



CITY OF KIRKLAND SUSTAINABILITY MASTER PLAN

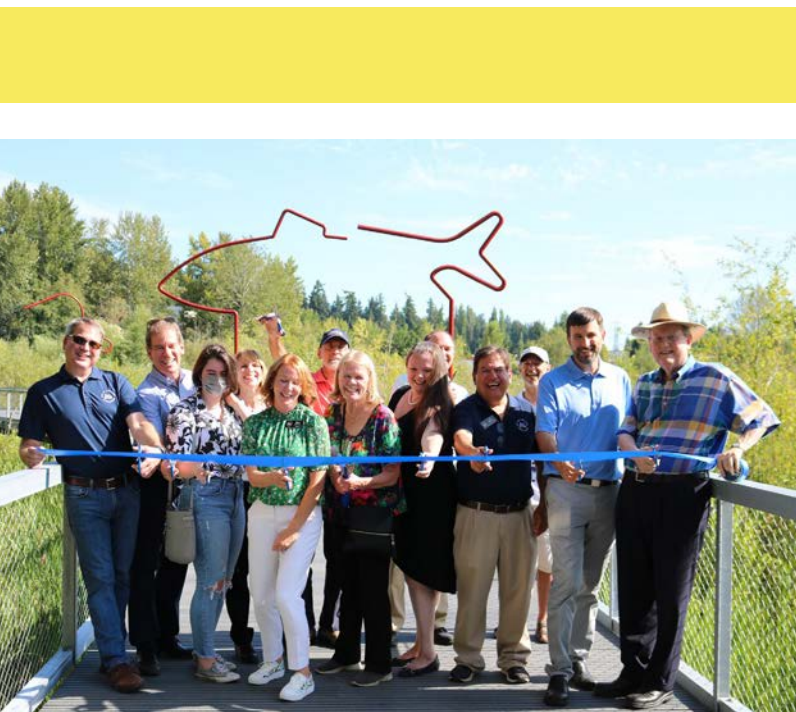
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YEAR ONE REPORT CARD



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Left (from top to bottom): Construction of the Totem Lake Connector Bridge on the Cross Kirkland Corridor; Walk n Roll to School Day 2021 at Thoreau Elementary; City Council and team members celebrate opening a new boardwalk at Totem Lake Park.

Above (from top to bottom): small local businesses joined Kirkland's Shop Local platform to reach consumers during the pandemic; native plants installed in a Kirkland garden with funding from the City's Yard Smart program.

YEAR ONE (2021) OVERVIEW

The Sustainability Master Plan was adopted in December 2020, making 2021 the first year of implementation progress for reporting. Pandemic protocols in place during 2021 were not conducive to in-person meetings and events; however, the City government was resilient and creative, and with the use of technology succeeded in advancing significant SMP actions.

The SMP has over 200 actions spread across eight focus areas. These actions range from low to high levels of effort and cost to implement. The SMP is a living plan that can change over time, but was designed with a loosely 10-year timeframe before a major update would be needed. This does not mean that there will not be course corrections or amendments that will make this master plan more relevant over the coming years. It is expected that there will be changes to the SMP that acknowledge changes in legislation, new technology or other process improvements.

In addition to quarterly reports of progress on the SMP, this first report card shows what City Council, City staff, and the larger community are working on to create collective impact and make Kirkland an even more sustainable, equitable and inclusive community. Over 2022, staff will work with subject matter experts to integrate more actions of the SMP into work plans, and build sustainable decision-making into City processes over the coming years so that sustainability becomes an enduring organizational trait.

Completed actions

Nine distinct actions were completed in 2021:

- **Action BI-2.3** – High Performance Building Standards
- **Action EV-10.1** – Updated Urban Forestry Plan
- **Action EV-10.5** – Tree planting programs
- **Action EV-6.2** – Map and track noxious weed treatment
- **Action SM-1.4** – Innovative solid waste rate structure
- **Action SG-2.1** – Sustainability management
- **Action SG-4.4** – City organizational equity assessment
- **Action HC-7.1** – Eastside Pathways partner

2021 in numbers



13.5% of electricity customers in Kirkland subscribe to green energy, an 8% increase over 2020



Nearly 400 solar arrays are generating power in Kirkland



62 Yard Smart Rain Rewards projects were installed at Kirkland residences



More than 1,000 trees were planted in Kirkland parks and natural areas



250 food scrap pails were delivered to residents' doorsteps to make composting food easy



19 businesses and apartments started composting food scraps

YEAR ONE (2021) PROGRESS

Action status by focus area. In progress actions indicate one-time actions that staff have started to work on. Ongoing actions indicate recurring and regularly occurring activities that have begun. Ongoing activities encompass multiple services and projects, and are likely to remain ongoing for the entire time period, while actions in progress have a defined completion point.



Energy Supply and Emissions (20 actions)



3 actions ongoing 17 actions not started



Buildings and Infrastructure (13 actions)



■ 1 action completed ■ 1 action in progress □ 11 actions not started



Land Use and Transportation (21 actions)



15 actions ongoing 6 actions not started



Natural Environment and Ecosystems (37 actions)



■ 3 actions completed ■ 23 actions ongoing and in progress □ 11 actions not started



Sustainable Material Management (17 actions)



■ 1 action completed ■ 10 actions ongoing and in progress □ 6 actions not started



Sustainable Governance (35 actions)



■ 2 actions completed ■ 8 actions ongoing and in progress □ 25 actions not started



Sustainable Business (13 actions)



3 actions ongoing 10 actions not started



Healthy Community (40 actions)



■ 1 action completed ■ 10 actions ongoing and in progress □ 29 actions not started



ENERGY SUPPLY + EMISSIONS

City energy supply

The electricity for City Operations is provided by a renewable energy contract through Puget Sound Energy called **Green Direct**, which provides 100% wind and solar energy. The City recently extended this contract's duration from 10 to 20 years.

In 2021, the City purchased 4,840 megawatt hours (MWhs) of electricity using Green Direct. Using green energy avoided 4.2 million pounds of CO₂ equivalent (CO₂E) emissions, equal to the pollution generated by burning 2.1 million pounds of coal or emissions from driving 417 gas-fueled cars for a year.

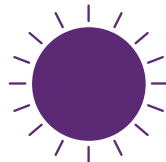
Community energy supply

Out of 44,306 commercial, industrial, and residential electricity customers, 4,846 (10.9%) subscribe to PSE's **Green Power program**. In addition, 1,156 customers are using the **Solar Choice** program. Combining Green Power and Solar Choice purchasers (6,002) accounts for 13.5% of Kirkland community accounts.

Green Direct is a contract between the City of Kirkland and Puget Sound Energy (PSE) to provide 100% renewable electricity for Kirkland City operations that is produced by wind and solar farms located in Southwest Washington.

Green Power is a PSE program that purchases Renewable Energy offsets equivalent to the user's electricity use. Since its portfolio comes from 96.5% renewable sources, it substantially offsets greenhouse gas (GHG) emissions generated compared to PSE's standard portfolio which is about 66% fossil fuel derived.

Solar Choice is similar to Green Power, but it allows users to offset their electricity use with regionally-produced solar energy.



Kirkland had 394 solar arrays by the end of 2021, with a projected annual generation of nearly 4 million kWh



BUILDINGS + INFRASTRUCTURE

Building standards

The City has completed **Action BI-2.3** by adopting **High Performance Building Standards** that offset many of the environmental impacts from larger development projects and ensure that the buildings constructed are energy efficient and primarily use electricity for their operations.

Green Building Program

The City has nearly completed **Action BI-1.1** to revamp its incentivized **Priority Green Building Program** to include all building types and provide expedited permit review for projects of all sizes that are independently certified to be energy and resource efficient.

Decarbonization

Both **Actions BI-2.3** and **BI-1.1** are part of a city-wide decarbonization effort to reduce energy use and promote all-electric buildings that consume small amounts of fossil fuels. These actions are incremental steps necessary to reduce the community's carbon emissions and to help achieve aggressive greenhouse gas (GHG) reduction goals.

What's next? The eastside community is planning a heat pump adoption campaign with a special emphasis on providing equitable access to residents of affordable housing.

LAND USE + TRANSPORTATION



Greenways

Kirkland's first Neighborhood **Greenways**, the North and South Rose Hill Neighborhood Greenways, were constructed in 2021. These are the first permanent Greenways on the Eastside.

Rapid flashing beacons were installed at Rose Hill Elementary School and NE 112th Place's intersection with 124th Avenue NE. A diverter at 128th Avenue NE's intersection with NE 100th Street allows people riding bikes to continue straight through the intersection, while drivers must turn right onto NE 100th Street.

Greenways offer quieter, safer routes for people to ride bicycles or walk to destinations. They support the City's vision for a multi-modal transportation network that gives residents more options for getting around.



Sculptures enhance the North Rose Hill Greenway, created using the 1% for the arts allocation

What's next? The City will conduct outreach and complete design on the Stores to Shores Greenway between Totem Lake and downtown, with construction likely completed in 2024.

NATURAL ENVIRONMENT + ECOSYSTEMS



Trees

More than a thousand Green Kirkland Partnership volunteers planted 1,012 trees at parks and natural areas in 2021. That's the most in a year since 2014! Residents also planted 135 trees on their properties using rebates from the Stormwater Division.

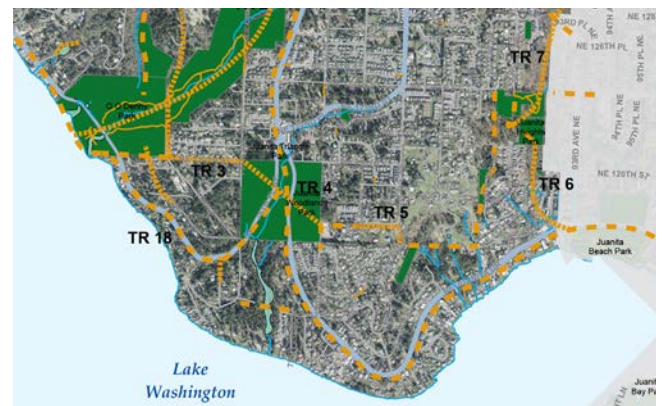
Trees help prevent flooding in our neighborhoods, provide shade for our homes, and help filter pollutants to provide clean water for Lake Washington. As trees grow and mature, their environmental benefits increase; this is why it is so important to retain existing trees in addition to planting new ones.

Park access

The City acquired a parcel that will support a future connection between Juanita Heights Park on Goat Hill and Juanita Bay, which will increase park access and walkability for residents.



Volunteers at a Green Kirkland Partnership event



Vision for a Finn Hill trail system



SUSTAINABLE MATERIALS MANAGEMENT

Reuse and waste prevention

Solid Waste partnered with the Capital Improvement Program to install water bottle filling stations at the new Totem Lake Park and updated Juanita Beach Park. An educational campaign over the summer encouraged residents to bring their own bottles and promoted the environmental benefits of reuse. The team plans to install several additional filling stations at parks in 2022.

Americans drink more bottled water than any other drink, even soda! Each American drinks an average of 44 gallons of bottled water a year. Compared to tap water, drinking a single-use bottle of water produces three times the greenhouse gas emissions and uses three times the energy. All the bottled water Americans drank in 2016 produced as many greenhouse gas emissions as 2.5 million passenger cars.

Even if the bottles get recycled – and only a quarter are recycled in the US – energy and resources are still required to turn it into a new product. A reusable bottle can be used hundreds of times. Washing a reusable bottle uses less resources than making new.

What's next? Kirkland has partnered with the cities of Bellevue, Redmond and Bothell to promote waste prevention and help food service businesses switch from single-use products to durable alternatives.



A water bottle filling station at Juanita Beach Park lets visitors prevent waste



SUSTAINABLE GOVERNANCE

Sustainability Manager

Although a Sustainability Manager position has not been formally created, City Council approved two years of funding to dedicate a full-time Senior Planner to overseeing sustainability initiatives.

Equity and social justice

A consultant worked with City staff and community members to complete an organizational equity gap assessment for the City. The consultant worked closely with staff on a draft ***Diversity, Equity, Inclusion, and Belonging (DEIB) Five-Year Roadmap***, a comprehensive document that identifies over 60 objectives that will guide the City's DEIB work for years to come. The Roadmap is a more formal starting point for these efforts and is considered a living document that will be updated and evolve over time.

What's next? Sustainability management will develop a charter for the sustainability program to memorialize practices, develop a process and cadence for reporting on actions, and improve citywide coordination of sustainability efforts.

Sustainability management is facilitating adoption of a Carbon Counting Calculator by the Capital Improvement Program to integrate embodied carbon and operational carbon into planning City buildings and infrastructure projects.

SUSTAINABLE BUSINESS



Supporting local businesses

Using federal CARES funding, the Shop Local Kirkland (SLK) initiative was launched in November 2020 to provide the lowest-bar entry to digital enterprise for Kirkland's smallest businesses, and a no-contact avenue to reach customers and consumers during the global pandemic and beyond. The initiative registered more than 500 businesses from launch through 2021, and published more than 300 of those businesses as 'digital storefronts' on shoplocalkirkland.com.

Nearly 50% of Kirkland's 6000+ businesses are home occupancy licensed, and many of Kirkland's smallest businesses do not have a web presence. The SLK initiative offers no-cost digital presence for businesses and supports Shop Local with City marketing and promotion efforts that connect businesses to customers.



What's next? Utilizing federal ARPA funding, Shop Local Kirkland is undergoing a total redevelopment effort, expected to conclude in early summer 2022.

HEALTHY COMMUNITY



Water conservation

Kirkland's **Yard Smart Rain Rewards** program offers technical assistance and rebates to property owners to install projects like native landscaping and cisterns to conserve water by reducing watering needs, prevent flooding, and protect creeks and lakes from pollution.

- 8,355 gallons of new cistern capacity created in 2021
- 28,702 sq ft new native landscaping installed in 2021



Cisterns harvest water for later use in the garden

Accessibility in parks

Totem Lake Park was constructed and expanded with an inclusive, accessible playground and boardwalk, improving park access in Totem Lake.

What's next? Parks & Community Services is creating an **Americans with Disabilities Act (ADA) Transition Plan** that identifies and prioritizes accessibility changes needed for participation.



The new Totem Lake Park offers accessible play



COMMUNITY

Along with the City's actions, community participation plays an essential role in achieving sustainability. Volunteers are vital for restoring Kirkland's natural areas. The choices residents and businesses make to help the environment add up, like adding native plants to their gardens, planting a tree, and dropping off paint for recycling. Community initiatives can also complement actions the City is taking.

Community initiatives

In fall 2021, community members approached City Council with a request for funding for a campaign to promote automobile anti-idling that would leverage volunteer efforts and coordination. This campaign complements Action SG-1.1 in the Sustainability Master Plan, which calls for the City to evaluate an internal anti-idling policy. Along with this funding, City staff have joined forces with community volunteers to advise campaign development and support messaging.

What's next? The anti-idling campaign will expand during 2022, with presentations offered to churches and other community organizations and a pledge campaign to encourage community members to turn off their car when not traveling.

Students will complete a six-month pilot of the Sustainable Neighborhoods Ambassador Program (SNAP) using funding from City Council, Cascade Water Alliance, and the King County WaterWorks Grant.

The eastside community is planning a heat pump adoption campaign with a special emphasis on providing equitable access income qualified households. This pilot project helps educate all community members about the benefits of heat pumps that can provide homes with energy efficient heating and cooling. This campaign prioritizes helping those that live in affordable housing within Kirkland by providing a grant program for income qualified participants to get a heat pump installed in their homes.



Green Kirkland Partnership volunteer scoops mulch



Volunteer drivers for the Community Van let groups get around for the cost of a bus trip



Volunteers glean fruit at McAuliffe Park's orchard



Left (from top to bottom): recycling at Juanita Beach Park's picnic shelter; staff evaluate stream conditions; Winter Market at Kirkland Urban.

Above (from top to bottom): people biking on the Cross Kirkland Corridor; stormwater vault being installed at the Willows Road Regional Trail Connection project.