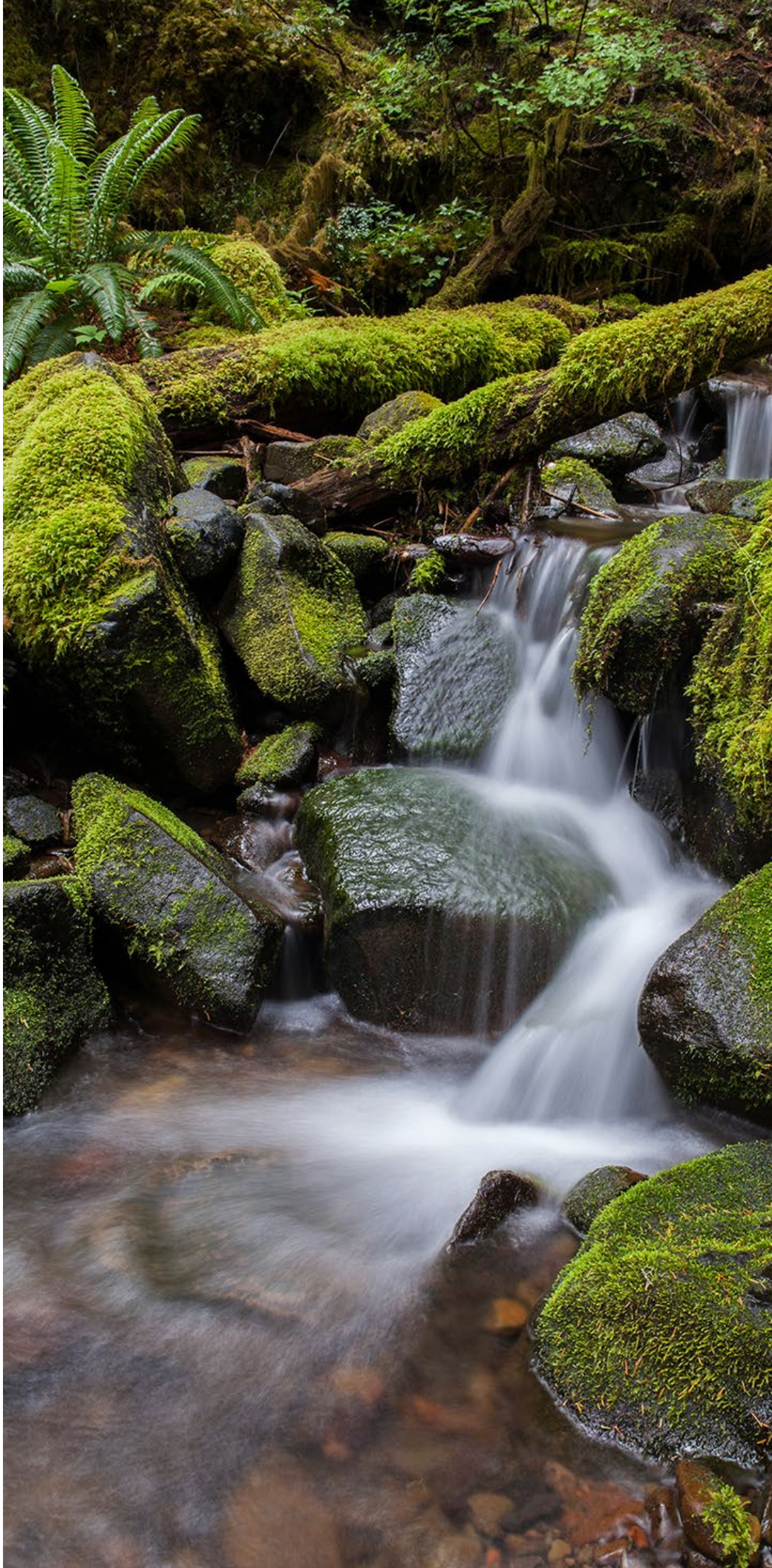
2030 Strategic Plan

January 2023

PUGET SOUND
Clean Air Agency



Our Vision

Healthy air, climate, and environmental justice for the benefit of all people in the Puget Sound region.

Our Mission

We preserve, protect, and enhance air quality and public health, enforce the Clean Air Act, support policies that reduce climate change, and partner with communities to do this work equitably.

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Letter from Leadership

The Puget Sound Clean Air Agency was founded from public health roots to directly address air quality risks at the source. We know that air pollution presents health risks, and these risks are distributed inequitably across the four counties we serve. Agency staff mitigate these risks through programs that regulate, educate, and collaborate with residents of our region to reduce emissions and improve air quality. We're prepared to gain even greater reductions in pollutant levels as well as greenhouse gas emissions.

The Agency undertook this Strategic Plan recognizing the weight of our responsibility to accomplish our mission in a way that equitably advances environmental justice. Recent state legislation, such as the Climate Commitment Act, Healthy Environment for All, Advanced Clean Cars, Clean Fuel Standard, and more strengthen our abilities to do so. Federal programs like the Inflation Reduction Act will strengthen them even further. Opportunities abound in this plan; we will innovate to realize them and regularly report progress via transparent and adaptive project management. This will help us to engage authentically with our many community partners and continue momentum towards our shared goals.

It's important to recognize and be grateful for the immense teamwork and effort needed to create this plan that will serve as our blueprint for the next seven years. Thanks to our Advisory Council members, community-based organizations, and all who took part in our community workshops and provided comments and questions on the draft plan, as well as the entire Agency staff that contributed to this plan.

Most importantly, thank you for engaging with our work by reading it—this engagement is what will turn this plan into a reality.

Sincerely,

Greg Wheeler
Mayor, Bremerton

Dow Constantine
Executive, King County

Bruce Dammeier
Executive, Pierce County

Bruce Harrell
Mayor, Seattle

Joe Bushnell
Councilmember, Tacoma

Cassie Franklin
Mayor, Everett

Katie Walters
Commissioner, Kitsap County

Emily Pinckney
Public-at-Large

Megan Dunn
Board Chair, Snohomish County

Christine Cooley
Executive Director

Community Engagement

The Agency conducted community engagement throughout 2022 to involve communities in our planning process, better understand community concerns, and inform our Strategic Plan. We held multiple interactive community workshops across our four counties as well as listening sessions with community-based organizations (CBOs). Additionally, we hosted a month-long online open house to ask for input from community members on our draft Strategic Plan in October 2022.

Throughout our community engagement process, we took intentional steps to engage community members who are typically underrepresented in our processes. We conducted a competitive process and chose Cascadia Consulting Group to help us with these steps. Actions included: promoting engagement opportunities through community channels, with targeted promotion in overburdened communities before promoting more broadly; language translation at every step of the process, from promotional materials to workshop materials and translation of the draft plan and survey in our five key languages (Spanish, Korean, Vietnamese, Traditional Chinese, and Simplified Chinese); language interpretation at all workshops and listening sessions; compensation for community members and CBOs who participated in interactive workshops and listening sessions; and an intentional feedback loop design with CBOs.

The input we received throughout the process highlighted our communities' interests in reducing pollution from transportation sources, their increasing concerns about wildfire smoke, and a strong desire to address climate change by reducing greenhouse gas emissions. A consistent theme from input received was a desire for outreach to raise public awareness on air quality and climate topics, and a strong motivation for action across priorities. Details of the community engagement process can be found in the Community Engagement Report on our website.

About Us

The Puget Sound Clean Air Agency (Agency) is a special-purpose, regional government agency chartered by Washington state law in 1967. Our jurisdiction covers King, Kitsap, Pierce and Snohomish counties, home to about half of the state's population.

The Agency enforces air quality regulations based on the federal and state Clean Air Acts. We also conduct education and outreach, monitor and analyze air quality, and secure funding to encourage air pollution reduction projects. Collectively, our actions help us to improve air quality and protect public health, reduce air pollution disparities, and reduce our contribution to climate change by reducing greenhouse gas emissions.

The Agency is the largest of seven clean air agencies in Washington State and works closely with our partners to provide consistent messaging state-wide and add capacity where our work is replicable. Likewise, we extend our sphere of influence by being actively engaged in the National Association of Clean Air Agencies (NACAA).

The Agency is led by a Board of Directors composed of eight elected officials and one member representing the public-at-large. The elected officials represent each of the four counties in our jurisdiction along with the largest city in each county. The Agency seeks additional feedback through an Advisory Council with representation from key areas that affect air quality. Meetings for both are posted publicly on our website.

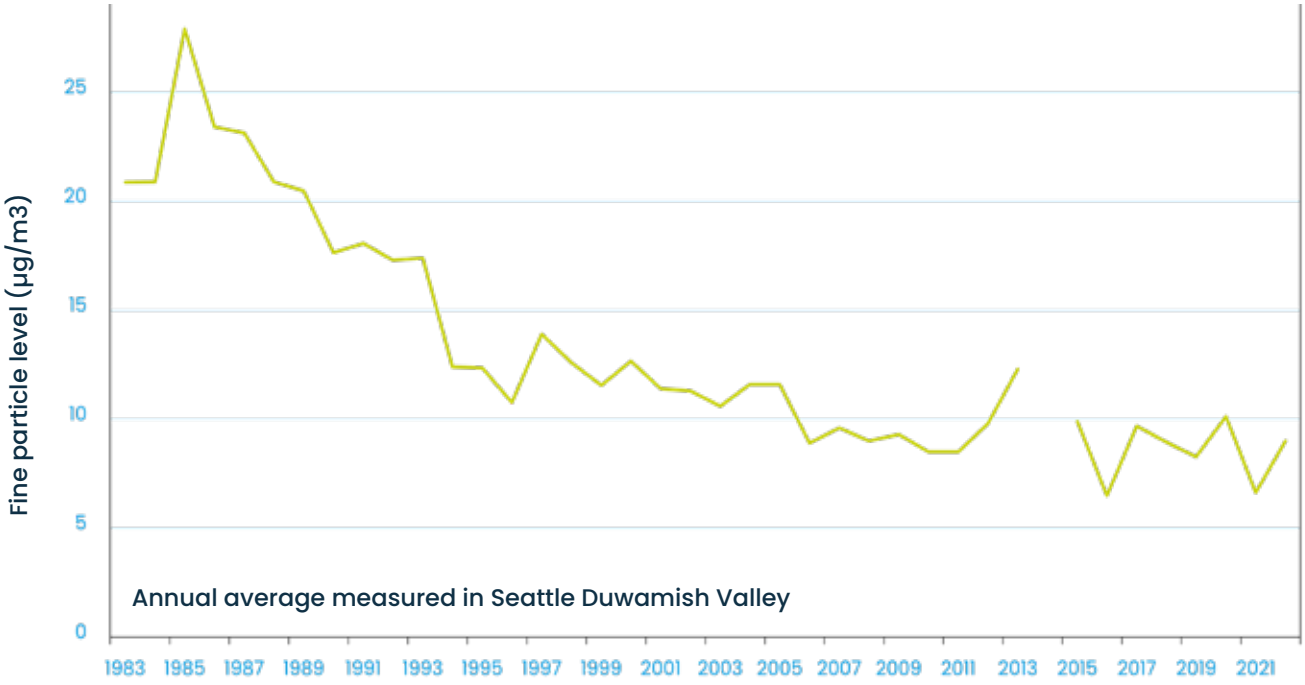
Introduction

The Puget Sound region is home to some of the most scenic landscapes in the country, from the glaciers atop Mount Rainier to the inlets of the Sound—and everything in between. A significant aspect of our region's natural beauty is the clean air we collectively breathe. Clean air is imperative for the health of our region's residents. As we chart the course of the Agency's future to protect this resource, we must anticipate both the substantial challenges and opportunities the next seven years will bring.

Our region's air quality has steadily improved over time (see Figure 1), even as our population has grown. These improvements arose and continue through advances that reduce pollution from engines, the development of cleaner fuels, and the introduction of better and more efficient processes. While our improved air quality is encouraging, our knowledge of air pollution and its health risks also continues to grow. Newer studies continue to highlight the need for even greater pollution reductions to adequately protect public health. For example, the U.S.

Environmental Protection Agency (EPA) is currently considering a more protective health-based standard for fine particle pollution. In addition, we anticipate that our changing climate will bring substantial challenges for air quality and public health over the next seven years.

Figure 1: Long-term Fine Particle Pollution Trend



Challenges

Climate change: The immediate threat of climate change continues to grow as greenhouse gas emissions rise. Our region will likely see increased temperatures, declining snowpack, more wildfires, and greater impacts to our built infrastructure.[1] Without concerted and urgent action to reduce climate pollution, we run the risk of exceeding 1.5 degrees Celsius of global warming, triggering severe impacts to people and our natural environment, particularly the most vulnerable among us.[2]

Wildfire smoke: Air pollution caused by wildfires is increasingly common in recent years and is predicted to continue. Wildfire smoke events pose additional short-term health risks for all affected residents.

Air quality disparities between communities: Many communities in our region do not experience the same air quality as other communities. These differences often fall along socioeconomic lines like race and income, meaning that already disadvantaged communities are more likely to be near sources of air pollution. Our understanding of cumulative impacts—where air pollution exposure is one of many socioeconomic and environmental stressors—is evolving.

Population growth: We expect continued population growth across our four-county jurisdiction of King, Kitsap, Pierce, and Snohomish counties, which means more air pollution sources to accommodate it. As more people move to our region we anticipate the need for cleaner technologies and affordable zero-emission choices available to residents across the region.

Opportunities

Advancements in technology: Zero-emission vehicles, such as electric cars, trucks, and buses, continue to become less expensive and more available. As our region installs more electric vehicle charging infrastructure and manufacturers provide more zero-emission vehicles, our transportation system is on the verge of transformational change. Similar technology advances are taking place in the built environment as well, with developments in highly efficient electric heat pumps to heat and cool homes.

Monitoring capabilities: Ways to monitor our air quality are changing too. Small, low-cost handheld air sensors are becoming increasingly more accurate for some pollutants and offer new ways to measure air pollution. Ensuring our region's residents have the air quality information they seek will be on ongoing challenge and opportunity.

New policy frameworks and funding opportunities: New policy frameworks and increased funding are becoming available at the state and federal level that address our three key goals of air quality, equity, and climate. The Inflation Reduction Act, Climate Commitment Act, Clean Fuel Standard, Healthy Environment for All, and more are likely to bring opportunities for the Agency to work with government partners and community-based organizations (CBOs) to take major steps towards reducing pollution and investing in overburdened communities.

Achieving the Agency's vision and 2030 regional goals will require the collaboration of many partners—we won't be able to realize it alone. The Agency will achieve the objectives laid out in this plan through our various roles:

- **Regulator:** We use our permitting and enforcement capabilities to prevent and control emissions, and work with the regulated community so that they understand rules and requirements.
- **Technical Expert and Health Steward:** We apply our understanding of ambient air pollution to prioritize reducing the sources of air pollution that pose the greatest health risk to people in the Puget Sound region. We are a strong advocate to protect our most vulnerable populations from air pollution.
- **Educator:** We share data and information with transparency and accessibility to help people understand health risks from air pollution and make informed clean air choices.
- **Convener and Collaborator:** We partner with jurisdictions, agencies, organizations, and communities to identify and support air quality projects that have potential to scale.

Adaptive Management

This Strategic Plan was written on the cusp of many fresh opportunities, great challenges, and uncertain outcomes. A global pandemic, rising demands for racial and social justice, and the increasing urgency of the climate crisis have created conditions ripe for disruptive innovation in the way the Agency defines and performs its work. In order to meet the ambitious targets we set in this plan, we must build an Agency-wide culture of continuous improvement centered on our values. To build this culture, the Agency will practice adaptive management in a four-step cyclical process; plan, monitor, evaluate and adjust.

Achieving continuous improvement requires us to commit to learning new things, being open to change, monitoring progress closely, and evaluating success regularly over the course of the plan. To support this, we will first develop our internal project management mechanisms to be transparent across staff and partners on shared programming. These mechanisms will be designed with clear steps for each action.

Flexibility in the Strategic Plan is valuable, and our culture of adaptive management applies to it as well. We set formidable targets for ourselves to ensure that our actions remain relevant and applicable over the next seven years. We must also be open and adapt as information evolves. Changing conditions such as new scientific information, new standards or regulations, or new major funding opportunities that align with our objectives could determine a more

effective course of action than what is laid out in this plan. We will evaluate to ensure we're striking the correct balance of effort to affect our desired outcomes, promote collaboration, achieve scalability, and prompt the urgency required to meet the rising challenges of our region.

The Agency will distribute an annual report widely to review, summarize, and share our progress on targets and objectives. We will continue to actively seek input from our Advisory Council members and regional and community partners to be a part of that decision making. Our annual reports will be a simple snapshot of a moment in time, but we will be a learning organization year-round.

The Agency is already gaining momentum. Since the publication of our last Strategic Plan in 2014 we have embraced technology advances to vastly increase real-time air pollution data available on our map from 25 to over 500 sensors across the four-counties. We have piloted incentive programs that effectively swap out polluting technologies with zero-emission ones, setting the stage to take those programs to scale. An Agency definition of anti-racism has been added in this plan alongside existing equity and environmental justice definitions, and our Agency's values include equity and inclusion which provide more frameworks to draw from. As a Clean Air Agency, we are charged with improving the lives of people in our jurisdiction by improving the quality of the air they breathe. This Strategic Plan poises us to do great things, a commitment to executing and adapting the plan is what will make it a reality.

Agency staff maintains our air pollution monitoring network. Data and analysis from this network as well as air pollution sensors can be found on the Agency's website.

Section One – Protect and Improve Air Quality and Public Health, Reduce Air Pollution Disparities, and Protect our Climate

To be successful, the Agency will need to effectively protect and improve air quality and public health, reduce air pollution disparities, and protect our climate by reducing our contribution to GHG emissions. These three main goals appear at the top of Figure 2. We'll measure success through the 2030 regional goals listed at the bottom of the page.

The Agency will continue to focus on reducing air pollutants that present the greatest public health risk to our residents, while staying abreast of any emerging threats. Currently, our greatest public health threat from air pollution comes from fine particle pollution, linked with heart and lung health impacts and more. The fine particle pollution in diesel exhaust carries these health risks, as well as potential cancer risk.

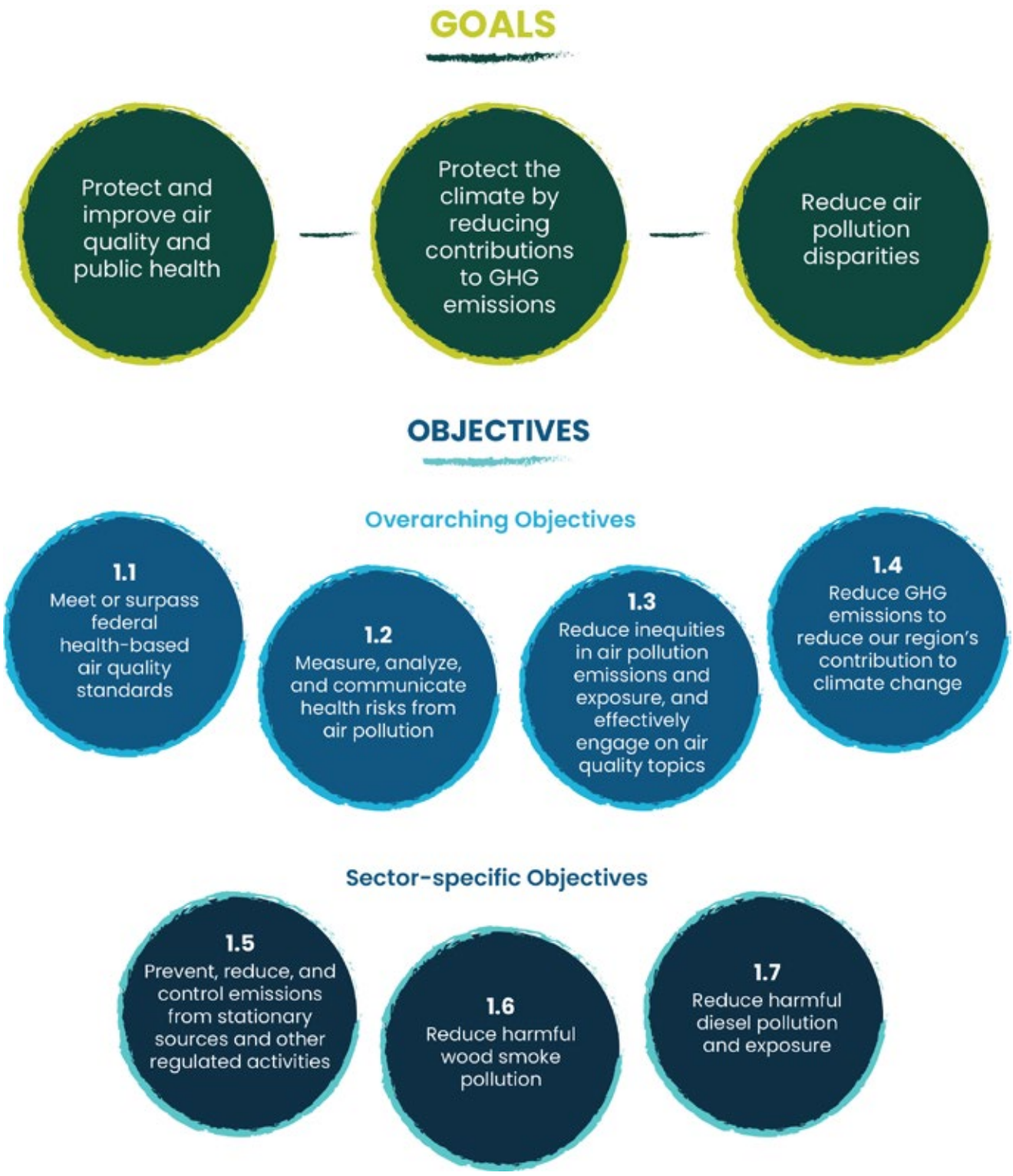
Although there have been improvements, the health impacts from many sources of air pollution are not borne equally, and therefore require an equitable approach. We will both refine our metrics to track equitable (and inequitable) outcomes and increase our ability to communicate effectively.

The urgency to act on climate change grows greater. We continue our focus on the transportation sector, as a main contributor of greenhouse gas emissions as well as other harmful pollutants. We track broad progress on climate targets for all sectors and adapt our objectives and actions as needed.

2030 Regional Goals of the Agency

- Air pollution overall drops by 20% from 2022 to 2030, and the annual economic impact of air pollution health effects drops by $500 million -$1 billion[3]
- Cancer risk from toxic air pollutants reduces by 50% from 2022 to 2030, especially in overburdened communities[4]
- Socioeconomic disparities in air pollution exposure are cut in half from 2022 to 2030[5]
- Greenhouse gas (GHG) emissions in the Puget Sound region drop by 50% compared to 1990 levels overall

Figure 2: Strategic Plan Goals + Objectives



Objectives

1.1 MEET AND SURPASS THE HEALTH-BASED NATIONAL AMBIENT AIR QUALITY STANDARDS

The U.S. Environmental Protection Agency (EPA) establishes health-based limits on air pollution called National Ambient Air Quality Standards (NAAQS). The Agency is mandated to meet these standards, established in the federal Clean Air Act, to protect and provide clean air for the health of our regions residents. In addition to our health, attaining the standards benefits our natural environment and our region's economy.

Our entire jurisdiction has been in "attainment" for the NAAQS since 2015. Moving forward, we will work to ensure that the Puget Sound region continues to meet federal air quality standards and advocate for more-stringent standards that go further to protect public health.

Many actions in other objectives of this plan drive us to improve air quality to levels that surpass the NAAQS.

Target

- **The Puget Sound region attains the National Ambient Air Quality Standards**

Actions

A. We will track the EPA's regular NAAQS revisions to understand the potential for new nonattainment areas in our region and advocate for standards that adequately protect public health for populations with greater health disparities.

B. With EPA and Washington Department of Ecology, we will meet existing NAAQS-related regulatory requirements. If EPA designates new nonattainment areas in our region, we will develop effective attainment plans in collaboration with our most-impacted regional stakeholders.

C. We will identify and implement 'early action' projects to prevent new nonattainment areas in the communities with the highest levels of air pollution. These could include scaling up actions detailed in other objectives (for example, actions that address wood smoke under Objective 1.6).

What are Criteria Pollutants?

The Environmental Protection Agency (EPA) sets health-based national ambient air quality standards for six pollutants, known as **"criteria pollutants."** These include particulate matter (including fine particle pollution), ozone, carbon monoxide, nitrogen dioxide, sulfur dioxide, and lead. In our region, fine particle and ozone pollution are of greater concern when compared to the other four criteria pollutants.

Case Study: Tacoma-Pierce County's Return to Attainment

In 2009, the EPA designated a large portion of the Tacoma-Pierce County area as "nonattainment" for daily fine particle pollution. The levels of fine particle pollution at that time exceeded the NAAQS by 10 micrograms per cubic meter (µg/m3) – almost thirty percent. The Agency analyzed the main sources of pollution and determined that wintertime wood smoke was the key contributor. We convened a stakeholder group to develop potential solutions, and then implemented those solutions with local governments and partners. This included substantial outreach and education, expanded enforcement of burn bans, new regulations banning older polluting stoves, and providing incentives to help residents to upgrade to cleaner forms of heat for their homes. Fine particle pollution levels have since improved substantially and are now 10 µg/m^3 below the NAAQS, and EPA redesignated the area to attainment in 2015.

1.2. MEASURE, ANALYZE, AND COMMUNICATE AIR QUALITY RISK

A clear, science-based understanding of our region's air quality is crucial to developing new policy and tracking air quality trends. Making this information available and accessible helps our region's residents understand health risk and make clean air choices. Active public participation that prioritizes overburdened communities helps to achieve this.

With emerging air monitoring technologies that are smaller in size and increasingly affordable, the public has been more able to collect data regarding their local air quality. Through the Agency's monitoring and engagement support actions, we will work to ensure that overburdened communities have opportunities to gather their own air quality information.

Targets

- The Agency expands community science engagement events through partnerships in all overburdened communities by 2030.
- The Agency provides visual tools that clearly communicate air pollution risk information, accessible and available in multiple languages by 2027.

Actions

A. We will further develop our understanding of air pollution, its main sources, and impacts across our region employing monitoring, modeling, inventories, and other scientific analysis and forecasting tools. We will optimize our long-term regulatory monitoring network and assess and employ new sensor technologies. With partners, we will characterize sources and trends for priority pollutants like diesel particles, fine particle pollution, ozone, air toxics, and greenhouse gases. We will further our understanding of cumulative impacts and support emerging state frameworks that address them.

B. We will share information and actively make it more accessible to increase the public's knowledge of air pollution, its main sources, and impacts across our region. We will continue to expand forecast capabilities to progressively smaller geographic areas and expand accessible risk communication of wildfire smoke with partners (health departments, cities, towns, community-based organizations, etc.), prioritizing overburdened communities. We will support overburdened communities measuring their own air quality through active monitoring projects and refine public-facing tools that communicate cumulative impacts. We will provide

relevant air quality data and potential air quality impacts of projects in overburdened communities to help inform decision-makers.

C. We will sustain and expand Agency partnerships (e.g., academic consortiums, meteorological partner agencies, health departments, jurisdictions, and community-based organizations) to pool knowledge and leverage resources to collectively deliver Actions A and B.

Wildfire smoke over the forest and mountain range.

How is the Agency addressing wildfire smoke?

Since the summer of 2015, the Puget Sound region has experienced a significant increase in wildfire smoke events that raise fine particle pollution to unhealthy and even hazardous levels. Studies show we can expect more smoke events in coming years.[6,7] A key role of the Agency is to identify and effectively communicate the potential risk of a wildfire smoke event. The Agency has invested in new technology to improve our ability to forecast these smoke events and collaborated with many partners to effectively share information to our residents. We plan to continue, refine, and expand these efforts. Other government partners across our four counties and beyond coordinate emergency management and forestry practices to both mitigate the impacts and reduce wildfires and smoke. Reducing greenhouse gases globally will help to address the dry, hot conditions that further fuel our wildfires.

What are air sensors? How can (and can't) they help monitor pollution?

Air sensors are lower-cost, portable devices that measure the quality of the air we breathe. These sensors typically cost between $100 and $2,500 – a fraction of the cost of our regulatory air monitors. The onset of these new sensors has made air quality monitoring much more accessible to organizations and community members across our region, enabling us to better understand air quality at much smaller scales. This is particularly true for small air quality sensors that monitor for fine particle pollution. Over the last eight years, the number of these sensors rose from less than 25 to over 500. Although there are quality sensors available for fine particle pollution, sensor technology isn't yet accurate or reliable for many other types of pollution.

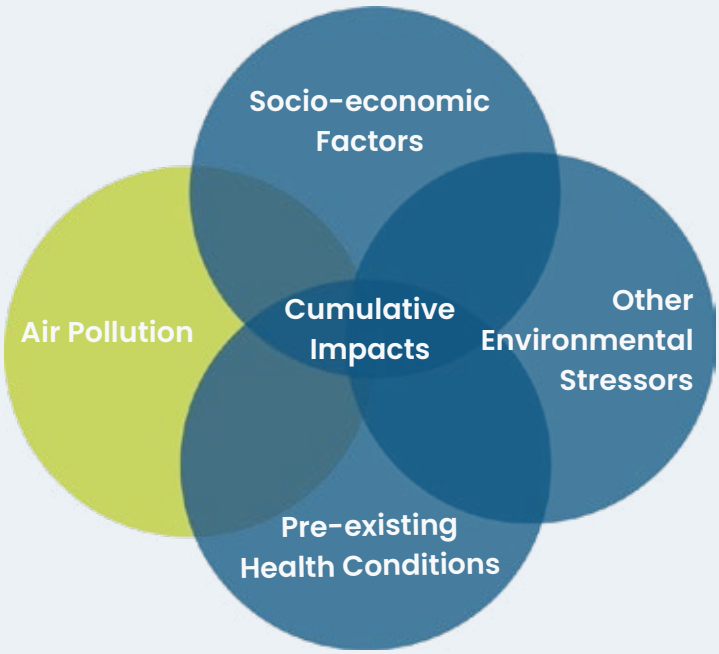
Agency staff had the opportunity to work with the King County Youth Corp in the summer of 2022. In a citizen science-based curriculum, we taught them how to use portable air sensors and how to advocate for their communities.

Cumulative Impacts and Transition from Focus to Overburdened Communities

EPA defines cumulative impacts as the total burden—positive, neutral, or negative—from chemical and non-chemical stressors and their interactions that affect the health, well-being, and quality of life of an individual, community, or population at a given point in time or over a period of time. For our work, the Agency has developed tools like the Community Air Tool to identify and prioritize communities that face multiple stressors including air pollution sources, pre-existing health conditions and vulnerabilities, and socioeconomic factors like race and income. At the state level, the Environmental Health Disparities Map (see Figure 3) serves a similar function.

Washington State defines overburdened communities as a geographic area where vulnerable populations face combined, multiple environmental harms and health impacts. Our working definition includes those communities that rank in the top percentiles of our Community Air Tool and we continue to track the state's list of overburdened communities as it is developed under the Climate Commitment Act in parallel with this plan.

Our Agency's initial focus communities were identified using our Community Air Tool and are a subset of overburdened communities. These pilot communities of Auburn-Pacific-Algona, Duwamish Valley, Lakewood, and Seattle's Chinatown-International District were selected for deeper levels of engagement and concerted programming, education, and outreach. We will use learnings from these focus communities as we expand programming across overburdened communities.



1.3 REDUCE INEQUITIES IN AIR POLLUTION AND EFFECTIVELY ENGAGE ON AIR QUALITY TOPICS

Equity demands that we improve air quality in overburdened communities. To identify opportunities to reduce inequities, the Agency will assess air pollution data and collaborate with partners to identify and implement ways to reduce air pollution emissions and exposures. While equity is embedded within objectives across the plan, this objective's actions focus more specifically on communication and engagement in our overburdened communities. These approaches are complementary and highlight the distributive and procedural justice aspects of environmental justice. We seek to deepen our understanding of these aspects of environmental justice and apply and improve upon those learnings.

This work will build on our focus communities work as we expand to overburdened communities and make the most of opportunities that will be coming under new programs and frameworks.

Targets

- By 2030, air quality in overburdened communities improves more than air quality in the rest of the region.
- Complete a community engagement guide by the end of 2023 to operationalize best practices for authentic community engagement.
- Create or use an existing external environmental justice council or advisory committee to advise the Agency on its environmental justice policies, actions, and expenditures.

What is Environmental Justice?

Environmental justice means the fair treatment and meaningful involvement of all people regardless of race, color, national origin, or income with respect to the development, implementation, and enforcement of environmental laws, rules, and policies. Environmental justice includes addressing disproportionate environmental and health impacts in all laws, rules, and policies with environmental impacts by prioritizing vulnerable populations and overburdened communities, the equitable distribution of resources and benefits, and eliminating harm.

Actions

A. Across objectives, reduce barriers to participation in Agency processes and share information in formats that are culturally and linguistically accessible.

B. Cultivate authentic community engagement with Tribal Nations and/or CBOs that serve Tribal Nations in our region to determine how to collaborate and partner on air quality topics.

C. Coordinate partners to distribute air pollution impact mitigation resources to reduce exposures in overburdened communities.

New Environmental Justice Frameworks

Clean Air Agencies began as a mechanism to directly address air pollution at the source – far before it reaches the lungs of our residents. The Agency has played a leading role in environmental justice efforts to support public health through air quality. Decades of progress have shown substantial reductions in air pollution in some of the most highly impacted communities in our region (see Figure 1). We will build on this success to further address air pollution disparities that exist between communities in the next seven years.

We are thrilled that amidst our commitment to growth, frameworks to explicitly address environmental justice have passed at both the state and federal level.

Healthy Environment for All (HEAL) Act

We were proud to be a strong proponent of the HEAL Act, which does much to advance equity and environmental justice in Washington. This law created a new statewide EJ Council, requires state agencies to incorporate EJ into their day-to-day operations and directs a percentage of their expenditures to overburdened communities. We shared our expertise from development of the Community Air Tool with partner agencies and institutions to help build and refine the state's Environmental Health Disparities Map.

Justice 40

For the first time in our nation's history, the Federal Government has made it a goal that 40 percent of the overall benefits of certain Federal investments flow to disadvantaged communities that are marginalized, underserved, and overburdened by pollution. Federal agencies are making historic levels of investment to advance environmental justice. This investment will help confront decades of underinvestment in disadvantaged communities and bring critical resources to communities that have been overburdened by legacy pollution and environmental hazards.

Case Study: Students in Auburn

The Auburn-Algona-Pacific area is a focus community for the Agency. The Agency had an air monitoring station in Auburn at Pioneer Elementary School and Agency staff thought about how to involve elementary school students in air quality work. One idea was to create a science-based curriculum with elementary school teachers focused on air quality, sustainability, and health impacts of pollution.

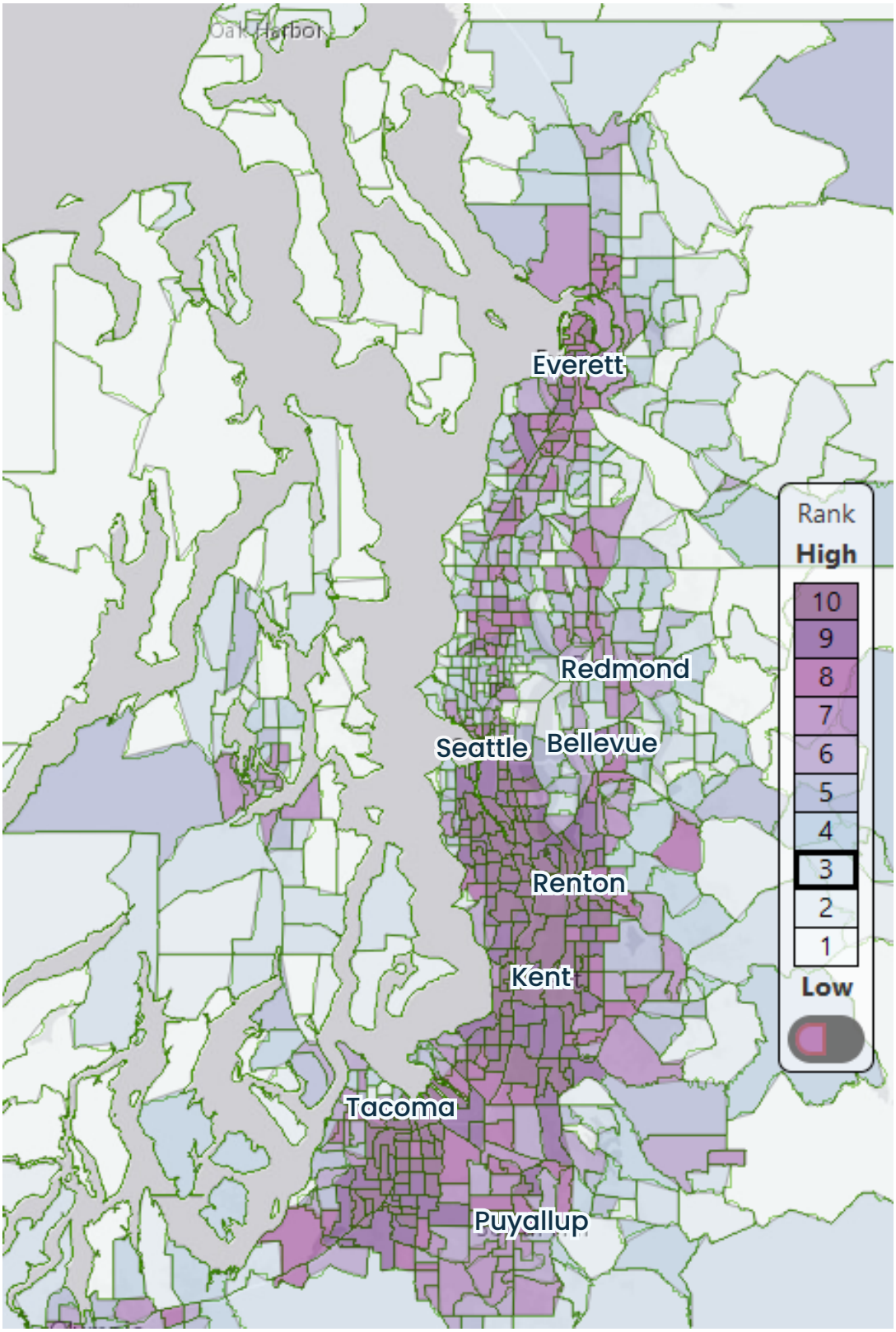
The Agency started working with EarthGen, formerly Washington Green Schools, in 2018 to draft a curriculum and began sharing it with interested third grade teachers in the Auburn School District. The curriculum included information on the Air Quality Index, working with portable hand-held air sensors, understanding air quality data from the sensors, environmental justice, and exploring actions and solutions to air pollution issues. The curriculum was also intended to be a replicable model for other teachers and schools throughout the community.

A third grade class at Lakeland Hills Elementary School in Auburn went through the curriculum, used handheld air sensors to learn about the air quality at their school, and then started a successful anti-idling campaign to reduce air pollution outside the school based on what they found. In 2019, the work the youth did got the attention of the governor and lawmakers in Olympia and six of the students went to the state capitol to speak about their campaign and the importance of reducing idling at schools based on the health impacts. The Agency continues to partner with EarthGen to improve the curriculum and bring it to more classrooms.

How do we define equity?

Equity refers to fairness and justice and is distinguished from equality: whereas equality means providing the same to all, equity means recognizing that we do not all start from the same place and must acknowledge and adjust for imbalances. Equity is an ongoing process requiring identification and overcoming of intentional and unintentional barriers arising from bias or systemic structures like racism, lack of opportunity, etc.

Figure 3: Washington State Environmental Health Disparities Map[8]



The Puget Sound region has the largest population in the State and contains the largest population living within overburdened communities.

1.4. REDUCE GREENHOUSE GAS (GHG) EMISSIONS TO REDUCE OUR REGION'S CONTRIBUTION TO CLIMATE CHANGE

The urgency to drastically reduce GHG emission continues to grow and is reflected in the most-recent scientific reports as well as direct experience.[9] Climate change impacts our communities by increasing exposure to wildfires and their smoke, extreme heat, floods, droughts, and extreme weather.

We will focus our efforts on activities that will achieve the scale needed to meet our targets. Broad collaborations will be vital to leverage new programs and funding that emerge from state and federal legislation to curb emissions. We have the experience to be conveners, technical support and the pilot developer for new technologies and funding streams.

Transportation is currently one of the top contributing sectors to GHG emissions in our region, with 40 percent of emissions (see Figure 4). What's more, the transportation sector is also the primary source for many harmful air pollutants like diesel particulate matter, benzene, formaldehyde, and more. Actions that reduce GHG emissions from transportation also reduce air pollutants that impact health, particularly for overburdened communities living near major roadways.

Our partnership with the Puget Sound Regional Council (PSRC) allows us to provide technical information, guidance, and models from which many municipalities can draw. We continue to support partners that lead "mode-shift" efforts like transit, walking, and biking and other mechanisms to reduce trips and vehicle miles traveled (e.g., telework) in tandem with expanding zero-emissions transportation infrastructure, including electric vehicle charging and green hydrogen.

We will regularly challenge ourselves to think broadly and ambitiously about what's required to meet the climate challenge—for example, evaluating emissions and potential program gaps across all sectors (beyond transportation) and assessing potential actions for different emissions scopes to unlock more GHG reductions.

Targets

- The region's GHG emissions are reduced to 50% below 1990 levels by 2030 (and the region is on a trajectory to achieve the state goal of 95% below 1990 levels by 2050).

Actions

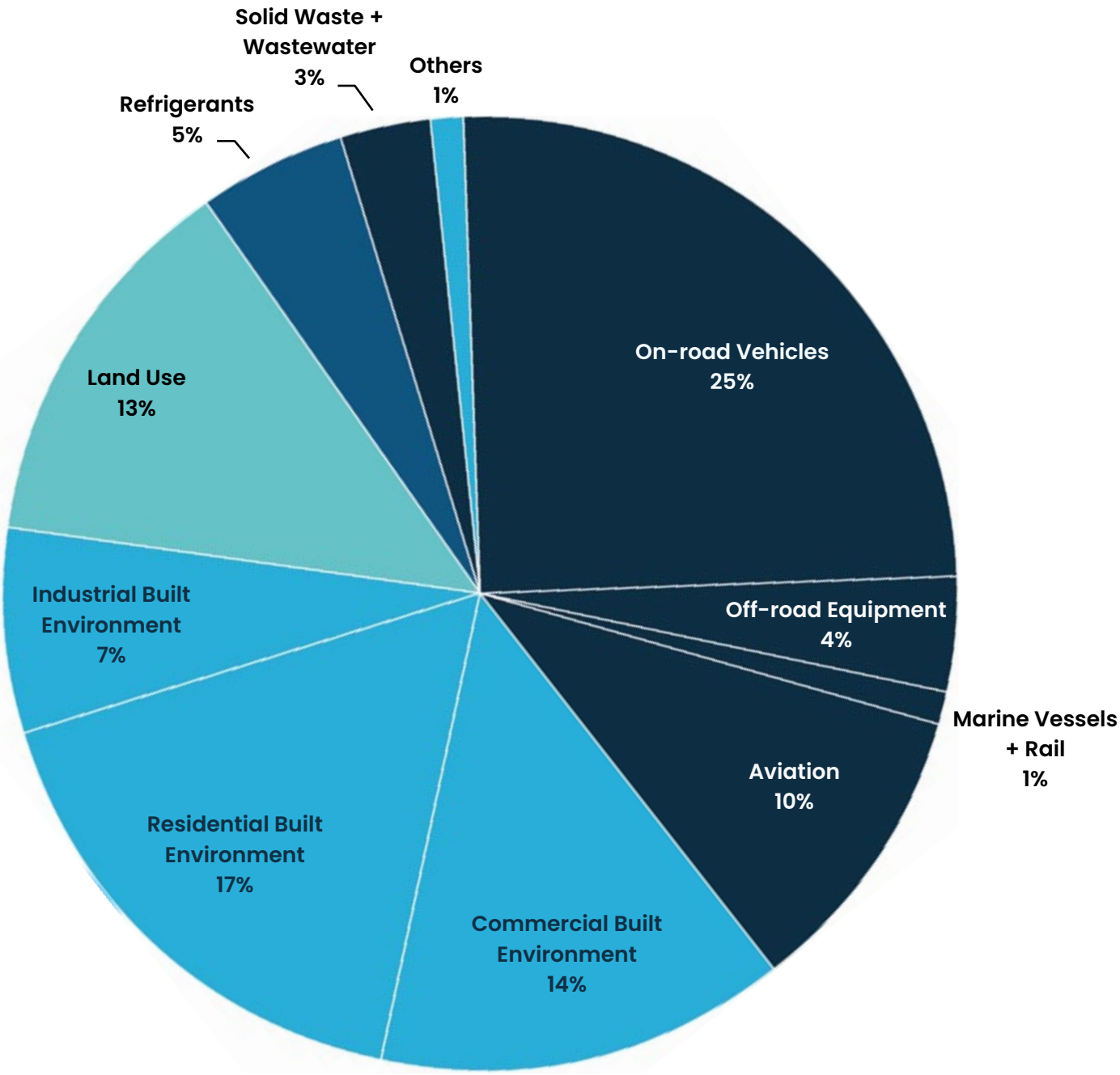
A. We will collaborate regionally to advance zero-emission transportation options and infrastructure. We will expand the Regional Electric Vehicle (REV) Collaborative with PSRC and jointly create a regional electric vehicle plan, building upon current efforts. Additionally, we will serve as a resource to local jurisdictions as they prepare and implement climate plans as components of their comprehensive plan updates.

B. We will aggressively pursue funding opportunities to expand transportation electrification across the region and collaborate with and support partners with the same objective. In particular, we will pursue funding for zero-emission technologies that replace heavy-duty diesel vehicles or equipment in the region, with a focus on those located near overburdened communities.

C. We will support the local implementation of Washington State's transportation and climate policies. We will provide the public with information about transportation electrification, climate policies, incentives, and clean transportation choices and conduct focused outreach to high-mileage drivers (e.g., taxis, drivers for transportation network companies like Uber and Lyft, and rural commuters) about zero-emission vehicle (ZEV) opportunities. We will support pilot projects that increase access to ZEVs in overburdened communities that have disproportionately higher barriers to ZEV and ZEV infrastructure.

D. With partners, we will measure progress toward climate goals and guide our climate reduction efforts by conducting and/or assisting in regional GHG emission inventories. We will assess the results of state, federal, and local programs to identify gaps and opportunities. Based on the results, we will adjust priorities and actions as part of adaptive management for this rapidly evolving area.

Figure 4: Sources of Greenhouse Gas Emissions Sources In The Puget Sound Region[10]



New Climate Policies

Recent years in Washington State have brought a sea change in policies intended to address climate change and transition the way we transport goods and people and power our homes and industries to zero-emission technology.

Zero-Emission Vehicle (ZEV) Mandate

Starting with model year 2026, the ZEV Mandate will require an increasing percentage of passenger cars, light-duty trucks, and medium-duty vehicles sold in Washington to be zero-emission vehicles. Also starting with model year 2026, the heavy-duty engine and vehicle portion of the ZEV mandate (often referred to as the "Advanced Clean Truck Rule") will require an increasing percentage of on-highway heavy-duty engine, truck, and trailer sales in Washington to be zero-emission vehicles. The requirements also include increased warranty terms to better protect consumers.

Clean Fuel Standard

Starting in 2023, the Clean Fuel Standard will require transportation fuels' carbon intensity to reduce by 20% (below 2017 levels) by 2034. This program will include opportunities for 'opt-in' fuels to reduce carbon intensity in areas like aviation.

Climate Commitment Act

Starting in 2023, entities—including fuel suppliers—responsible for producing more than 25,000 metric tons of greenhouse gases per year must limit and reduce their emissions over time. At least 35% of the funds generated by the program must be invested in "overburdened communities" in Washington.

Clean Energy Transformation Act

The Clean Energy Transformation Act requires electricity in Washington State to be carbon free by 2045.

Building Code Changes

The Washington Building Code Council requires new residential construction starting in mid-2023 to utilize electric heat pumps for heating and cooling.

1.5 PREVENT, REDUCE, AND CONTROL EMISSIONS AND EXPOSURE FROM STATIONARY SOURCES AND THEIR REGULATED ACTIVITIES

The Washington Clean Air Act states its intent is *"to secure and maintain levels of air quality that protect human health and safety, including the most sensitive members of the population."*

Industrial and business activities (large and small) produce a collective and a localized amount of air pollution that is important to the communities we serve. Our work with these sources of air pollution is intended to prevent, reduce, and control their emissions and associated exposure to our region's residents through a combination of regulations, permits, compliance reviews, inspections, and enforcement where necessary. We strive to take creative and discerning approaches to this work to ensure its effectiveness, communicate clearly what we are doing and why, and seek improvements in technology, science, and engagement.

Targets

- The Agency fully meets its EPA-delegated programs, obligations, and commitments.
- The Agency effectively adjusts implementation efforts to address air pollution prevention and public health benefit and new regulatory and scientific information.

Actions

A. We will combine our permitting, inspection, and enforcement resources to effectively control air pollution emissions and reduce exposure to the public. We will effectively communicate and include compliance assistance where needed (for example, simplifying complex regulatory elements into the most critical elements for stakeholders) to increase compliance with our regulations.

B. We will annually inspect larger stationary sources of pollution included in our EPA compliance agreements, and review and adjust our inspection plans for all stationary sources to address ongoing and emerging challenges.

C. We will improve and increase compliance engagement in overburdened communities, including sharing regulatory information with our communities in accessible languages, and identifying and reducing barriers to understanding and participating in our processes. We will develop new tools or

resources to help the general public understand both the regulations we implement and our permit review processes to support more meaningful public engagement opportunities.

D. We will develop resources to assist the public's understanding of the types of records the Agency keeps to help them submit effective records requests.

Agency staff conduct an inspection of a registered source to ensure compliance.

What are stationary sources of air pollution our region and how do we ensure they are complying with the law?

We have over 3,000 registered sources of air pollution in our region. These are familiar sights in our communities, including businesses like gas stations, autobody shops, and dry cleaners. We regulate more than 30 of the largest sources of air pollution such as large manufacturing, which EPA includes under Title V of the Clean Air Act. Each year, the Agency conducts roughly 1,000 onsite inspections at these sources, using compliance tools to ensure that conditions are met.

1.6. REDUCE HARMFUL WOOD SMOKE EMISSIONS AND EXPOSURE

Primary sources of wood smoke vary by season. In the fall and winter months, wood burning for home heat creates harmful fine particle pollution (see Figure 5). In some areas, wood smoke accounts for more than fifty percent of winter fine particle pollution. Removing older, higher-polluting wood stoves and enforcing air quality burn bans on high pollution days can effectively reduce fine particle pollution emissions and exposure.

While cleaner-burning, 2020 EPA standard wood stoves are available, there are still many older, higher-polluting, wood stoves in our region that contribute to unhealthy air quality. A key barrier to heating upgrades for many residents is the cost to do so. In addition to state funding, federal climate policies may provide opportunities to make heating upgrades more affordable for many in our region.

In the spring and summer months, wood smoke from yard waste and recreational fires can negatively impact air quality. Although the burning of yard waste is prohibited in urbanized areas of King, Kitsap, Pierce, and Snohomish counties, wood smoke can lead to localized fine particle pollution and be a neighborhood nuisance. Illegal burning of trash and other prohibited materials can further worsen these impacts.

Targets

- Communities most impacted by wood smoke achieve the Agency's fine particle pollution health goal each year.[11]

Actions

A. We will call and enforce air quality burn bans that limit wood burning during times of exceptionally poor air quality according to thresholds specified in state law. We will process wood smoke complaints.

B. We will provide information to community members to reduce wood smoke emissions, prioritizing those who use wood for heat and overburdened communities. Information provided will include cleaner indoor-burning practices, burn ban awareness, health impacts from wood smoke, and potential financial incentives.

C. We will coordinate with utilities, health departments, and other partners to further provide financial incentives to remove old, higher-polluting wood stoves from homes in our jurisdiction. To further our climate goal, we will integrate our efforts with programs that provide energy efficiency services, promoting heat pumps as a year-round clean air solution for heating and cooling.

D. We will minimize illegal outdoor burning through education, partnering with fire districts, and enforcement. We will evaluate if changes to residential yard waste burning boundaries are warranted based on reasonable availability of other methods to dispose of yard waste.

A warm wood stove with a burning flame.

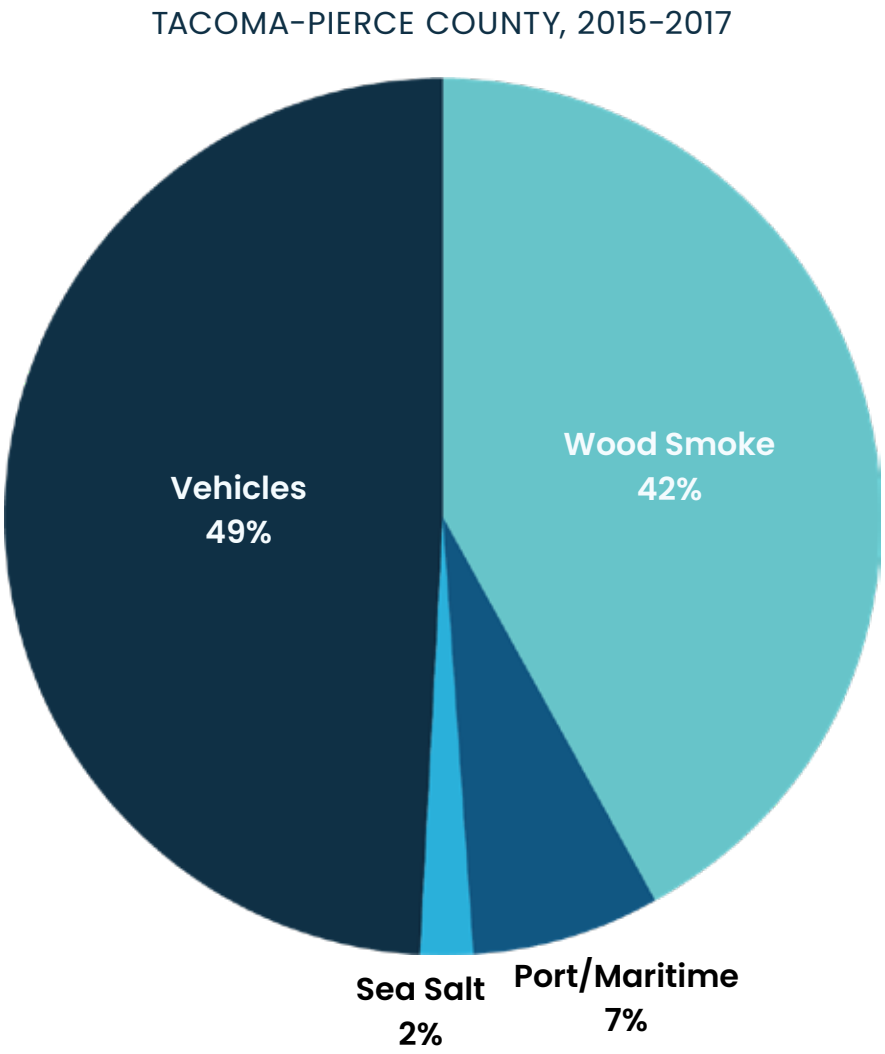
What is the Agency's fine particle pollution health goal?

In addition to the NAAQS described in Objective 1.1, the Agency strives to meet a more protective and aspirational daily health goal of 25 micrograms per cubic meter for fine particle pollution (the current daily NAAQS is 35 micrograms per cubic meter). Reducing wood smoke is the key action to meet this health goal.

How does wood smoke contribute to air pollution in our region?

For some of our communities, wood smoke primarily from home heating accounts for over fifty percent of the total wintertime fine particle pollution. Reducing wood smoke is key to reducing overall fine particle pollution in these areas. Even in urbanized areas, wood burning for home heat is responsible for a substantial portion of overall fine particle pollution, greater than industry and second only to transportation sources.

Figure 5: Winter Fine Particle Pollution Sources[12]



1.7. REDUCE HARMFUL DIESEL POLLUTION EMISSIONS AND EXPOSURE

Diesel pollution, and specifically diesel particulate matter, is highly toxic. Multiple studies show that it contributes over 70 percent of the potential cancer risk from all air toxics in our region (see Figure 6).[13]

Major sources are the large diesel engines in heavy-duty trucks, construction equipment, cargo-handling equipment, marine vessels, and locomotives. Overburdened communities located near major roadways, ports, and major goods movement facilities like railyards and distribution centers are disproportionately exposed to diesel pollution and its impacts.

Federal emissions standards and their associated advances in technology are already helping to substantially reduce diesel pollution. These have led to a 40% reduction of diesel particle pollution from on-road trucks from 2014 to 2022, and we anticipate a similar scale of reduction from 2022 to 2030.

Zero-emission technologies such as electrification take reduction a step further and eliminate both the harmful diesel fine particle pollution and tailpipe greenhouse gases. For some diesel sources, such as on-road trucks and cargo-handling equipment, zero-emission technology is proven and in production. For other diesel sources with larger engines, such as tugboats or locomotives, zero-emission technology is taking longer to develop and be put into broader use. Diesel engines can last for decades if properly maintained. To improve air quality and leverage our climate goal, we must expedite the transition from diesel to zero-emission technologies through partnerships and incentives.

We will work collaboratively with key partners on strategies like the Northwest Ports Clean Air Strategy and the Western Clean Rail Collaborative to collectively identify diesel sources and prioritize diesel-pollution reduction in the places that need it most. Federal and state diesel and climate funding opportunities will expand the potential impact of these collaborations.

Targets

- Large-scale regional efforts to deploy electric drayage trucks are underway by 2030.
- At least 50% of diesel-powered yard trucks identified near overburdened communities are replaced with electric yard trucks by 2030.
- All rail operators in the region have implemented projects to replace diesel equipment by 2030, with a focus on zero-emission replacements.

Actions

A. We will pursue funding and support partners that pursue funding opportunities to reduce harmful diesel pollution from on-road and off-road heavy-duty vehicles and equipment, prioritizing emissions reductions in overburdened communities.

B. We will collaborate with government partners, local businesses, and others to accelerate the adoption of medium- and heavy-duty zero-emissions vehicles and equipment, with a focus on transit and the movement of goods in our region. We will bring our expertise and practical experience to maximize impact, catalyzing opportunities for trucking, rail, marine, and port terminal partners in our region to benefit from pilot projects conducted here and elsewhere.

C. We will share information about the health risks of diesel pollution, sources of diesel pollution, how to reduce exposure, and how to stay informed about and advocate for pollution reduction activities. We will prioritize our outreach and seek input in overburdened communities.

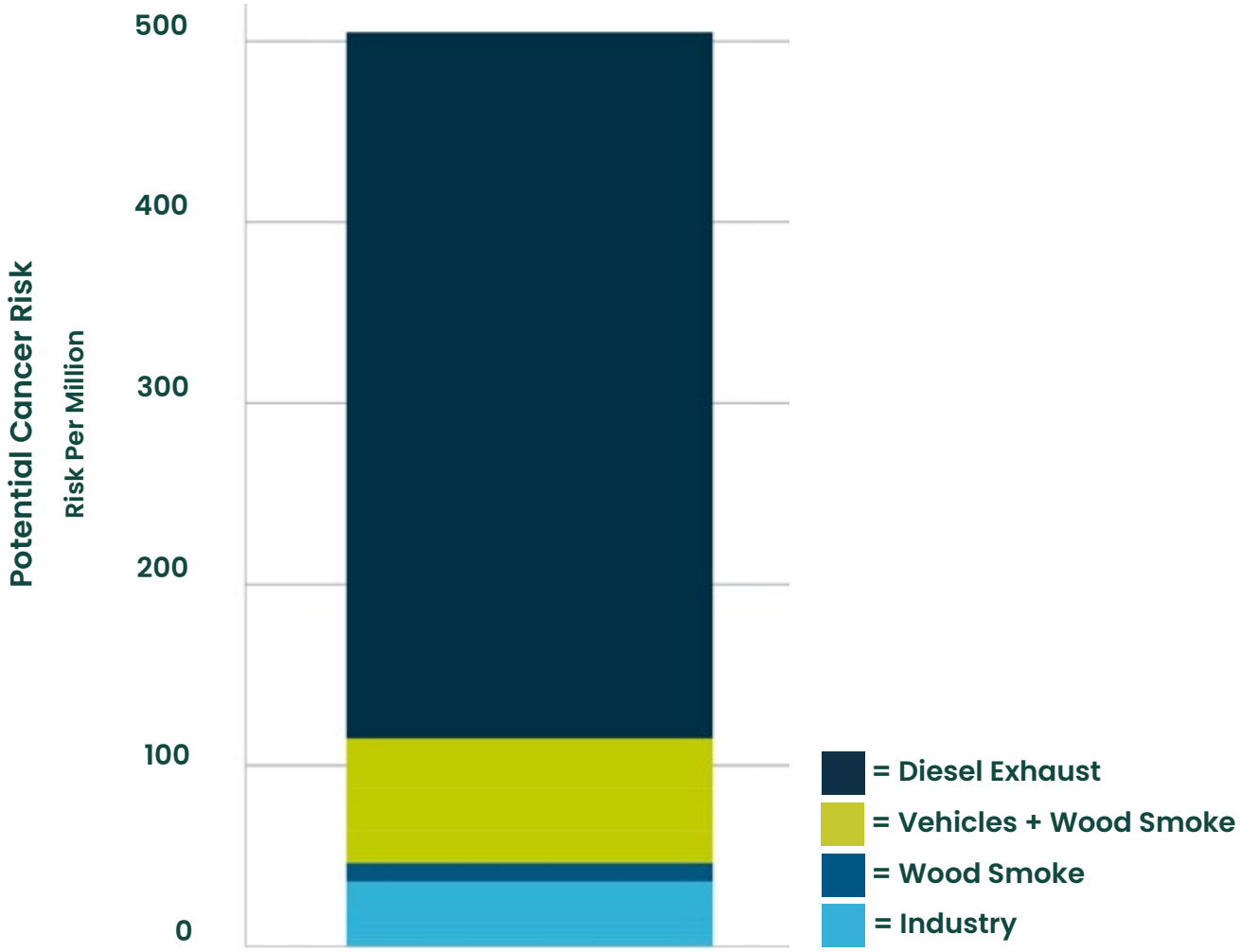
D. With partners, we will measure our progress towards reducing diesel pollution through inventories, monitoring, modeling, and other technical analyses.

E. We will advocate for improved emission standards for vehicles and equipment and for increased grant funding at the state and federal levels to reduce diesel pollution exposure, prioritizing overburdened communities.

What is the Western Clean Rail Collaborative?

The Western Clean Rail Collaborative was founded by the Agency in 2021 to bring together rail operators, government agencies, locomotive manufacturers, and utilities along the West Coast to share information about, and build support for, zero-emissions rail operations. The Collaborative also identifies and shares funding opportunities for locomotive replacements, which in 2022 resulted in the award of federal Congestion Mitigation and Air Quality grant funds to Tacoma Rail to replace at least one 1965-vintage diesel locomotive with a new battery-electric locomotive.

Figure 6: Sources of Potential Cancer Risk From Air Pollution[14]



What is the Northwest Ports Clean Air Strategy?

The Northwest Ports Clean Air Strategy (NWPCAS), first adopted in 2008, is a collaboration among the Northwest Seaport Alliance, the ports of Seattle and Tacoma, Washington, and the port of Vancouver, British Columbia. The voluntary strategy seeks to reduce air pollution and greenhouse gas emissions that contribute to climate change from seaport activity in the shared Puget Sound-Georgia Basin Airshed. The seaport sources covered by the NWPCAS include ocean-going vessels, drayage trucks, cargo-handling equipment, harbor vessels, rail locomotives, and port administration and tenant facilities. In 2021, the ports released an updated NWPCAS with a vision to phase out emissions from seaport-related activities by 2050. The Agency played a significant role in the creation of the NWPCAS and continues to partner with the local port members to implement emission-reduction projects, conduct periodic inventories of regional maritime emissions, and provide updates on progress.

A ferry passing by the Port of Seattle with Mt. Rainier in the background.

Section Two – Values in Action

The Agency employs a staff of 70 people who bring skill and expertise to accomplish our public health, equity, and climate objectives. Our expertise includes air quality science, engineering, planning, compliance, environmental law, information technology, equity and engagement, financial management, information technology, and administrative services.

We challenge ourselves to be the best possible Agency to accomplish our goals and objectives, applying our Agency values (see Figure 7). This includes recruiting, training, and inspiring the best people. It also requires full embodiment of our values into our day-to-day work; planning and resourcing, maintaining our financial strength and accountability, and finally "walking the talk" of sustainability. .

Agency staff and the Washington State Department of Ecology provided a tour of an air monitoring station with the Service Board, a youth-led organization that builds community through the power of youth.

Figure 7: Agency Values in Action

Objectives

2.1. ATTRACT, DEVELOP, AND INSPIRE TALENTED STAFF THAT REFLECT THE DIVERSITY OF THE REGION AND DEVELOP A CULTURE OF BELONGING

The Agency's staff are the cornerstone of our ability to deliver on all the Agency's strategic objectives. Attracting and retaining talented staff who are dedicated to the Agency's mission relies on building and maintaining a workplace culture that develops employees' professional skills and supports their well-being through opportunities for staff innovation and continuous improvement.

Targets

- The demographic makeup of job applicants in each position matches or is more diverse than the demographics of the Puget Sound region by 2027.
- The Agency retains staff by building and sustaining a culture of inclusion and belonging by emphasizing wellness, anti-racism, and growth through continuous improvement.
- All Agency employees have professional development pathways and access to project management and process improvement training.

Actions

A. We will review and continually improve our recruitment process to ensure that racial equity is embedded throughout. We will ensure Black, Indigenous, and People of Color (BIPOC) representation on interview panels, expand recruitment outreach, use inclusive language, reduce ableism and counter bias throughout the process.

B. We will train new staff through onboarding and mentoring, and create opportunities for formal training, informal skill-building, professional development, cross-training opportunities, and process improvement for all staff.

C. We will strengthen methods for process improvement and innovation.

D. We will develop a wellness committee and implement a wellness program to create opportunities for employee connections and well-being.

E. We will improve and strengthen opportunities for staff feedback loops.

Agency staff at a community clean up event in South Park. We regularly attend community events in our focus communities and throughout our jurisdiction to hear from residents, support community partners, and to provide air quality education and resources to community members.

2.2. DEVELOP AND SUSTAIN A CULTURE THAT EMBEDS EQUITY PRINCIPLES IN OUR DAY-TO-DAY WORK AND DECISIONS

Embedding equity into our day-to-day work and decisions is critical to our success. The racial equity organizational self-assessment will allow us to comprehensively examine our work, policies, and practices and determine whether they are furthering racial equity. This self-examination will help us to strengthen and improve our work and relationships. The Racial Equity Toolkit (see Figure 8) will also enable us to improve our policies, programs, and practices and ultimately, the Agency's performance.

Targets

- By 2026, the Agency will launch a racial equity organizational self-assessment.

Actions

A. We will ensure that the Agency's policies and procedures utilize the Agency's Racial Equity Toolkit (RE-Tool) and is supported through training and collaboration.

B. We will support staff involvement in environmental justice, racial equity, and engagement work through activities including initial onboarding and ongoing educational opportunities like workshops and employee resource groups. In addition, all staff will have equity goals incorporated in their planning documents.

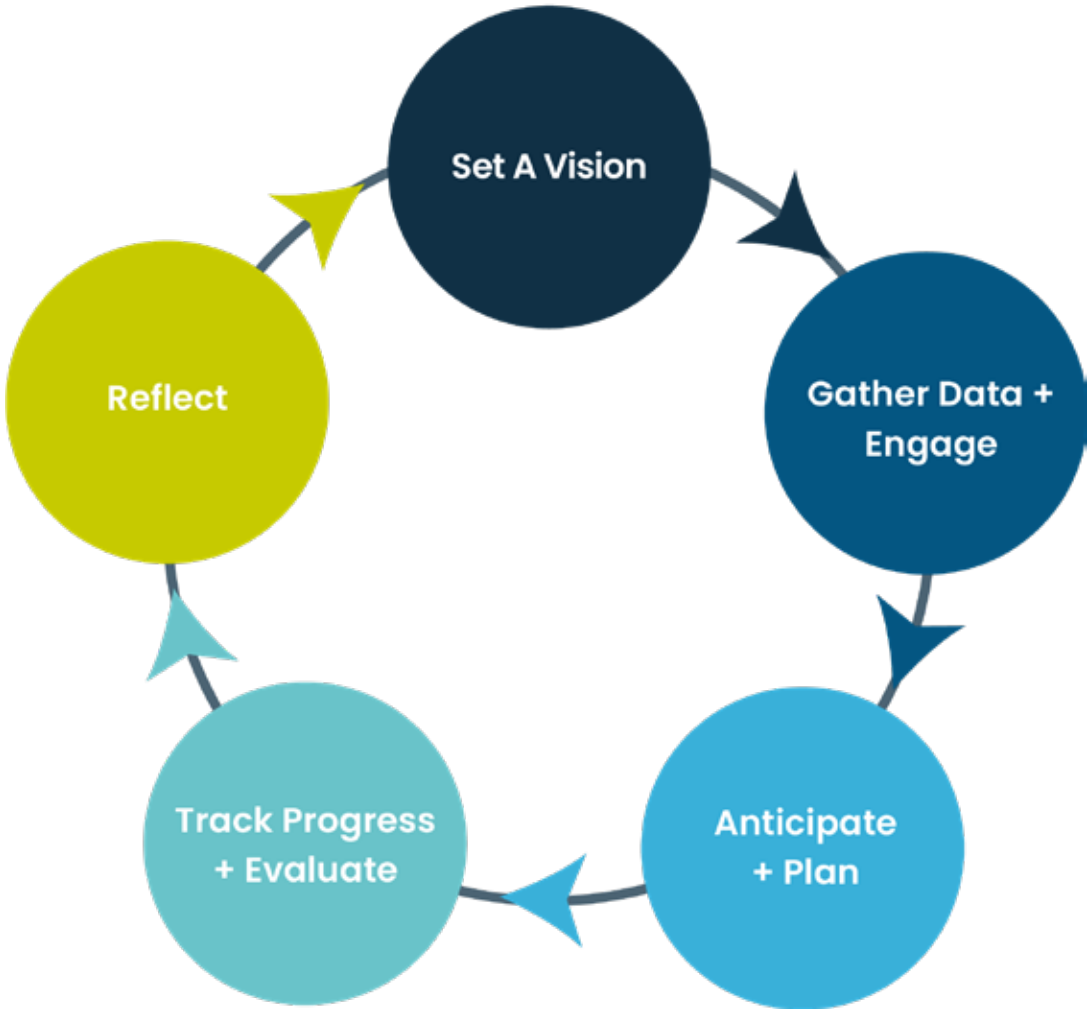
C. We will support embedding equity throughout Strategic Plan objectives, utilizing equity staff team as consultants and empowering all work groups to incorporate equity into their respective objectives and actions.

D. We will provide equity onboarding and continuing education for our Board of Directors and Advisory Council.

E. We will develop guiding principles for anti-racism and belonging and periodically evaluate the Agency on its adherence to those principles.

F. We will provide support to our BIPOC staff to address and correct microaggressions, racism, and inequities experienced at the Agency.

Figure 8: Racial Equity Toolkit Process



What is a Racial Equity Toolkit?

Incorporating racial equity into the Agency's work is critical to achieve our mission to preserve, protect, and enhance air quality and public health, enforce the Clean Air Act, support policies that reduce climate change, and partner with communities to do this work equitably. The Racial Equity Toolkit (RE-Tool) outlines a process and set of questions to guide the development, implementation, and evaluation of actions, policies, initiatives, and programs to address our impact on racial equity. The RE-Tool can be applied to many internal and external projects, programs, activities, or decisions.

2.3. BUILD AND MAINTAIN THE AGENCY'S LONG-TERM FINANCIAL STRENGTH AND ENSURE ACCOUNTABILITY

To deliver our objectives, the Agency needs to have adequate financial resources. The strength and sustainability of our financial systems is important to continue our work and to consistently and transparently demonstrate our return on investment, accountability, and credibility to our federal, state, and local sources of funding.

Targets

- The Agency has a balanced and sustainable budget each year.
- The Agency obtains a clean audit each year.
- The Agency maintains sufficient financial reserves each year.
- The Agency tracks its annual expenditures starting in fiscal year (FY) 24 and achieves 40% investment of its budget in overburdened communities by FY27.

Actions

A. We will keep the Agency's financial stability through reducing reliance on per capita carryover, ensuring fee-based programs cover their costs to administer them, and maintaining a healthy general fund reserve.

B. We will create fiscally responsible annual budgets that align staff allocations and program spending with priorities and funding sources and conduct annual purchasing policy training for all staff.

C. We will achieve clean audits each year that follow applicable

Budget Breakdown

The Agency has a complex budget with diverse funding sources. Our main sources of revenue include source fees, per capita revenues from our jurisdictions, and core state and federal air quality grants. We also consistently obtain funding through competitive state and federal grants to reduce emissions. Our largest expense is our personnel of 70 staff. Other main expenses include projects that support emissions reductions.

state and federal regulations, adhere to Agency purchasing and financial policies, and represent the Agency's financial performance accurately.

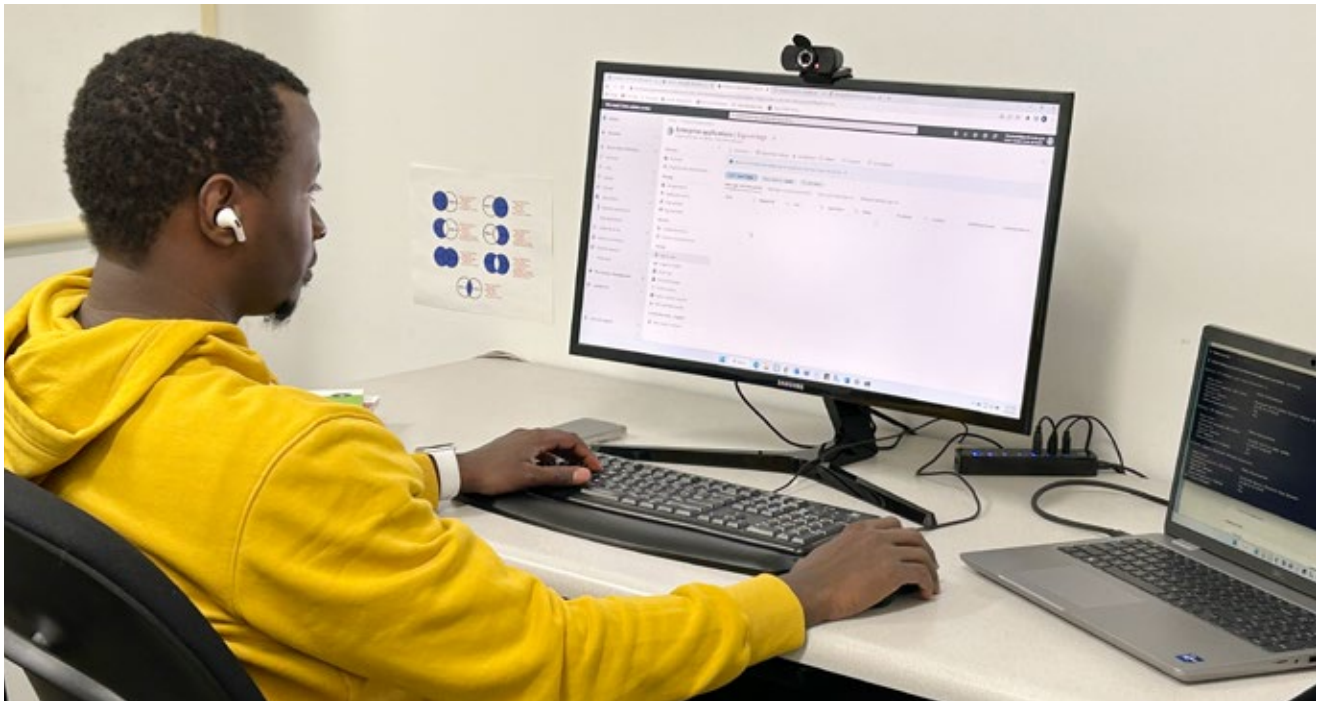
D. We will review financial policies and procedures to assess best practices to incorporate equity principles.

2.4. DEVELOP AND IMPLEMENT TECHNOLOGY TO SUCCEED

With our collective dependence on digital tools and the public's interest in information increasing every year, it's critical that the Agency has the technology to deliver. Our technology can also help us to innovate and optimize our processes to expand our effectiveness, reach, and transparency. The actions described here provide high-level technology support to staff to help them deliver results across all Agency objectives.

Targets

- Technology (like our website, telephone, servers) is available to staff and the public 99% of the time.
- On-premises infrastructure is migrated to the cloud to reduce risk and improve functionality by 2028.



Agency staff working on the computer.

Actions

A. We will provide stable technology infrastructure (network/telephone/servers) and desktop environment to staff, as well as standard office applications.

B. We will secure the Agency's network infrastructure from cyber threats through security improvements and reduced dependence on virtual private network (VPN).

C. We will provide a robust supported software catalog that supports Agency operations, including both commercial-off-the-shelf (COTS) software as well as customized, internally developed software when COTS software isn't available.

D. We will transition on-premises infrastructure (e.g., local servers) to cloud services to improve security and provide greater accessibility and functionality to business systems.

E. We will acquire and provide specialized training to all staff for new technology systems.

F. We will perform collaborative business needs assessment and technical analysis for proposed new technology systems.

Why is technology important?

Technology helps increase the efficiency of systems and services. Increased efficiency in technology operations helps reduce costs as well as enable the Agency to grow. Technology in government helps ensure transparency and Increase openness and participation between government agencies and citizens and understand the public better to achieve the best outcomes. It also helps provide services more effectively and efficiently to the public.

2.5. MODEL ENVIRONMENTAL SUSTAINABILITY

With this objective the Agency 'walks the talk' to ensure that the way that we accomplish our work is consistent with our air quality objectives. We review our environmental impacts and implement practices to reduce them.

Targets

- Continue to be carbon neutral (through reducing emissions and with offset purchases).
- Reduce our need to offset our greenhouse gas (GHG) emissions by 50% (from 2022) by 2030.

Actions

A. We will estimate the Agency operations' GHG emissions and purchase annual offsets to be carbon neutral (from 2020 on).

B. We will optimize staff transportation choices to reduce emissions.

C. We will continue to electrify the Agency's light-duty vehicle fleet as vehicles are eligible for replacement.

D. We will reduce our use of resources such as paper, water, and electricity through conservation and efficiency measures.

E. We will procure environmentally-friendly products where applicable.

An overlook at a body of water toward a snowy mountain range at sunset.

Glossary of Terms

Agency: Puget Sound Clean Air Agency.

Agency's Jurisdiction: King, Kitsap, Pierce, and Snohomish counties.

Air Sensors: Lower-cost, portable devices that measure the quality of the air we breathe (see Objective 1.2).

Anti-racism: Anti-racism is the practice of identifying, challenging, and changing the values, structures and behaviors that perpetuate systemic racism (Ontario Anti-Racism Secretariat).

Built Environment: The man-made or modified structures that provide people with living, working, and recreational spaces. (https://www.epa.gov/smm/basic-information-about-built-environment#builtenviron).

Cumulative Impacts: The total burden – positive, neutral, or negative – from chemical and non-chemical stressors and their interactions that affect the health, well-being, and quality of life of an individual, community, or population at a given point in time or over a period of time (see Objective 1.2).

Community-Based Organization (CBO): A organization that is one that is driven by and representative of a community or a significant segment of a community and works to meet community needs and amplify strengths.

Criteria Pollutants: The six pollutants with national ambient air quality standards (NAAQS) set by U.S. Environmental Protection Agency (EPA). They are particulate matter (including fine particle pollution), ozone, carbon monoxide, nitrogen dioxide, sulfur dioxide, and lead (see Objective 1.1).

Daily Health Goal: The Agency's adopted goal of 25 micrograms per cubic meter for daily fine particle pollution, more protective than the current national ambient air quality standard (see Objective 1.6).

Distributive Justice: Distributive justice is concerned with the fair allocation of resources among diverse members of a community. For the Agency's work, the resource is clean air – and much of our work is a component of distributive justice – improving air quality and reducing disparities in ambient air quality and exposure by focusing on areas where disparities are greatest.

Drayage Truck: Drayage trucks are large semi-trailer trucks that move goods short distances, primarily related to port activities.

Emissions Scopes (Scope 1, 2, and 3): Emissions responsibility as defined by the GHG Protocol, a private sector initiative. 'Scope 1' indicates direct greenhouse gas (GHG) emissions that are from sources owned or controlled by the reporting entity. 'Scope 2' indicates indirect GHG emissions associated with the production of electricity, heat, or

steam purchased by the reporting entity. 'Scope 3' indicates all other indirect emissions, i.e., emissions associated with the extraction and production of purchased materials, fuels, and services, including transport in vehicles not owned or controlled by the reporting entity, outsourced activities, waste disposal, etc.

Employee Resource Groups: An employee resource group (ERG) is a voluntary, employee-led diversity and inclusion initiative that is formally supported by an organization. ERGs generally are organized on the basis of common identities, interests, or backgrounds with the goal of supporting employees by providing opportunities to network and create a more inclusive workplace.

Environmental Justice (EJ): Environmental justice means the fair treatment and meaningful involvement of all people regardless of race, color, national origin, or income with respect to the development, implementation, and enforcement of environmental laws, rules, and policies. Environmental justice includes addressing disproportionate environmental and health impacts in all laws, rules, and policies with environmental impacts by prioritizing vulnerable populations and overburdened communities, the equitable distribution of resources and benefits, and eliminating harm (see Objective 1.3).

EPA: U.S. Environmental Protection Agency. The federal Agency from which the Puget Sound Clean Air Agency receives authority for enforcement of the federal Clean Air Act.

Equity: Refers to fairness and justice and is distinguished from equality: whereas equality means providing the same to all, equity means recognizing that we do not all start from the same place and must acknowledge and adjust for imbalances. Equity is an ongoing process requiring identification and overcoming of intentional and unintentional barriers arising from bias or systemic structures like racism, lack of opportunity, etc. (see Objective 1.3).

Focus Communities: Communities identified using the Agency's Community Air Tool including Auburn-Pacific-Algona, Duwamish Valley, Lakewood, and Seattle's Chinatown-International District - a subset of overburdened communities (See Objective 1.3).

GHGs: Greenhouse gas emissions – gases that trap heat in the atmosphere. Includes carbon dioxide, methane, nitrous oxide, fluorinated gases.

Green Hydrogen: Hydrogen that is produced by splitting water into hydrogen and oxygen using renewable electricity. No fossil fuels are used in the production of green hydrogen.

NAAQS: National Ambient Air Quality Standards. Health-based ambient air quality standards set by the EPA for six criteria pollutants.

NACAA: National Association of Clean Air Agencies. NACAA is the national, non-partisan, non-profit association of air pollution control agencies in 40 states, including 117 local air agencies, the District of Columbia and four territories. NACAA exists to advance the equitable protection of clean air and public health for all, and to improve the capability and effectiveness of state and local air agencies.

NWPCAS: The Northwest Ports Clean Air Strategy. The NWPCAS is a collaboration between the Northwest Seaport Alliance and the ports of Seattle, Tacoma, and Vancouver, British Columbia, to voluntarily reduce seaport-related emissions that contribute to air pollution in the shared Puget Sound-Georgia Basin Airshed as well as climate change (see Objective 1.7).

Offsets (Carbon offsets): An action to compensate for carbon dioxide emissions that contribute to climate change. A carbon offset is a credit that a person or organization can buy to decrease its carbon footprint. When the number of carbon offset credits obtained is equal to an individual or organization's carbon footprint, that person or organization is carbon-neutral.

Overburdened Communities: Geographic areas where vulnerable populations face combined, multiple environmental harms and health impacts, and includes, but is not limited to, highly impacted communities as defined in RCW 19.405.020. [RCW 70A.02] (see Objective 1.2).

Procedural Justice: Procedural justice is concerned with making and implementing decisions according to fair processes. People feel affirmed if the procedures that are adopted treat them with respect and dignity. Procedural justice is a focus of Objective 1.3 – increasing our inclusivity, better understanding communities' concerns, and reducing barriers to participation.

PSRC: Puget Sound Regional Council. PSRC is the metropolitan planning organization that develops policies and coordinates decisions about regional growth, transportation, and economic development planning within King, Pierce, Snohomish, and Kitsap counties. PSRC is composed of nearly 100 members, including the four counties, cities and towns, ports, state and local transportation agencies, and Tribal governments within the region.

Racial Equity Toolkit:. A worksheet that outlines a process and set of questions to guide the development, implementation, and evaluation of actions, policies, initiatives, and programs to address their impact on racial equity.

RCW: Revised Code of Washington State. The Revised Code of Washington (RCW) is the compilation of all permanent laws now in force. It is a collection of Session Laws (enacted by the Legislature, and signed by the Governor, or enacted via the initiative process), arranged by topic, with amendments added and repealed laws removed. It does not include temporary laws such as appropriations acts. The official version of the RCW is published by the Statute Law Committee and the Code Reviser.

Registered Sources: Sources of air pollution in our region that include businesses like gas stations, autobody shops, and dry cleaners (see Objective 1.5).

Toxic Air Pollutants: Toxic air pollutants, also known as air toxics or hazardous air pollutants, are those pollutants that are known or suspected to cause cancer or other serious health effects, such as reproductive effects or birth defects, or adverse environmental effects.

Vulnerable Populations: Population groups that are more likely to be at higher risk for poor health outcomes in response to environmental harms, due to: (i) Adverse socioeconomic factors, such as unemployment, high housing and transportation costs relative to income, limited access to nutritious food and adequate health care, linguistic isolation, and other factors that negatively affect health outcomes and increase vulnerability to the effects of environmental harms; and (ii) sensitivity factors, such as low birth weight and higher rates of hospitalization.

> (b) "Vulnerable populations" includes, but is not limited to:
>
> (i) Racial or ethnic minorities;
>
> (ii) Low-income populations;
>
> (iii) Populations disproportionately impacted by environmental harms; and
>
> (iv) Populations of workers experiencing environmental harms. [RCW 70A.02]

Yard Trucks: Yard trucks are a type of truck that move cargo containers and trailers within terminals or facilities.

ZEV: Zero emissions vehicle(s). A zero-emission vehicle is a vehicle that releases no tailpipe air pollution.

Endnotes

1 US Global Change Research Program (USGCRP), 2018. Impacts, Risks, and Adaptation in the United States: Fourth National Climate Assessment, Volume II [Reidmiller, D.R., C.W. Avery, D.R. Easterling, K.E. Kunkel, K.L.M. Lewis, T.K. Maycock, and B.C. Stewart (eds.)]. U.S. Global Change Research Program, Washington, DC, USA, 1515 pp. doi: 10.7930/NCA4.2018. https://nca2018.globalchange.gov/.

2 Intergovernmental Panel on Climate Change (IPCC). Climate Change 2022: Impacts, Adaptation and Vulnerability. Working Group II Contribution to the IPCC Sixth Assessment Report. www.ipcc.ch/report/sixth-assessment-report-working-group-ii/.

3 Fine particles are by far the largest contributor to the health burden and associated cost to our region from air pollution. Therefore, we will be using fine particles to track this target. The basis for this target comes from current fine particle trends and national EPA emission inventory estimates for fine particles for our four counties using EPA's COBRA tool through 2030. This target assumes we are not going to include wildfire smoke events to track progress (as is our practice though we will summarize data that both include and exclude wildfire smoke to accurately capture its impact).

4 Diesel exhaust contributes up to 75% of the potential cancer risk from air pollution sources in our region – by far the largest contributor. The current total potential cancer risk target is based on the forecast for expected diesel particle pollution reductions from on-road vehicles. We do not have sufficient data to forecast other non-road sources of diesel exhaust. However, both on-road and non-road diesel exhaust have historically declined at similar rates. We also expect other mobile-source air toxics to decline over the course of the plan, in large part due to the uptake of zero-emission vehicles. We will track progress on this target through a combination of estimating diesel reductions and measured air toxics.

5 We will continue to update our Community Air Tool through this plan, which includes equity and air quality metrics to help track this target. We will compare updated versions of our Community Air Tool over time. We may also track this metric with surface fine particle smoothed sensor maps compared to different socioeconomic factors across our region.

6 US Global Change Research Program, Fourth National Climate Assessment, 2018, https://nca2018.globalchange.gov/chapter/13/

7 University of Washington Climate Impacts Group, https://cig.uw.edu/our-work/forests-fire/

8 University of Washington and Washington State Department of Health, Washington Environmental Health Disparities Map, v2.0, 2022, https://fortress.wa.gov/doh/wtnibl/WTNIBL/.

9 US Global Change Research Program (USGCRP), 2018. Impacts, Risks, and Adaptation in the United States: Fourth National Climate Assessment, Volume II [Reidmiller, D.R., C.W. Avery, D.R. Easterling, K.E. Kunkel, K.L.M. Lewis, T.K. Maycock, and B.C. Stewart (eds.)]. U.S. Global Change Research Program, Washington, DC, USA, 1515 pp. doi: 10.7930/NCA4.2018. https://nca2018.globalchange.gov/

10 King County et al, Puget Sound Regional Emissions Analysis Project, 2022, https://kingcounty.gov/services/environment/climate/actions-strategies/strategic-climate-action-plan/emissions-inventories.aspx

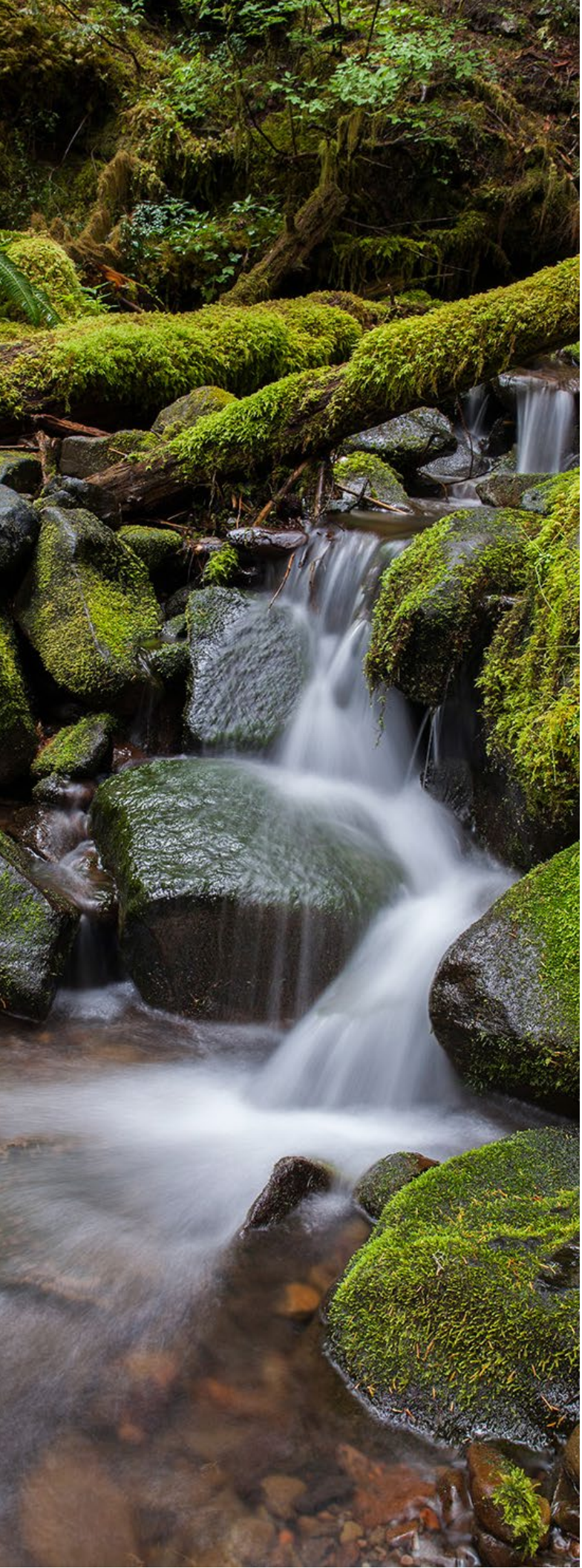
11 Same form as EPA's daily fine particle pollution national ambient air quality standard.

12 Adapted from Kotchenruther et al, Recent changes in winter PM2.5 contributions from wood smoke, motor vehicles, and other sources in the Northwest U.S., Atmospheric Environment, Volume 237, 15 September 2020, 117724.

13 Puget Sound Clean Air Agency, “Tacoma and Seattle Area Air Toxics Evaluation”, https://pscleanair.gov/DocumentCenter/View/145/2010-Tacoma-and-Seattle-Area-Air-Toxics-Evaluation---Full-Report-PDF

Puget Sound Clean Air Agency, “Near-road Air Toxics Study in the Chinatown-International District”, 2018, https://pscleanair.gov/DocumentCenter/View/3397/Air-Toxics-Study-in-the-Chinatown-International-District-Reduced

14 Puget Sound Clean Air Agency, Chinatown-International District Air Toxics Study, 2016, https://pscleanair.gov/DocumentCenter/View/3398



PLEASE CONTACT US

for questions, concerns,
and suggestions.

communications@pscleanair.gov

PUGET SOUND
Clean Air Agency

WEBSITE
pscleanair.gov

MAILING
1904 3rd Ave #105
Seattle, WA 98101