garden Show; Tacoma Power continues to engage the local community to help the public get connected to clean energy programs. Tacoma Power has also worked with State agencies and industry groups like the Renewable Hydrogen Alliance, Washington Maritime Blue, and the Washington Green Hydrogen Alliance to support the development of a local green hydrogen industry that will provide an alternative to existing fossil fuel use. In addition, Director Flowers serves as Treasurer of the Board of Directors for the Pacific Northwest Hydrogen Association, the organization developing a hydrogen hub application to respond to DOE's Hydrogen Earthshot Initiative.
- Aggressively implement Affordable Housing Action Strategies for:
 - o Creating More Units of Housing near transit-oriented development,
 - Keeping Housing Affordable for All and in Good Repair (Power/Water)
 - Tacoma Power and Tacoma Water offer incentives and loan programs designed to keep housing in good repair.
- Collaborate with private and public partners to prioritize, support, and create residential and commercial building retrofit solutions (Power)
- Explore residential carbon score and commercial benchmarking and disclosure. Include retro-commissioning requirements. Review other jurisdictions and plans for best practices and draft a program for Tacoma. (Power)
- Increase county-wide, regional, statewide, federal, and international policy coordination and advocacy on climate work. (TPU)
 - TPU's government relations staff collaborate on climate legislation with local and regional partners.
 - Director Flowers serves as Co-chair of the American Public Power Association CEO Climate Change Taskforce, assisting the association in developing its climate change policy to guide federal advocacy efforts.
- Continue to support the climate adaptation stakeholder team by collaborating with other
 agencies and institutions to tackle cross-jurisdictional information needs and adaptation
 opportunities. Continue to support and engage in regional efforts within the Puyallup
 River watershed basin to consider river management related to floods, sediment,
 agriculture, and infrastructure protection. (TPU)



- TPU staff continue to participate in the Climate Adaptation Community Partners Roundtable.
- Seek opportunities to eliminate fossil fuel reliance where solutions are available and meet business needs in all agreements and contracts entered into by the City. (TPU)
 - TPU's Economic Development Manager continues to work with incoming businesses to offer Tacoma Power's low-cost, carbon-free electricity services.
- Develop a GHG and climate impact analysis for incorporation into the budget, capital, and work plans at the departmental level. (TPU)
 - TPU worked with General Government staff to provide needed information for this analysis.
- Complete a Green Economy Study to define green manufacturing and other
 businesses/industries involved in the Green Economy. It will also identify specific highwage positions, compensation, education or skill requirements, research and
 development, and innovation opportunities, factors that will support the growth and
 development of the Green Economy, site selection conditions, and regional competitive
 advantages. The study will additionally pinpoint critical business/industrial expansion and
 recruitment targets. Sectors to evaluate could include marine-related industries, clean
 fuels, green building materials, and clean material markets. (TPU)
- Designate or hire Green Economy Specialist to coordinate green economy actions and support partners and businesses. (TPU)
- Conduct zoning and development standard reviews for industrial lands to promote clean and green industrial development and to ensure consistency of industrial uses with policies for economic development, public health, and environmental enhancement and protection. (Power)
- Tacoma Power is collaborating with the City of Tacoma to conduct the EV Siting Study
 with a plan to use the results to expand EV charging infrastructure at four prioritized sites
 funded with federal and state funding and low-carbon fuel standard credits. (Power)
- Improve commercial energy codes to reduce most fossil fuel use. Require enhanced efficiency and health standards in coordination with Regional Code Council. (Power)

We completed the first year of the CAP 2030 plan and are already progressing on our action items. We will continue working toward implementing each action item and remain confident that TPU can and will achieve all actions. It takes a lot of work and collaborative efforts, but we are motivated to accomplish these actions to meet the City's 2030 carbon reduction goals.

Measurement 2. Adherence to Watershed Management Plan. [Contributor: Jesse Narog]

The Watershed Management Plan is a part of the 2018 Water System Plan. It documents the watershed control program implemented by Tacoma Water to manage the Green River Watershed. Implementation activities in 2022 included:



- Developed and implemented a five-year Watershed Strategic Plan. The Watershed
 Management Plan and the Strategic Plan work in concert to maintain and continuously
 improve our stewardship of the Green River Watershed to deliver on our mission of
 ensuring clean, reliable water while providing ecological benefit to the region. The
 Strategic Plan focuses our work by taking many of the projects we've planned to do in
 the past. It provides resources and an accountability framework to move them toward
 completion.
- Participated on the project team for the downstream fish passage project and their aquatic nuisance species prevention program as a non-federal local sponsor of the U.S. Army Corps of Engineers Howard Hanson Dam Additional Water Storage Project. Collaboratively secured \$220M in funding and congressional authorization for the total project costs.
- Made numerous repairs to road drainage structures to reduce erosion and protect water quality and crushed 11,000 cubic yards of gravel for roadway maintenance. Wellmaintained roads provide access while maintaining high-quality water.
- Responded to multiple emergency events, including a downed aircraft, vehicle accidents, and storms within the Green River Watershed.
- Completed an emergency response exercise, simulating an injury and hazardous spill to the Green River Watershed upstream of the drinking water diversion point.
- Land acquisition is listed as the first recommendation by the Watershed Management Plan to improve the watershed control program (Table 6-1). In 2022, we started a business case to strategically acquire lands in the Green River Watershed while minimizing the financial impacts to our ratepayers by considering public, private, and non-profit partnerships and other funding mechanisms. Work on this strategy will continue in 2023.

Measurement 3. Adherence to Electric Transportation Plan.

[Contributor: Cam LeHouillier]

Our Transportation Electrification Plan aims to help customers increase our electric transportation load by ten average megawatts (aMW) over 2019 by the end of 2030. Fossil-fuel vehicles are some of the largest pollution emitters in our service area, with our proximity to main highway corridors and the Port of Tacoma.

In 2022, Tacoma Power accepted 296 applications from single-family customers for up to \$600 each in incentives under its EV Home Charging pilot program. As a result, over \$121,000 was distributed to customers to help them attain level 2 charging in their homes. Future programs will use Automatic Meter Infrastructure (AMI) equipment to offer a managed charging program to benefit the utility and customers by reducing coincident peak load and delaying costly distribution system upgrades.



The Public EV Charging Program paid up to \$212,000 in incentives to businesses that installed level 2 EV charging ports for customers, employees, and the general public at 15 private property locations. In addition, Tacoma Power installed 15 streetside EV charging stations at each of the business districts in Tacoma and is beginning customer outreach for location suggestions for the next 30 streetside charging stations. Grant funding covers the equipment and installation costs of these EV charging stations. Tacoma Power has completed engineering design work and will soon issue a request to purchase equipment for 34 charging ports to be located at seven city-owned locations in the downtown core that will be installed in 2023-2024.

Tacoma Power is committed to bringing the benefits of transportation electrification to all communities, including those who live in multifamily residences where it can be challenging to install EV charging equipment. Through the Multifamily EV charging program, Tacoma Power awarded \$242,000 in incentives to help landlords pay to install charging for the benefit of tenants who would otherwise not have access to charging—external grant funding paid for the installation of EV charging at fourteen buildings.

Tacoma Power is reducing the financial cost of these community EV charging projects by leveraging external funding from state grants and other sources. A Supplementary Environmental Fund facilitated by the Puget Sound Clean Air Agency gathered \$832,500 for transportation electrification projects and over \$600,000 in state grants. This funding was exhausted in 2022, leaving a waiting list of customers. In 2023, Tacoma Power was awarded \$1M with the help of Senator Patty Murray and her staff. Tacoma Power is taking this opportunity to make program improvements, simplify the application process, and improve customer engagement. The re-launch of the Public EV and Multifamily EV charging programs will be available as soon as funding is available in Q2-Q3 of 2023.

We continue to support zero-emission technology innovation in the marine, trucking, transit, and rail sectors by participating in research efforts and as a member of regional collaborations. For example, Tacoma Power has actively participated with Washington Maritime Blue in developing an all-electric passenger ferry prototype that could expand to all parts of the Puget Sounds and in separate feasibility studies for an all-electric water taxi to serve Tacoma's waterfront.

Also, Tacoma Power has partnered to help a Washington startup company, OCO Chem, demonstrate its ability to convert renewable power into a safe, energy-dense liquid hydrogen carrier. A \$1.5M award from the WA Clean Energy Fund will help construct a portable clean energy generator that can be used as an alternative to mobile diesel generators. We hope that a successful demonstration in 2024 will lead to the commercialization of this technology to provide a real alternative to conventional fossil fuels where connection to the grid is difficult.

Measurement 4. Adherence to environmental measures within our FERC licenses. [Contributor: Matt Bleich and Teresa Loo]



Environmental measures within the Cushman, Cowlitz, Nisqually, and Wynoochee Federal Energy Regulatory Commission (FERC) licenses that positively benefitted the environment in 2022 included:

- Worked with Natural Resources Staff and stakeholders to develop a Mission and Vision Specific to Natural Resources:
- Natural Resources Mission: Lead the sustainable stewardship of natural resources.
 Ensure a balance of reliable and affordable clean energy and a healthy environment for current and future generations.
- **Natural Resources Vision**: To be exceptional stewards of our resources, trusted community partners, and fearless advocates for diversity, equity, and inclusion.
- Conserved over 20,000 acres of land for wildlife habitat and monitored wildlife species of concern, such as wood ducks and several bat species.
- Reared and released 1,440,058 and 8,653,573 fish at Cushman and Cowlitz hatcheries, respectively, and transported 12,738 and 763,517 at Cowlitz and Cushman fish passage facilities, respectively, in support of salmon recovery efforts.
- Implemented the first expansion of our Chinook recovery efforts in the South Fork Skokomish Basin in collaboration with the Skokomish Tribe, Washington Department of Fish and Wildlife, and our Federal and State partners.
- Resumed upland habitat enhancement work by implementing collaborative forest thinning projects
- Completed reconditioning 50 acres of elk forage fields on our Cushman Wildlife Lands
- Completed plans in collaboration with our partners to implement our fish hatchery, habitat, and passage and monitoring strategies from now until the end of the Cowlitz FERC license.
- Assisted 37 lot owners with shoreline stewardship by issuing permits and short-term licenses.

Measurement 5. Environmental leadership will be reflected in legislative priorities. [Contributors: Clark Mather and Logan Bahr]

- Our TPU legislative agendas adopted by the Public Utility Board and City Council had multiple advocacy objectives focused on environmental leadership.
- TPU played an active role in developing and implementing carbon reduction policies at the state and federal levels. Policy examples include the passage of Washington's capand-invest program, the Climate Commitment Act (SB 5126, 2021), a low carbon fuel standard (HB 1091, 2021), and the Clean Energy Transformation Act (SB 6013 - 2019). In addition, we actively engaged in rulemaking to implement the laws.
- We supported new spending proposals under the state's Climate Commitment Act, such as residential electrification incentives; grants for E.V. infrastructure development;



- programs to electrify ports, rail, and other modes of transportation; and many other state investments in decarbonization.
- In March 2022, the Biden Administration announced a \$220 million allocation from the Infrastructure Investment and Jobs Act for downstream fish passage at Howard Hanson Dam. Director Flowers joined U.S. Senator Patty Murray, U.S. Rep. Kim Schrier, the Chair of the Muckleshoot Indian Tribe, and senior leadership from the Corps of Engineers to celebrate this important milestone.
- On December 23, 2022, President Biden signed legislation into law that includes authorization to complete the downstream fish passage. TPU staff continue to work with our congressional delegation and the Biden Administration to secure the remaining federal funding estimated at approximately \$670 million.

Measurement 6. Track community outreach and communication activities related to environmental leadership.

[Contributors: John Gaines, LaTasha Wortham, Account Executives, Bernie Peterson, Rochelle Gandour-Rood, Alyssa Shipman, Steve Bicker, Julie Sallenbach, Monika Sundbaum, Jenae Elliott, and Valerie Lorfeld]

There are multiple departments and staff members performing outreach and communications related to environmental leadership:

- The Public Affairs team includes information on conservation and our TPU commitment to the environment in nearly all its interactions with the public.
- The Communications team constantly provides public messages on our TPU website, social media, customer newsletters, and other forms of communication to stakeholders.
- Tacoma Power and Tacoma Water have dedicated outreach staff working in the community to inform customers about conservation programs, electrification projects, solar, green hydrogen, and TPU's overall commitment to the environment.

2022 Activities

- Outreach consisted of in-person and virtual meetings. Tacoma Water sent more than 600 water savings kits (spray nozzles, hose timers, showerheads, etc.) to customers through Mail Services using the online request and fulfillment program. In addition, Tacoma Water issued more than 60 rebates for smart irrigation controllers for residential landscapes.
- Tacoma Power and Tacoma Water collaborated on web content, social media posts, and email newsletter features focusing on seasonal conservation tips, electric vehicle programs, and rebates that could help customers save on their utility bills.
- Continued supporting residential and business customers with a comprehensive portfolio
 of cost-effective energy conservation programs. Our Customer Energy Programs (CEP)
 team continued to deliver cost-effective incentives, loans, and rebates for energy
 efficiency upgrades virtually and in person. We are on track to meet or exceed the I-937



compliance target for the 2022-2023 conservation biennium with a savings goal of 53,822 MWh. Engaged with the community throughout 2022 - our first full year of outreach activities since COVID-19 occurred. In collaboration with other City and TPU departments (Water, EnviroHouse, Energy, Research & Development, Public Works, and Office of Equity and Human Rights), CEP attended 44 community events and engaged with over 3,000 customers. Participated at community events: resource fairs, festivals, car show, and Evergreen Options Ribbon Cutting Ceremony; in incomeconstrained and low opportunity neighborhoods: Eastside Farmer's Market, McKinley Neighborhood; included a bi-lingual staff at Latinx and MOSAIC Festival. Customer Energy Programs supported 4 TPU sponsorships with Tacoma Farmers Market, Ocean Fest, Tacoma Rainiers, and MOSAIC (Tacoma's Arts and Culture Festival) by participating in their events.

- Continued the Power Moves marketing campaign targeting residential customers to
 educate them about the value of making energy-efficient upgrades to their homes and to
 drive enrollment in the utility's conservation incentive programs, including rebates, loans,
 retail savings, and discounts with trade allies.
- In 2022, Evergreen Options had 927 total enrolled participants. Despite a slight drop in participants compared to 2021, overall contributions to the program increased 12% to \$73,381 in 2022. Unfortunately, due to resource constraints, we did not award an Evergreen Options grant in 2022; however, we worked with 2021 grant recipient Oasis of Hope to support the successful installation of a 32 kW solar array and participated in a ribbon-cutting event in September.
- We wrapped up the 2021-2022 tree coupon season with 778 coupons redeemed at seven nurseries for 1,820 trees. We began promoting the 2022-2023 Tree Coupon Program through MyTPU.org, social media, residential newsletters, and other communication channels from October 2022 to March 2023 to support the City of Tacoma's tree canopy initiative. Tacoma Power outreach messages focused on applying for the coupon (\$30 off per tree, up to three trees for a \$90 max), redeemable at local participating nurseries through March 31, 2023. Messages also promoted increasing Tacoma's tree canopy, energy savings, ambient air-cooling, improved stormwater management, increased air pollutant filtration, and landscape beautification. Additionally, we provided information on selecting tree species and planting locations based on participant needs. By the end of 2022, we received 968 requests for the 3,000 tree coupons available for the 2022-23 season.
- Began recruiting the first of 240 participants for Tacoma Power's smart water heater demand response pilot in 2021 using many utility communications. We added paid social media to the marketing mix, and it was a robust tool for driving participation. Tacoma Power customers received \$80 for two years to allow utility-installed smart water heater controllers to curb demand during peak events without loss of hot water for the customer. A successful pilot could develop into a full-scale program to help our region mitigate peak demand add keep costs lower for all Tacoma Power customers.



- Talked to Tacoma's Neighborhood Business District members in the late summer of 2021 about our Streetside EV Charging initiative. The initiative was a collaboration between Tacoma Power, the City of Tacoma Public Works Department, Parking Services, and its Community and Economic Development Office. This program makes Level 2 EV charging available in Tacoma's 15 Neighborhood Business Districts, including eight in historically underinvested areas. By year-end 2022, each business district will receive one new streetside charger. Most City's Neighborhood Business Districts don't have EV chargers for community use.
- Launched a Home EV Charging incentive program in the summer of 2021 with rebates
 of up to \$600 in utility bill credit to encourage the installation of faster Level 2 EV
 charging at home. Outreach included utility communications, such as our monthly
 residential email newsletter, organic social, web banners, TV Tacoma billboards, and
 outreach to Tacoma Rainiers fans. The program had a solid start, receiving 92
 applications by year-end, with over 300 applications received in total in early 2023.
- Offered virtual workshops for the community covering water and energy conservation and electric vehicle topics, including a virtual National Drive Electric Week event, in partnership with the EnviroHouse.
- Offered a series of professional development workshops for teachers in partnership with the EnviroChallenger and Pierce County, focused on STEAM Education for Climate Literacy and introducing teachers to local utilities-based phenomena impacted by our changing climate. The 2022 workshop from TPU emphasized teaching how to read the usage graphs now available from advanced metering and modeled for 138 teachers how to discuss with their students the difference between "use" and "waste."
- Aligned all 2021 community electric vehicle (EV) outreach with Action 1 of the Transportation Electrification Action Report:
 - Continued presenting EV 101 events virtually to keep engaging customers in EVrelated conversations and information sharing.
 - Participated in the first TPU/Girl Scouts virtual STEM Conference delivering a session on EV technology.
 - Delivered additional customized EV workshops as requested by various community groups.
- Emphasized communicating information and updates about Tacoma Power's Natural Resources to stakeholders while continuing to share our efforts and investments in protecting natural resources when appropriate:
 - Some notable campaigns and communications included the Barrier Dam spillway upgrade and construction project, Riffe Lake boat launch access, annual Emergency Action Plan siren testing, Staircase Road dust abatement treatment, park operations updates, and a boater/cold water safety campaign.
 - Community outreach events included:
 - Hosted three virtual Cowlitz fisheries meetings.



- Sponsored and participated in the Southwest Washington Fair, Nisqually Watershed Festival, and the Long Live the Kings' Survive the Sound program.
- Partnered with Tacoma Water on staffing the Nature Center's Earth Day Extravaganza event and the Metro Parks' Salmon Saturday/Salmon Streaming Week/Event.
- Staffed the Ocean Fest event with Tacoma Water and Customer Energy Programs.
- We will also report our outreach in SD4 and SD10 for decarbonization.

Measurement 7. Customer survey results regarding environmental leadership. [Contributors: Dan Drennan and Holly Lucht]

We continue to perform very well among retail customers regarding environmental performance. The utility collected customer feedback via 400 telephone interviews and 1,078 web surveys in July and August 2022. The sampling error for 404 telephone interviews is +/-4.9% at the 95% confidence level; for 790 online interviews, it is +/-3.5% at the 95% confidence level.

We included three questions about the organization's overall environmental performance and for the Tacoma Power and Tacoma Water divisions. The 2022 ratings for our environmental measures in the annual survey have been consistent year over year:

	Being Environmentally Responsible TPU Overall	Environmentally Responsible Power	Environmentally Responsible in Sourcing and Delivering Water
Phone – mean score (scale of 1-10)	8.2	8.2	8.0
Web – mean score (scale of 1-10)	7.7	7.6	7.7
	Scores are stable and consistent with 2021 and 2020.	Scores are stable and consistent with 2021 and 2020.	Scores are stable and consistent with 2021 & 2020 performance ratings

The strong performance and consistency in scores across these measures reflect positive customer awareness of efforts by the utilities to be environmentally conscious in their operations and ongoing customer engagement. Tacoma Power and Tacoma Water have undergone extensive strategic communication planning, implementation, and public engagement supported by Public Affairs & Communications to highlight the utilities' stewardship of natural resources and operations. Along with each division's strategic initiatives, they will pursue these efforts as



part of a multi-year strategy to ensure customers are informed about our environmental performance.

Additional Activities

Tacoma Power participated on the State Energy Strategy Advisory Committee, which provides input to the Department of Commerce as they develop a new energy strategy for Washington. Tacoma Water participated in the Water Resource Inventory Area (WRIA) 9 and WRIA 10/12 Lead Entities to implement salmon recovery plans in the Green and Puyallup Rivers/Chambers-Clover Creek basins.

Tacoma Water sought and received Utility Board and City Council ratification of the Green/Duwamish and Central Puget Sound Watershed, WRIA 9 Salmon Habitat Plan Update, Making Our Watershed Fit for a King, dated February 2021 (Salmon Habitat Plan). Tacoma Power issued \$606,695 final payments to 979 Community Solar participants. Each payment included Washington State Renewable Cost Recovery Incentive Program incentives and a one-time payment for the value of the solar energy that the system is estimated to produce through 2036.

Tacoma Rail installed equipment to collect idle reduction data from the railroad's locomotives. These statistics reflect the 2022 data from Rail's 18 locomotives:

- Attributed 51,778 hours to anti-idle automatic shutdown.
- Saved 179,644 gallons of fuel on account of managed shutdown.
- Avoided emissions of 45 tons of greenhouse gasses.
- Avoided emissions of 1.47 tons of particulate matter.

In 2022, two of Tacoma Rail's three Resource Conservation and Climate Plan (RCCP) goals focused on further reducing diesel emissions. One goal focused on analyzing fuel consumption trends related to business volumes and ambient temperature. Goal number two concentrated on incorporating alternate fuel locomotives into our fleet to accelerate the decarbonization of our locomotives. The third goal is to investigate practical options to minimize waste from track renewal projects.

Tacoma Rail completed the first triennial cycle of their Oil Spill Contingency Plan in 2022. TPU Emergency Management staff and Fleet Services continued to use renewable diesel and looked at increasing its usage. Additionally, Fleet Services continued to look at ways to electrify the TPU fleet. Fleet Services got the hybrid Water fleet on order and started 2021 with another F-150 hybrid pickup.

Our TPU Sustainability Action Team launched a successful paper towel composting program, started picking up litter on their adopted street (S 35th/36th St. from S Tyler to S Tacoma Way), helped pilot a new sustainable training program for the City, and wrote articles about sustainable practices for *Newsline*.



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7. Customer survey results regarding environmental leadership:

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8. Additional Activities - Tacoma Rail:

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