



# OUR VANCOUVER

OUR FUTURE 2045

## Health Impact Assessment

September 2025

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## 0. Executive Summary

This Health Impact Assessment (HIA) considers how the growth alternatives studied as part of the [OUR VANCOUVER](#) Comprehensive Plan periodic update may benefit and impact health in Vancouver as it relates to the built environment.

The analysis is organized around five themes:


- Physical Activity
- Food Access
- Community Connections
- Exposure to Health Hazards
- Housing and Financial Security




Three growth alternatives, as studied in [OUR VANCOUVER](#) Draft Environmental Impact Statement (DEIS), are included for analysis:


- A No Action Alternative, where existing policies are carried forward. Future growth and development would align with the adopted Comprehensive Plan and development regulations and recent amendments to state statutory requirements that contain self-executing provisions. The No Action Alternative would not meet the City's minimum 2045 targets for new housing units and jobs.
- Two Action Alternatives (Alternative 1 and Alternative 2), which add density and mixed uses and update plan policies. New place types would allow for more dense housing, employment, and activity centers in more areas across the city. Both Action Alternatives would exceed the City's minimum 2045 targets for new housing units and jobs.



The Action Alternatives generally include greater opportunities to improve community health. This is due to the growth patterns of the Action Alternatives and the policy changes associated with them (Exhibit 0-1). Other strategies are also identified in the HIA to build on strengths, address gaps, and mitigate negative health impacts of the growth alternatives. For the purposes of HIA analysis, the city was divided into eight areas (Exhibit 0-2).




Exhibit 0-1: Key Findings, Strategies, and Cobenefits

Theme	Key Findings	Where/Who Impacted	Potential Strategies	Cobenefits of Implementation
 <b>Physical Activity</b>	<p><b>Existing:</b></p> <ul style="list-style-type: none"> <li>• Many existing vehicle trips are under 5 miles</li> <li>• There are some gap areas in parks access</li> </ul> <p><b>No Action:</b></p> <ul style="list-style-type: none"> <li>• More demand for parks due to growth</li> <li>• Most growth in areas without high density of intersections</li> </ul> <p><b>Action Alternatives:</b></p> <ul style="list-style-type: none"> <li>• Higher growth and higher demand for parks</li> <li>• More opportunity for new parks via impact fees and policy changes</li> <li>• Most growth in areas without high density of intersections</li> <li>• More opportunity for walkability improvements</li> </ul>	<p><b>Where:</b> 2, 3A, 3B, 4, 5, 6, 7, 8 (see Exhibit 0-2).</p> <p><b>Who:</b> People with health conditions that could be improved by physical activity</p>	<p><b>City:</b></p> <ul style="list-style-type: none"> <li>• Non-motorized infrastructure and safety</li> <li>• Pedestrian scale design</li> <li>• Strategic parks acquisitions</li> </ul> <p><b>Partner:</b></p> <ul style="list-style-type: none"> <li>• Community-led park and street improvements</li> <li>• School and other partnerships for recreation</li> </ul>	<ul style="list-style-type: none"> <li>🌿 Emissions reduction from reduced VMT</li> <li>⊕ Equitable access to parks</li> </ul>

Theme	Key Findings	Where/Who Impacted	Potential Strategies	Cobenefits of Implementation
 <p><b>Food Access</b></p>	<p><b>Existing:</b></p> <ul style="list-style-type: none"> <li>Much of the current population has food access challenges</li> </ul> <p><b>No Action:</b></p> <ul style="list-style-type: none"> <li>Some growth in areas with low supermarket access</li> </ul> <p><b>Action Alternatives:</b></p> <ul style="list-style-type: none"> <li>More growth in areas with low supermarket access, but more opportunity for new stores via density and mixed uses</li> </ul>	<p><b>Where:</b> 2, 3a, 5, 6, 7, 8 (see Exhibit 0-2).</p> <p><b>Who:</b> Households with lower incomes are most affected</p>	<p><b>City:</b></p> <ul style="list-style-type: none"> <li>Community gardening and urban agriculture support</li> <li>Incentives for supermarkets</li> </ul> <p><b>Partner:</b></p> <ul style="list-style-type: none"> <li>Food banks, farmers markets</li> <li>Community and faith organizations</li> </ul>	<ul style="list-style-type: none"> <li> Walkability to supermarkets = lower VMT and emissions</li> <li> Equitable access to food</li> </ul>

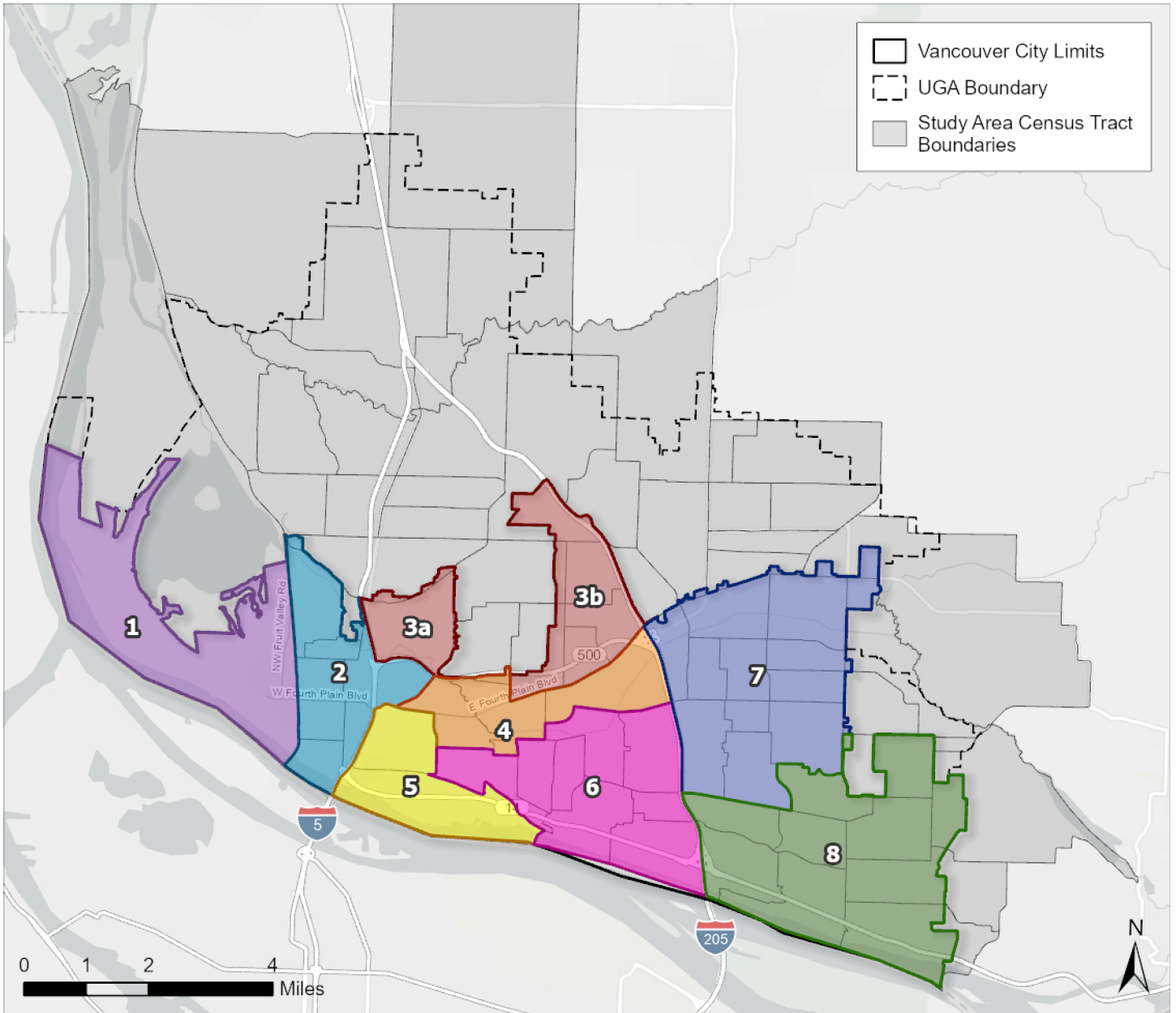
Theme	Key Findings	Where/Who Impacted	Potential Strategies	Cobenefits of Implementation
 <p><b>Community Connections</b></p>	<p><b>Existing:</b></p> <ul style="list-style-type: none"> <li>• Access to amenities varies</li> <li>• Challenges with childcare and access to social services</li> </ul> <p><b>No Action:</b></p> <ul style="list-style-type: none"> <li>• Less opportunity for better access to services</li> <li>• Some commercial displacement</li> <li>• Less density and mixed uses</li> </ul> <p><b>Action Alternatives:</b></p> <ul style="list-style-type: none"> <li>• More opportunity for better access to services</li> <li>• More commercial displacement but better mitigation</li> <li>• More density and mixed uses (especially Alternative 2)</li> </ul>	<p><b>Where:</b> Citywide</p> <p><b>Who:</b> Car-dependent households, older adults</p>	<p><b>City:</b></p> <ul style="list-style-type: none"> <li>• Incentives for small commercial spaces and lowered parking requirements</li> <li>• Social programs and events</li> </ul> <p><b>Partner:</b></p> <ul style="list-style-type: none"> <li>• Pop-ups</li> <li>• Regional childcare access</li> </ul>	<ul style="list-style-type: none"> <li>🌿 Better walkability to services = lower VMT</li> <li>⊕ Equitable access to daily needs</li> </ul>

Theme	Key Findings	Where/Who Impacted	Potential Strategies	Cobenefits of Implementation
 <p><b>Exposure to Health Hazards</b></p>	<p><b>Existing:</b></p> <ul style="list-style-type: none"> <li>Air quality is a challenge that is hard to mitigate</li> <li>Heat islands also present but growth is an opportunity to address them</li> <li>Other hazards include climate change, water quality, and noise</li> </ul> <p><b>No Action:</b></p> <ul style="list-style-type: none"> <li>Some air and water quality impacts</li> <li>Some growth in areas with noise</li> <li>Some growth in heat islands</li> <li>Some growth in climate hazard areas</li> </ul> <p><b>Action Alternatives:</b></p> <ul style="list-style-type: none"> <li>Some air and water quality impacts but better mitigation</li> <li>Some growth in areas with noise but better mitigation</li> <li>More growth in heat islands and more opportunity to add vegetation</li> <li>Some growth in climate hazard areas and new policies for resiliency</li> </ul>	<p><b>Where:</b> Citywide but especially 2,5, 6, 7, 8 (see Exhibit 0-2)</p> <p><b>Who:</b> People with existing health conditions, older adults, children</p>	<p><b>City:</b></p> <ul style="list-style-type: none"> <li>Electric vehicle support</li> <li>Vegetation requirements</li> <li>Urban forestry</li> <li>Shade in parks and rights of way</li> <li>Design standards for resilience</li> <li>Education on disposal of chemicals</li> </ul> <p><b>Partner:</b></p> <ul style="list-style-type: none"> <li>C-Tran transit investments</li> <li>Community-led action planning</li> <li>Water and air quality monitoring</li> <li>Emergency hubs</li> </ul>	<ul style="list-style-type: none"> <li> Adding tree canopy cover = reduced emissions</li> <li> Environmental justice</li> </ul>

Theme	Key Findings	Where/Who Impacted	Potential Strategies	Cobenefits of Implementation
 <p><b>Housing and Financial Security</b></p>	<p><b>Existing:</b></p> <ul style="list-style-type: none"> <li>• Many residents are cost burdened</li> <li>• Displacement is an ongoing concern with growth</li> </ul> <p><b>No Action:</b></p> <ul style="list-style-type: none"> <li>• Some new housing but less variety and affordability</li> <li>• Less radon mitigation</li> <li>• Some displacement risk</li> <li>• Some new jobs</li> </ul> <p><b>Action Alternatives:</b></p> <ul style="list-style-type: none"> <li>• More new housing and better affordability</li> <li>• More radon mitigation</li> <li>• Some displacement risk but new policies to mitigate</li> <li>• More new jobs and opportunities to shape industries</li> </ul>	<p><b>Where:</b> Citywide</p> <p><b>Who:</b> Households with lower incomes, single-parent households</p>	<p><b>City:</b></p> <ul style="list-style-type: none"> <li>• Communicating home rehabilitation opportunities and radon testing</li> <li>• Removing housing barriers</li> <li>• Anti-displacement policies</li> <li>• Workforce development and industry support</li> </ul> <p><b>Partner:</b></p> <ul style="list-style-type: none"> <li>• Regional collaboration on housing and economic development</li> </ul>	<ul style="list-style-type: none"> <li> Energy efficiency of newer buildings</li> <li> Less displacement, more financial stability, housing for all incomes</li> </ul>

Notes:  Emissions Reduction Cobenefit,  Equity Cobenefit

Exhibit 0-2: Analysis Areas



Source: City of Vancouver, 2025; BERK, 2025.

# 1. Introduction

## Purpose

The City of Vancouver is conducting a Health Impact Assessment (HIA) to:

- Evaluate each of the three **OUR VANCOUVER** land use alternatives (defined in the **Draft Environmental Impact Statement**) from a health impact lens and support the selection of a preferred alternative and mitigation measures.
- Provide policy recommendations for improved community health.
- Provide analysis to support communication with the public, policy makers, and key decision makers the various health-related tradeoffs between the three alternatives.

The City's Comprehensive Plan was last updated in 2011 and is due for a periodic update by the end of 2025. The **OUR VANCOUVER** Comprehensive Plan will guide Vancouver's growth and development through the year 2045. The update is an opportunity to shape policies and actions that can improve the health of current and future Vancouver residents.

The Plan is guided by a goals framework, which emphasizes equity, livability, opportunity, sustainability, and health, among other values. For the Climate, Environment, Community Health, Sustainability, and Resiliency chapter, the key themes are:

- Equitable and Just Transition
- Increase Tree Canopy
- Decrease Emissions
- Community Preparedness
- Community Stewardship and Resilience
- Holistic Cycles of Consumption and Production
- Access to Healthy Food
- Built Environment Promotes Health.

## Key Questions

**What is an HIA?** A Health Impact Assessment (HIA) evaluates the potential health effects of a proposed plan, policy, project, or program. HIAs provide recommendations during the decision-making process to increase positive health effects and minimize negative impacts (CDC, 2025).

**What type of HIA is this?** This is a "rapid" HIA, in which the analysis is primarily based on existing data from a variety of sources. However, this HIA and its recommendations are also supported by engagement with key stakeholders as part of the periodic update.

**Who is involved in this work?** City staff and the project consultant team led the HIA. Clark County Public Health provided input on the framework and data sources. The City's Climate Working Group, which consists of various community organizations, reviewed the draft findings and informed the final document. The HIA is a parallel effort to the Vancouver Comprehensive Plan Periodic Update, with its own related engagement process that emphasizes Equity Priority Communities that have been historically marginalized or are most vulnerable. Staff will engage the Vancouver Planning Commission and City Council throughout the Comprehensive Plan periodic update process.

**Who is the decision maker?** The Planning Commission will provide a recommendation to the City Council on the Comprehensive Plan Periodic Update, including a preferred Land Use Alternative. The City Council is the decision maker for the Comprehensive Plan Periodic Update.

## Goals

The HIA seeks to accomplish the following goals, particularly as they relate to health and the built environment:

- Ensure the **OUR VANCOUVER** Comprehensive Plan emphasizes health-related goals and policies, particularly in the land use element and growth strategies.
- Influence policy implementation to positively impact resident health, particularly communities that are vulnerable and overburdened.
- Ensure the links between connected and accessible neighborhoods, walkability, and health benefits are clearly communicated to the public and decision makers and clearly evaluated within each of the three (3) alternatives.
- Develop recommendations that are clear and feasible to implement.
- Create awareness about health disparities in Vancouver.
- Engage community-based organizations and the general public on health considerations for the plan update.
- Use communication methods such as plain language, infographics, and maps to ensure the HIA is accessible to the general public as well as decision makers.

## HIA Process

HIA is a systematic process to evaluate the potential health impacts of a proposed action, such as a plan or policy. The following are the steps that generally form an HIA:

- Screening – documenting why an HIA is appropriate for a given project or decision (*Chapter 1: Introduction*)

- Scoping – setting parameters of assessment and identifying the most relevant health outcomes (*Chapter 2: Scoping the HIA*)
- Assessment – describing baseline conditions and estimating future impacts (*Chapters 3–6: Baseline Assessment, Metrics and Evaluation Framework, Impact Assessment and Strategies, and Community Engagement Summary*)
- Reporting – disseminating findings and making recommendations (*Chapter 5: Impact Assessment and Strategies*)
- Monitoring – evaluating the effectiveness of the HIA and health impacts of the implemented proposal (*Chapter 7: Next Steps*)

## Previous Health Impact Assessment in Vancouver

Clark County completed a Rapid Health Impact Assessment for the Vancouver Comprehensive Plan in 2011. The assessment focused on two primary topics: physical activity and access to healthy food. The HIA included an evaluation of the proposed policy changes in the plan and found no evidence of negative disproportionate impacts on vulnerable populations. The key takeaway was the importance of implementation of the Comprehensive Plan through development standards, and recommendations for additional actions to improve opportunities for physical activity and healthy food access. The City also conducted a brief HIA for park development in the Rose Village neighborhood in 2010.

## Integration with Comprehensive Plan Update

The Comprehensive Plan update process includes evaluation of three land use alternatives (including one “no action” alternative), which distribute the city’s future housing, job, and population growth in different ways. The HIA will evaluate these alternatives for potential health effects, relative to one another. This evaluation will inform the City’s selection of a preferred alternative, which will provide the basis for the updated plan that will be adopted by the end of 2025. The HIA will also provide policy recommendations for the plan as a whole that could apply across all the land use alternatives.

### *Exhibit 1-1: HIA Process*



## Growth Alternatives

The City's periodic update to the Comprehensive Plan, the 20-year growth plan for Vancouver, is due in 2025. Under the State Environmental Policy Act (SEPA), an environmental impact statement (EIS) is being prepared to consider the environmental impacts of the plan. The Draft EIS analyzes three land use possibilities or "alternatives":

- **No Action Alternative** assumes that the Comprehensive Plan update and associated changes to the zoning code and development regulations would not be adopted. Future growth and development would occur in line with the current adopted City Comprehensive Plan and development regulations, as well as recent amendments to state statutory requirements that contain self-executing provisions. The No Action Alternative would not meet the City's minimum 2045 targets for new housing units and jobs.
- **Alternative 1** assumes the proposed Comprehensive Plan Update and associated changes to the zoning code and development regulations would be implemented, including new place types that allow more dense housing, employment, and activity centers in more areas across the city. Alternative 1 would allow for more dense, mixed-use development patterns than the No Action Alternative but in fewer areas than Alternative 2. Alternative 1 would exceed the City's minimum 2045 targets for new housing units and jobs.
- **Alternative 2**, like Alternative 1, assumes the proposed Comprehensive Plan Update and associated changes to the zoning code and development regulations would be implemented. Alternative 2 would allow for the highest density, intensity, and mix of uses of all of the alternatives in a greater number of areas of the city than Alternative 1. Alternative 2 would exceed the City's minimum 2045 targets for new housing units and jobs and would provide the highest capacity among the alternatives.

This Health Impact Assessment reviews each alternative for its potential impacts to health based on a series of metrics.

See Chapter 4 for maps of each growth alternative.

## 2. Scoping the HIA

For this HIA, the City and Consultant team focused on five themes around which to organize the evaluation. These were identified based on the themes of the [OUR VANCOUVER](#) Comprehensive Plan update, review of peer HIAs, Vancouver's previous rapid HIA (2011), and engagement with City and County staff. This includes Physical Activity, Food Access, Community Connections, Exposure to Health Hazards, and Housing and Financial Security.

Exhibit 2-1: Themes

Theme	Subtopics	Description
 <b>Physical Activity</b>	Parks access Walkability and bikeability	Built environment factors to encourage community members to be more active
 <b>Food Access</b>	Access to healthy food sources	Physical proximity and access to supermarkets and other sources of healthy food
 <b>Community Connections</b>	Access to services Social connection and isolation	Access to essential services and spaces that encourage people to meet and engage
 <b>Exposure to Health Hazards</b>	Air and water quality Noise Urban heat Climate impacts	Environmental health risks in relation to areas of planned growth
 <b>Housing and Financial Security</b>	Safe and healthy housing Affordable housing Displacement Living wage jobs	Topics related to housing quality and access and economic opportunities in Vancouver

### 3. Baseline Assessment

The following baseline data is intended to provide background context for the HIA and to inform the evaluation of the three land use alternatives. This includes demographic data as well as data relating to the health themes scoped for this HIA. A policy audit is also included to review Comprehensive Plan policies currently in place related to health.

#### Population

Social determinants of health (SDOH) are nonmedical factors that influence health outcomes (CDC, 2024). SDOH include access to resources such as housing, education, wealth, and employment, which are impacted by systemic injustices. Addressing differences in SDOH achieve better health equity, where all people have the opportunity to be in their best health. Several key demographics relating to SDOH are discussed below. Race and ethnicity is included due to the health inequities that continue to persist due to a history of systemic racism in the United States.

*Exhibit 3-1: Demographics Summary*

Demographic	Percentage
<b>Race and Ethnicity</b>	
American Indian and Alaska Native	0.4%
Asian	5%
Black or African American	3%
Native Hawaiian and other Pacific Islander	2%
White	65%
Two or More Races	7%
Other Race	0.5%
Hispanic or Latino	17%
<b>Income and Poverty</b>	
Median Household Income	\$80,618
Household income below the poverty level	11%
Household income at or above the poverty level	89%
<b>Housing Tenure</b>	
Renter households	50%
Owner households	50%
Renter households spending 30%+ of income on rent	53%

Demographic	Percentage
<b>Education</b>	
High School Diploma or Higher	92%
Bachelor’s Degree or Higher	32%
<b>Language Spoken at Home by Limited English Speaking Households</b>	
Russian, Polish, or other Slavic language	0.9%
Spanish	1.7%
Other Indo-European	0.2%
Chinese (Mandarin and Cantonese)	0.4%
Vietnamese	0.2%
Tagalong	0.1%
Other Asian and Pacific Island Languages	0.2%
<b>Disability</b>	
Population with One or More Disabilities	9.7%
<b>Age</b>	
Median Age	38
19 and Younger	24%
Over 65	16%
<b>Health Insurance Access</b>	
Adults Without Coverage	9%

Source: US Census Bureau, 2023; CDC, 2022; BERK, 2025.

### Race and Ethnicity

In Vancouver, 5% of residents identify as Asian, 3% as Black or African American, 0.4% as American Indian and Alaska Native, 2% as Native Hawaiian and other Pacific Islander, 65% as White, and 7% as Two or More Races (U.S. Census Bureau, 2023). 17% of the population identifies as Hispanic. Vancouver’s population became more racially and ethnically diverse from 2010–2020, with a 64% increase in the population of communities of color (Design Workshop, 2024; U.S. Census Bureau, 2020; U.S. Census Bureau, 2010).

### Income and Poverty

Median household income in Vancouver is \$80,618. 11% of households are experiencing poverty citywide (U.S. Census Bureau, 2023).

### Housing Tenure

Renter and owner households are split evenly (U.S. Census Bureau, 2023). Housing costs in Vancouver are high, and 53% of renters are rent-burdened (spending more than 30% of their income on rent).

## Education

92% of Vancouver residents hold a high school diploma and 32% of Vancouver residents hold a bachelor's degree (U.S. Census Bureau, 2023).

## Language

20.7% of the Vancouver population speaks a language other than English at home (U.S. Census Bureau, 2023). About 8.5% of the population speaks English less than "very well" (U.S. Census Bureau, 2023).

## Disability

Approximately 15.1% of Vancouver residents are living with a disability as of 2023 (U.S. Census Bureau, 2023).

## Age

Median age in Vancouver is 38 years old. Approximately 24% of the population is 19 years old and younger and 16% of the population is over age 65 (U.S. Census Bureau, 2023).

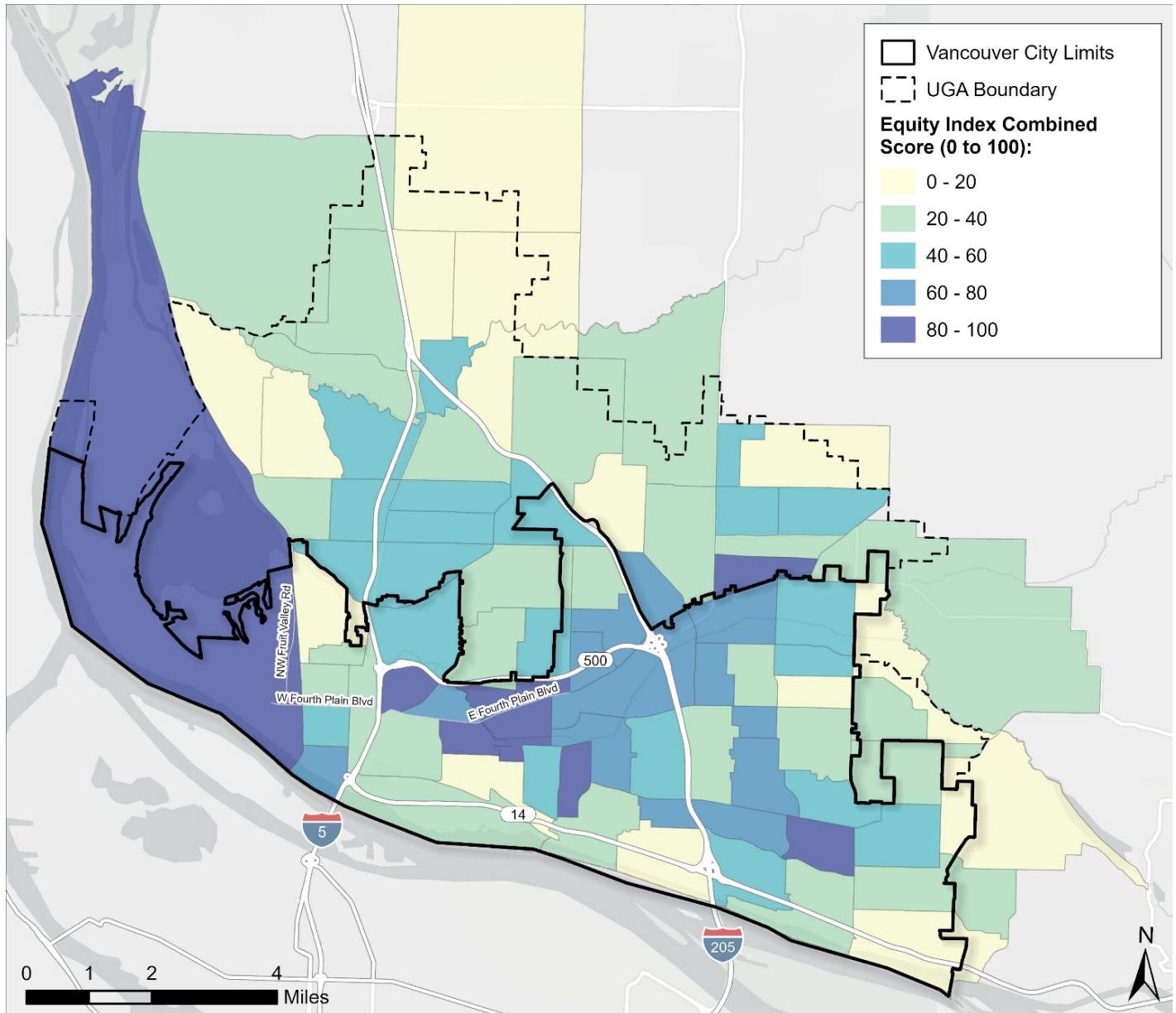
## Health Insurance Access

The Centers for Disease Control (CDC) estimates that 9% of adults aged 18–64 in Vancouver do not have health insurance. This is slightly lower than the national estimate of 11% (CDC, 2022).

## Equity

Vancouver has an Equity Index, which helps the City prioritize investments based on the needs of historically marginalized and vulnerable communities. The Equity Index shows higher scores, or greater disparities, for several Census block groups, including areas around Fruit Valley, Rose Village, Fourth Plain Village, and Mill Plain Boulevard on the east side of the city (Exhibit 3-2).

Exhibit 3-2: Vancouver Equity Index



Source: City of Vancouver, 2020; BERK, 2024.

## Health Outcomes

Data from the CDC shows health outcomes for Vancouver’s adult population and comparisons to Clark County. This includes similar rates of asthma, coronary heart disease, chronic obstructive pulmonary disorder, diabetes, and self-reported poor physical health, but higher rates of poor mental health and lower rates of high blood pressure (see Exhibit 3-3).

Almost a third of adults in Vancouver have been diagnosed with high blood pressure, a key risk factor for heart disease. Heart disease is a major cause of death in Vancouver, with 2018 rates of 176 male deaths and 118 female deaths per 100,000. Chronic lower respiratory diseases, including asthma and chronic obstructive pulmonary disease, accounted for 210 deaths per 100,000. Diabetes caused 507 deaths per 100,000 (Clark County, 2018; Design Workshop, 2024).

*Exhibit 3-3: Health Data for Vancouver and Clark County*

Measure	Vancouver (% of adults)	Clark County (% of adults)
Hypertension (High Blood Pressure)	28.1%	29.2%
Asthma	11.5%	10.8%
Coronary Heart Disease	5.1%	5.3%
Chronic obstructive pulmonary disease (COPD)	6.3%	6.1%
Diabetes	8.8%	9.2%
Poor Mental Health (mental health not good for 14 days or more)	17.5%	15.8%
Poor Physical Health (physical health not good for 14 days or more)	11.7%	11.2%

Source: CDC, 2022.

## Physical Activity

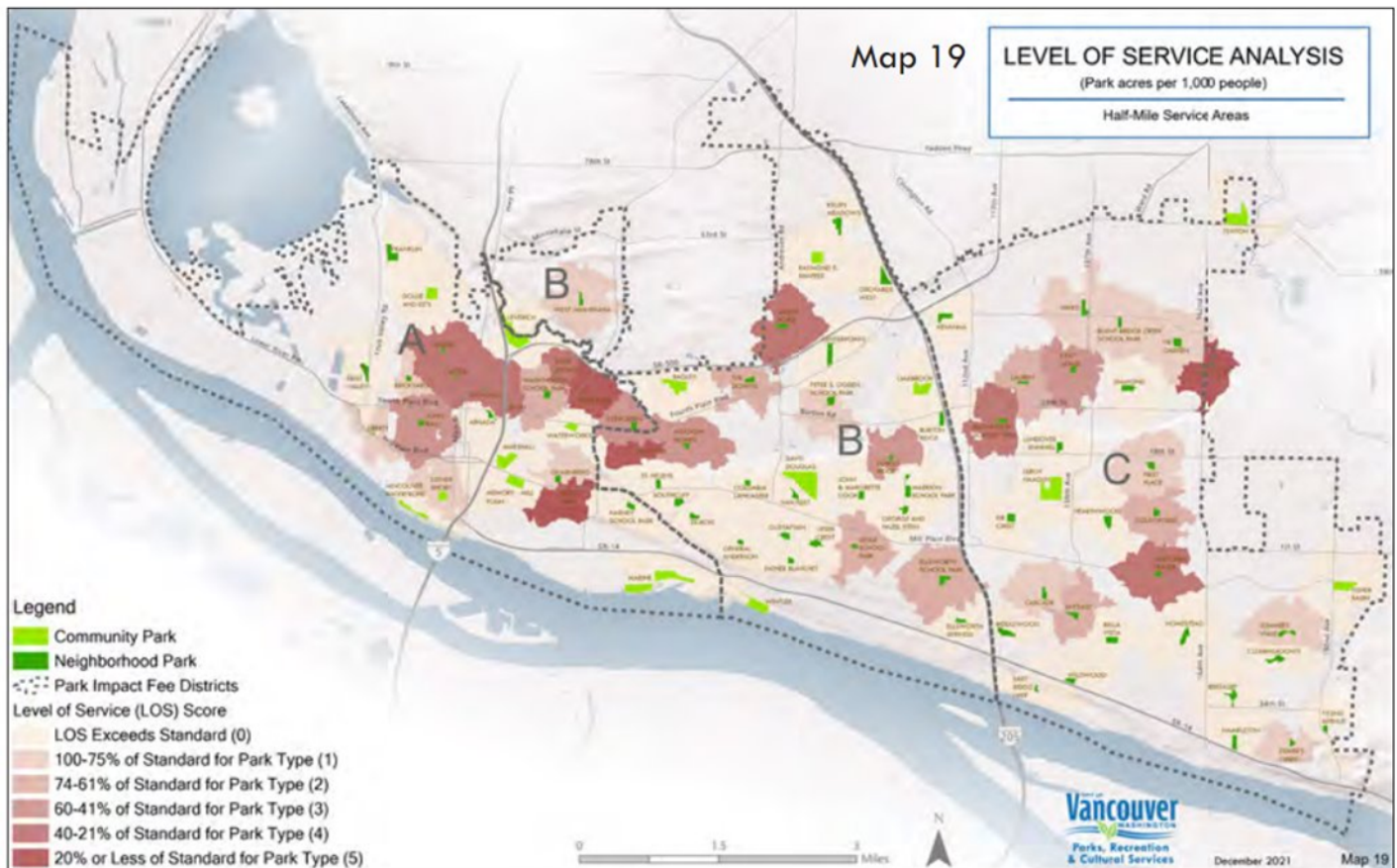
- **Physical Activity Summary:** Investments are needed in park and active transportation gap areas to support active living throughout Vancouver.

### Parks Access

Parks can promote health by providing a space for people to be physically active, whether through sports or unstructured activities like walking. A report from the Trust for Public Land suggests that having parks closer to homes is associated with improved health for people of all ages, including lower blood pressure, reduced cardiovascular risk, and better mental health (Trust for Public Land, 2023).

In Vancouver, access to parks varies across the city, with some areas exceeding the City's level of service for park acreage and others having less than 20% of the park acreage needed to meet the level of service (Exhibit 3-4). Areas of note include Fruit Valley, Rose Village, Fourth Plain Village, parts of Hudson's Bay, and several areas in the east side of the city.

*Exhibit 3-4: Half-Mile Parks Service Areas*

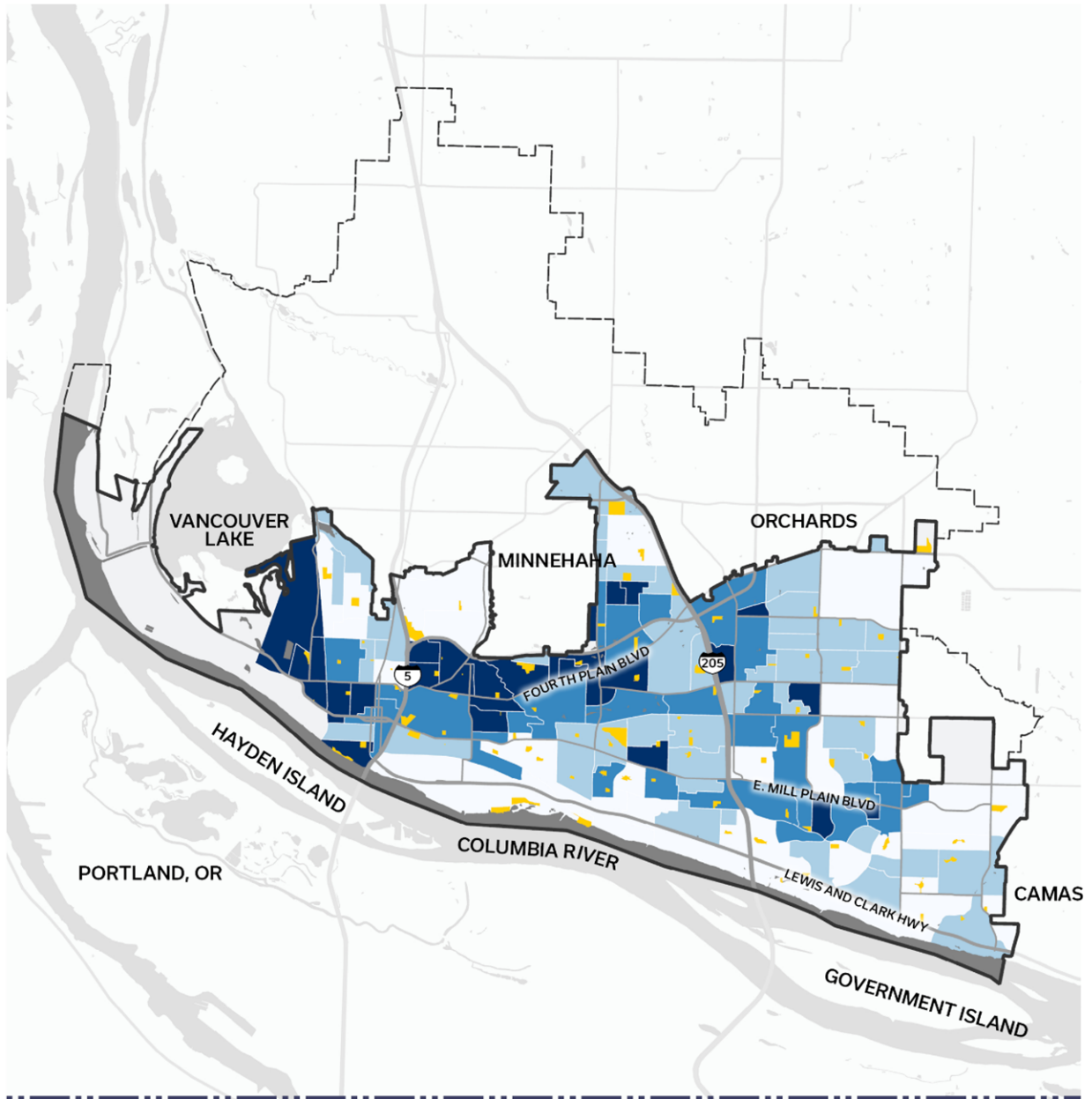


Source: City of Vancouver, 2022.

Based on community demographics and existing level of service, Exhibit 3-5 identifies high-priority areas of the city for future park investment. Several high-priority areas are located in and around the Bagley Downs and Rose Village neighborhoods in the north-central part of the city, as well as Fruit Valley on the west side of the city and nearby neighborhoods.

Pedestrian infrastructure is also a factor in park access. Exhibit 3-6 shows where parks are well served and poorly served by sidewalks. Known sidewalk gaps are dispersed throughout Vancouver, and the City plans to assess these through the 2025 Comprehensive Plan update.

Exhibit 3-5: Park Equity



- City Boundary
- UGA
- Waterbodies
- Community and Neighborhood Park

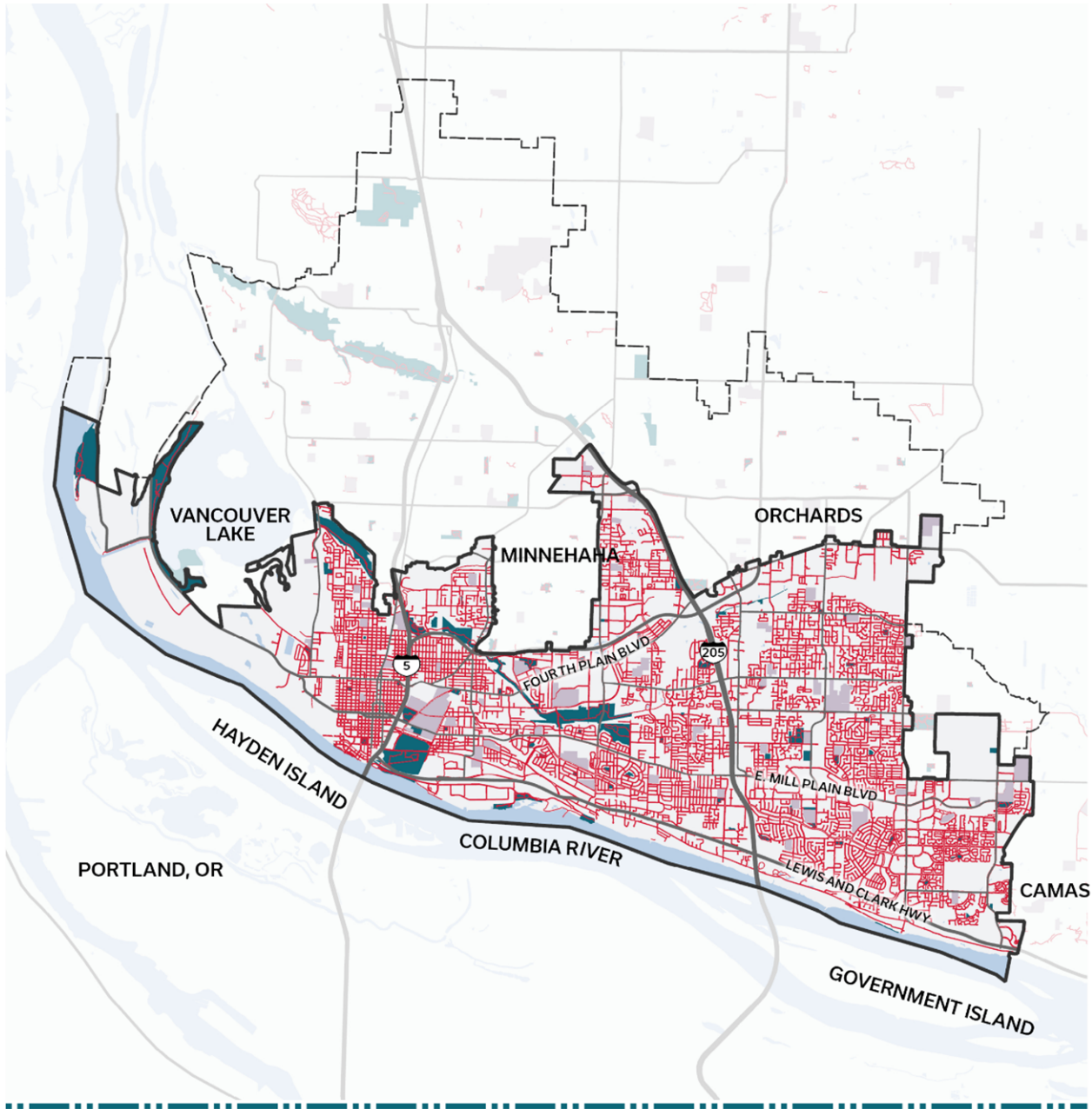
- Vancouver Demographics and Equity Matrix Priority
- Low Priority
  - 
  - 
  - High Priority




0 0.5 1 2 miles



County of Clark, WA, Oregon Metro, Oregon state, State of Oregon GEO, WA State Parks GIS, Esri, HERE, Garmin, SafeGraph, GeoTechnologies, Inc, METI/NASA, USGS, Bureau of Land Management, EPA, NPS, USDA


Source: Design Workshop, 2024.

Exhibit 3-6: Park/Sidewalk Interface



 City Boundary  
 UGA  
 Waterbodies

 Existing Park, Open Space and Trail Corridor  
 Sidewalk and Trails

0 0.5 1 2    
miles

County of Clark, WA, Oregon Metro, Oregon state, State of Oregon GEO, WA State Parks GIS, Esri, HERE, Garmin, SafeGraph, GeoTechnologies, Inc, METI/NASA, USGS, Bureau of Land Management, EPA, NPS, USDA

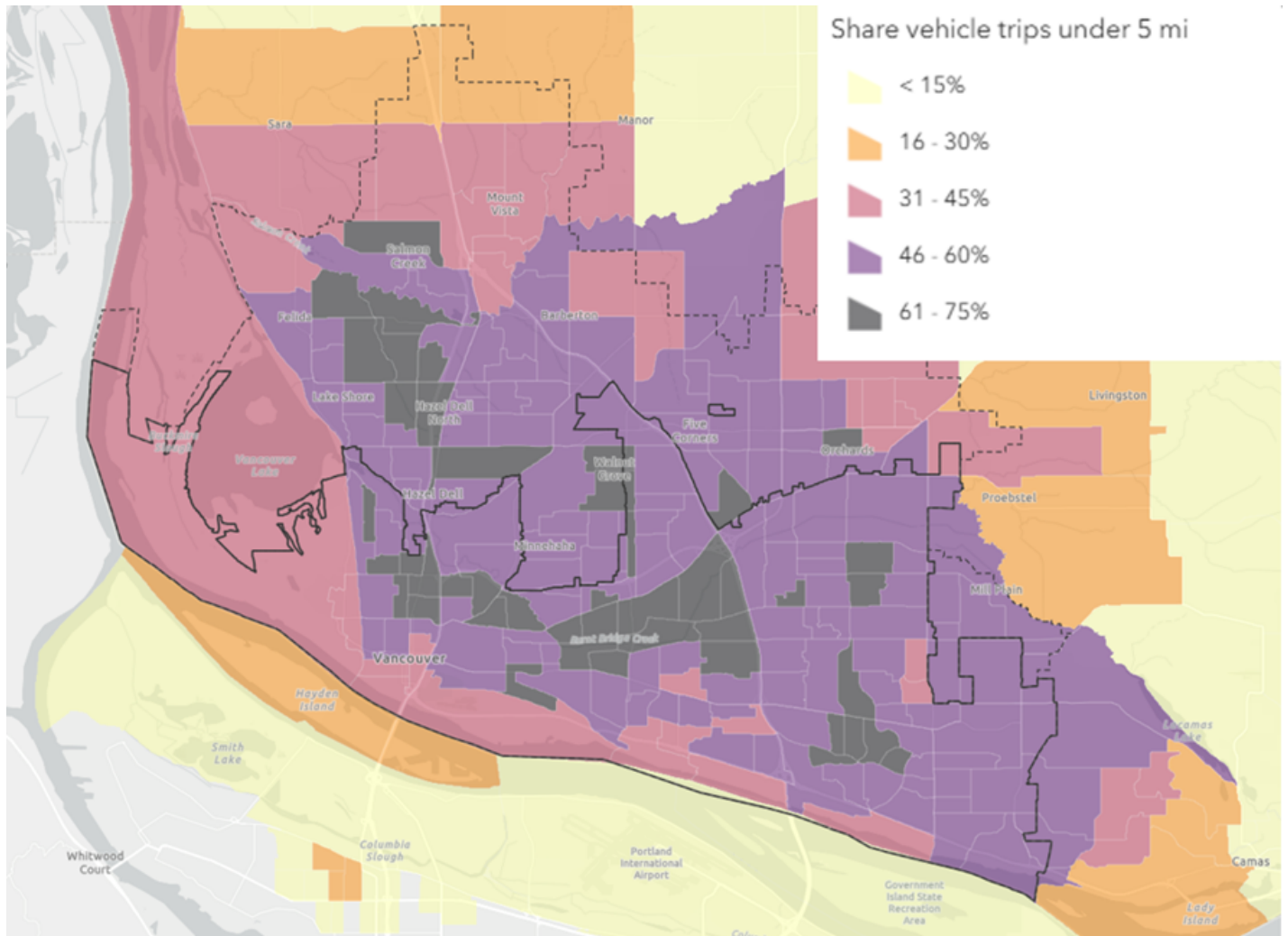
Source: Design Workshop, 2024.

## Active Transportation

Infrastructure and urban design for walkability and bikeability can also encourage a more physically active population. Vancouver has an existing active transportation network, with trails, sidewalks, and bike lanes (Exhibit 3-8, Exhibit 3-9, and Exhibit 3-10). Vancouver also has bus rapid transit (BRT), and 47,000 Vancouver residents live within a quarter mile of the Vine BRT and the Mill Plain BRT (Design Workshop, 2024). However, only 2% of Vancouver workers walk to work, 0.5% bike to work, and 3% take public transit (and are likely to walk some amount in their commute), while the overwhelming majority (75%) drive alone to their jobs (Design Workshop, 2024).

Vancouver is an economic hub for the region, and only 34% of workers in the city also live in Vancouver, according to Census OnTheMap (U.S. Census Bureau, 2021). However, there are many parts of the city where the majority of vehicle trips occurring, not limited to work commute trips, are under 5 miles long (Exhibit 3-7). Many of these short trips have the potential to be converted to active transportation or transit trips, if improvements to infrastructure, urban design, and programming effectively create behavior change.

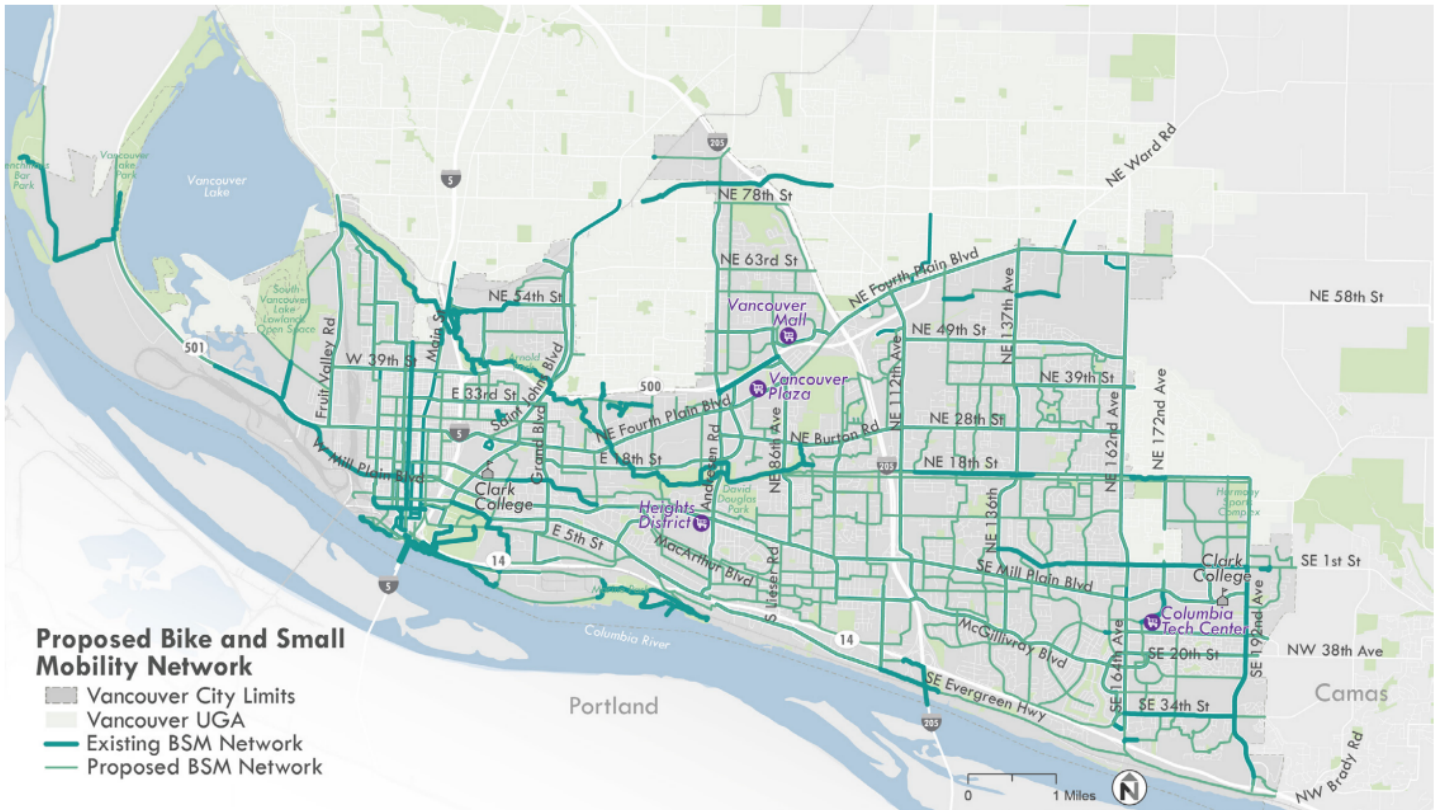
Exhibit 3-7: Trips Under 5 Miles



Source: City of Vancouver, 2024; Alta Planning + Design, 2023; BERK, 2024.

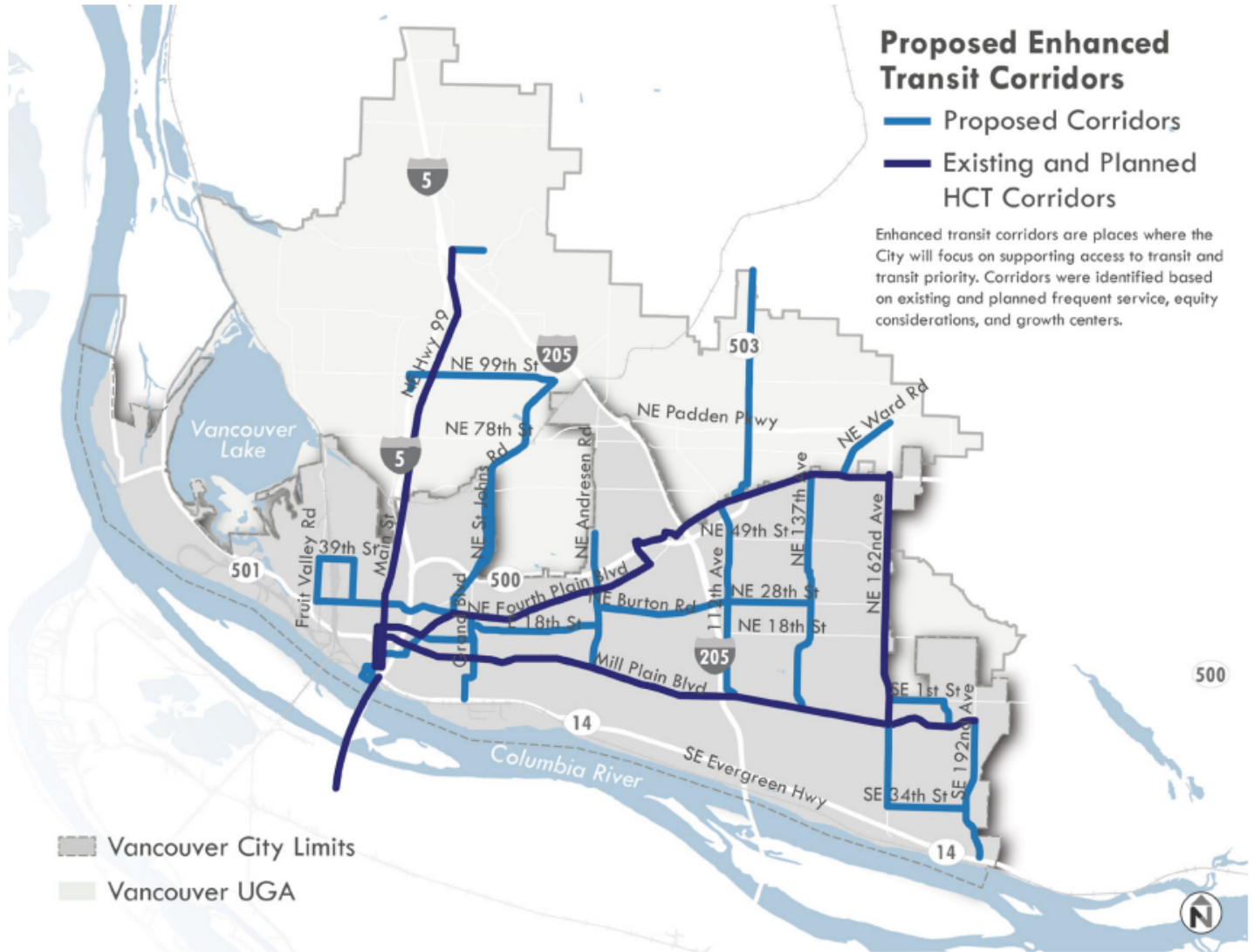


Exhibit 3-9: Bicycling and Small Mobility Network



Source: City of Vancouver, 2024.

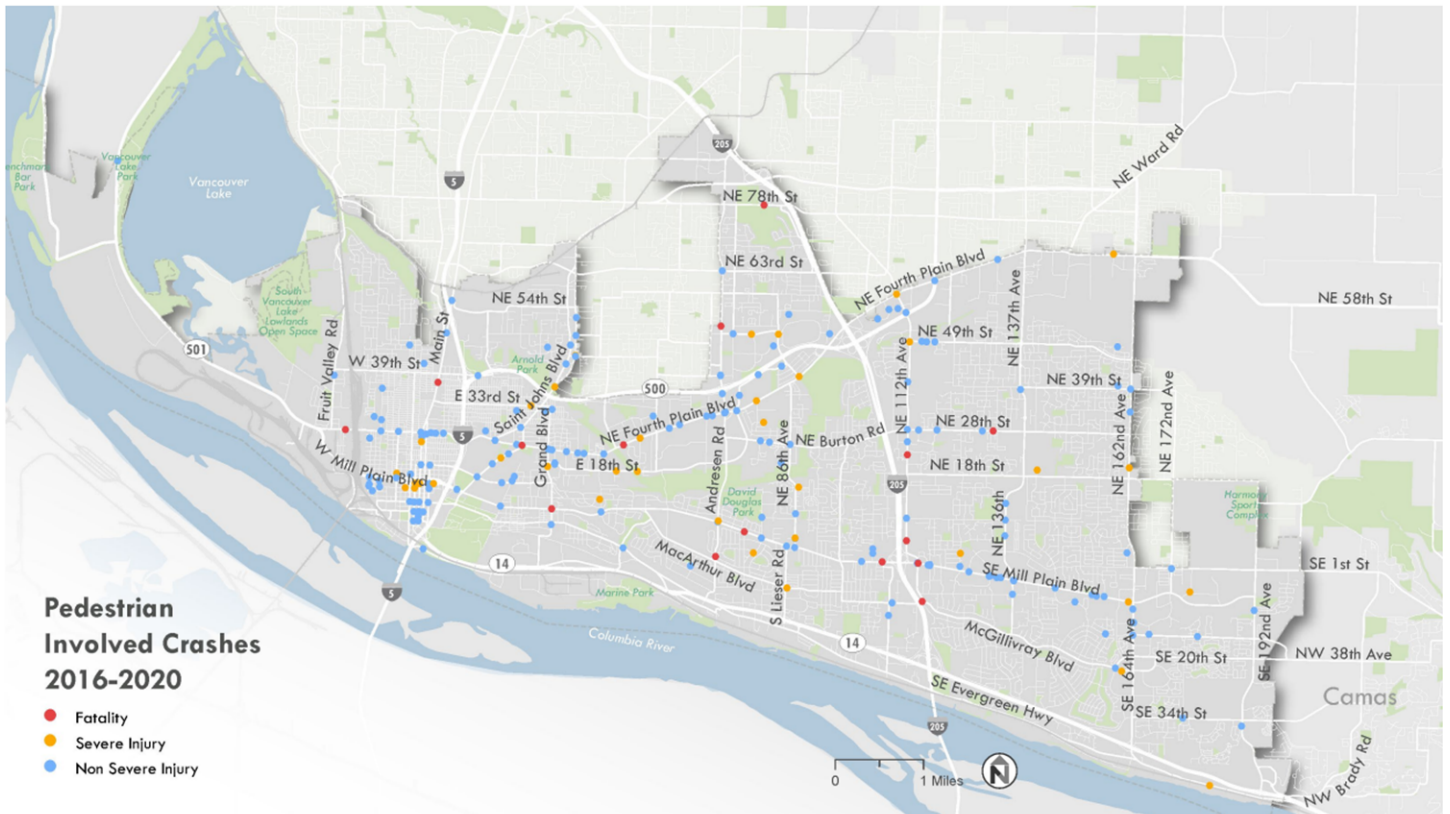
Exhibit 3-10: Proposed Enhanced Transit Corridors



Source: City of Vancouver, 2024.

Safety is a key concern for active transportation modes. Between 2016 and 2020, there were 76 fatal and severe-injury crashes involving a pedestrian or bicyclist, per the City’s 2022–2026 Local Road Safety Plan (City of Vancouver, 2022). These crashes most commonly involved pedestrians crossing at non-intersection locations without a crosswalk, but many took place at a signalized intersection. Principal arterials were the site of 27% of all pedestrian crashes, 47% of pedestrian fatalities, and 30% of pedestrian severe injuries. Specific locations for pedestrian- and bicycle-involved crashes from 2016–2020 are shown in Exhibit 3-11 and Exhibit 3-12.

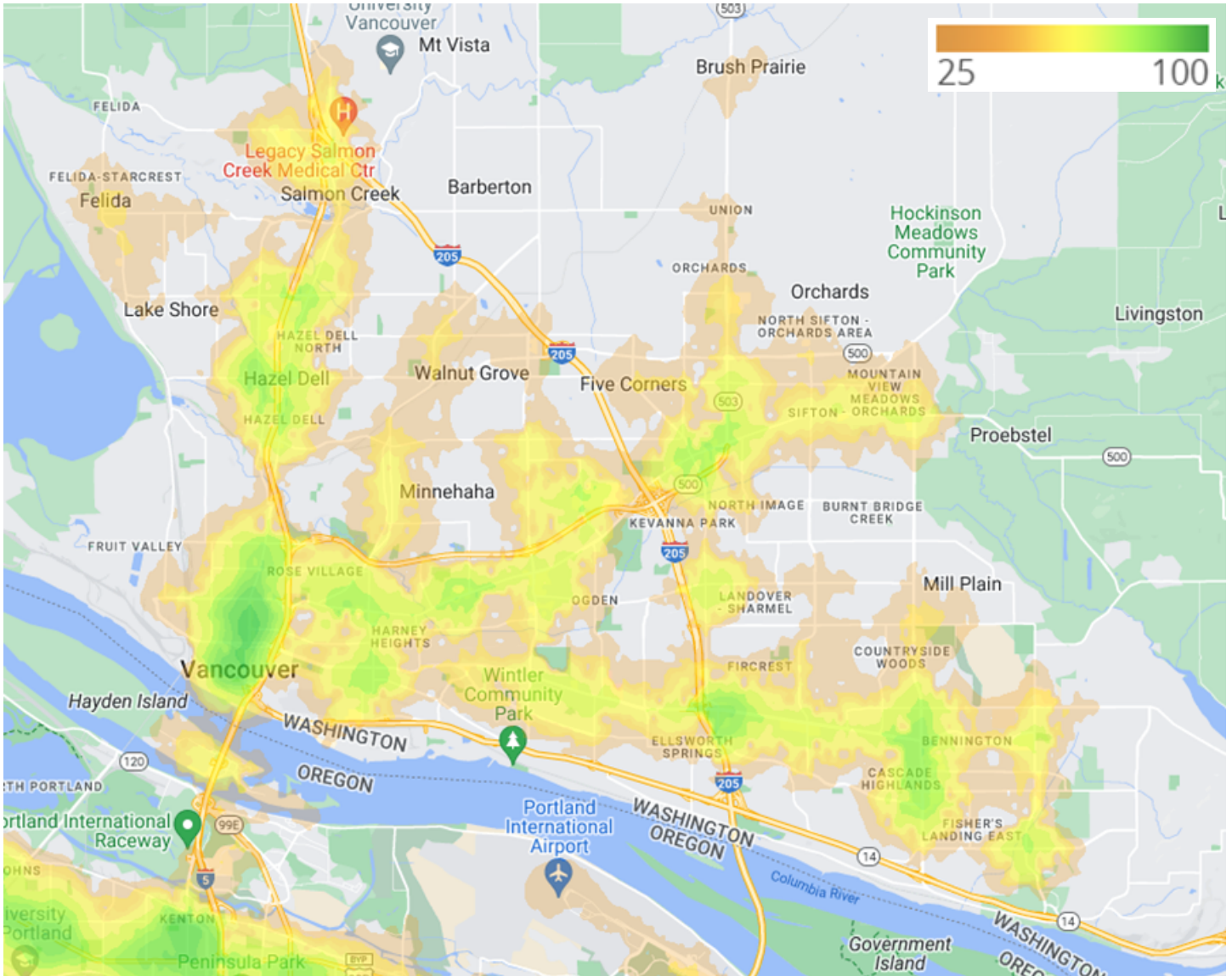
Exhibit 3-11: Crashes Involving Pedestrians 2016-2020



Source: City of Vancouver, 2022.



Exhibit 3-13: Walk Score Heat Map



Source: Walk Score, 2024.

## Food Access

- **Food Access Summary:** Supermarket access varies across the city and addressing gaps could improve community health.

Socioeconomic factors and neighborhood patterns can affect households' ability to access food, particularly fresh and healthy foods. Many households in Vancouver are facing food insecurity, with 15.5% receiving Supplemental Nutrition Assistance Program (SNAP) support (U.S. Census Bureau, 2022). In the 2021–2022 school year, 48% of students in Vancouver received free and reduced lunch (Design Workshop, 2024). The 2024 Clark County Community Needs Assessment survey also found that food assistance and access to fresh and healthy foods were among the top physical health services needs for Vancouver respondents (Clark County, 2021).

In the context of the city's built environment, some parts of Vancouver do not have any supermarkets within one mile of housing (Exhibit 3-14). While physical proximity to supermarkets is only one factor in a household's access to food, it does play a role, as longer trips take time and fast-food and convenience stores may be located closer and be easier to get to. Some households living near grocery stores, however, may also need to travel for food if the nearby store is too expensive or if they rely on food banks.

For food insecure households, food banks provide necessary support in access to nutrition. Clark County Food Bank partners with other organizations to distribute food at multiple food pantries throughout Vancouver, which have varying service times during the week (Exhibit 3-15).

The City of Vancouver also has five established community gardens where people can grow food in designated areas of some public parks. Gardens operated by the City include Campus Garden, Ellsworth Road Garden, Fruit Valley Park Garden, Leroy Haagen Memorial Community Park Garden, and Marshall Community Park Garden (City of Vancouver, 2022). Private non-profits, churches, and school groups operate additional garden spaces. Between 2014 and 2021, 1,671 people participated in the City's garden programs, 80% of whom were Vancouver residents. Residents over age 65 have reduced rates to secure a plot. Gardens open for the season in April and close in November. Urban Abundance, a local non-profit, also supports the creation of edible landscapes, harvesting local fruit and building publicly accessible foodscapes (Urban Abundance, 2025).

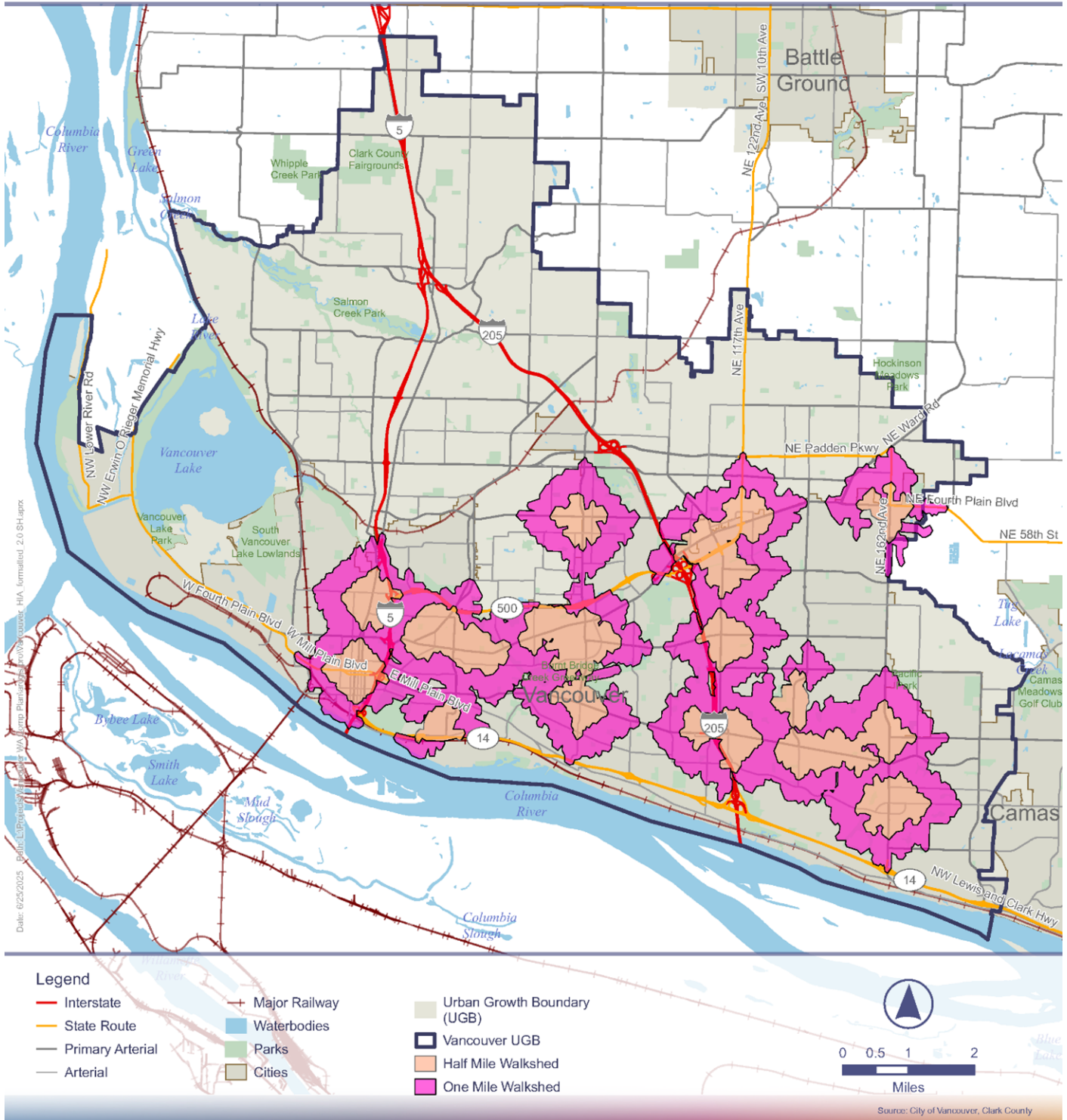
While there is only a small amount of urban agriculture within Vancouver, mostly located near Vancouver Lake, Clark County has an active farming community that serves the city through area farmers markets. Farmers markets in Vancouver include the Downtown Market, open year-round, and the East Vancouver Market, open in the summer (Vancouver Farmers

Market, 2025). The markets participate in SNAP Market Match, with which SNAP/Electronic Benefits Transfer (EBT) customers can spend their benefits on farmers market produce, and their spending is matched dollar for dollar up to \$25 in vouchers. The Vancouver Farmers Market also supports the Market Box Produce Prescription Program, in partnership with Vancouver Clinic and American Heart Association, delivering produce to patients every week. Some farms also have Community Supported Agriculture (CSA) programs where households can buy a share of produce during the growing season that they can pick up or have dropped off on a regular schedule (Clark Food and Farm Network, 2025).

Exhibit 3-14: Supermarket Access - 1-mile Radius

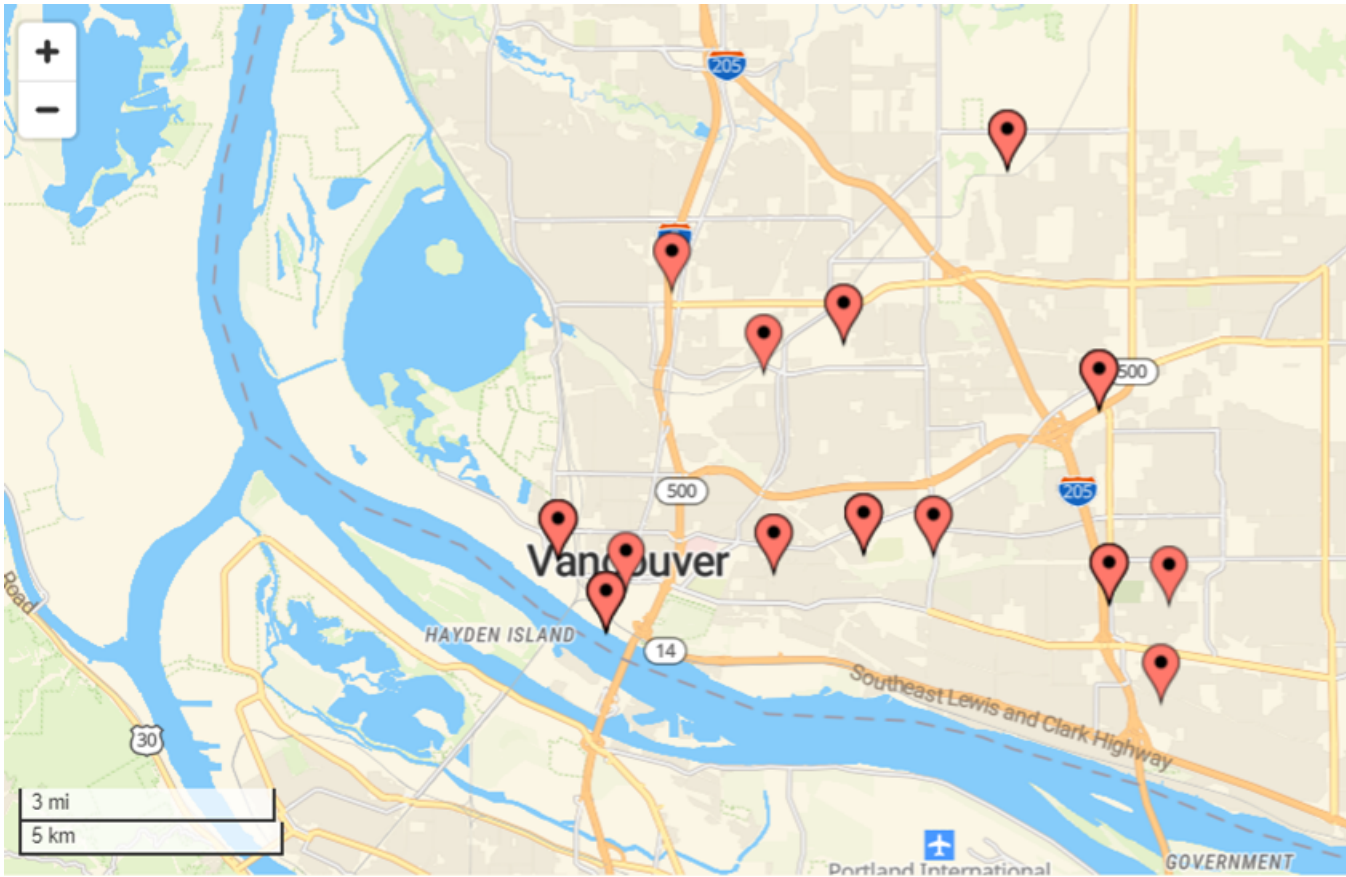
**OUR VANCOUVER**  
OUR FUTURE 2045

Access to Supermarkets  
Half-mile and 1-mile service areas (city only)



Source: City of Vancouver, 2024; US Census, 2022 (ACS 5-year estimates); BERK, 2024.

Exhibit 3-15: Clark County Food Pantry Sites



Source: Clark County Food Bank, 2024.

## Community Connections

- **Community Connections Summary:** Some neighborhoods have a low density of services and amenities, creating challenges with access to healthcare, childcare, and daily needs. Social isolation is also a challenge nationally that can be improved through programming.

### Access to Services

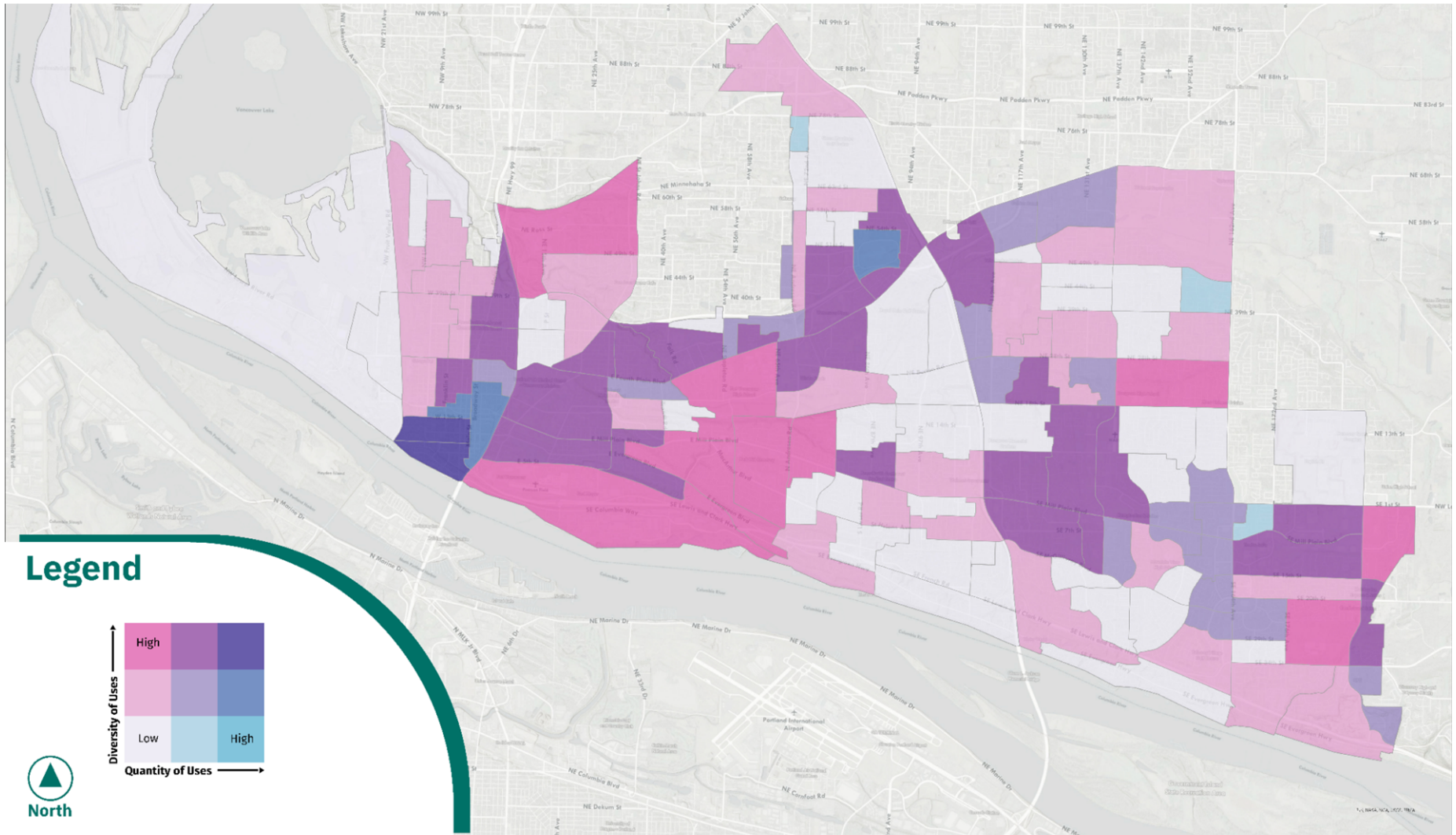
Neighborhoods with a density of essential places, such as schools, childcare, healthcare, social services, and gathering spaces, may be better for health due to improved walkability and easier access to services that support well-being. The concept of a connected and accessible neighborhood aligns with this idea and describes a place where various daily needs can be reached by walking or biking. In Vancouver, some neighborhoods could be considered connected and accessible neighborhoods while others have a much lower proximity to and diversity of amenity types (Exhibit 3-16). This includes essential uses, like grocery stores, urgent care, public schools, and bus stops, and supportive uses, like cafes, community centers, libraries, and trade schools. Neighborhoods with lower amenity access scores include Fruit Valley, Rose Village, and several areas immediately to the west of I-205 and on the east side of the city.

Childcare is one specific type of essential service with varying factors that affect access. Clark County Public Health is conducting the multi-phase Raising Clark County project to identify community support needs for infants, young children, parents, and caregivers. The first phase of the project has found that “families struggle with navigating the complexities of finding a child care center that is available, affordable, reliable, and safe.” (Clark County, 2024). Challenges include the high cost of childcare, long wait lists, childcare gaps during holidays and seasonal breaks, program quality, and outdated provider lists. These challenges extend far beyond simply the proximity of childcare to families and their homes and are more likely to be addressed through programs than built environment interventions.

Many Vancouver residents also need access to social services, and transportation to and from these services is a key issue. A Community Needs Assessment survey conducted by Clark County in 2024 found that getting to services, such as housing, physical health, behavioral health, and support services, was among the top barriers to social services access for respondents in Vancouver (Clark County, 2024).

Exhibit 3-16: Connected and Accessible Neighborhoods (Diversity and Quantity of Uses)

# Connected and Accessible Neighborhoods



Source: City of Vancouver, 2025.

## Social Connection and Isolation

There is an epidemic of loneliness and isolation across the United States, according to the U.S. Surgeon General (U.S. Surgeon General, 2023). Connection with others is critical to health and wellbeing, and neighborhoods play a role in facilitating that connection. Physical elements, like schools, libraries, parks, and other places that bring people together, can strengthen our relationships with one another by providing places to meet and interact.

According to 2022 American Community Survey estimates, 31% of households in Vancouver are people living alone, and 13% of that 31% are older adults (over 65) living alone. These percentages have grown over the past 10 years: in 2012, 30% of households in Vancouver were people living alone and 10% of all households were older adults living alone. According to Washington State Home and Community Services, older adults are particularly at risk for isolation and loneliness (Washington Department of Social and Health Services, 2021).

With almost a third of Vancouver households currently living alone and not experiencing the daily social interactions that come from sharing a home, access to gathering spaces and opportunities for connection is increasingly important. Better access to amenities and parks is likely to enhance social connections and therefore community health (see Exhibit 3-4 and Exhibit 3-16).

In addition to supporting physical spaces for gathering, the City also provides opportunities for connection through programming. The City currently runs recreation and community event programs through the Firstenburg Community Center, serving East Vancouver, and the Marshall/Luepke Center, serving West Vancouver. City recreation programs for adults include sports, fitness, and arts, with additional programs tailored specifically toward older adults. The City also coordinates special events, such as summer concerts and movies, and works with community partners on celebrations for various holidays throughout the year. The Vancouver Community Library, operated by Fort Vancouver Regional Libraries, also has ongoing programs, including book groups and workshops.

## Exposure to Health Hazards

- **Exposure to Health Summary:** Air quality is a key issue in Vancouver, especially PM<sub>2.5</sub> exposure. Water quality, noise, heat, and climate change impacts are also present and can be addressed in part by planning and policy.

## Air Quality

Criteria air pollutants (CAPs) are specific pollutants that the US Environmental Protection Agency (EPA) has designated as specifically causing harm to people's health and the environment. They include:

- Particulate matter
  - Fine particulate matter (PM<sub>2.5</sub>)
  - Inhalable particulate matter (PM<sub>10</sub>)
- Ozone (O<sub>3</sub>)
- Nitrogen dioxide (NO<sub>2</sub>)
- Sulfur dioxide (SO<sub>2</sub>)
- Carbon monoxide (CO)
- Lead (Pb)

The Washington State Department of Ecology has identified Vancouver as an overburdened community highly impacted by criteria air pollution (Washington Department of Ecology, 2025). Vancouver was identified because of the elevated levels of PM<sub>2.5</sub> compared to the rest of the state, and the vulnerability of the community to air pollution impacts due to poverty, linguistic isolation, and unaffordable housing.

Specific pollutants of concern, per a 2023 Ecology report, include short-term (24-hour) PM<sub>2.5</sub> and cumulative criteria air pollution, which is mostly driven by PM<sub>2.5</sub>, O<sub>3</sub>, and NO<sub>2</sub> (Washington Department of Ecology, 2023). Sources of pollution in Vancouver include wildfire, wood burning, cars, trucks, trains, and port activity. Proximity to the larger city of Portland is also likely an influence. As shown in Exhibit 3-17 and Exhibit 3-18, Vancouver ranks highly for PM<sub>2.5</sub> and O<sub>3</sub> exposure compared to other places in the state (Washington State Department of Health, 2022). The Ecology report estimates that there are 30 deaths each year associated with PM<sub>2.5</sub> in Vancouver, with the largest impact on older adults.

Current air quality monitoring in Vancouver includes PM<sub>2.5</sub> and O<sub>3</sub>. The Washington State Environmental Health Disparities map tool also provides mapping for these pollutants (Washington State Department of Health, 2022). The Vancouver area on average is in attainment with the national ambient air quality standards (NAAQS) for all CAPs but is well above NAAQS levels of PM<sub>2.5</sub> during severe wildfire events. Even during years with less severe

wildfire events, PM<sub>2.5</sub> concentrations approach or surpass the Department of Ecology's healthy air goals of 20 µg/m<sup>3</sup>. During summers when wildfires are not prevalent, O<sub>3</sub> is the dominant CAP as there is more direct sunlight and high concentrations of volatile organic compounds (VOCs) from vehicle exhaust, which react to form ground level O<sub>3</sub>.

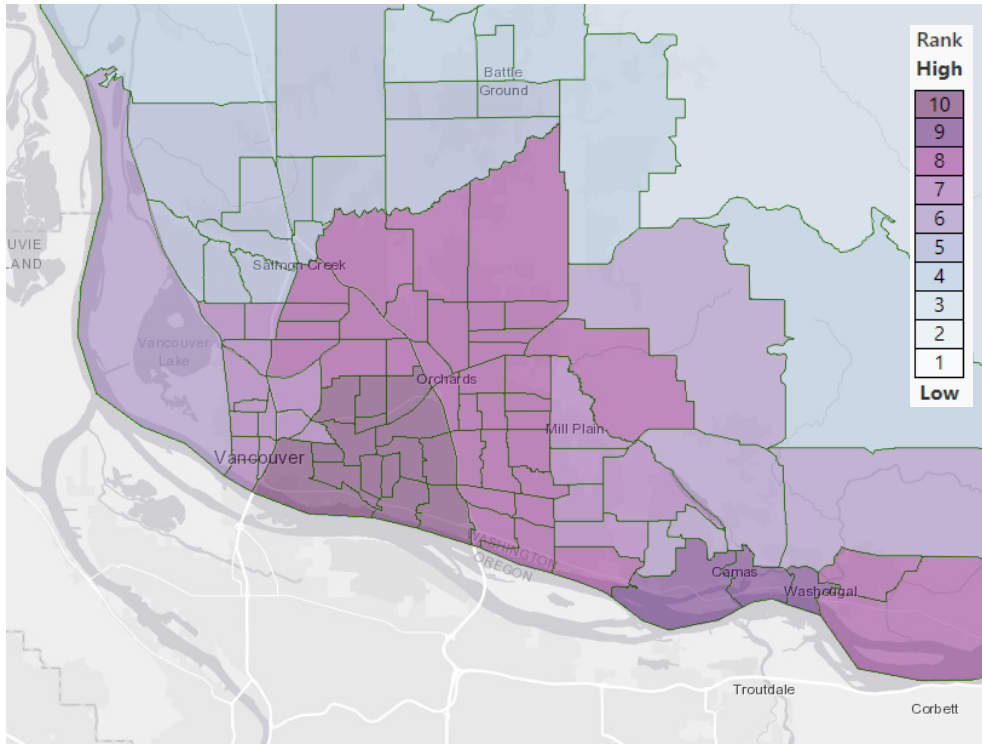
Poor air quality has been directly linked to negative health outcomes in overburdened communities. The following outcomes are more common in overburdened communities and can be linked to high concentrations of criteria pollutants:

- Heart and lung disease at higher rates than state average
- Lower life expectancy than state average
- Older adults in overburdened communities highly impacted by air pollution were twice as likely to die from illnesses linked to breathing fine particles (PM<sub>2.5</sub>) from human-caused sources than the statewide average. Older adult people of color have a higher risk of death from breathing fine particles (PM<sub>2.5</sub>) compared to older white adults in the same area.

There are also multiple sites in Vancouver that the US EPA identifies as brownfields or superfund sites, which have been contaminated by past uses and may pose a hazard to human health and the environment (Exhibit 3-19). Brownfields are properties where contamination is present that could impact future use and the federal government is not typically involved. Superfund sites are those with a typically more hazardous type of contamination and the federal government is involved in cleanup. The EPA provides grants and technical assistance to remediate these contaminated sites. All of the superfund sites in Vancouver have been removed from the superfund national priorities list due to effective cleanup actions. Brownfield sites in the city have varying statuses regarding their cleanup.

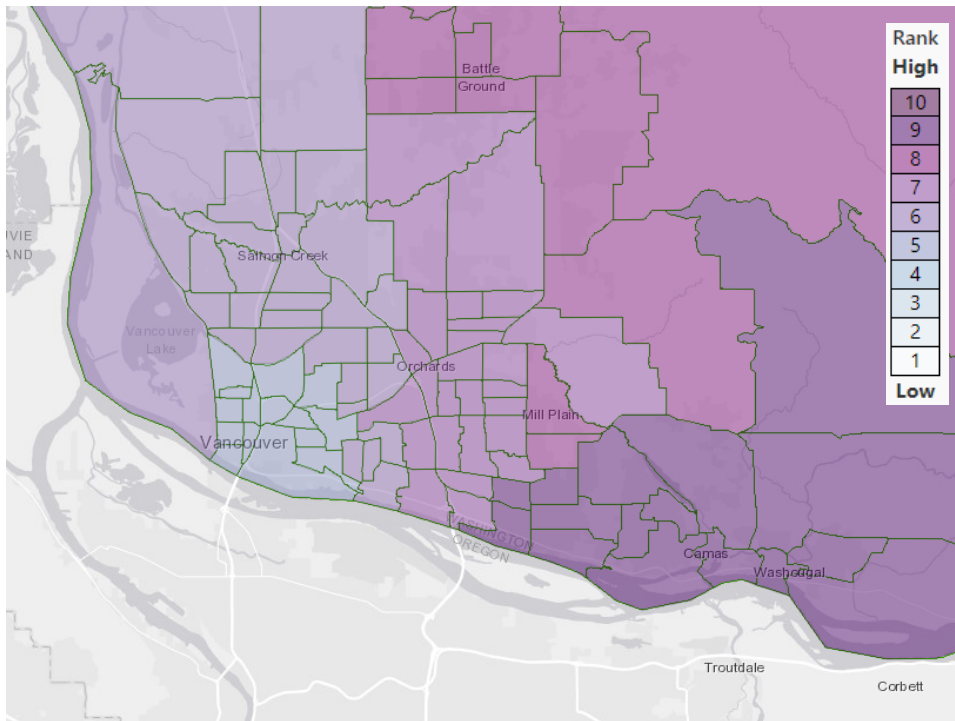
Greater density of trees and plantings is one strategy to mitigate air pollution. Dense tree canopies are prevalent in some residential neighborhoods in Central Vancouver, but overall, Vancouver's tree canopy coverage is significantly lower than the recommended 40%, with only 19% coverage (Exhibit 3-20). This is also lower than other cities in Washington, which maintain an average of 32% coverage. Communities of color in Vancouver experience less tree canopy coverage, falling below the City's average by 2.4% (Design Workshop, 2024). Vancouver aims to achieve a tree canopy coverage of 28% by 2030.

Exhibit 3-17: PM<sub>2.5</sub> Exposure - Compared to Other Census Tracts in Washington



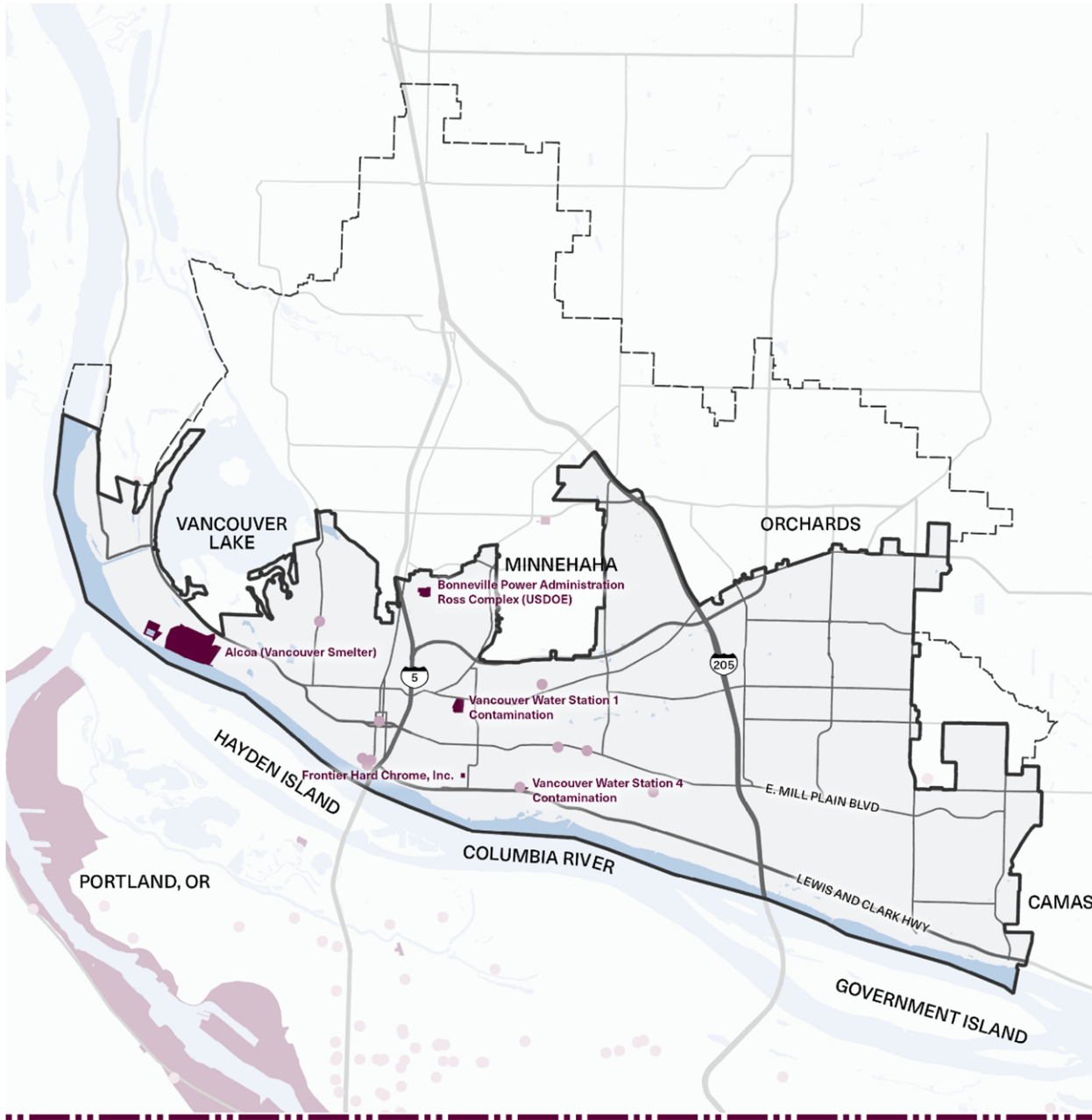
Source: Washington State Environmental Health Disparities Map, 2022.

Exhibit 3-18: O<sub>3</sub> Exposure - Compared to Other Census Tracts in Washington



Source: Washington State Environmental Health Disparities Map, 2022.

Exhibit 3-19: Superfund and Brownfield Sites



City Boundary  
 UGA  
 Waterbodies

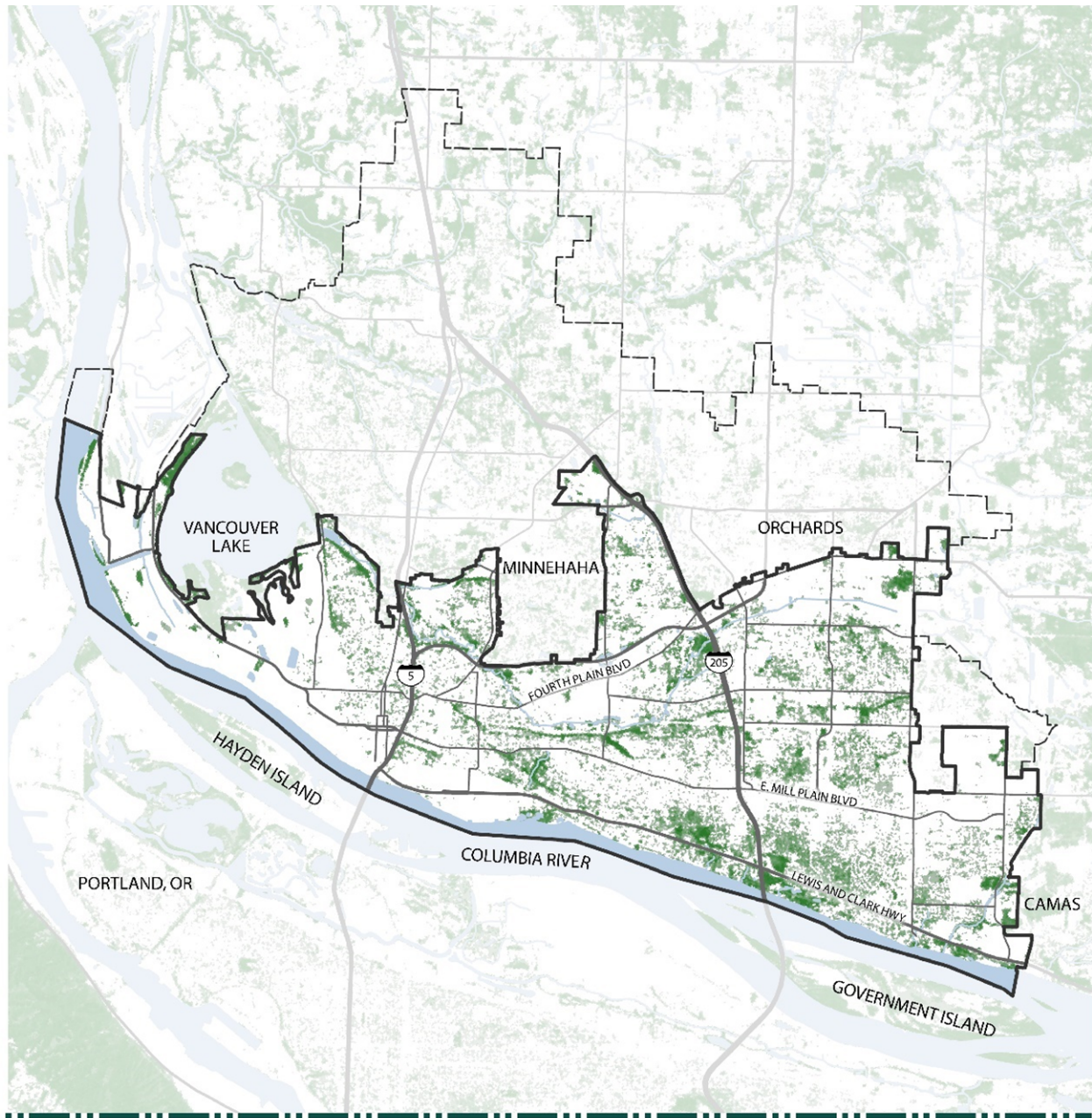
Superfund Site  
 Brownfield Site

0 0.5 1 2 miles

County of Clark, WA, Oregon Metro, Oregon state, State of Oregon GEO, WA State Parks GIS, Esri, HERE, Garmin, SafeGraph, GeoTechnologies, Inc, METI/NASA, USGS, Bureau of Land Management, EPA, NPS, USDA

Source: City of Vancouver Community Atlas, 2024.

Exhibit 3-20: Vegetation



- City Boundary
- UGA
- Waterbodies

Tree Canopy

Dense

Sparse

0 0.5 1 2

miles

County of Clark, WA, Oregon Metro, Oregon state, State of Oregon GEO, WA State Parks GIS, Esri, HERE, Garmin, SafeGraph, GeoTechnologies, Inc, METI/ NASA, USGS, Bureau of Land Management, EPA, NPS, USDA

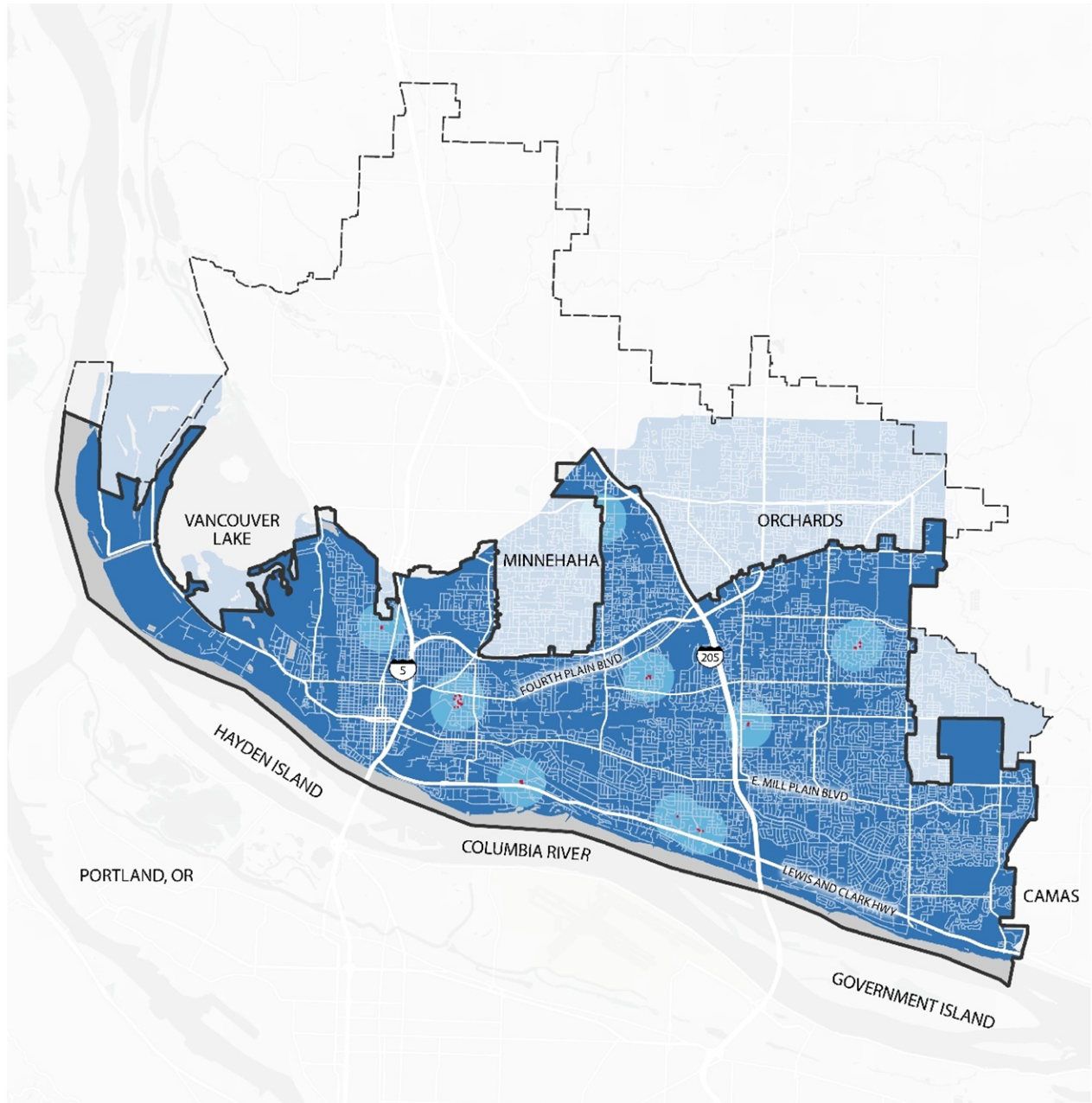
Source: City of Vancouver Community Atlas, 2024.

## Water Quality

The City of Vancouver 2023 Annual Water Quality Report examines groundwater and distribution system testing results for select contaminants. Testing of groundwater sources found that the highest levels of fluoride and nitrate were well within the ideal goal limit and the highest level allowed (City of Vancouver, 2023). Within the water distribution system, coliform bacteria was not detected in 2023, but chlorine was slightly higher than the ideal goal. Other contaminants without goals defined were detected at levels far below the highest allowed. The City also conducted sampling for per- and polyfluoroalkyl substances (PFAS), human-made chemicals with links to harmful health impacts. Samples ranged from none detected to levels above the level that the State defines as requiring monitoring and action. The City has a range of ongoing activities to help address PFAS in the city's water, including short-term measures and treatment projects in long-range capital facilities plans. Vancouver also has eight wellhead protection areas located throughout the city (Exhibit 3-21).

Overall, based on 2023 testing results, chlorine but especially PFAS may be the greatest contaminant risks to the water quality in Vancouver.

Exhibit 3-21: Potable Water



- City Boundary
- UGA
- Waterbodies

- Water Service Area
- Water Main

Wellhead Protection Area

- Water Well Protection Area (100')
- Special Wellhead Protection Area (1900')



County of Clark, WA, Oregon Metro, Oregon state, State of Oregon GEO, WA State Parks GIS, Esri, HERE, Garmin, SafeGraph, GeoTechnologies, Inc, METI/ NASA, USGS, Bureau of Land Management, EPA, NPS, USDA

Source: City of Vancouver Community Atlas, 2024.

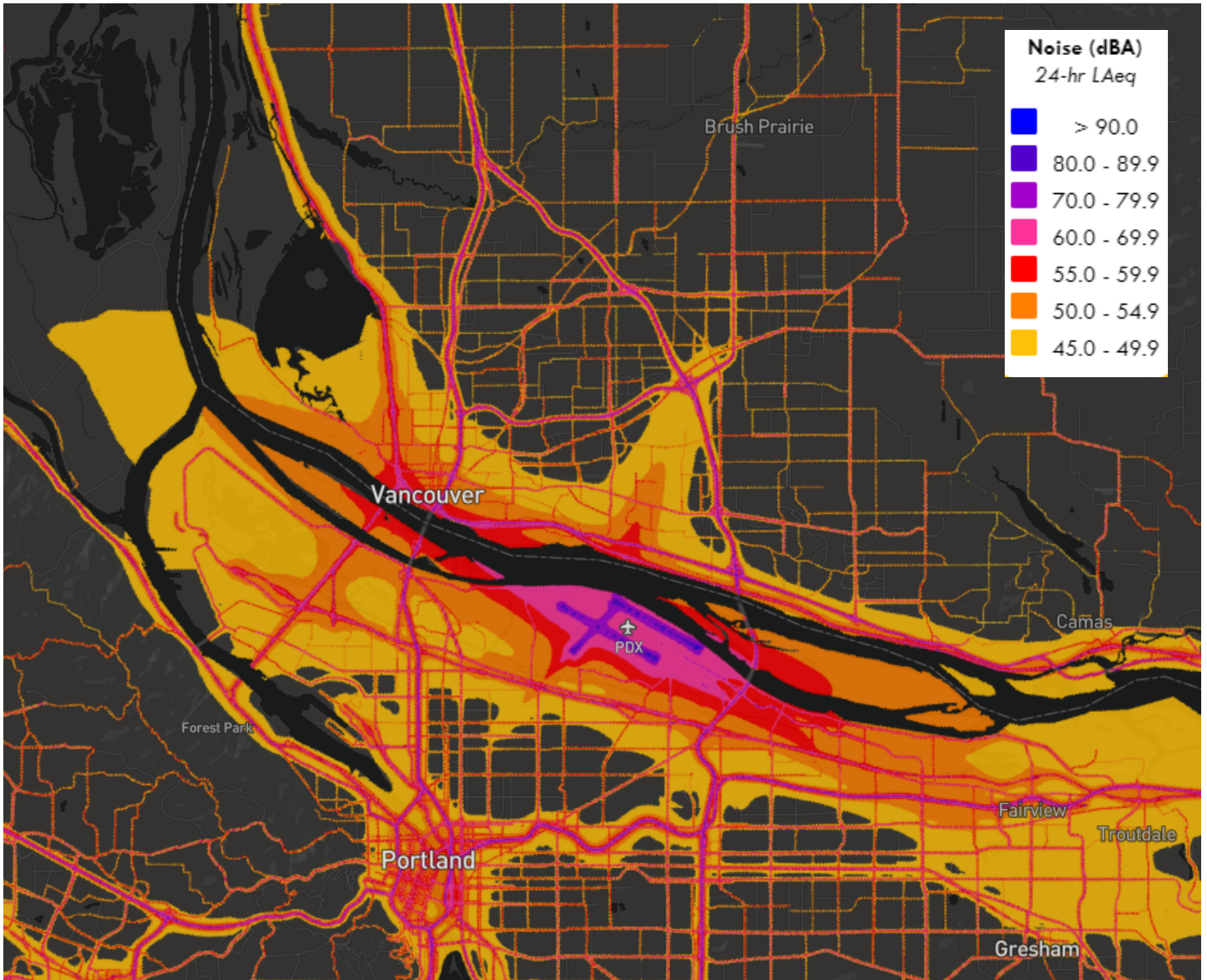
## Ambient Noise

According to the American Public Health Association, chronic noise can have a range of impacts on sleep and stress levels that can contribute to cardiovascular disease, psychological disorders, and other health conditions (American Public Health Association, 2021). In an urban environment, noise can come from a range of sources, such as construction, industrial uses, and transportation. Washington State defines maximum permissible noise as between 55 and 70 A-weighted decibels (dBA), depending on the uses that are creating and receiving the noise (Washington Administrative Code, 1975).

The US Department of Transportation provides national data on transportation noise (Exhibit 3-22) (U.S. Department of Transportation, 2020). In Vancouver, much of this noise is centered around the Portland International Airport to the south, the rail lines on the west and south ends of the city, and major roads and highways, including I5, SR14, SR205, and SR500.

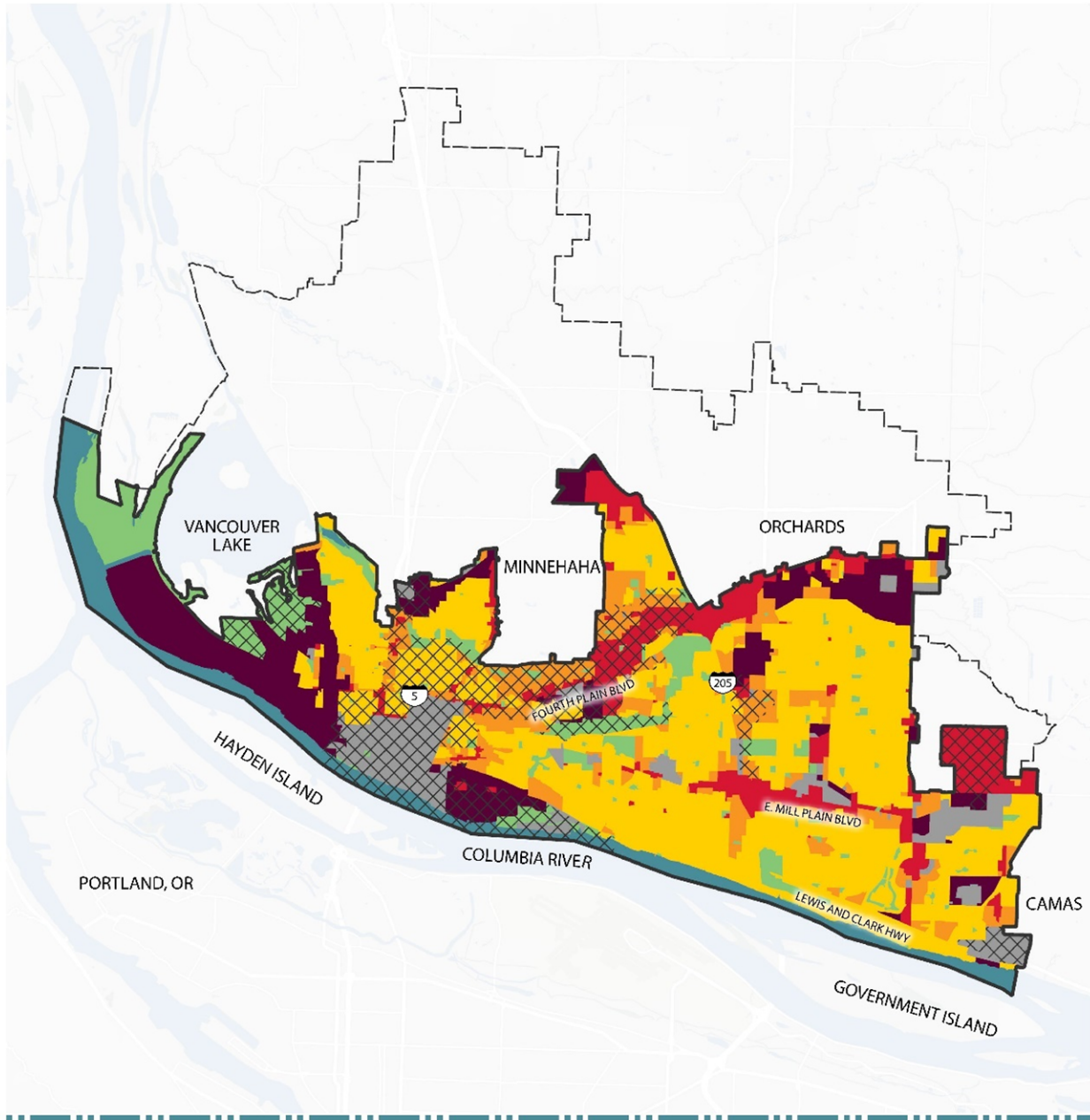
Noise impacts from construction can occur anywhere in the city, whereas noise from industrial uses is most likely to occur in industrial zones, located primarily near the edges of city limits. There are several areas of the city where industrial zones abut residential zones, where homes may be especially at risk for noise exposure, such as on the west side around Fruit Valley, near the Vancouver waterfront south of SR-14, and in the northeast corner of the city (Exhibit 3-23).

Exhibit 3-22: Transportation Noise



Source: U.S. Department of Transportation, 2020.

Exhibit 3-23: Zoning



- City Boundary
- UGA
- Waterbodies
- Zoning Overlay

- Zoning Designation
- Parks and Open Space
  - Single Family
  - Multifamily
  - Commercial
  - Industrial
  - Special District
  - Water



County of Clark, WA, Oregon Metro, Oregon state, State of Oregon GEO, WA State Parks GIS, Esri, HERE, Garmin, SafeGraph, GeoTechnologies, Inc, METI/ NASA, USGS, Bureau of Land Management, EPA, NPS, USDA

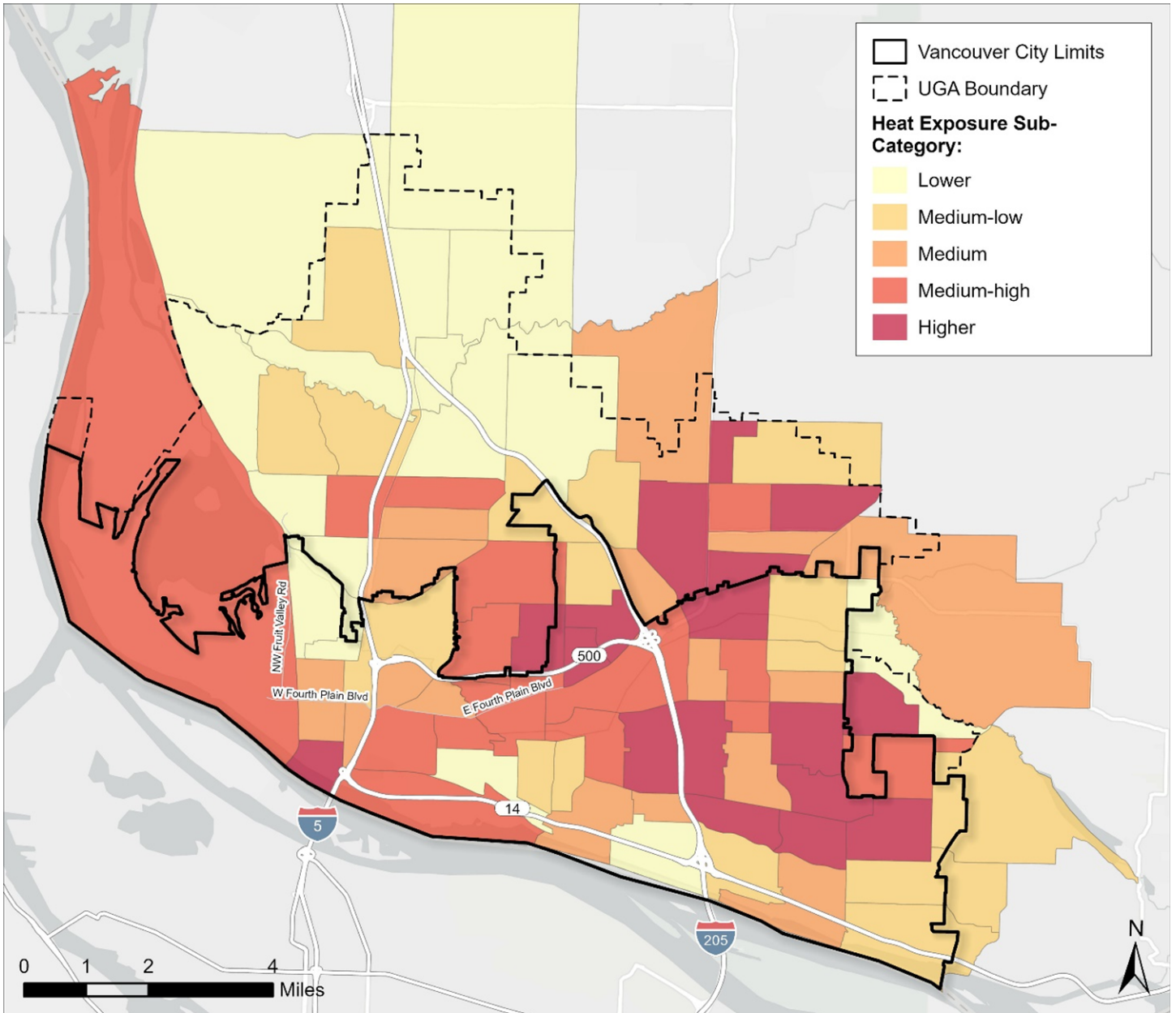
Source: City of Vancouver Community Atlas, 2024.

## Urban Heat

According to the World Health Organization (WHO), heat stress is the leading cause of weather-related deaths, and can also exacerbate health conditions such as cardiovascular disease, diabetes, asthma, and mental health (World Health Organization, 2025)

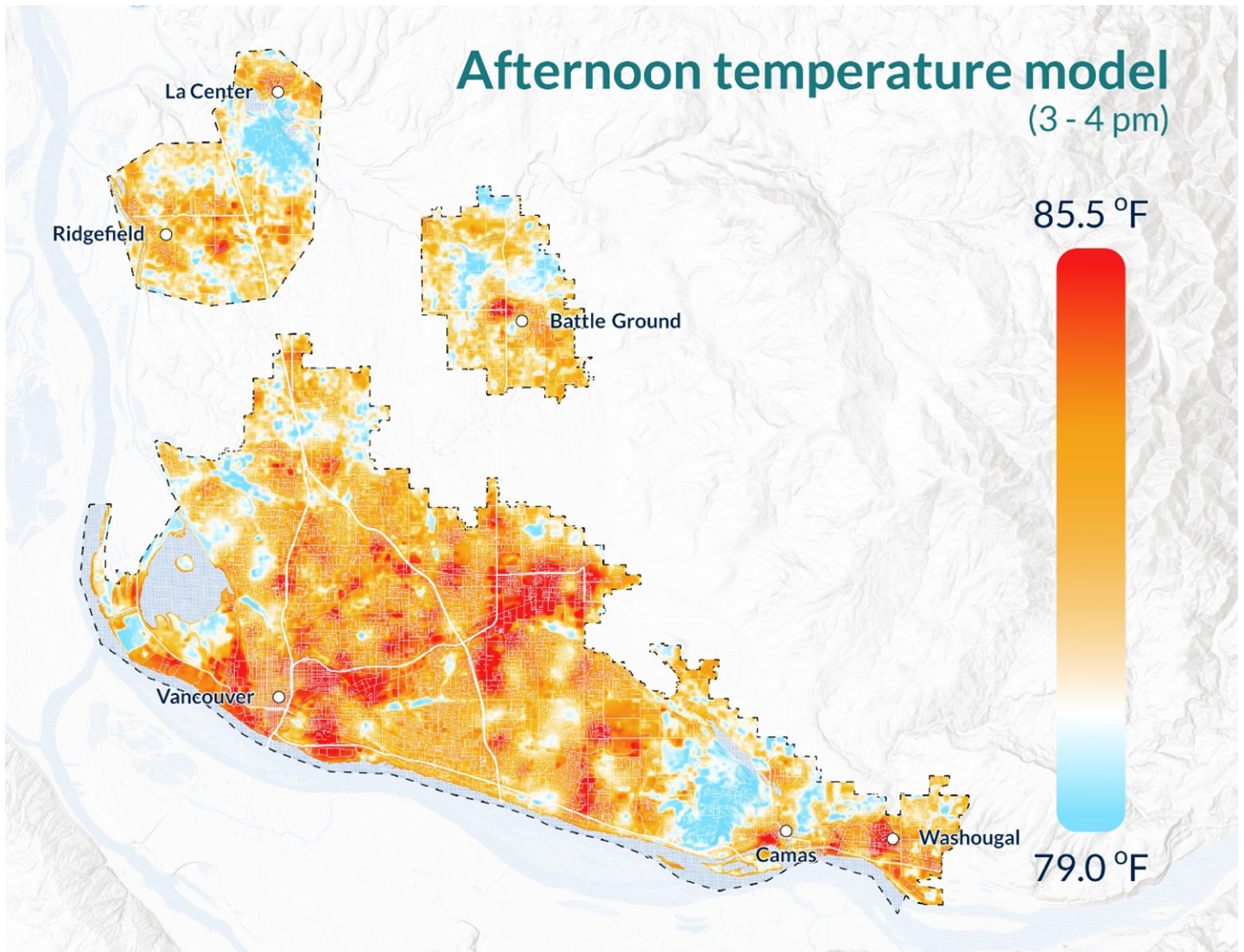
As part of climate change resilience work in 2024, a heat exposure index was created to understand summer heat differences across Vancouver (Exhibit 3-24). Block groups with greater heat exposure are found across the city, generally in areas with more impervious surfaces. Clark County has also conducted a Heat Watch project, collecting point-in-time temperature data on July 12, 2024 (Exhibit 3-25). In their afternoon readings, there was a difference of more than 6 degrees Fahrenheit in different locations. Hotter temperatures were found in the Fruit Valley, Rose Village, and Fourth Plain areas, and areas with large amounts of surface parking and other impervious surfaces across the city, such as industrial parks, office parks, shopping centers, and the VA and PeaceHealth hospitals.

Exhibit 3-24: Heat Exposure Index



Source: BERK, 2024.

Exhibit 3-25: Clark County Heat Watch Map

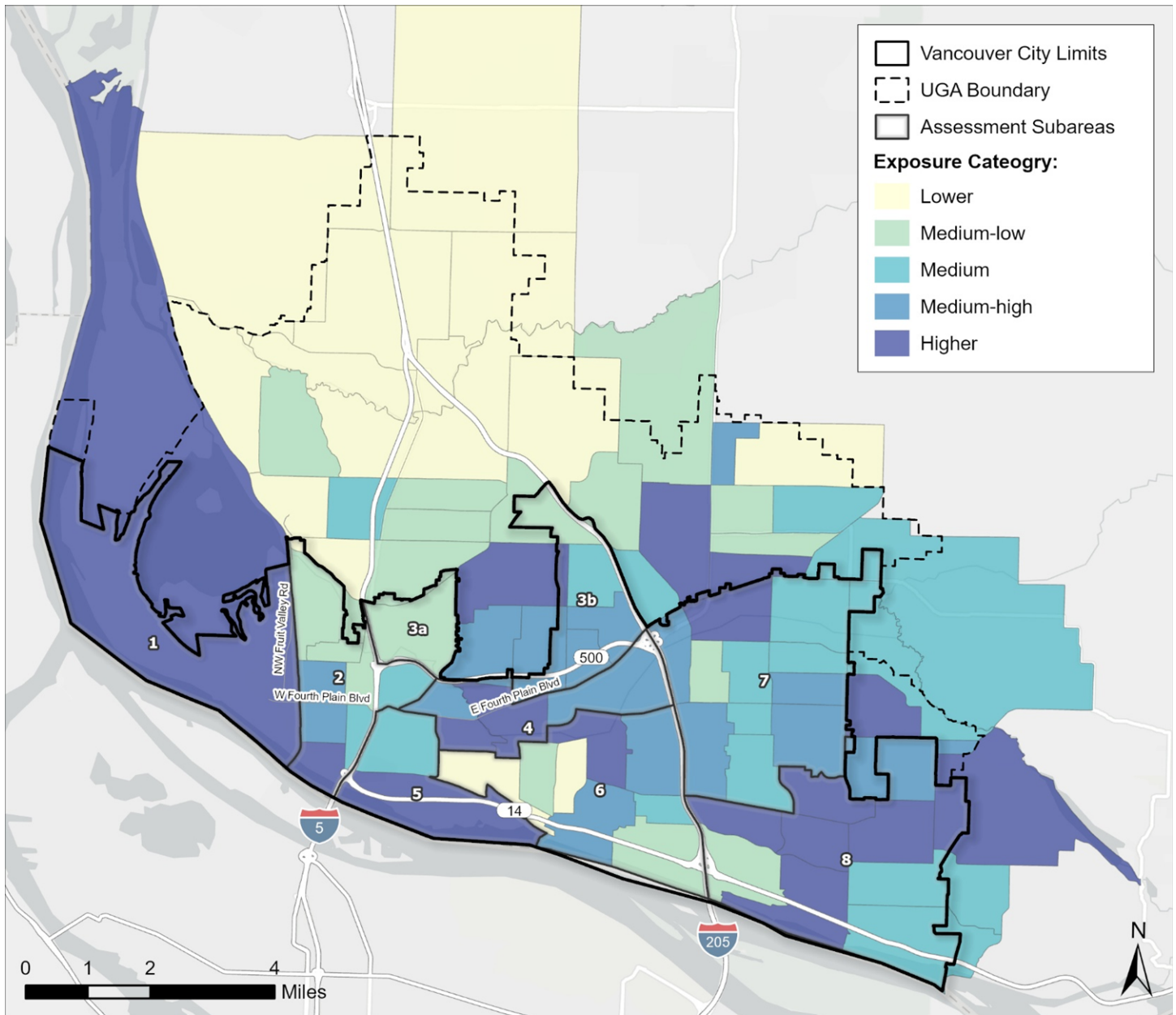


Source: Clark County, 2024.

### Exposure to Climate Impacts

The City's 2024 Climate Exposure Index, created as part of the **OUR VANCOUVER** Comprehensive Plan periodic update, uses data from a variety of sources to create a score for each Census tract (BERK Consulting, 2024). This score represents a tract's combined exposure to heat, precipitation, flooding, smoke, air quality, and fire. Areas with the highest scores have the most potential exposure to climate impacts. High exposure areas primarily include areas along the Columbia River, in and around Fourth Plain Village, and on the east side of the city around major corridors (Exhibit 3-26).

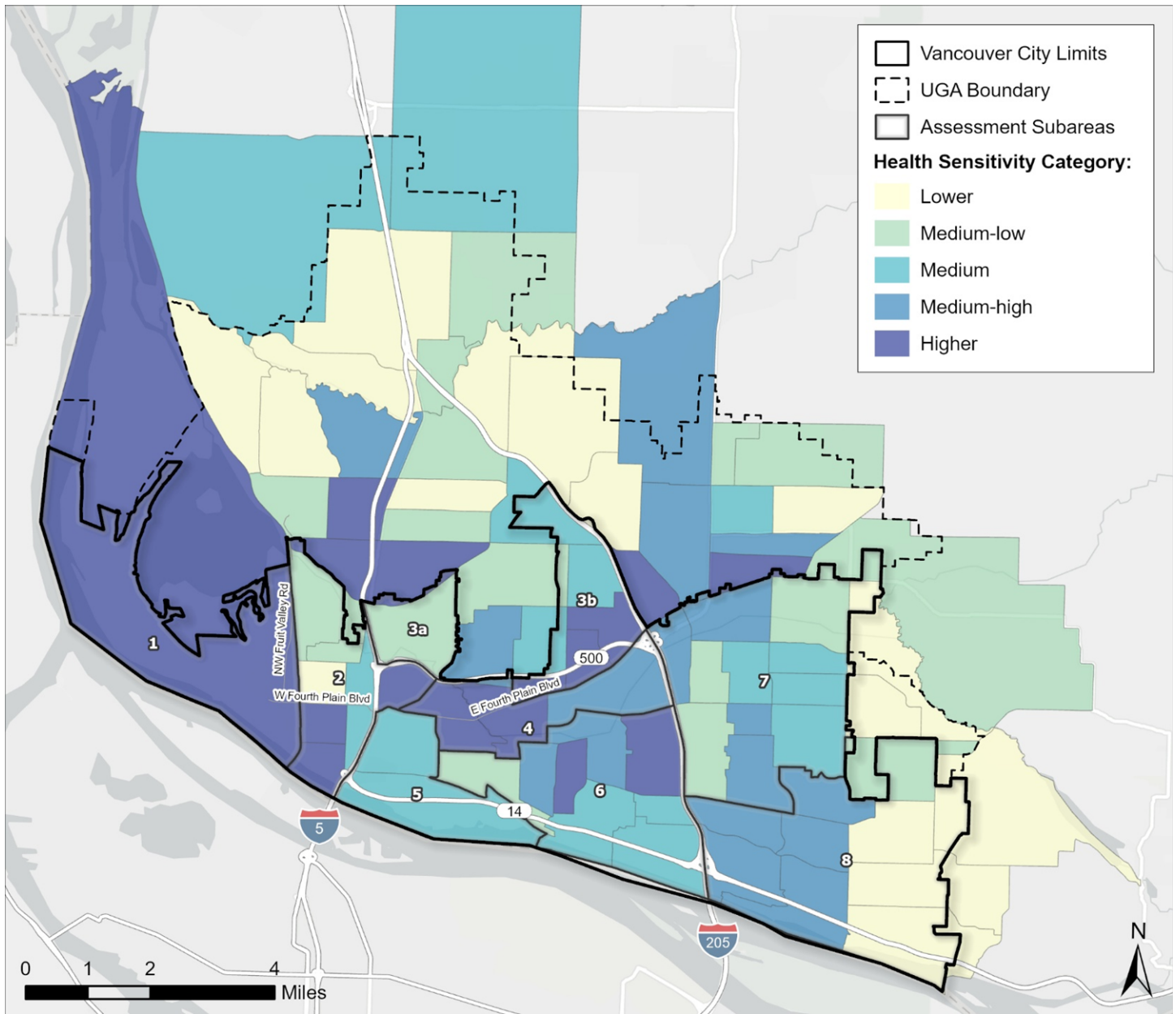
Exhibit 3-26: Climate Exposure Index



Source: BERK, 2024.

A separate Health Sensitivity to Climate Index was created as part of the same effort. It combines metrics around health insurance access, asthma, coronary heart disease, COPD, diabetes, poor mental health, and poor physical health to create a health sensitivity score. Higher scores indicate higher instances of health concerns (Exhibit 3-27). Areas with health sensitivity are similar to those exposed to climate hazards.

Exhibit 3-27: Health Sensitivity to Climate Index

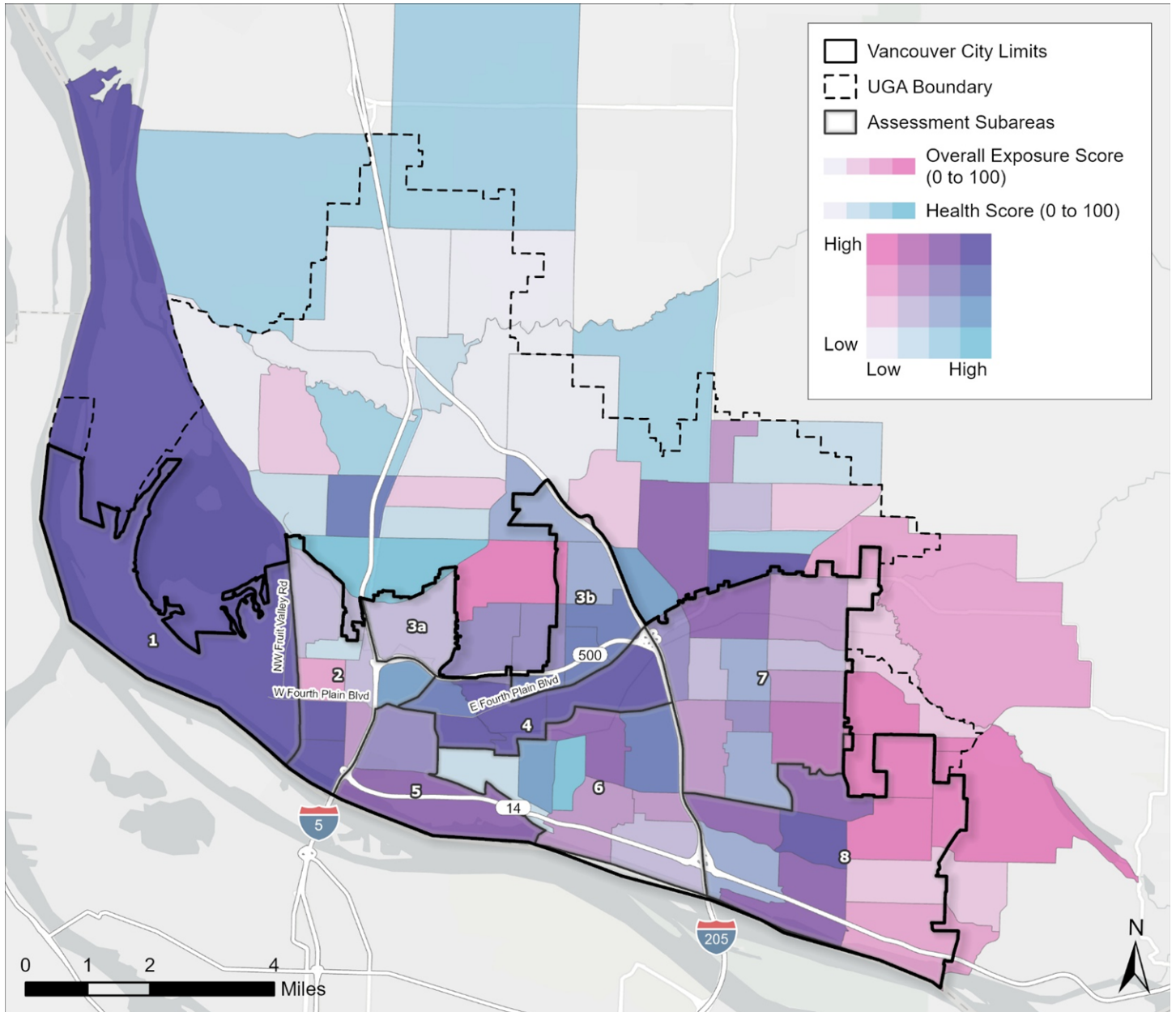


Source: BERK, 2024.

When combined, areas of particular vulnerability include areas along the Columbia River and downtown, in and around Fourth Plain Village, and on the east side of the city around major corridors (Exhibit 3-28).

A full Climate Vulnerability Assessment will be published with the Comprehensive Plan periodic update in addition to this HIA.

Exhibit 3-28: Climate Exposure Index X Health Sensitivity to Climate Index



Source: BERK, 2024.

## Housing and Financial Security

- **Housing and Financial Security Summary:** Affordability and displacement are pressing issues for health, and a quarter of Vancouver’s housing stock may also have exposure to hazards like lead. About 1 in 8 households is living below the federal poverty level and average wages are especially insufficient for single parents.

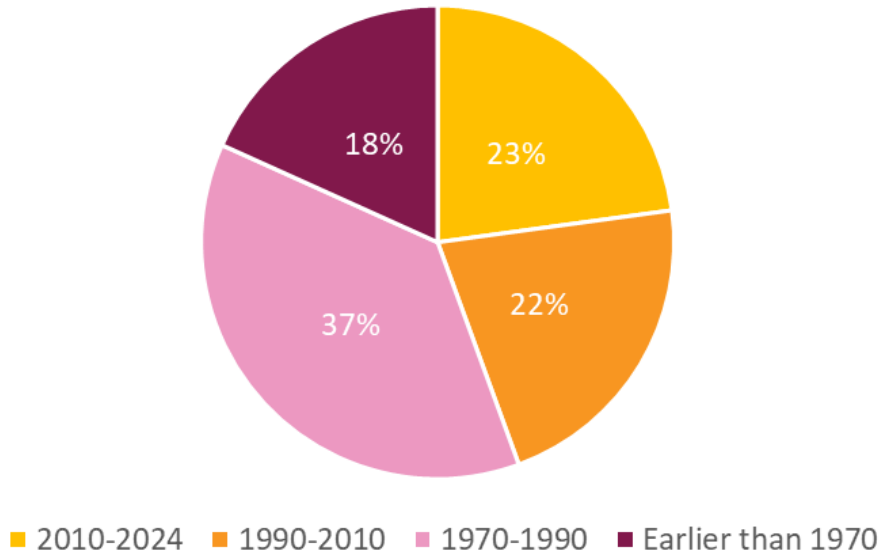
### Safe and Healthy Housing

There are many factors that may contribute to the safety and health of a housing unit. Two measures include the age of the building and radon exposure risk.

While older housing units are not necessarily unsafe or unhealthy to live in, the age of a home can be used as a proxy for lead exposure from lead-based paint. Homes built before 1978 are likely to have lead-based paint, according to the Washington State Department of Health (Washington State Department of Health, 2025). In Vancouver, approximately 25% of units were built before 1978 (Clark County, 2025).

Age of housing stock can also act as a proxy for quality, as aging homes need more investment in maintenance to continue being safe and healthy. More than half of all housing units in the city were built prior to 1990, and 18% were built before 1970 (Exhibit 3-29).

Exhibit 3-29: Housing – Year Built



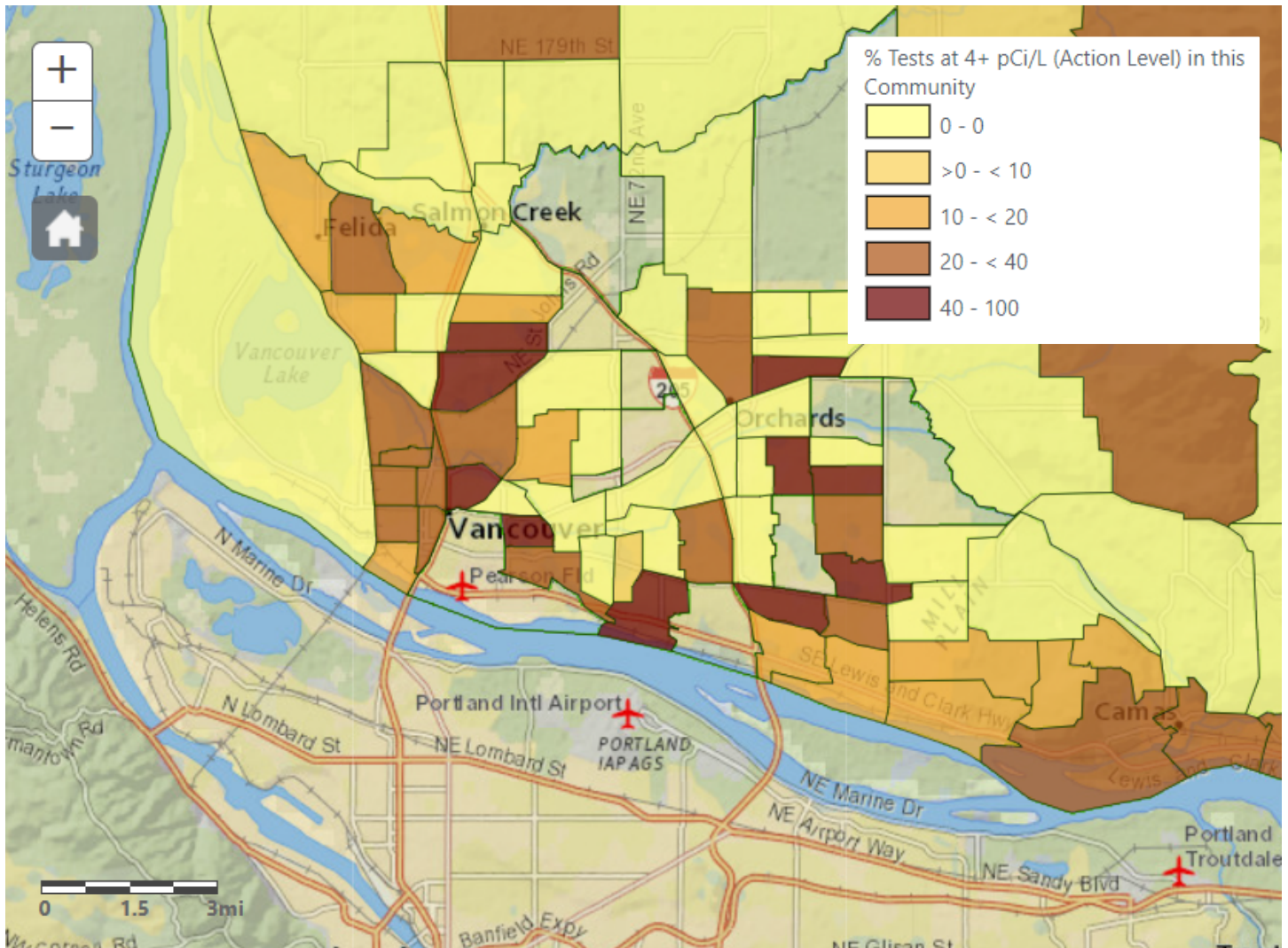
Source: Clark County, 2024; BERK, 2024.

Note: Based on “effective year built,” which is adjusted for major renovations.

Another factor for housing health is radon exposure, which is the leading cause of lung cancer among nonsmokers and contributes to higher rates of lung cancer for smokers (Washington State Department of Health, 2025). Radon is a colorless, odorless gas that can seep into homes and become trapped and concentrated. All types of homes can be affected, regardless of age or whether they contain a basement. However, there is a lower risk in homes above the third floor, and therefore the EPA recommends testing all residences below the third floor (National Center for Healthy Housing, 2025). New homes can also be built with radon-resistant features.

According to the Washington State Department of Health, radon testing in Vancouver has reported varying results in different parts of the city, with clusters near the west, south, and east edges (Exhibit 3-30) (Washington State Department of Health, 2019).

Exhibit 3-30: Radon Testing



Source: Washington Tracking Network, 2019.

**Affordable Housing and Displacement**

Housing instability is considered a social determinant of health by the United States Department of Health and Human Services, as it can have negative impacts to physical health and make it harder to access health care (U.S. Department of Health and Human Services, 2025). Housing instability can also lead to frequent moves, evictions, and homelessness, all of which are also associated with impacts on mental and physical health.

Housing costs have rapidly increased in Vancouver over the past decade, with median home prices nearly tripling and average rents increasing 60% between 2012 and 2023 (City of Vancouver, 2024). Incomes have not been rising proportionately to the rising costs of housing. Cost burden tends to be higher for renters compared to homeowners: 53% of renters

are rent-burdened (U.S. Census Bureau, 2023). This high cost of housing may affect households' ability to meet other daily needs or save for emergencies. The City's Affordable Housing Fund sponsors 1,242 rent-restricted affordable units, of which 26% are set aside for seniors.

More than 1,700 new housing units are needed per year to meet housing needs as the population grows between 2023 and 2045. Many of these units are needed for households with incomes below 80% Area Median Income (AMI), as shown in Exhibit 3-31.

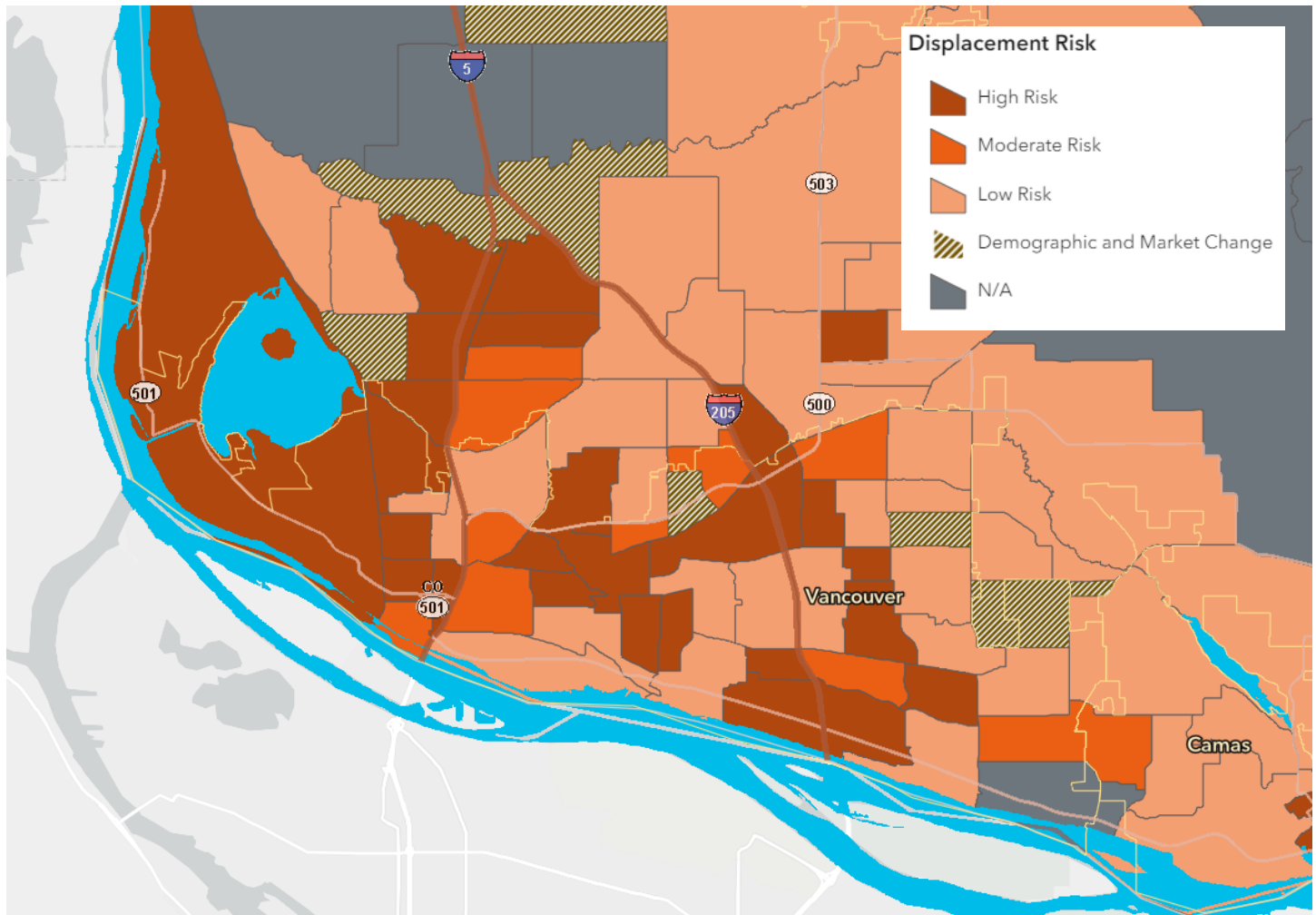
*Exhibit 3-31: Housing Unit Targets by Income Band (2023-2045)*

Household Type	Unit Need (2023-2045)
Emergency Shelter	1,374 (shelter beds)
Permanent Supportive Housing (PSH)	2,651
Below 30% AMI	4,371
30-50% AMI	5,890
50-80% AMI	5,788
80-100% AMI	3,351
100-120% AMI	3,175
120%+ AMI	12,902

Source: City of Vancouver, 2024.

Displacement of existing households is a concern in Vancouver: as rents and housing prices rise and development interest increases, residents are at risk of having to leave their homes and communities for lower-cost areas. The stress associated with being displaced can have negative health impacts. The City has identified Central Vancouver as particularly vulnerable, due to high rates of households with low incomes and renter households (City of Vancouver, 2025). The Washington State Department of Commerce has also published a displacement risk map, which shows areas on the west, north-central, and east sides of the city as being high risk based on market trends, demographic change, and social vulnerability (Exhibit 3-32) (Washington State Department of Commerce, 2024).

Exhibit 3-32: Displacement Risk



Source: Washington State Department of Commerce, 2023.

The City developed an anti-displacement plan in 2023, Reside Vancouver, which includes goals and recommendations to mitigate displacement through preservation, production, protection of people from eviction and discrimination, and financial prosperity (City of Vancouver, 2025).

### Income and Living Wage Jobs

The unemployment rate in Vancouver is low, at approximately 5.6% (U.S. Census Bureau, 2023). However, approximately 11% of the population is living below the poverty level. Rates are much higher for Black or African American residents (21%) and Native Hawaiian and Other Pacific Islander residents (19%).

A living wage job is one where an individual can work full time and cover their household's basic cost of living. Statewide, the family living wage job, or a job with healthcare benefits that is sufficient for raising a family, is defined at \$23 per hour (Revised Code of Washington, 2022).

Massachusetts Institute of Technology (MIT)'s living wage calculator estimates that, in Clark County, for a household with two working adults and two children, both adults must be making an average of \$29.59 per hour to make a living wage, or \$61,500 per adult (combined income of approximately \$123,000) (MIT, 2025). A living wage for a single parent with one child is much higher per earner, at \$43.16 per hour or \$90,000 annually. For a single adult with no children, the living wage is \$26.24 or approximately \$55,000 total per year. Actual living wage numbers in Vancouver are likely to be higher than for the county as a whole.

The average annual salary in Clark County per the Washington State Employment Security Department (in industries covered by unemployment insurance) is \$68,000. This average is above the living wage for a single working adult, or two working adults with two children, but is \$22,000 short of a living wage for a single parent of one child.

Among the highest-paying industries are the management of companies and enterprises; finance and insurance; information industries; professional, scientific, and technical services; and wholesale trade. Lowest paying industries include accommodation and food services; arts, entertainment, and recreation; educational services; retail trade; agriculture, forestry, fishing, and hunting; and administrative and waste services (Exhibit 3-33). Vancouver's economy has been changing and professional and creative class jobs have been growing, making the city less dependent on traditional manufacturing industries to drive growth (EcoNorthwest, 2024).

*Exhibit 3-33: Industries and Wages (Q3 2024)*

2-digit NAICS	Industry subsectors	Average employment	Average weekly wage	Estimated annual wage
52	Finance and insurance	6,608	\$2,213	\$115,076
55	Management of companies and enterprises	3,734	\$2,203	\$114,556
51	Information	3,716	\$2,112	\$109,824
54	Professional, scientific, and technical services	10,856	\$2,031	\$105,612
NEC	NOT ELSEWHERE CLASSIFIED	159	\$1,912	\$99,424
42	Wholesale trade	7,110	\$1,720	\$89,440
GOV	GOVERNMENT	26,819	\$1,585	\$82,420
23	Construction	18,324	\$1,521	\$79,092
31-33	Manufacturing	14,226	\$1,490	\$77,480
48-49	Transportation and warehousing	3,533	\$1,416	\$73,632
62	Healthcare and social assistance	30,825	\$1,358	\$70,616
53	Real estate and rental and leasing	3,146	\$1,202	\$62,504
56	Administrative and waste services	9,473	\$1,118	\$58,136
81	Other services, except public administration	5,718	\$1,050	\$54,600
11	Agriculture, forestry, fishing and hunting	576	\$963	\$50,076
44-45	Retail trade	18,894	\$836	\$43,472

61	Educational services	1,763	\$724	\$37,648
71	Arts, entertainment, and recreation	2,828	\$716	\$37,232
72	Accommodation and food services	15,729	\$593	\$30,836
21	Mining	Not available	Not available	Not available
22	Utilities	Not available	Not available	Not available
<b>TOTAL</b>	<b>Total</b>	<b>184,038</b>	<b>\$1,375</b>	<b>\$71,500</b>

Source: Washington State Employment Security Department, 2024.

The Columbia River Economic Development Council (CREDC), serving Clark County, is focused on five strategic sectors, including software, computers and electronics, clean tech, life sciences, and technology enhanced production, which are industries that tend to have higher wages than the average (CREDC, 2025). The 2018-2023 Clark County Comprehensive Economic Development Plan outlines strategies for supporting these sectors, through becoming industry experts, strategically marketing industry clusters, and building a startup ecosystem (CREDC, 2024). The plan also defines strategies for supporting people in skills development, preparing youth for economic opportunity, attracting emerging talent, and promoting equity, diversity, and inclusion. CREDC has an objective to support economic opportunity in Vancouver, specifically, by supporting incentives, considerations for parking and transportation needs, arts and culture, efforts to improve downtown’s appearance, and multi-family housing.

The ratio of debt to income is one measure of a household’s ability to meet basic needs and build financial wellbeing. According to 2023 data from the United States Federal Reserve, the debt-to-income ratio in Clark County was 2.6, higher than the state average of 1.7 (Federal Reserve, 2024). While there are many factors that affect a household’s debt and income, the primary way that the City can address this through land use is to facilitate the conditions for higher-paying industries to expand and create more job opportunities. Policies that help create connected and accessible neighborhoods, as discussed in the Community Connections section above, may also help reduce debt by minimizing the need for a car: 28% of Clark County residents have auto loans (Urban Institute, 2024). Affordable housing policies, as discussed above, could also reduce housing cost pressure and lessen household reliance on borrowing funds, whether in the form of actual housing debt or debt for emergencies and daily needs.

## Key Findings and Implications

This section described the current context regarding population and health outcomes, physical activity, food access, community connections, exposure to health hazards, and housing and financial security in Vancouver. Chapter 5 builds on these findings to examine the three growth alternatives and includes recommendations to address health disparities as the city grows.

### Population and Health Outcomes

Heart disease, respiratory diseases, and diabetes account for a high number of adult deaths in Vancouver. These diseases may be improved or prevented through physical activity, nutrition, and air quality, which Vancouver can support through planning.

Vancouver's population varies widely in terms of demographics and socioeconomic characteristics. Equity Index mapping suggests areas around Fruit Valley, Rose Village, Fourth Plain Village, and Mill Plain Boulevard have the greatest equity disparities.

### Physical Activity

Access to parks and active transportation varies across the city. Priority areas for future park investment based on existing access and equity risk scores include Fruit Valley, Rose Village, Fourth Plain Village, and several other block groups across the city. Walkability in terms of proximity to destinations is strongest near downtown and along major corridors, and many of the vehicle trips from these areas are under 5 miles. These indicate opportunity areas for further bicycle and pedestrian infrastructure.

### Food Access

Many households in Vancouver face food insecurity, with more than 15% receiving SNAP support and almost half of students receiving free and reduced lunch. Some parts of the city do not have any supermarkets within a mile. Food banks are distributed across the city and there are several community gardens and two farmers markets that also provide residents with access to food.

### Community Connections

Access to amenities is greater in some parts of Vancouver than others: Fruit Valley, Rose Village, and several areas immediately to the west of I-205 and on the east side of the city have fewer amenities and diversity of amenities within walking distance. Challenges with access to childcare and access to social services are also present throughout Vancouver.

## Exposure to Health Hazards

Air quality is a hazard of particular concern in Vancouver due to elevated levels of PM<sub>2.5</sub> compared to the rest of the state. Heat islands are also present, particularly in areas with large amount of surface parking and other impervious surfaces. Tree canopy, which can mitigate air quality impacts and heat, varies significantly across Vancouver, with 19% cover on average for the whole city. Noise is also an issue around major roadways, rail lines, and the Portland International Airport. Vancouver is expected to see impacts from climate change, including heat, extreme precipitation and flooding, and smoke.

## Housing and Financial Security

Approximately a fifth of housing units in Vancouver were built prior to 1970, which may correspond with exposures to substances such as lead and other housing quality concerns. Radon testing has also revealed several areas of concern.

Housing costs are rising rapidly, and housing cost burden affects a large amount of residents, especially renters. Displacement is a concern as prices rise and development interest increases, with varying risk levels across Vancouver. The average annual salary in the city is above the living wage for households without children and two-parent households but is below the living wage for single-parent households. 12% of the population is living below the poverty line, and rates are much higher for Black or African American residents and American Indian and Alaska Native residents. Overall, debt-to-income ratio is much higher in Vancouver than the state average.

## Policy Audit

There are several existing policies in the City's adopted Comprehensive Plan that relate to health (City of Vancouver, 2011). Some key policies include:

- **CD-15 Public Health and the built environment**  
Promote improved public health through measures including but not limited to the following:
  - (a) Develop integrated land use and street patterns, sidewalk and recreational facilities that encourage walking or biking
  - (b) Recruit and retain supermarkets and other stores serving fresh food in areas otherwise lacking them. Discourage supermarkets and fresh food stores that do relocate from using non-compete clauses that prevent timely replacement of similar uses. Encourage stores that locate near sensitive populations or underserved areas to offer healthy food choices
  - (c) Assess and promote opportunities for growing food in home or community gardens. Consider guidelines for service provision levels.

- (d) Coordinate with Clark County Public Health to better integrate health impacts and land use and public facilities and service planning
- **CD-17 Aging Populations**  
Update policies, standards, and practices as necessary to accommodate anticipated aging of the local population, through measures such as:
  - (a) Develop integrated land use patterns and transportation networks that facilitate shorter vehicular trips, walking, or use of public transportation
  - (b) Review standards for specialty housing to ensure they are consistent with anticipated age-related housing needs
  - (c) Review standards and designations of conventional single and multi-family housing to ensure they are consistent with anticipated needs, including provisions for aging in place
  - (d) Review standards for roads and sidewalk design, signage, and lighting to address senior safety issues
- **H-6 Special needs housing**  
Facilitate housing for special needs populations dispersed throughout Vancouver and the region. Such housing may consist of residential-care facilities, shelters, group homes, or low-income housing, and should be located near transportation and other services such as health care, schools, and stores.

These policies address several key health topics, including food access, physical activity, community connections, and housing and financial security.

The Vancouver Climate Action Framework (2023), Vancouver Climate Adaptation Strategy (2022), and Clark County Natural Hazard Mitigation Plan (2023) also include policies relevant to exposure to health hazards, food access, and housing and financial security:

- **Climate Action Framework**
  - **Strategy EQ-2**
    - Build a more community-driven, circular economy. Reduce the carbon footprint of goods and services by building a community-driven economy to promote the reduction, reuse, and repair of goods and materials and expand downstream markets for waste products.
    - Work with City economic development partners to support small- and mid-sized businesses in the transition to a local, green economy that ensures equitable distribution of benefits and impacts.
    - Conduct outreach and provide resources to residents, business, schools, and community partners to improve our food system by limiting waste, promoting low carbon diets, expanding community gardens and markets, and securing surplus food to food-insecure
  - **Strategy BE-1**
    - Increase use and storage of renewable energy while reducing consumption

- Work with Clark PUD to procure renewable energy ahead of Clean Energy Transformation Act (CETA) mandates and increase community-wide renewable electricity supply to 100%. Exceed state requirements for building efficiency. Work with businesses, property owners, and nongovernmental partners to establish policies that prevent displacement of those with low incomes and renters, and ensure equitable distribution of the costs and benefits of energy efficiency upgrades. Identify additional opportunities for climate resilient, renewable, affordable, and environmentally just forms of renewable energy systems and electrification.
- Increase green space and tree plantings in identified heat islands and in areas with poor air quality.
- **Climate Adaptation Strategy**
  - Promote other forms of green infrastructure, especially in places suffering from extreme heat.
  - Prioritize investment in areas that have lower property values. Green infrastructure investments should be coordinated with affordable housing and other policies to avoid impacts of green gentrification and related displacement.
  - Support food security.
  - Consider opportunities to combine adaptation and food security efforts, such as through increasing the urban tree canopy with plantings of fruit and nut trees when/where appropriate. Plantings should be coordinated with fruit and nut tree maintenance education programs (e.g. plantings on public school properties) to relieve burden on Public Works.
- **Natural Hazards Plan**
  - **VC-9**– Develop a Plan and Agreement to Increase Elevation of Units within Lakeside Mobile Estates. Work with property owner on a plan and schedule for raising or removing mobile homes that are located in the 100-year floodplain, and identification of possible grant funding that can assist in the costs of such enhancements.

Vancouver’s Parks, Recreation, and Cultural Services Comprehensive Plan (2022–2031) also supports future park access by identifying areas of greatest need (City of Vancouver, 2022). It found that many of these areas have not seen significant growth, so the City has not collected substantial park impact fees that would help fund future park development. The plan includes a capital facilities plan with more than 20 acquisition projects and more than 60 park improvement projects across the city, prioritized based on community needs, unique natural and cultural resources, improving interconnectivity, and partnership opportunities.

## 4. Metrics and Evaluation Framework

### Description of the Alternatives

As described in Chapter 1, there are three growth alternatives evaluated as part of the Draft EIS for the Comprehensive Plan periodic update:

**No Action Alternative.** The No Action Alternative, required by SEPA, is a future scenario that assumes future growth and development would occur in line with the currently adopted City Comprehensive Plan and development regulations, and recent amendments to state statutory requirements that contain self-executing provisions. The No Action Alternative assumes the implementation of House Bill (H.B.) 1110, which generally requires cities of at least 75,000 people to permit “middle housing” of at least four residential units per lot in all areas of the city where single-family housing is allowed. However, the No Action Alternative does not assume the implementation of other amendments to state law that do not contain self-executing provisions, such as H.B. 1220, which requires planning for and accommodating housing affordable to all economic segments of the population, and H.B. 1337, which requires cities like Vancouver to allow up to two accessory dwelling units (ADUs) on a residential lot assuming development regulations are met.

Under the No Action Alternative, the Comprehensive Plan land use designations would remain the same as they are today. The Comprehensive Plan Update and associated zoning code and development regulations would not be adopted. Exhibit 4-1 shows the City’s zoning designations under the No Action Alternative.

**Action Alternatives.** Both Action Alternatives assume that future growth and development would occur in line with the proposed Comprehensive Plan Update and the associated revised zoning code and development regulations. The Action Alternatives assume implementation of all current amendments to state law that affect comprehensive planning and development processes, including H.B. 1110, H.B. 1220, and H.B. 1337.

Under both Action Alternatives, the Comprehensive Plan land use designations and associated zoning code would be renamed and simplified to a smaller set of place types. The locations and sizes of the proposed place types would differ between the two Action Alternatives, as would the distribution of new housing units and jobs. Both Action Alternatives are forecasted to exceed the City’s minimum 2045 targets of at least 38,129 new housing units and 43,198 new jobs.

- **Alternative 1** would allow greater intensity and density of development in more areas of the city than the No Action Alternative but in fewer areas of the city than Alternative 2. These changes in land use designations would result in a higher capacity for new housing

units and jobs than the No Action Alternative but a lower capacity than Alternative 2. Based on market feasibility and redevelopment potential, Alternative 1 would have capacity for approximately 45,100 new housing units and 47,500 new jobs citywide, which is higher than the City's minimum 2045 planning targets of at least 38,129 new housing units and 43,198 new jobs. Exhibit 4-2 shows the proposed zoning under Alternative 1.

- **Alternative 2** would allow the greatest intensity and density of development in more areas of the city compared to the other alternatives. With these changes in land use designations, Alternative 2 would have the highest capacity for new housing units and jobs of all the alternatives. Based on market feasibility and redevelopment potential, Alternative 2 would have capacity for approximately 50,700 new housing units and 51,800 new jobs citywide, which exceeds the minimum City's 2045 planning targets of at least 38,129 new housing units and 43,198 new jobs. Exhibit 4-3 shows the proposed zoning under Alternative 2.

Of all the alternatives, Alternative 2 would allow the greatest density, intensity, and mix of land uses in the most areas of the city, and the No Action Alternative would allow the least. Alternative 1 would allow greater density, intensity and mix of land uses in more areas of the city than the No Action Alternative but generally less than Alternative 2.

The biggest differences in place types as measured by land area would be:

- Almost 50 percent more land area designated as Low-Scale Neighborhood under Alternative 1 compared to Alternative 2.
- Almost 50 percent more land area designated as Medium-Scale Neighborhood under Alternative 2 compared to Alternative 1.
- About double the land area designated as Regional Activity Center under Alternative 2 compared to Alternative 1.

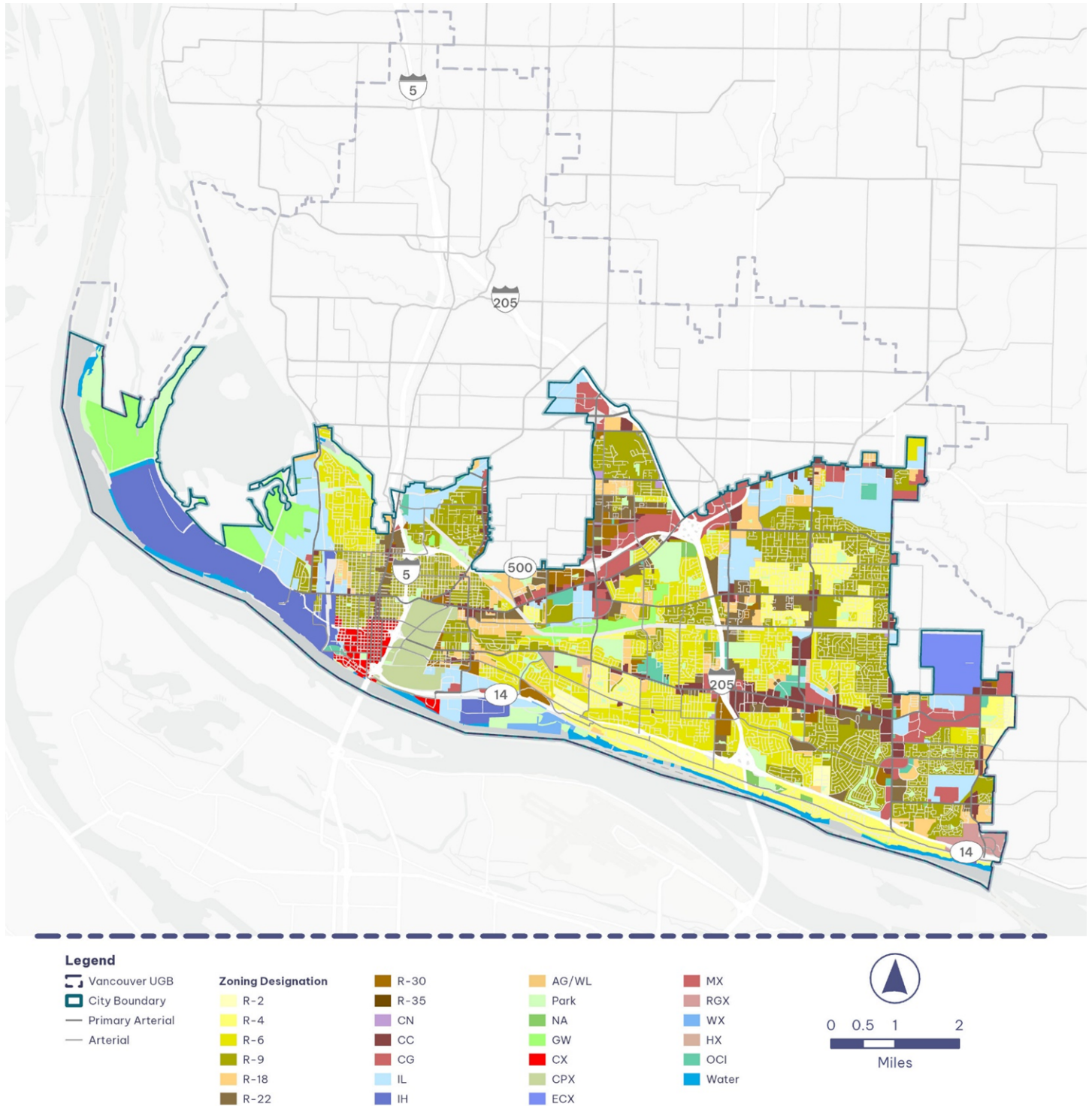
Place type descriptions for the Action Alternatives are as follows:

- **Low-Scale Neighborhood:** Focuses on low-scale housing choices, typically with up to 6 units per parcel and building heights of up to 3 stories (maximum of 45 feet). Any lot would be allowed to have at least four units. Housing types include single-family homes, accessory dwelling buildings, and multifamily residential buildings sometimes referred to as "middle housing," including duplexes (two-unit structures), townhouses (attached single-family homes), quadplexes (four-unit structures), and sixplexes. Small-scale commercial activities like cafes, salons, professional services, and restaurants mostly serving the surrounding neighborhood would also be allowed.

- **Medium-Scale Neighborhood:** Focuses on medium-scale housing choices, typically with up to 12 units per parcel and building heights of 2 to 5 stories (maximum of 60 feet). Housing types include all of the types allowed in the Low-Scale Neighborhood plus additional multifamily building types, including courtyard buildings and multifamily mixed-use buildings. Civic/institutional buildings and commercial activities like cafes, restaurants, small offices, and other retail goods would also be allowed.
- **Mixed-Use Neighborhood:** Provides for a broad range of housing, commercial, and civic/institutional use types, with building heights of 3 to 8 stories (maximum of 90 feet). Housing types include multifamily buildings at a variety of scales. Commercial or retail uses may include professional offices, medical providers, cafes, restaurants, small grocery stores, markets, and other retail goods.
- **Regional Activity Center:** Includes lands that offer opportunities for economic, entertainment, civic, and housing needs, with minimum building heights of 3 stories and no maximum building heights. Size and makeup of this place type would vary based on location but would typically consist of compact, mixed-use development that maximizes residential, commercial, and open space opportunities. Typical housing options would be mixed-use residential, apartment, mid-rise, and podium buildings.
- **Institutional/Campus:** Includes lands that support academic, civic, or medical buildings up to 12 stories (maximum of 150 feet). Allowable housing types include townhouses, multifamily, and mid-rise buildings. Buildings for athletic facilities, event spaces, equipment or other accessory uses needed to support an educational, medical, or large institution would also be allowed.
- **Industrial/Employment:** Includes lands typically housing large-scale, single-tenant industrial, warehouse and flex space building and smaller, multi-tenant industrial buildings ranging from 2 to 12 stories (maximum of 150 feet). The buildings would be grouped to support and serve one another and to provide opportunities for employment clusters. Housing would not be allowed in this place type.
- **Heavy Industrial:** Includes lands that are currently zoned for heavy industrial uses, such as manufacturing and production, within the city and would remain unchanged. Housing would not be allowed in this place type.
- **Parks/Open Space:** Includes lands dedicated to public parks, open spaces, natural areas, trails, and greenways, intended to provide a full range of passive and active uses as well as environmental protection and enhancement.

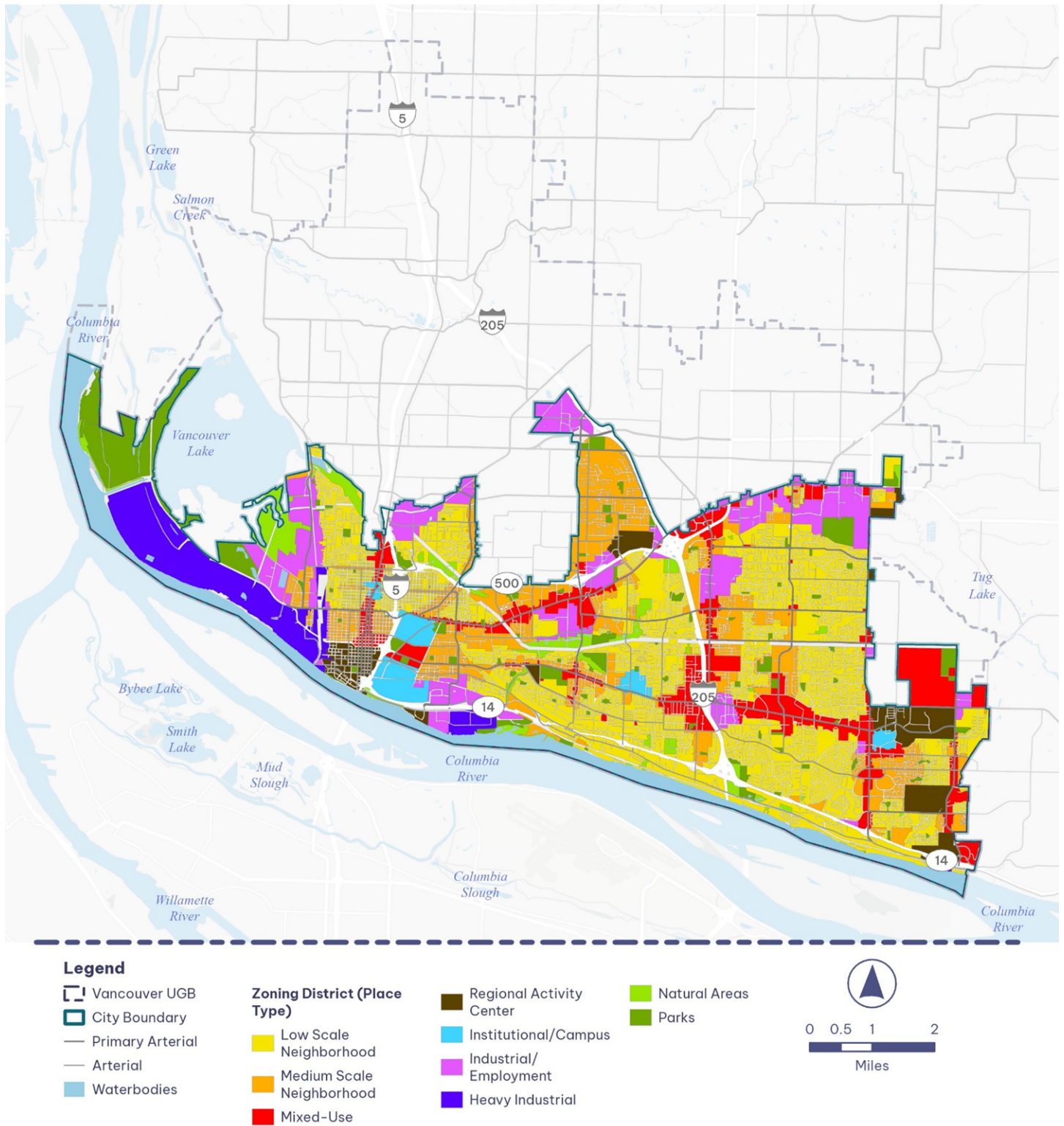
Refer to the City's Draft EIS for more details on the growth alternatives.

Exhibit 4-1: No Action Alternative Zoning Map



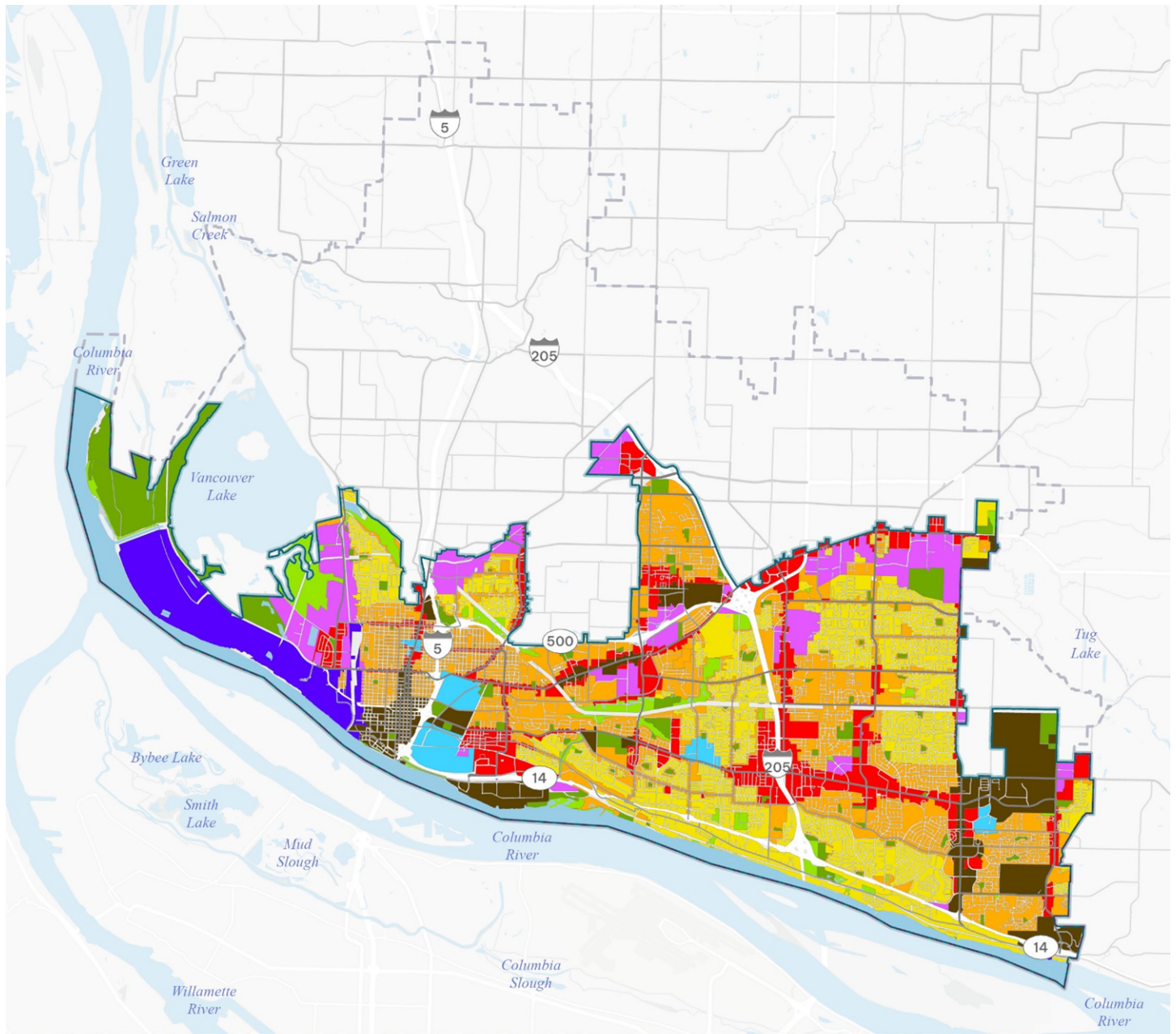
Source: City of Vancouver, 2025.

Exhibit 4-2: Alternative 1 Proposed Zoning Districts Map



Source: City of Vancouver, 2025.

Exhibit 4-3: Alternative 2 Proposed Zoning Districts Map



**Legend**

- Vancouver UGB
- City Boundary
- Primary Arterial
- Arterial
- Waterbodies

**Zoning District (Place Type)**

- Low Scale Neighborhood
- Medium Scale Neighborhood
- Mixed-Use

- Regional Activity Center
- Institutional/Campus
- Industrial/Employment
- Heavy Industrial
- Natural Areas
- Parks



Source: City of Vancouver, 2025.

## Metrics

There are 19 total metrics for this health analysis (Exhibit 4-4). The metrics relate to the scoped topics of physical activity, food access, community connections, exposure to health hazards, and housing and financial security.

There are two types of metrics included:

- **Impacts:** These metrics consider where growth is placed in relation to health hazards and gaps in health-related services. Related strategies may mitigate the impacts or address the gaps.
- **Strengths:** These metrics consider the health benefits built into each alternative. Related strategies may build upon the alternatives' strengths.

*Exhibit 4-4: Health Metrics*

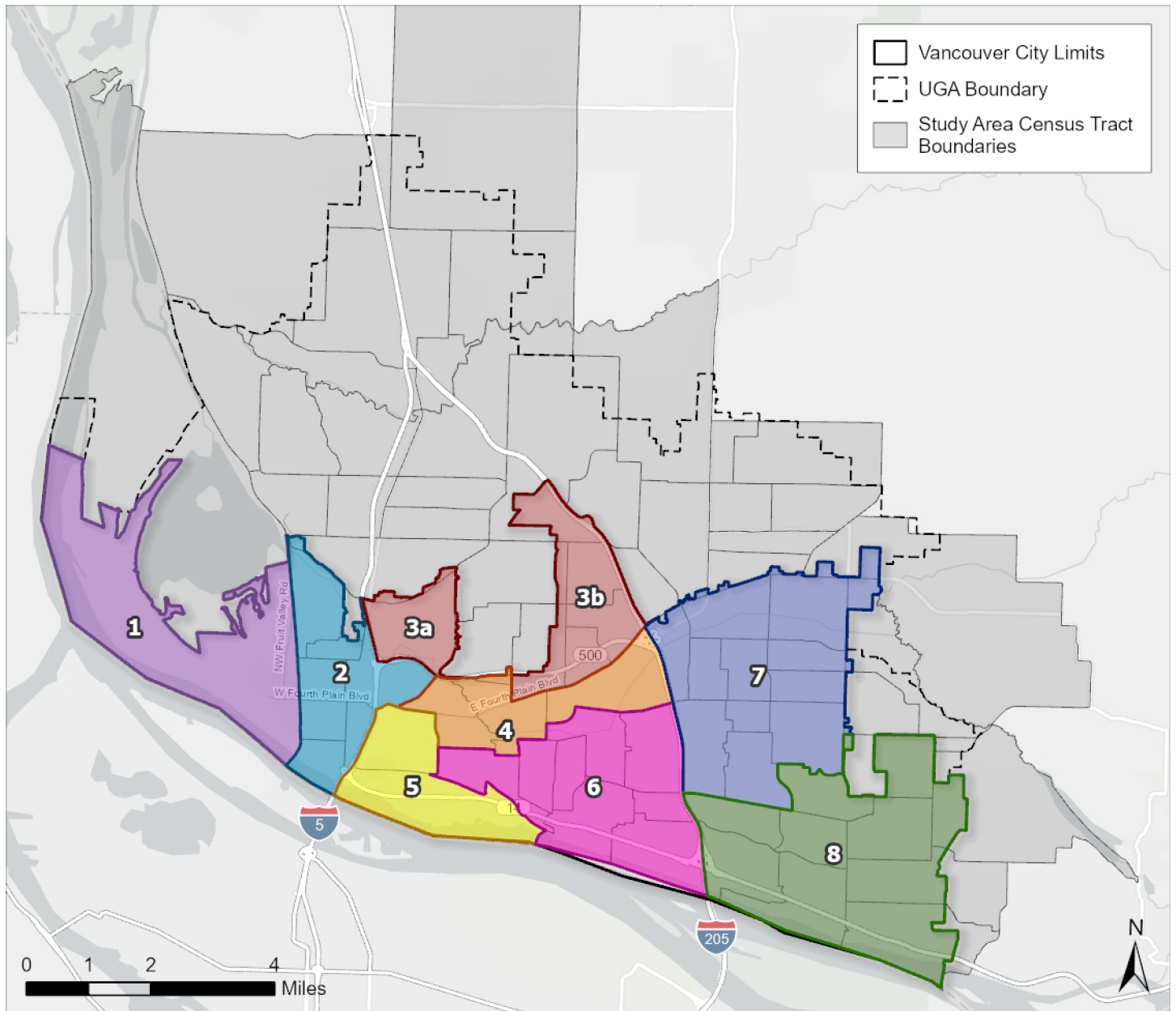
Theme	Topic	Metric	Type
Physical Activity	<i>Parks Access</i>	Park acreage needed based on housing growth	Impacts
	<i>Active Transportation</i>	New housing outside of areas with high intersection density	Impacts
Food Access	<i>Access to Supermarkets</i>	Housing growth in areas with low access and potential for new stores	Impacts
Community Connections	<i>Connected and Accessible Neighborhoods</i>	Job growth in areas with high equity risk scores and low connectivity/accessibility	Strengths
	<i>Commercial Displacement</i>	“Underutilized” parcels and parcels with older buildings that are designated for mixed use or higher densities	Impacts
	<i>Density and Mixed Uses</i>	Increases to density and mixed uses	Strengths
Exposure to Health Hazards	<i>High PM<sub>2.5</sub> Concentration</i>	Housing growth in areas with high concentrations	Impacts
	<i>High Ozone Concentration</i>	Housing growth in areas with high concentrations	Impacts
	<i>Tree Canopy Coverage</i>	Housing growth in areas with low canopy coverage	Impacts
	<i>Transportation Noise</i>	Housing growth in areas with high noise	Impacts
	<i>Heat Islands</i>	Housing and job growth in heat islands	Impacts

Theme	Topic	Metric	Type
	<i>Proximity to Transit</i>	Housing and job growth in areas not accessible by transit, and potential for new transit	Impacts
	<i>Vehicle Miles Traveled (Water Quality)*</i>	Overall projected vehicle miles traveled per capita	Impacts
	<i>Climate Exposure</i>	Housing and job growth in areas exposed to climate hazards	Impacts
<b>Housing and Financial Security</b>	<i>Redevelopment of Older Housing</i>	New housing in areas with older buildings	Strengths
	<i>Apartments of Three or More Stories (Radon Risk)</i>	Housing growth in designations that allow apartments of three or more stories	Strengths
	<i>Housing Capacity for All Income Bands</i>	Housing capacity by income bands	Strengths
	<i>Displacement Risk</i>	Housing growth in areas of high displacement risk	Impacts
	<i>Higher-Wage Jobs</i>	Amount of and projected average wages of new jobs, based on land use designations	Strengths

\*Reducing vehicle miles traveled is associated with improved water quality, see Literature Review below.

The impact assessment in the next chapter considers which eight areas of the city, as shown in Exhibit 4-5, are most affected in the context of each metric.

Exhibit 4-5: Analysis Areas



Source: City of Vancouver, 2025; BERK, 2025.

## 5. Impact Assessment and Strategies

This chapter evaluates the potential health impacts associated with each land use alternative. A brief literature review is included to inform the impact assessment. Key strategies for each topic are also discussed as part of the alternatives evaluation.

### Literature Review

#### Physical Activity

Physical activity is a critical social determinant of health, according to the Washington State Department of Health (Washington State Department of Health, 2013). Parks have a positive association with physical activity and are therefore one way the built environment can encourage health (Washington State Recreation and Conservation Office, 2019; National Park Service, 2017). Walkable proximity to parks, specifically, has been found to have connections with physical activity (Washington State Recreation and Conservation Office, 2019; Trust for Public Land, 2023).

Active transportation interventions (such as street connectivity, sidewalks, trails, and bicycle infrastructure) and land use interventions (such as mixed uses, increased density, and proximity to destinations) are also associated with greater physical activity. One review of academic studies conducted by the U.S. Department of Health and Human Services found evidence to support this: physical activity increased among individuals in communities with new or improved projects or policies that combine transportation and land use components (Community Preventative Services Task Force, 2018). One 2022 study suggested that 100 intersections per square kilometer (or about 0.4 intersections per acre) is associated with greater likelihood of walking for transportation (Cerin, et al., 2022).

#### Food Access

Several studies have found a link between “food deserts” (neighborhoods with minimal food options) or “food swamps” (neighborhoods with fast food and snack food available but not fresh grocery staples) and poor health outcomes. One study from 2023 found that food swamps are associated with much higher likelihood of greater obesity-related cancer mortality (Bevel, et al., 2023). Another article reviewed the literature on food deserts, much of which emphasizes the link between access to supermarkets and health outcomes (Walker, Keane, & Burke, 2010).

#### Community Connections

Research has found connections between neighborhood design and health, including availability of amenities and social interaction (Elegbede, J. et al., 2020; Dannenberg, A. et al., 2003). Specific types of public spaces, such as parks and community centers, may be

particularly helpful for fostering social connections and reducing isolation (Kweon et. al, 1998).

### **Exposure to Health Hazards**

Research has found connections between a variety of health hazard topics and land use planning. Trees and shrubs are known to be effective for removing air pollution and improving urban air quality, as well as reducing urban heat (Nowak, Crane, & Stevens, 2006; Trust for Public Land, 2016). Reducing vehicle miles traveled is connected to less stormwater runoff and improved water quality (Currey et al., 2015). Effective strategies identified for climate resiliency include designing buildings and infrastructure that are adaptable, using community-driven planning, and improving natural infrastructure such as green spaces, urban forests, and stormwater management (Kong, L. et al, 2022).

### **Housing and Financial Security**

Research has found that housing affordability, quality, and stability are key to health and wellbeing. Affordable housing initiatives, housing quality improvements, and anti-displacement efforts can support health outcomes (Rolfe, S. et al., 2020). Planning for more living wage jobs also impacts health. Ensuring that households earn enough income to meet basic needs can reduce financial pressure, improve access to healthcare, and enhance overall wellbeing (Turcu, C. et al., 2012). Findings also suggest that residential displacement can have negative health outcomes, particularly related to mental health (DeLong, 2023).

## **Alternatives Evaluation and Strategies**

### **Key Findings**

The following section summarizes key findings for consideration in the policy recommendations, with metrics falling under one of two types: 1) impacts or 2) strengths.

Exhibit 5-1: Metrics Summary

Impacts	No Action									Alternative 1									Alternative 2									
	Impact	Areas of impact								Impact	Areas of impact								Impact	Areas of impact								
		1	2	3a	3b	4	5	6	7		8	1	2	3a	3b	4	5	6		7	8	1	2	3a	3b	4	5	6
Parks Access	●	●	●	●	●	●	●	●	●	●+	●					●	●	●	●+	●	●					●	●	●
Active Transportation	●	●	●	●	●	●	●	●	●	●+	●	●	●	●		●	●	●	●+	●	●	●	●			●	●	●
Access to Supermarkets	●	●					●	●	●	●+	●					●	●	●	●+	●	●	●				●	●	●
Commercial Displacement	●	●	●	●	●	●	●	●	●	●+	●	●	●	●	●	●	●	●	●+	●	●	●	●	●	●	●	●	●
High PM <sub>2.5</sub> Concentration	●		●	●	●	●				●+					●	●		●+						●	●			
High Ozone Concentration	●							●		●+							●	●+									●	
Proximity to Transit	●	●	●				●	●	●	●+	●	●				●	●	●	●+	●	●					●	●	●
Tree Canopy Coverage	●	●		●		●	●	●	●	●+	●					●	●	●+	●					●		●	●	
Vehicle Miles Traveled (Water Quality)	●	●	●	●	●	●	●	●	●	●+	●	●	●	●	●	●	●	●	●+	●	●	●	●	●	●	●	●	●
Transportation Noise	●	●			●	●	●	●	●	●+	●	●			●	●		●+	●					●	●	●	●	
Heat Islands	●			●	●	●	●			●+	●				●		●	●+	●					●		●	●	
Climate Exposure	●	●			●	●	●	●	●	●+	●				●	●		●+	●					●	●		●	
Displacement Risk	●	●	●	●	●	●	●	●	●	●+	●					●	●	●	●+	●					●	●	●	
Strengths	No Action									Alternative 1									Alternative 2									
Connected and Accessible Neighborhoods	☆									★									★									
Density and Mixed Uses										★									★									
Redevelopment of Older Housing	☆									★									☆									
Apartments of 3+ Stories (Radon Risk)	☆									★									★									
Housing Capacity for All Income Bands										★									★									
Higher-Wage Jobs	☆									★									★									

Source: BERK, 2025.

Impacts  
 ● Some Impact  
 ● Strong Impact  
 + Opportunity for mitigation or to fill a gap

Strengths  
 ☆ Somewhat strong  
 ★ Very strong

## Physical Activity

### Metrics

- Park acreage needed based on housing growth (*Impacts*)
- New housing outside of areas with high intersection density (*Impacts*)

### Overview

- All alternatives will need more investment in parks, especially the Action Alternatives
- Alternatives 1 and 2 also create greater opportunities to address existing gaps through park impact fees and new policies
- All alternatives place the majority of growth in areas with a lower density of intersections, which may impact walkability
- Alternatives 1 and 2 also create more opportunities for walkability through density, mixed uses, and opportunities for sidewalk development and connectivity

### Evaluation

All alternatives will increase demand for parks and recreation as the city grows. Exhibit 5-2 shows the estimated amount of new park acreage that would need to be acquired and developed under each alternative to meet this standard based on the estimated 2045 capacity for new housing units and associated new residents.

Under all alternatives, Park Impact Fee District C would have the largest need for park land acquisition and development because it is projected to have the highest capacity for new growth. The No Action Alternative would have the lowest overall parks need because it would have the lowest projected level of population growth based on capacity for new housing units. Alternative 1 and Alternative 2 would have higher needs than the No Action Alternative because of their higher levels of projected new housing units and associated residents. While growth would create demand for more parks, it would also increase the amount of funding available from impact fees, which make it possible to fill gaps that otherwise would be challenging to address.

In the No Action Alternative, areas of housing capacity with low park access include parts of areas 2, 3a, 3b, 4, 5, 6, 7, and 8. In Alternatives 1 and 2, concentrations of housing growth in low access areas include parts of areas 2, 6, 7, and 8 (plus area 3a in Alternative 2).

*Exhibit 5-2: Projected Park Land Demand by Park Impact Fee District and Alternative (acres)*

Park Impact Fee District	New Park Acquisition Demand <sup>1</sup> for No Action Alternative <sup>2</sup>	New Park Development Demand <sup>1</sup> for No Action Alternative <sup>2</sup>	New Park Acquisition Demand <sup>1</sup> for Alternative 1	New Park Development Demand <sup>1</sup> for Alternative 1	New Park Acquisition Demand <sup>1</sup> for Alternative 2	New Park Development Demand <sup>1</sup> for Alternative 2
A	76	54	75	53	65	46
B	134	95	70	50	126	89
C	199	141	477	338	509	361
<b>Total</b>	<b>408</b>	<b>289</b>	<b>622</b>	<b>441</b>	<b>700</b>	<b>496</b>

Notes:

*1 The acreage of park acquisition demand under the alternatives was estimated as follows: 1) multiplying the total projected number of new housing units in each Park Impact Fee district by 2.3, which is the assumed average number of persons per household from the Our Vancouver Housing Needs Assessment (EcoNorthwest, 2024), to derive the estimated new population in each PIF district. 2) Dividing the estimated new population by 1,000 and multiplying the resulting number by 6, based on the City's goal of 6 acres per 1,000 residents, to calculate the estimated acreage demand for this new population. Totals may be affected by rounding.*

*2 The No Action Alternative is based on capacity only and does not account for feasibility of redevelopment, whereas Alternatives 1 and 2 include assumptions related to market feasibility and redevelopment.*

Source: WSP, 2025.

All alternatives include most of their capacity or growth in areas that do not have high intersection density (more than 0.4 intersections per acre) (Exhibit 5-3). Higher intersection density is associated with greater likelihood of walking for transportation. Therefore, other urban design considerations will be needed to support walkability in growth areas. Alternatives 1 and 2 create more density and opportunities for mixed uses than the No Action Alternative. Alternatives 1 and 2 also plan for more development, which creates more opportunities for improved sidewalks and pedestrian connectivity. Affected areas are similar across all the alternatives, including parts of area 2, 3a, 3b, 4, 6, 7, and 8. Part of area 5 is also affected in the No Action Alternative.

*Exhibit 5-3: Growth in Areas Without High Intersection Density*

	No Action	Alternative 1	Alternative 2
Units	24,000*	41,000	48,510
Percent of Units	81%*	91%	96%

*\*Note: The No Action is based on capacity only and does not account for feasibility of redevelopment, whereas Alternatives 1 and 2 include assumptions related to market feasibility and redevelopment.*

Source: BERK, 2025.

**Strategies**

Features of the Alternatives

- The Comprehensive Plan periodic update includes an opportunity to consider future transportation improvements based on growth. The Action Alternatives therefore may be better positioned to make targeted investments in non-motorized access, prioritizing equity.
- Growth under the Action Alternatives especially could leverage park impact fees to fill gaps in park access.

Other Considerations

*City-Led Opportunities*

- Identify strategic property acquisitions before expected growth occurs that could later be developed into parks through park impact fees (*related to draft Policy 76: Broaden Equitable Access to Natural Spaces and Parks, Policy 79: Improve Connectivity Between Parks and Open Spaces, and Policy 119: Acquire Land for Public Parks*).
- Adopt street standards that support active transportation (*related to draft Policy 63: Street Standards*).
- Consider a pilot program to close certain residential streets to through traffic, as discussed in Appendix 3. Case Studies (*related to draft Policy 66: Community Streets*).
- Continue working towards transportation safety improvements for pedestrians and cyclists, with targeted investments in known collision areas and overall improvements in active transportation, to eventually support better “safety in numbers” (*related to draft Policy 62: Support Active Transportation Investments, draft Policy 64: Multimodal Access Through Street Connectivity, draft Policy 65: Low-Stress Bicycle and Small Mobility Network, and draft Policy 120: Community Safe Routes*).
- Review the City’s land use code for opportunities to encourage pedestrian scale design, such as transparent frontages, surface parking, and driveways at the rear of buildings,

weather protection, street trees, and public art (*related to draft Policy 59: Pedestrian Oriented Building and Site Design*).

*Partnership Opportunities*

- Partner with schools and other public facilities to add recreation facilities and benefit from multiple funding and implementation streams (see Appendix 3. Case Studies) (*related to draft Policy 76: Broaden Equitable Access to Natural Space and Parks and draft Policy 115: Sustainable Parks Funding*).
- Engage neighborhoods in tactical, community-led short-term and long-term phased park and street improvements, especially in underserved areas (see Appendix 3. Case Studies) (*related to draft Policy 66: Community Streets and draft Policy 62: Support Active Transportation Investments*).

## Food Access

### Metrics

- New housing in areas with low access to supermarkets and potential for new stores  
*(Impacts)*

### Overview

- All alternatives place some capacity or growth in areas without existing access to supermarkets
- Alternatives 1 and 2 place a greater proportion of growth in these gap areas
- Alternatives 1 and 2 also create greater opportunities to address existing gaps by creating the density supermarkets need to be feasible

### Evaluation

All alternatives place the majority of growth in areas without an existing supermarket within a mile walkshed. However, Alternatives 1 and 2 are also more likely to create opportunities for new supermarkets by allowing more mixed-use development and higher housing densities that could support new retail locations.

Generally, a parcel needs 6,000 to 8,000 households within a 1-2 mile radius to feasibly support a new supermarket (Gibbs, 2012). Assuming 6,000 households per 1.5 mile radius as a threshold, this is about 1.3 households per acre.

In the areas of Vancouver that are currently more than a mile from a supermarket, the average density is 0.7 units per acre in the No Action Alternative, 1.5 units per acre in Alternative 1, and 1.6 units per acre in Alternative 2. Alternatives 1 and 2 are therefore over the density threshold and could support new supermarkets in gap areas whereas the No Action Alternative may not create enough density to do so. Approximately 5 new supermarkets could be supported in gap areas under Alternatives 1 and 2 given the total number of households and average density of those households.

Alternatives 1 and 2 would also be better positioned to support small corner stores due to this density and support for mixed uses. Around 1,000 households are needed to support these uses (MRSC, 2024).

*Exhibit 5-4: New Housing Units without Supermarket Access*

	No Action	Alternative 1	Alternative 2
Units	13,900*	31,000	33,800
Percent of Units	47%*	69%	67%
Potential new supermarkets supported @ 6,000 households in 1.5 mile radius	0	5	5

*\*Note: The No Action is based on capacity only and does not account for feasibility of redevelopment, whereas Alternatives 1 and 2 include assumptions related to market feasibility and redevelopment.*

Source: BERK, 2025.

In the No Action Alternative, areas of housing capacity outside of supermarket access include 2, 3a, 6, 7, and 8. Alternatives 1 and 2 have concentrations of housing growth outside of supermarket access in parts of areas 2, 6, 7, and 8 (and 3a and 3b in Alternative 2).

**Strategies**

Features of the Alternatives

- Density increases and more mixed use under Alternatives 1 and 2 are likely to create more opportunities for new supermarkets, expanding access to food for current and future residents.

Other Considerations

*City-Led Opportunities*

- Provide policy and programmatic support for community gardening, food banks, farmers markets, and other food access initiatives across Vancouver. This could include zoning allowances and incentives that promote urban agriculture (see Appendix 3. Case Studies) *(related to draft Policy 80: Community Gardens)*.
- Continue implementing the Vancouver Local Food Systems Action Plan *(related to draft Policy 81: Increase Food Access)*.
- Facilitate the success of supermarkets in areas with low access. Incentivize and/or remove barriers to the development of commercial space suitable for supermarkets. This could include tax incentives, density exemptions, or other tools (see Appendix 3. Case Studies) *(related to draft Policy 81: Increase Food Access)*.
- Review city code for opportunities to expand access to fishing, gathering, and raising livestock and supporting the availability of culturally-specific foods *(related to draft*

*Policy 80: Community Gardens, draft Policy 101: Engage with Tribal Community Members, and draft Policy 107: Historic and Culturally Significant Resources).*

- Integrate food into public spaces and landscaping, such as planting edible plants and adding grills and food preparation areas in parks (*related to draft Policy 76: Broaden Equitable Access to Natural Spaces and Parks*).
- Consider allowing mobile farmers markets and food trucks in locations with low access (see Appendix 3. Case Studies) (*related to draft Policy 81: Increase Food Access*).

#### *Partnership Opportunities*

- Explore partnerships with community organizations, faith organizations, and existing commercial uses to distribute healthy food in areas of need (see Appendix 3. Case Studies) (*related to draft Policy 81: Increase Food Access*).
- Maintain partnership with the Vancouver Farmers Market to improve food access and other economic and social benefits to the community (*related to draft Policy 81: Increase Food Access*).

## Community Connections

### Metrics

- Job growth in areas with high equity risk scores and low connectivity/accessibility (*Strengths*)
- “Underutilized” parcels and parcels with older buildings that are designated for mixed use or higher densities (*Impacts*)
- Increases to density and mixed uses (*Strengths*)

### Overview

- All alternatives place some capacity or growth in areas with low access to services. All alternatives create some risk of commercial displacement.
- Alternatives 1 and 2 place a greater proportion of growth in areas with low access to services, creating more opportunity for future services. They also have greater commercial displacement potential.
- Alternatives 1 and 2 also create greater opportunities to mitigate commercial displacement by creating opportunities for mixed uses.

### Evaluation

While the three alternatives distribute capacity and growth in different ways, they all place a substantial amount of job growth in areas with high equity risk scores that are not particularly connected and accessible. More than 21% of the capacity or growth in each possibility is in areas with “High” or “Very High” equity risk scores and low connectivity and accessibility scores. Alternatives 1 and 2 place more than twice as many jobs in these areas than the No Action Alternative.

Job growth in these areas suggests an increase in commercial space and therefore more services. Proximity to services can benefit resident wellbeing in terms of access to healthcare, food, and daily needs, as well as opportunities to interact with others. This may be particularly impactful in areas with high equity risk scores, which have greater social and economic inequities.

**Exhibit 5-5: New Jobs in Areas with High Equity Risk Scores and Low Connectivity/Accessibility**

	No Action	Alternative 1	Alternative 2
Jobs	4,000*	10,200	10,800
Percent of Jobs	24%*	22%	21%

*\*Note: The No Action is based on capacity only and does not account for feasibility of redevelopment, whereas Alternatives 1 and 2 include assumptions related to market feasibility and redevelopment.*

Source: BERK, 2025.

The three alternatives also include a different mix of land uses. Increases to mixed use designations and increased density can support access to services by providing space for businesses and encouraging the concentrations of residents needed for businesses to be viable. Alternatives 1 and 2 have significantly more potential for mixed-use neighborhoods and higher densities than the No Action Alternative (Exhibit 5-6). The No Action Alternative has minimal opportunities for mixed uses and higher density housing and therefore is likely to have less access to services.

**Exhibit 5-6: Mixed Uses and Density**

	No Action	Alternative 1	Alternative 2
Mixed Use and Regional Activity Center Gross Acreage %	0%* (Mixed Use zoning is minimally applied)	11%	16%
New Housing Units in Mixed Use/ Regional Activity Center or Medium Scale and Higher %	15%*	67%	77%

*\*Note: The No Action is based on capacity only and does not account for feasibility of redevelopment, whereas Alternatives 1 and 2 include assumptions related to market feasibility and redevelopment.*

Source: BERK, 2025.

Commercial displacement is likely to occur to some extent under all alternatives as the city will experience some amount of growth and development. Parcels that are considered “underutilized” based on building value per acre (per the Clark County 2023 Vacant and Buildable Lands Model) are considered more likely to redevelop than those that are fully

“built” (Clark County, 2023). Older buildings may also be more likely to redevelop based on their condition. Parcels with mixed use, medium density, or high density land use designations may be more likely to redevelop into higher density uses, with potential commercial displacement impacts.

Alternatives 1 and 2 include more of these zoning districts and therefore may have higher potential for commercial displacement and need for mitigation (Exhibit 5-7). This includes more than 1,000 commercial buildings on parcels considered “underutilized” that are in medium/high density residential or mixed use/regional activity center designations. However, Alternatives 1 and 2 would also create more opportunity for new business spaces and anti-displacement measures. The No Action Alternative would rely on existing policies and would be less strong in terms of anti-displacement.

**Exhibit 5-7: Commercial Displacement Potential**

	No Action	Alternative 1	Alternative 2
Commercial Buildings on “Underutilized” Parcels, Land Use Designation Medium/High Density Residential or Mixed Use / Regional Activity Center	1 – most buildings in these designations are not considered “underutilized”	1,000	1,400
Commercial Buildings Built Pre-1985, Land Use Designation Medium/High Density Residential or Mixed Use / Regional Activity Center	34	143	333

*\*Note: The No Action is based on capacity only and does not account for feasibility of redevelopment, whereas Alternatives 1 and 2 include assumptions related to market feasibility and redevelopment.*

Source: BERK, 2025

**Strategies**

Features of the Alternatives

- Density increases and more mixed use under Alternatives 1 and 2 are likely to create more opportunities for access to services and mitigate commercial displacement.

## Other Considerations

### *City-Led Opportunities*

- Support the ability of small businesses to locate in neighborhoods by requiring or incentivizing the development of small commercial spaces and lowering parking requirements (see Appendix 3. Case Studies) *(related to draft Policy 34: Leverage City-Owned Assets for Affordable Commercial Space, draft Policy 45: Shared Parking, and draft Policy 47: Maximize the utilization of existing on street parking)*.
- Consider anti-displacement policies such as incentives for setting aside small business space in new developments, providing affordable commercial leasing opportunities on City-controlled properties, or requiring community benefits agreements that protect existing businesses *(related to Draft Policy 96: Reduce displacement in the face of new growth)*.
- Consider programmatic opportunities to address the social needs of the community, through group recreation, community events, or other programs *(related to draft Policy 69: Increase Access to Community Spaces and draft Policy 77: Community Centers)*.
- Review land use code for potential barriers to the creation of new childcare facilities *(related to draft Policy 30: Support Access to Childcare and draft Policy 78: Resources for Youth and Aging Populations)*.

### *Partnership Opportunities*

- Provide flexibility in neighborhood commercial spaces, such as a short-term program to fill vacant spaces or add pop-ups (see Appendix 3. Case Studies) *(related to draft Policy 34: Leverage City-Owned Assets for Affordable Commercial Space)*.
- Build on the findings of the Raising Clark County project to improve childcare access in Vancouver and support public-private partnerships *(related to draft Policy 30: Support Access to Childcare and draft Policy 78: Resources for Youth and Aging Populations)*.

## Exposure to Health Hazards

### Metrics

- New housing units in areas with high PM<sub>2.5</sub> concentration (*Impacts*)
- New housing units in areas with high ozone concentration (*Impacts*)
- New housing units in areas with low tree canopy coverage (*Impacts*)
- New housing units in areas with high transportation noise (*Impacts*)
- New housing units and jobs in heat islands (*Impacts*)
- New housing units and jobs not accessible to transit and potential for new transit (*Impacts*)
- Overall projected VMT (water quality) (*Impacts*)
- Growth in areas with climate exposures (*Impacts*)

### Overview

- All alternatives expose some amount of new housing to air quality hazards, noise, heat, and climate hazards, and have water quality impacts.
- The Action Alternatives include better mitigation of impacts through policy changes that are part of the periodic update.
- The Action Alternatives also include opportunities to address gaps, such as by requiring new developments to add trees or otherwise address heat islands.

### Evaluation

Based on the distribution of growth and capacity across the city, all alternatives expose some amount of new housing units to air quality hazards. This includes high PM<sub>2.5</sub> concentration and ozone concentration, as defined as scoring 9 or 10 for these exposures on the Washington State Environmental Health Disparities Map (Washington State Department of Health, 2022). Per this source, PM<sub>2.5</sub> is highest in the middle of the city while ozone is highest towards the east.

All the alternatives include at least 18% of their housing capacity or growth in areas with high PM<sub>2.5</sub> concentration and at least 16% in areas with high ozone concentration. Residents of this housing would be more exposed to air quality health impacts than in some other parts of the city.

In the No Action Alternative, areas with high capacity in air quality hazard areas include 3a, 3b, 4, 5, and 6 for PM<sub>2.5</sub> and area 7 for ozone. In the Action Alternatives, areas 5 and 6 have the highest growth and exposure to PM<sub>2.5</sub> and area 8 is of more concern for ozone.

The Action Alternatives, however, would encourage a walkable, compact, and mixed-use style of development in more areas of the city than the No Action Alternative, and over time,

would be more likely to shift vehicle trips to zero-emission modes, facilitate shorter trips, and reduce air pollutant emissions.

**Exhibit 5-8: New Housing Units in Areas with Air Quality Impacts**

	No Action	Alternative 1	Alternative 2
<b>High PM<sub>2.5</sub> concentration</b>			
Units	10,100*	8,000	9,700
Percent of Units	34%*	18%	19%
<b>High Ozone Concentration</b>			
Units	4,800*	15,100	16,700
Percent of Units	16%*	33%	33%

*\*Note: The No Action is based on capacity only and does not account for feasibility of redevelopment, whereas Alternatives 1 and 2 include assumptions related to market feasibility and redevelopment.*

Source: BERK, 2025.

All alternatives also place at least 57% of their housing capacity or growth in areas with low tree canopy cover (defined as those Census tracts with less than the current citywide average of 19%, using City data) (City of Vancouver, 2025; City of Vancouver, 2020). Residents of these areas could see fewer air quality benefits from trees (Exhibit 5-9Exhibit 5-9).

In the No Action Alternative, areas with capacity and low canopy cover include areas 1, 2, 3b, 5, 6, 7, and 8. In the Action Alternatives, affected areas with growth include 2, 7, and 8 (plus 5 for Alternative 2).

**Exhibit 5-9: New Housing Units in Areas with Low Tree Canopy Cover**

	No Action	Alternative 1	Alternative 2
Units	16,800*	27,800	30,900
Percent of Units	57%*	62%	61%

*\*Note: The No Action is based on capacity only and does not account for feasibility of redevelopment, whereas Alternatives 1 and 2 include assumptions related to market feasibility and redevelopment.*

Source: BERK, 2025.

All alternatives place some housing unit growth in areas with existing transportation noise above 55 dBA, per mapping from the USDOT (Exhibit 5-10). Distribution of growth is such that all the alternatives place a similar proportion of new housing unit or unit capacity in areas with high transportation noise: approximately 6%. Concentrations of growth in high transportation noise areas in all alternatives are primarily near key corridors such as I-5, I-205, SR-14, and Mill Plain Boulevard. Since Alternatives 1 and 2 would grow beyond the capacity of the No Action, they would place a greater total number of units in transportation noise areas, but they also have stronger opportunities for mitigation through new policies. Construction noise associated with new development would also be likely under all alternatives.

*Exhibit 5-10: New Housing Units in Areas with High Transportation Noise*

	No Action	Alternative 1	Alternative 2
Units	1,600*	2,800	3,100
Percent of Units	6%*	6%	6%

*\*Note: The No Action is based on capacity only and does not account for feasibility of redevelopment, whereas Alternatives 1 and 2 include assumptions related to market feasibility and redevelopment.*

Source: BERK, 2025.

All alternatives place some housing and job growth in urban heat islands, defined as those areas with Medium-High or Higher heat exposure scores in the City’s Climate Index (BERK Consulting, 2024). At least 41% of housing units and 39% of jobs under all alternatives are in high heat exposure areas (Exhibit 5-11). Areas with high heat exposure could be positively impacted by growth over time, as new development is required to incorporate trees and plantings. The Action Alternatives have stronger opportunities to address heat islands through new policies.

Areas of housing and/or job capacity in heat islands in Alternative 1 include 3b, 4, 5, 6, and 7. In the Action Alternatives, areas 2, 5, 7, and 8 are of most concern based on where growth is expected.

*Exhibit 5-11: New Housing Units and Jobs in Heat Islands*

	No Action	Alternative 1	Alternative 2
Units	14,400*	22,400	20,800
Percent of Units	49%*	50%	41%
Jobs	11,500*	27,600	30,700
Percent of Total Projected Capacity for New Jobs	39%*	61%	61%

*\*Note: The No Action is based on capacity only and does not account for feasibility of redevelopment, whereas Alternatives 1 and 2 include assumptions related to market feasibility and redevelopment.*

Source: BERK, 2025.

All alternatives also place at least one third of housing capacity or growth and at least 37% of job capacity or growth in areas without transit access within one mile. However, Alternatives 1 and 2, due to higher housing densities, may create opportunities for viable new transit routes, which could reduce transportation air quality and noise impacts over time. As described in Exhibit 5-6 in Community Connections above, Alternatives 1 and 2 put more than 67% of their new housing units in Mixed Use, Regional Activity Center, or medium scale and higher designations. These designations are much more likely to support new transit routes and stops (PSRC, 2015). The growth pattern of the No Action Alternative would be harder to serve with new transit improvements, with lower densities than the other alternatives and only 15% of new units located in similar designations.

Under the No Action Alternative, areas with housing and job capacity with low transit access include 1, 3a, 6, 7, and 8. In the Action Alternatives, growth areas with low transit access include 3a, 6, 7, and 8.

*Exhibit 5-12: New Housing and Jobs without Transit Access*

	No Action	Alternative 1	Alternative 2
Units	9,900*	20,100	19,600
Percent of Units	33%*	45%	39%
Jobs	6,200*	21,600	22,900
Percent of Jobs	37%*	46%	44%

*\*Note: The No Action is based on capacity only and does not account for feasibility of redevelopment, whereas Alternatives 1 and 2 include assumptions related to market feasibility and redevelopment.*

*Source: BERK, 2025.*

All alternatives result in an increase of overall vehicle miles traveled (VMT), per modeling completed as part of the City’s Comprehensive Plan Environmental Impact Statement. However, VMT per household is expected to decrease as investments are made in other travel modes. Alternatives 2 and 3 result in a lower VMT per household than the No Action Alternative but a greater total VMT as they plan for greater growth. Therefore, water quality impacts at the citywide scale may be greatest under Alternatives 2 and 3, but these alternatives also mitigate the overall increase by minimizing VMT per household.

Exhibit 5-13: Modeled Existing and Future Daily Vehicle Miles Traveled in Vancouver

Vehicle Type	Existing (2023)	No Action Alternative (2045)	Alternative 1 (2045)	Alternative 2 (2045)
All Vehicles Except Trucks	3,949,553	4,783,852*	5,343,949	5,465,254
Trucks (in Passenger Car Equivalent)	215,391	544,077*	541,923	541,302
<b>Total</b>	<b>4,315,718</b>	<b>5,327,928*</b>	<b>5,885,872</b>	<b>6,006,556</b>
<b>VMT Per Household (average miles per day)<sup>1</sup></b>	<b>45.6</b>	<b>44.9*</b>	<b>42.5</b>	<b>41.9</b>

\*Note: The No Action is based on capacity only and does not account for feasibility of redevelopment, whereas Alternatives 1 and 2 include assumptions related to market feasibility and redevelopment.

<sup>1</sup> VMT per household assumes 94,587 households in existing conditions (2023). For 2045, VMT per household is based on assumptions of 118,607 households in the No Action Alternative, 138,517 households in Alternative 1, and 143,473 households in Alternative 2, calculated by adding estimated new housing unit capacity to 2023 estimated household data from Clark County.

Source: RTC 2025; WSP, 2025.

All alternatives include growth in areas of high climate exposure (Exhibit 5-14). Under all alternatives, about a quarter of the growth or capacity is in areas that are more susceptible to extreme heat, extreme precipitation and flooding, and/or air quality, smoke, and fire. However, Alternatives 1 and 2 include the development of a new Climate Element of the Comprehensive Plan, which includes policies specifically aimed at improving the city’s resilience to climate hazards. Therefore, Alternatives 1 and 2 are stronger in terms of climate resilience than the No Action Alternative.

In Alternative 1, areas with capacity that are in high climate exposure areas include 1, 2, 4, 5, 6, 7, and 8. In the Action Alternatives, key areas of growth in exposure areas include 2, 5, 6, and 8.

*Exhibit 5-14: New Housing in High Climate Exposure Areas*

	No Action	Alternative 1	Alternative 2
Units	7,600*	11,000	11,800
Percent of Units	26%*	25%	23%

*\*Note: The No Action is based on capacity only and does not account for feasibility of redevelopment, whereas Alternatives 1 and 2 include assumptions related to market feasibility and redevelopment.*

Source: BERK, 2025.

**Strategies**

Features of the Alternatives

- Greater development in urban heat areas and low canopy cover areas under Alternatives 1 and 2 creates more opportunities for new trees and vegetation.
- The new Climate Element developed under the Action Alternatives includes a range of policies aimed at improving community resilience to climate hazards.
- Opportunities for expanded transit access can help mitigate air quality and noise impacts of growth. The Action Alternatives include a growth pattern that is more feasible to serve with transit.

Other Considerations

*City-Led Opportunities*

- Review vegetation requirements for new development and require or incentivize greater investment in trees and plants in areas with high heat and low tree canopy cover. This could also include green roofs and permeable pavement (see Appendix 3. Case Studies) *(related to draft Policy 4: Reduce Urban Heat Island Effect, draft Policy 5: Incorporate Green Infrastructure into Development, draft Policy 14: Equitable Distribution of Tree Canopy, and draft Policy 114: Reduce Climate Impact Exposure to Vancouver’s Neighborhoods)*
- Create a policy related to indoor air quality, including standards for new development and a program for retrofitting existing homes *(related to draft Policy 20: Indoor Air Quality)*.
- Provide temporary or permanent shade structures in parks or rights of way to supplement the existing shade capacity of newly planted trees (see Appendix 3. Case Studies) *(related to draft Policy 4: Reduce Urban Heat Island Effect and draft Policy 114: Reduce Climate Impact Exposure to Vancouver’s Neighborhoods)*
- Develop or modify design standards to integrate exterior building features that reduce the impacts of climate change and increase resilience (see Appendix 3. Case Studies) *(related to draft Policy 4: Reduce Urban Heat Island Effect, draft Policy 5: Incorporate*

*Green Infrastructure into Development, and draft Policy 114: Reduce Climate Impact Exposure to Vancouver's Neighborhoods)*

- Consider mitigation strategies around major corridors and areas of poor air quality, such as enhancing tree canopy cover and vegetation through street trees, incentivizing tree planting on private property, and strategically locating parks and open spaces (*related to draft Policy 14: Equitable Distribution of Tree Canopy and draft Policy 22: Reduce Environmental Health Disparities from Pollution*)
- Reduce and mitigate noise pollution through soundproofing measures, incentives, and other strategies (*related to draft Policy 21: Mitigate Noise Pollution and Policy 22: Reduce Environmental Health Disparities from Pollution*)
- Create educational opportunities for residents to learn about proper disposal of household chemicals and water quality best practices (see Appendix 3. Case Studies) (*related to draft Policy 10: Stormwater Management*).
- Implement policies that support water quality improvements through stormwater management and filtration (*related to draft Policy 10: Stormwater Management*).
- Consider implementing policies in support of electric vehicles, which do not emit the same air quality hazards as conventional vehicles. This could include creating public charging stations, transitioning parts of the City's fleet where appropriate, or creating developer requirements or incentives (*related to draft Policy 17: Low Carbon Fuels and Policy 57: Low Carbon Transportation Alternatives*).

*Partnership Opportunities*

- Work with C-TRAN to plan transit investments where future growth is expected to occur and transit is not yet available. The Action Alternatives plan for growth along major corridors, creating opportunities for transit-oriented development if new bus stops are added (*related to draft Policy 53: Invest in Underserved Areas and Policy 89: Regional Planning*)
- Create opportunities for community-led action plans to address needs in specific areas with proximity to highways and other pollution sources (*related to draft Policy 22: Reduce Environmental Health Disparities from Pollution*).
- Collaborate with Washington State University (WSU) Vancouver Extension and their Water Research Center to monitor water quality trends (*related to draft Policy 10: Stormwater Management*).
- Continue to monitor air quality and consider opportunities for partnerships (*related to draft Policy 22: Reduce Environmental Health Disparities from Pollution*).
- Consider partnering with local libraries and schools to provide emergency cooling and heating shelters (*related to draft Policy 3: Disaster Recovery and Emergency Response*).

## Housing and Financial Security

### Metrics

- New housing in areas with older buildings (*Strengths*)
- New housing in designations that allow apartments of three or more stories (*Strengths*)
- Housing capacity for all income bands (*Strengths*)
- New housing units in areas of high displacement risk (*Impacts*)
- Amount of and projected average wages of new jobs, based on land use designations (*Strengths*)

### Overview

- All alternatives will result in some redevelopment of older buildings that may be of poorer quality and development of new buildings of three or more stories that may better protect residents from radon exposure.
- All alternatives are expected to have some displacement impacts, but Alternatives 1 and 2 include anti-displacement policies to help mitigate such impacts while the No Action Alternative does not.
- Alternatives 1 and 2 also include better options for housing affordability at all income bands.
- All alternatives create jobs with similar average wages, but Alternatives 1 and 2 create opportunities for encouraging specific industries.

### Evaluation

All alternatives place a similar percentage of capacity or growth on parcels with older buildings (32–38%), however the number of units is higher under Alternatives 1 and 2. This may look like redevelopment of older buildings, which are more likely to have health hazards such as lead or poor insulation. Older buildings, however, also tend to be more affordable, so there is a health tradeoff.

#### *Exhibit 5–15: New Housing Units on Parcels with Older Buildings*

	No Action	Alternative 1	Alternative 2
Units	10,100*	17,200	16,400
Percent of Units	34%*	38%	32%

*\*Note: The No Action is based on capacity only and does not account for feasibility of redevelopment, whereas Alternatives 1 and 2 include assumptions related to market feasibility and redevelopment.*

Source: BERK, 2025.

All alternatives place growth in designations that allow three or more stories, but Alternatives 1 and 2 place substantially more growth in those areas. Units at or above the third story have less risk of radon exposure.

*Exhibit 5-16: New Housing Units in Designations that Allow Three or More Stories*

	No Action	Alternative 1	Alternative 2
Units	10,600	30,200	39,000
Percent of Units	32%	67%	77%

*\*Note: The No Action is based on capacity only and does not account for feasibility of redevelopment, whereas Alternatives 1 and 2 include assumptions related to market feasibility and redevelopment.*

Source: BERK, 2025.

All of the alternatives would provide new housing units throughout the city; however, there would be varying capacity for housing that serves all income bands. In general, it is assumed that alternatives with a higher capacity for new housing units would allow for the greatest opportunity to construct different housing typologies, which in turn have the potential to be more affordable for a broader range of income levels. The No Action Alternative would have the least potential for addressing identified needs. Under this alternative, more than 40% of the new housing would need to be constructed for incomes of less than 80% AMI to meet needs. The No Action Alternative also does not include additional policy or zoning provisions to address the need for more diversity in housing supply. Alternatives 1 and 2 include greater capacity for new housing units with a broader range of typologies, as well as code updates that make requirements easier and simpler to understand. Alternatives 1 and 2 therefore have the most potential to address housing affordability needs.

All alternatives are likely to have some impact on residential displacement due to growth and redevelopment. Under all alternatives, at least 14% of housing unit capacity or growth is located in areas defined as high risk in the Washington State Displacement Risk Map (Exhibit 5-17) (Washington State Department of Commerce, 2024). The No Action Alternative places a higher proportion of growth in areas with higher displacement risk. Alternatives 1 and 2 place a lower proportion and similar or lower overall number of units in these areas and include anti-displacement policies as part of the Comprehensive Plan periodic update.

Areas with high displacement risk and housing capacity under the No Action Alternative include 2, 3a, 3b, 4, 5, 6, 7, and 8. In the Action Alternatives, areas of growth and high risk include 2, 6, 7, and 8.

*Exhibit 5-17: New Housing Units in Displacement Risk Areas*

	No Action	Alternative 1	Alternative 2
Units	9,400*	6,500	8,500
Percent of Units	32%*	14%	17%

*\*Note: The No Action is based on capacity only and does not account for feasibility of redevelopment, whereas Alternatives 1 and 2 include assumptions related to market feasibility and redevelopment.*

Source: BERK, 2025.

Land use mix can have an impact on wages due to the types of jobs that can be created in different districts. For example, a heavy industrial area would include capacity for manufacturing jobs, while a mixed-use area may include a combination of healthcare, retail, service industry, and professional services jobs. Data from the US Census provides average wages for a range of industries in the Portland metropolitan area (Exhibit 5-18) (U.S. Census Bureau, 2023).

While Alternatives 1 and 2 create many more jobs (47,500–51,800) than the No Action Alternative has capacity for (16,600 jobs), the overall average wage of new jobs is expected to be similar. All alternatives focus most of their new job growth in industrial and mixed use or commercial land use designations, making their average wages comparable. The Action Alternatives have better opportunities to adjust policies to encourage specific industries and workforce development, however.

*Exhibit 5-18: Land Use and Job Mix*

Place Type	Types of Jobs	Average Annual Wages
Heavy Industrial	Manufacturing	\$77,000
Institutional/Campus	Public Administration, Education, Hospital	\$85,000
Industrial Employment	Warehousing, Specialty Trade Contractors	\$69,000
Low Scale Neighborhood	Retail, Food/Drink Services	\$39,000
Medium Scale Neighborhood	Retail, Food/Drink Services	\$39,000
Mixed Use	Healthcare, Retail, Food/Drink Services, Professional Services	\$72,000
Regional Activity Center	Healthcare, Retail, Food/Drink Services, Professional Services	\$72,000

Source: US Census, 2023.

**Strategies**

Features of the Alternatives

- The City’s existing Housing Action Plan identifies strategies to increase housing supply and address affordability that would be implemented under all alternatives.
- The Action Alternatives include additional housing policies to ensure housing options for all income bands.
- The Action Alternatives include additional anti-displacement policies.

Other Considerations

*City-Led Opportunities*

- Pursue workforce development initiatives, small business assistance programs, and efforts to retain manufacturing, construction, and skilled trades jobs (see Appendix 3. Case Studies) (*related to draft Policy 35: Expand Workforce Development and Career Pathways and draft Policy 113: Build a Resilient Economy*).
- Help communicate home rehabilitation opportunities and radon testing options through City channels (*related to draft Policy 22: Reduce Environmental Health Disparities from Pollution*).

*Partnership Opportunities*

- Build on the work of CREDC and collaborate regionally to support the software and electronics, clean tech, life sciences, and technology-enhanced production sectors, which tend to be higher-paying industries. This could include a marketing campaign positioning Vancouver as a hub for innovation (*related to draft Policy 35: Expand Workforce Development and Career Pathways and draft Policy 113: Build a Resilient Economy*).

## Tradeoffs and Cobenefits

### Cobenefits

Several cobenefits and connections emerge when considering the relationships across metrics. Some features of the growth alternatives cascade into benefits across a range of health considerations. Others have cobenefits for emissions reduction (🌿) or equity (👤).

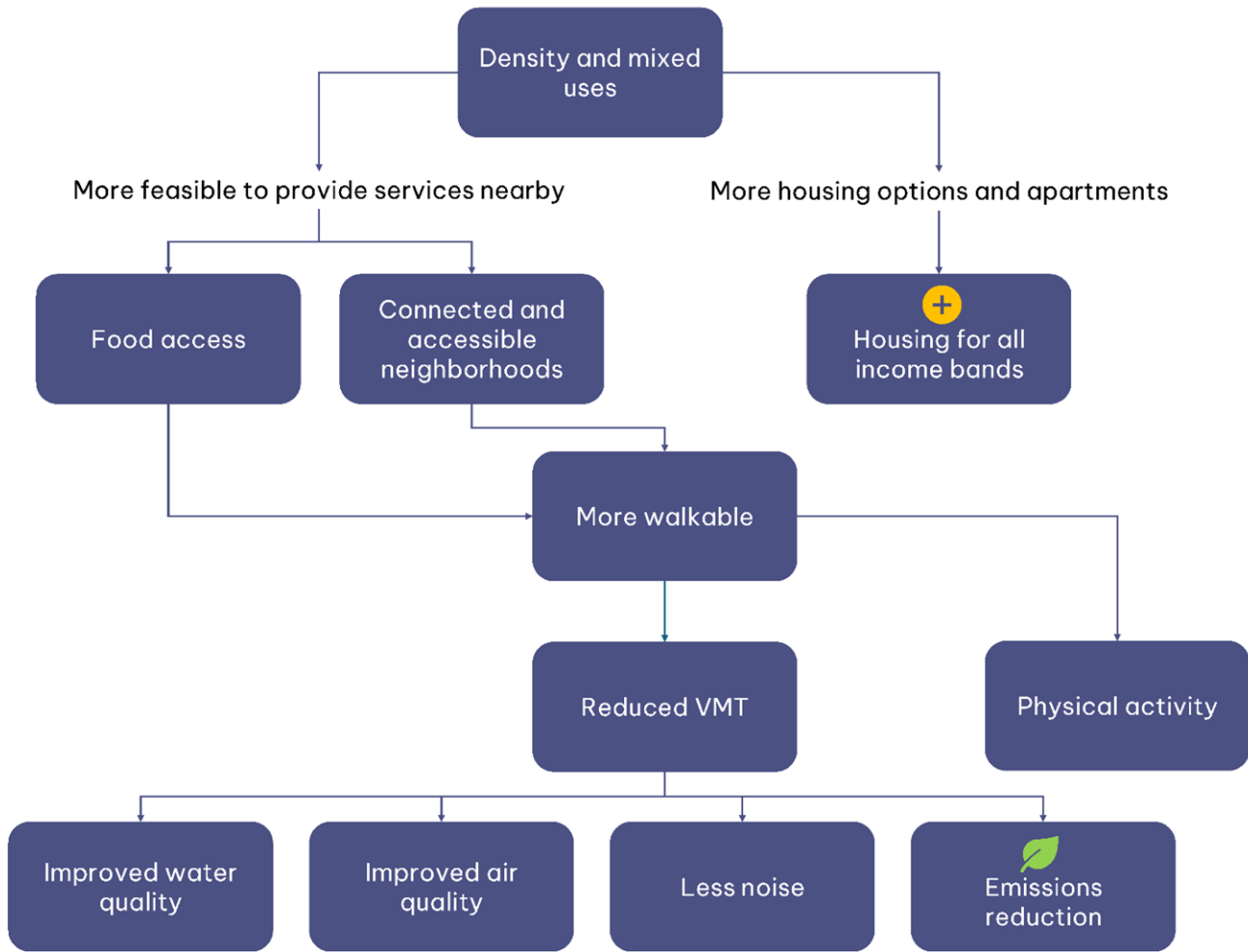
### Density and Mixed Uses and Other Health Metrics

Density and mixed uses have connections to a range of other health topics (Exhibit 5-19). More density and opportunities for mixed use development make it more feasible for businesses to open new locations, creating more connected and accessible neighborhoods and better food access. These in turn create less reliance on driving, which can improve physical activity, and lower vehicle miles traveled (with air quality, noise, and emissions benefits).

Density also provides more housing options, including apartments and other housing types that are more likely to serve people making under the area median income.

**Both Action Alternatives emphasize density and mixed uses**, with Alternative 2 especially strong in this area.

Exhibit 5-19: Density and Mixed Uses and Other Health Metrics



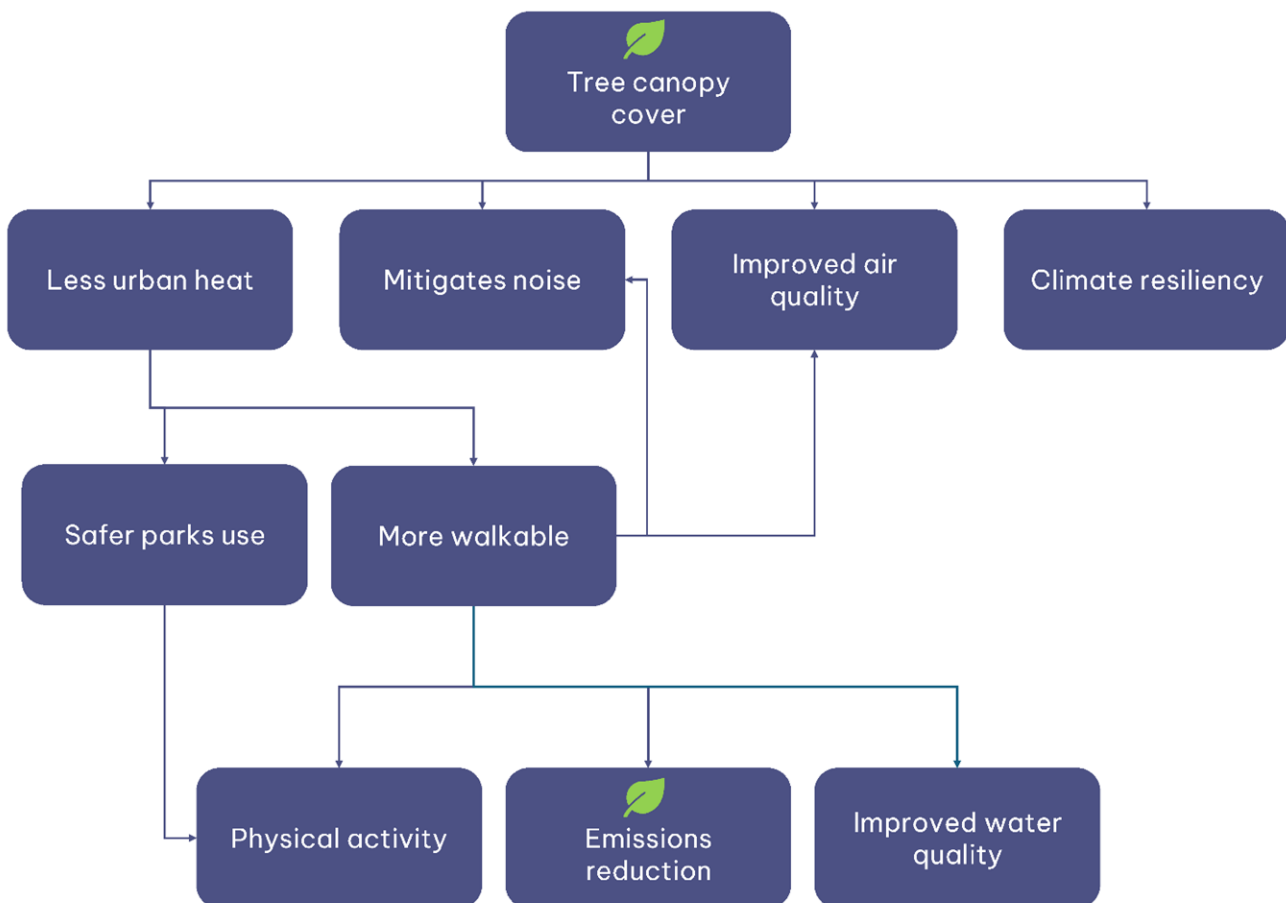
Source: BERK, 2025.

### Tree Canopy Cover and Other Health Metrics

Tree canopy cover also has connections to other health topics (Exhibit 5-20). It helps to reduce urban heat, which makes parks safer to use and biking and walking safer modes of transportation in summer. This can result in more physical activity, as well as lower emissions and less noise from less vehicle use. Tree canopy cover also has direct benefits for mitigating noise, improving air quality, and improving climate resiliency to extreme precipitation as well as heat.

The Action Alternatives create more opportunities for expanded tree canopy cover by directing much of the growth in areas without existing trees, and through policy changes that support more tree canopy.

Exhibit 5-20: Tree Canopy Cover and Other Health Metrics



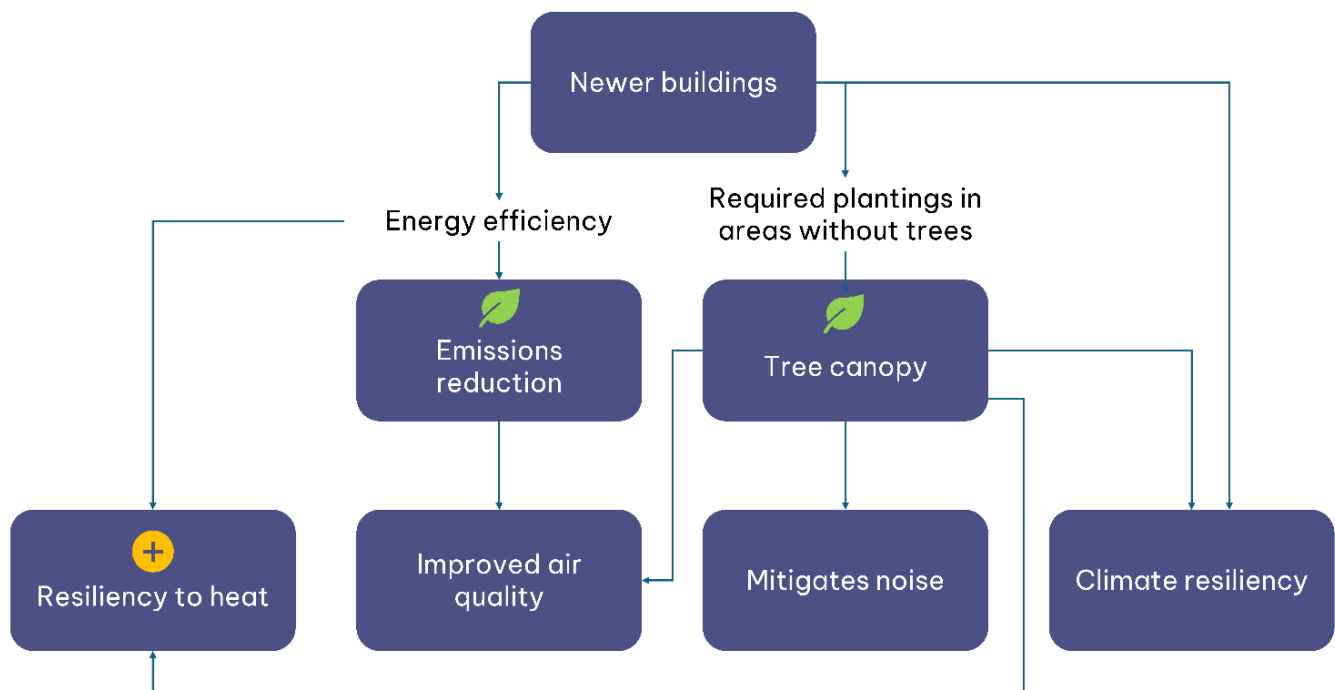
Source: BERK, 2025.

### Newer Buildings and Other Health Metrics

An increase in the proportion of newer buildings can also relate to health metrics beyond exposure to health hazards (Exhibit 5-21). Newer buildings tend to be more energy efficient, which results in lower emissions and lower costs for air conditioning and filtration, with cobenefits for air quality. Lower energy costs have the equity cobenefit of making air conditioning more accessible in heat events. New development can also help increase the amount of vegetation in areas without much tree canopy cover, as it is required to include a certain amount of trees and green space. This has benefits in turn for air quality, heat, noise, and climate resiliency. Finally, newer buildings may be more resilient to climate impacts such as extreme precipitation, flooding, and fire.

The Action Alternatives result in more new buildings than the No Action Alternative.

*Exhibit 5-21: Newer Buildings and Other Health Metrics*



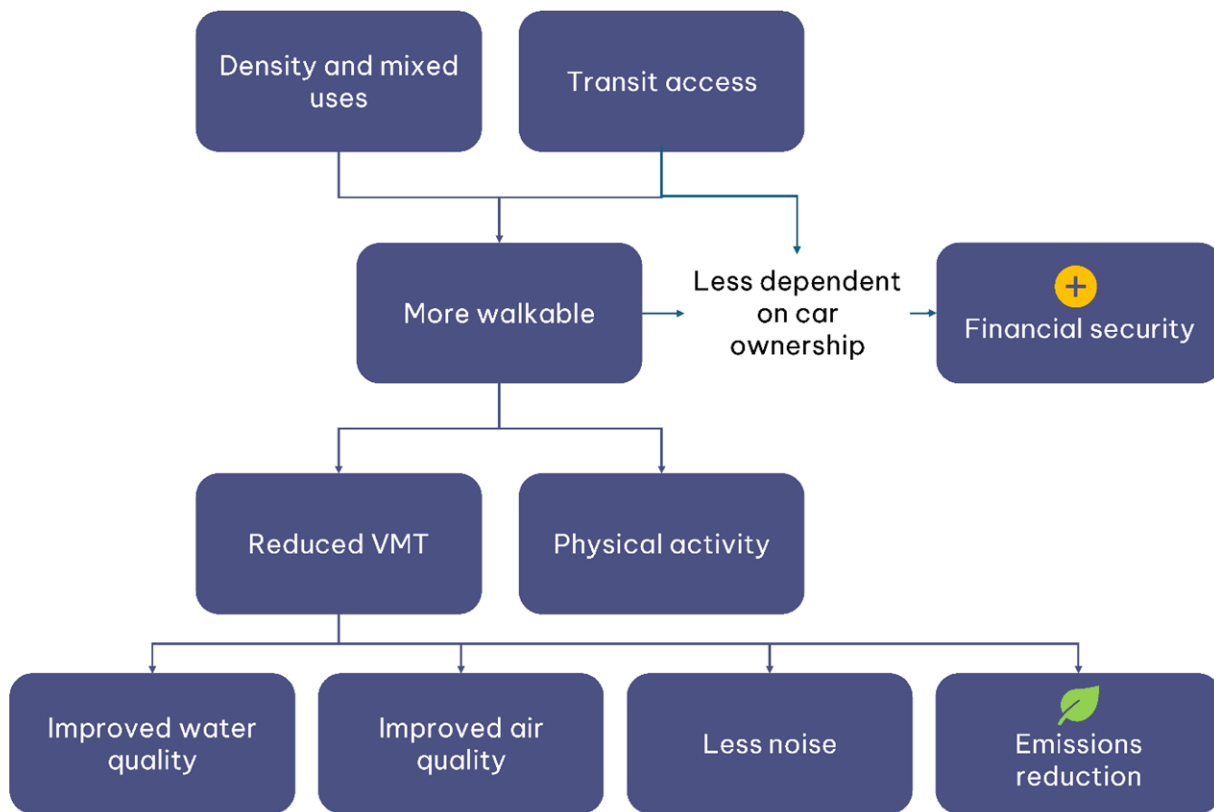
Source: BERK, 2025.

### Density, Mixed Uses, and Transit Access

When combined, density, mixed uses, and transit access can have benefits for walkability, which has other health benefits itself (Exhibit 5-22). Transit-oriented development and mixed uses could result in more walking and biking trips for daily needs, and use of transit to reach other destinations. The additional walking to and from transit has benefits for physical activity. Transit access also has benefits for reducing vehicle dependency, resulting in improved air quality, less noise, and lower emissions.

The Action Alternatives emphasize density and mixed uses, and place growth in such a way that could be served by future transit lines, where transit doesn't currently exist. The No Action Alternative focuses on lower densities, which are also harder to serve with transit.

Exhibit 5-22: Density, Mixed Uses, and Transit Access



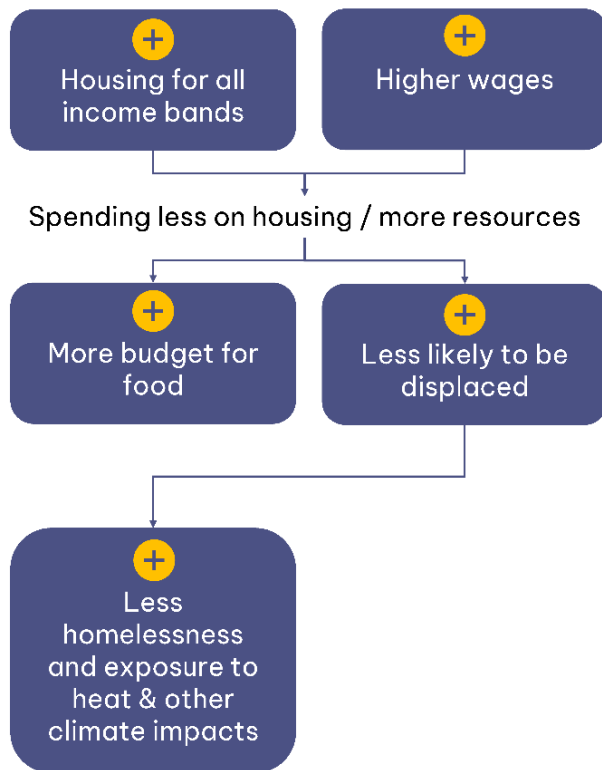
Source: BERK, 2025.

### Housing Affordability and Higher Wages

When combined, housing affordability and higher wages can have far-reaching benefits to health (Exhibit 5-23). Spending less on housing and having more resources overall can lead to being able to afford more or healthier food, and lower displacement risk. This could also prevent homelessness for households that otherwise may be at risk, therefore also preventing exposure to heat and climate hazards.

The **Action Alternatives** include housing capacity for all income bands and policies to remove barriers to the development of that housing. While all alternatives have capacity for jobs at a similar average wage, the **Action Alternatives** present an opportunity to encourage specific industries and workforce development programming, which could lead to higher wages over time.

*Exhibit 5-23: Housing Affordability and Higher Wages*



Source: BERK, 2025.

## Tradeoffs

### Density, Newer Buildings, and Displacement

Some amount of older housing redevelopment and displacement will occur regardless of density allowances. However, if more density and flexibility is possible, development interest may grow. While there are health benefits associated with more density, it may also have impacts on residential and commercial displacement. Policies should be considered to ensure that new development includes housing units and commercial spaces that meet the needs of the businesses and households that are already in Vancouver.

**The Action Alternatives include the greatest density and amount of newer buildings, which could lead to displacement impacts, however they also include the greatest mitigation opportunities.**

## 6. Community Engagement Summary

This HIA included community engagement primarily in two ways. The HIA used findings from the 2024 Clark County Community Needs Assessment survey to understand baseline conditions for access to services. The HIA was also brought to two Climate Community Working Group meetings in August 2024 and September 2025. This group of representatives from various community organizations, convened as part of the Comprehensive Plan Periodic Update, provided input on initial findings and the full HIA draft.

## 7. Next Steps

As the City completes the 2025 Comprehensive Plan Periodic Update and associated environmental review, this HIA will assist decision makers in considering specific mitigation and policy actions. Vancouver will also select a “Preferred Alternative” based on the analysis in the HIA and DEIS, which will be carried forward in the adopted plan.

*Draft Policy 111: Monitoring Progress* specifies that the City will “regularly review progress towards implementation of the Vancouver Comprehensive Plan goals and policies using the metrics identified for each policy.” The City is also required to complete a 5-year progress report on the implementation of its Climate Element of the Comprehensive Plan. For Vancouver, this will be due in 2030. Many policies that relate to climate resiliency and emissions reduction are also related to health, so this will also be an opportunity to report on health-related outcomes of the plan.

## Acronyms

ADU	Accessory Dwelling Unit
AMI	Area Median Income
BRT	Bus Rapid Transit
CAP	Criteria Air Pollutant
CDC	Centers for Disease Control
COPD	Chronic Obstructive Pulmonary Disorder
CREDC	Clark Regional Economic Development Council
CSA	Community Supported Agriculture
dBA	A-weighted decibels (unit of noise measurement)
DEIS	Draft Environmental Impact Statement
EBT	Electronic Benefits Transfer
EIS	Environmental Impact Statement
EMS	Emergency Medical Services
EPA	Environmental Protection Agency
HIA	Health Impact Assessment
NO <sub>2</sub>	Nitrous Dioxide
O <sub>3</sub>	Ozone
PIF	Park Impact Fee
PM <sub>2.5</sub>	Particulate Matter 2.5 (2.5 micrometers or less in diameter)
PUD	Public Utility District
SDOH	Social Determinants of Health
SEPA	State Environmental Policy Act (Washington State)
SNAP	Supplemental Nutritional Assistance Program
SR	State Route
USDOT	United States Department of Transportation
VMT	Vehicle Miles Traveled
WHO	World Health Organization
WSU	Washington State University

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## Appendices

### 1. Current Health-Related Programs in Vancouver

Topic	City	County	School, Nonprofit, and Business Partners	Other
 Physical Activity	Parks and trails system Parks planning Biking and walking infrastructure Transportation planning Community centers and programs	<a href="#">Walk, Run, Ride, or Roll website</a>	School sports School facilities YMCA Private gyms	Private sports clubs Adult recreation league sports
 Food Access	Community gardening Urban agriculture	Clark County SNAP-Ed Program	Free and reduced school lunches Clark County Food Bank and partners Farmers markets Supermarkets Urban Abundance programs CSAs	
 Community Connections	Parks Community centers and programs Community events Community and Neighborhood Grants	Clark County Community Services	Schools Healthcare facilities Small businesses Social services Childcare Libraries	

Topic	City	County	School, Nonprofit, and Business Partners	Other
 <p>Exposure to Health Hazards</p>	<p>Tree canopy Water quality monitoring Emergency preparedness Climate resiliency planning Fire Police EMS</p>	<p>Heat Watch Project Clark Regional Emergency Services Agency Hazard mitigation planning</p>	<p>Healthcare facilities Social services Fourth Plain Forward Climate Adaptation Taskforce</p>	<p>Southwest Clean Air Agency Federal Superfund program</p>
 <p>Housing and Financial Security</p>	<p>Planning for housing affordability Economic development planning</p>	<p>Columbia River Economic Development Council Property tax relief</p>	<p>Affordable housing providers Shelter providers Fourth Plain Forward Financial Education</p>	<p>Federal Housing Choice Vouchers</p>

## 2. Tradeoffs and Cobenefits Matrix

→ Strategies that have magnified health benefits when combined

↔ Strategies that may represent a health tradeoff when combined

🌿 Strategies have a magnified emissions reduction cobenefit when combined

⊕ Strategies have a magnified equity cobenefit when combined

- No major connection

	Connected and accessible neighborhoods	PM <sub>2.5</sub> and ozone	Noise	Urban heat	Housing in areas with older buildings	Greater % of new housing as apartments	Areas with high displacement risk	Proximity to parks	Proximity to supermarkets	Climate impacts	Proximity to transit	More jobs in higher wage sectors	Housing for all income bands
<b>Connected and accessible neighborhoods</b>		→  More connected and accessible neighborhoods  -> lower VMT  -> lower air quality impacts	→  More connected and accessible neighborhoods  -> lower VMT  -> lower noise from traffic	🌿  Strategies that reduce urban heat  +  Connected and accessible neighborhoods  =  More comfortable to walk/bike  -> lower VMT & emissions	-	→  Higher density  -> more feasible to provide certain services, greater density of services  -> more likely to result in connected and accessible neighborhoods	-	→  Better park access near housing  -> supports connected and accessible neighborhoods	→  Proximity to supermarkets  -> supports connected and accessible neighborhoods  -> may result in desirable locations for new stores	→  Better access to services  -> resiliency to climate impacts	🌿  Connected and accessible neighborhoods  +  proximity to transit  = walkability locally and transit connections for longer distances, lower VMT & emissions	🌿 ⊕  Higher wages  +  Proximity of housing and services/jobs  = can afford to live closer to work and services, less time burden of commuting and daily errands  -> lower VMT & emissions	🌿 ⊕  Housing options at all income bands  +  Proximity of housing and services/jobs  = can afford to live closer to work and services, less time burden of commuting and daily errands  -> lower VMT & emissions

	Connected and accessible neighborhoods	PM <sub>2.5</sub> and ozone	Noise	Urban heat	Housing in areas with older buildings	Greater % of new housing as apartments	Areas with high displacement risk	Proximity to parks	Proximity to supermarkets	Climate impacts	Proximity to transit	More jobs in higher wage sectors	Housing for all income bands
<b>PM<sub>2.5</sub> and ozone</b>			<p>→</p> <p>Strategies to address transportation noise via VMT reduction</p> <p>-&gt;</p> <p>Strategies to address air quality via VMT reduction</p>	<p>→</p> <p>Greening urban heat areas</p> <p>-&gt; improved air quality</p>	<p>→</p> <p>Newer buildings</p> <p>-&gt; better indoor air quality</p>	<p>→</p> <p>Higher density</p> <p>-&gt; lower VMT</p> <p>-&gt; lower air quality impacts</p>	-	<p>→</p> <p>More parks with trees and vegetation</p> <p>-&gt; improved air quality</p> <p>Strategies that improve air quality</p> <p>-&gt; parks more comfortable and safe to use</p>	<p>→</p> <p>Easier to walk or bike to supermarkets</p> <p>-&gt; lower VMT</p> <p>-&gt; lower air quality impacts</p>	<p>→</p> <p>Climate impacts</p> <p>-&gt; worse air quality</p> <p>Some climate resiliency strategies (for example, more indoor recreation facilities, air conditioning, tree planting)</p> <p>-&gt; air pollution mitigation</p>	<p>→</p> <p>More people taking transit</p> <p>-&gt; lower VMT</p> <p>-&gt; lower air quality impacts</p>	<p>→</p> <p>Higher wages</p> <p>-&gt; can afford to live closer to work and services</p> <p>-&gt; lower VMT</p> <p>-&gt; lower air quality impacts</p>	<p>→</p> <p>Housing options at all income bands</p> <p>-&gt; can afford to live closer to work and services</p> <p>-&gt; lower VMT</p> <p>-&gt; lower air quality impacts</p>
<b>Noise</b>					<p>→</p> <p>Newer buildings</p> <p>-&gt; better noise mitigation</p>	-	-	<p>→</p> <p>More parks with trees and vegetation</p> <p>-&gt; mitigates noise</p>	<p>→</p> <p>Easier to walk or bike to supermarkets</p> <p>-&gt; lower VMT</p> <p>-&gt; lower noise impacts</p>	-	<p>→</p> <p>More people taking transit</p> <p>-&gt; lower VMT</p> <p>-&gt; lower noise impacts</p>	<p>→</p> <p>Higher wages</p> <p>-&gt; can afford to live closer to work and services</p> <p>-&gt; lower VMT</p> <p>-&gt; lower noise impacts</p>	<p>→</p> <p>Housing options at all income bands</p> <p>-&gt; can afford to live closer to work and services</p> <p>-&gt; lower VMT</p> <p>-&gt; lower noise impacts</p>

	Connected and accessible neighborhoods	PM <sub>2.5</sub> and ozone	Noise	Urban heat	Housing in areas with older buildings	Greater % of new housing as apartments	Areas with high displacement risk	Proximity to parks	Proximity to supermarkets	Climate impacts	Proximity to transit	More jobs in higher wage sectors	Housing for all income bands
<b>Urban heat</b>					<p>→</p> <p>Newer buildings</p> <p>-&gt; more efficient cooling</p>	-	-	<p>→</p> <p>More parks with trees and vegetation</p> <p>-&gt; cooling, refuge during heat events</p> <p>Strategies that reduce heat</p> <p>-&gt; parks more comfortable and safe to use</p>	-	<p>→</p> <p>Climate impacts</p> <p>-&gt; more heat impacts</p> <p>Some climate resiliency strategies (for example, more indoor recreation facilities, air conditioning, tree planting)</p> <p>-&gt; heat mitigation</p>	-	<p>→ +</p> <p>Higher wages</p> <p>-&gt; greater adaptive capacity to heat impacts (for example, can afford air conditioning)</p>	<p>→ +</p> <p>Housing options at all income bands</p> <p>-&gt; fewer people living unsheltered or in low quality housing</p> <p>-&gt; better safety during heat events</p>
<b>Housing in areas with older buildings</b>						-	<p>→</p> <p>Redevelopment in areas with older buildings</p> <p>-&gt; likely impacts to displacement</p>	-	-	<p>→</p> <p>Newer buildings</p> <p>-&gt; potentially more resilient to climate impacts</p>	-	-	<p>↔</p> <p>Redevelopment in areas with older buildings</p> <p>-&gt; loss of some naturally occurring affordable housing, housing for all income bands needs to balance various strategies for long-term needs</p>

	Connected and accessible neighborhoods	PM <sub>2.5</sub> and ozone	Noise	Urban heat	Housing in areas with older buildings	Greater % of new housing as apartments	Areas with high displacement risk	Proximity to parks	Proximity to supermarkets	Climate impacts	Proximity to transit	More jobs in higher wage sectors	Housing for all income bands
<b>Greater % of new housing as apartments</b>							<p>Short term: ↔</p> <p>Rezoning for higher densities</p> <p>-&gt; land is more valuable and more likely to redevelop</p> <p>-&gt; potential for displacement</p> <p>Long term: →</p> <p>Apartments more likely to provide housing for middle- and lower-income bands</p> <p>-&gt; availability of housing options at all income levels mitigates displacement</p>	-	→	-	<p>🌿</p> <p>Higher density</p> <p>+</p> <p>Proximity to transit</p> <p>= transit-oriented development</p> <p>-&gt; lower VMT and emissions</p>	<p>🌿 +</p> <p>Higher wages</p> <p>+</p> <p>More housing options</p> <p>=</p> <p>can afford to live closer to work and services, less time burden of commuting and daily errands</p> <p>-&gt; lower VMT &amp; emissions</p>	<p>→ +</p> <p>Apartments more likely to provide housing for middle- and lower-income bands</p> <p>-&gt; availability of housing options at all income levels</p>
<b>Areas with high displacement risk</b>								-	-	-	-	<p>→ +</p> <p>Higher wages</p> <p>-&gt; less vulnerable to displacement</p>	<p>→ +</p> <p>Housing options at all income bands</p> <p>-&gt; households are less likely to be displaced; displaced households have somewhere to move to in the same city or neighborhood</p>

	Connected and accessible neighborhoods	PM <sub>2.5</sub> and ozone	Noise	Urban heat	Housing in areas with older buildings	Greater % of new housing as apartments	Areas with high displacement risk	Proximity to parks	Proximity to supermarkets	Climate impacts	Proximity to transit	More jobs in higher wage sectors	Housing for all income bands
Proximity to parks									-	<p>→</p> <p>More parks with trees and vegetation</p> <p>-&gt; cooling, refuge during heat or other events</p> <p>Strategies that address climate resiliency</p> <p>-&gt; parks more comfortable and safe to use</p>	-	-	<p>+</p> <p>Housing options at all income bands</p> <p>+</p> <p>Proximity to parks</p> <p>= Households at all incomes can access health benefits of parks</p>
Proximity to supermarkets										<p>→</p> <p>Better access to supermarkets</p> <p>-&gt; resiliency to climate impacts (for example, ability to stock up on supplies prior to a potential power outage or other event)</p>	-	<p>+</p> <p>Higher wages</p> <p>-&gt; greater ability to afford foods, less dependent on "budget" stores</p>	<p>+</p> <p>Housing options at all income bands</p> <p>-&gt; less budget spent on housing, more available for food</p> <p>Housing options at all income bands</p> <p>+</p> <p>Better access to supermarkets</p> <p>-&gt;</p> <p>Households at all incomes have good access to supermarkets</p>

	Connected and accessible neighborhoods	PM <sub>2.5</sub> and ozone	Noise	Urban heat	Housing in areas with older buildings	Greater % of new housing as apartments	Areas with high displacement risk	Proximity to parks	Proximity to supermarkets	Climate impacts	Proximity to transit	More jobs in higher wage sectors	Housing for all income bands
Climate impacts											-	→ + Higher wages -> greater adaptive capacity to climate impacts (for example, can afford air conditioning, home retrofits, etc.)	→ + Housing options at all income bands -> fewer people living unsheltered or in low quality housing -> better safety during climate events
Proximity to transit												+ 🌿 Higher wages -> Can afford to live where more transit options available -> lower VMT & emissions	+ 🌿 Housing options at all income bands -> Can afford to live where more transit options available -> lower VMT & emissions
More jobs in higher wage sectors													+ 🌿 Higher wages + Housing options at all income bands = can afford to live closer to work and services, less time burden of commuting and daily errands -> lower VMT & emissions
Housing for all income bands													

### 3. Case Studies

Examples of health-related initiatives in other parts of the Pacific Northwest and United States provide insights into potential strategies for Vancouver.

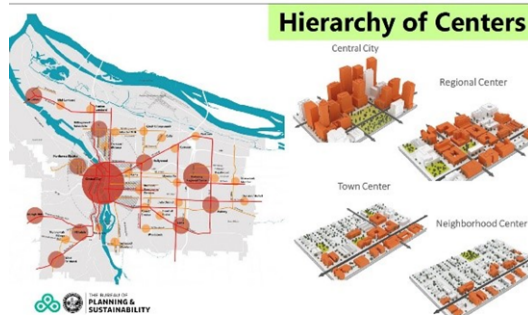
#### Connected and accessible neighborhoods

Description	Examples	Potential Policy/ Strategy for Vancouver
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Ability to have a range of housing types for all ages and incomes in where people can easily walk or bike to groceries, cafes, shops and services, healthcare, schools and open space.

**Portland, Oregon** 20-minute neighborhood concept since 2010: expanding pedestrian and bicycle infrastructure and trails, redesigning streets for community use, investing in arts and culture facilities as incubators and building affordable housing.

[Hierarchy of Centers for 15-minute City](#), July 2023, CNU, Portland, Oregon.



*Lessons Learned:* [Thesis, University of Washington, 2022](#), comparing Portland 2010 and 2020 and increase in accessibility across numerous metrics, but still higher VMT.

**Olympia, Washington:** City of Olympia is updating its [neighborhood centers strategy, April 2024](#). Five centers were identified for potential success across metrics in 2022: [Jolt News, July 2022](#). Issue has been lack of street connectivity and sidewalk infrastructure: [Jolt News, April 2024](#).

**Low cost, rapid implementation, pop-up businesses/retail incubator programs** for BIPOC businesses, arts/culture:

- [Downtown Bothell Pop Shops on Main](#)
- [Seattle Waterfront Promenade Pop Ups](#)
- [Seattle Small Businesses in Vacant Storefronts](#)

Land Use Alternatives addressing nodes and housing types, coordinated with transportation, and parks and recreation plans.

Flexibility in neighborhood commercial spaces (short term program to fill vacant spaces or add pop-ups; longer term code to require or incentivize small spaces, limit parking for small businesses).


Articles and Studies:

- [Can 15-Minute Cities Work in America? Bloomberg article on MIT Study, February 2024](#)
- [NLC: Exploring the 15-Minute City Concept and Its Potential for Communities of All Sizes, June 2023](#)
- [NAR: Implementing 15-Minute Cities: Where to Start? April 2021](#)

## Growth near transit

Description	Examples	Potential Policy/ Strategy
<p>Promote active living by helping to improve pedestrian, bicycling, and transit spaces.</p> <p>People may not walk, bicycle, or take transit because they may be unsafe, unavailable, or unreliable. Better infrastructure means people have more ways to get regular physical activity.</p>	<p><a href="#">Portland (OR) Metro, Transit-Oriented Development Program</a>: Grants, site acquisition, and partnerships to build housing along transit; cut sheets for several years; strategic plan 2023.</p> <p><a href="#">Spokane TOD Framework Study (2022)</a>: The study identifies recommendations for aligning policies, regulations, and investments in public infrastructure along Spokane’s current and future high-frequency transit corridors and includes plans for integrated TOD and multi-modal access within a portion of the rapid transit line.</p>	<p>Use Transportation System Plan and Active Trip Potential to identify best locations for improvements in non-motorized access.</p> <p>Prioritize equity in access, safety, and efficiency in the Capital Facility Plan in the allocation of resources.</p> <p>Promote greater mixed uses and densities in proximity to transit.</p>
<p>Promoting transit-oriented development such as increased housing density in places with existing/ planned transit can support the success of more frequent transit.</p> <p>Articles and Studies:</p>	<p><a href="#">Redmond 2050</a> continues to focus growth on Redmond’s centers in a way that addresses needs and goals related to equity, sustainability, and resiliency. The City has developed increased floor area ratios, densities, and identified multimodal improvements around station areas, as well as developing fast-track permitting tools (planned action, infill exemption).</p>	
<ul style="list-style-type: none"> <li>• <a href="#">Relationships between density, transit, and household expenditures in small urban areas, 2020</a></li> <li>• <a href="#">Minneapolis St Paul, Density &amp; Activity Near Transit, Local Planning Handbook, 2018</a></li> </ul>	<p><a href="#">Mountlake Terrace Municipal Code Ch. 19.50</a>: Lists regulations and standards to implement a vision for the town center as a blend of attractive transit-oriented uses connected to the light rail transit station, civic campus, and surrounding neighborhoods. Light rail station underway with public and private development: <a href="#">Herald article, April 2024</a></p>	


**Park and recreation access**

Description	Examples	Potential Policy/ Strategy
<p>Increase access to parks within a 10–15 minute walk to promote active living and health.</p> <p>Articles and Studies:</p> <ul style="list-style-type: none"> <li>Trust for Public Land, <a href="#">Parks Promote Health, 2023</a>, with Creative Strategies to Address Gaps reviewing 100 communities</li> <li>National Park and Recreation Association, <a href="#">Parks and an Equitable Recovery, 2021</a></li> <li>NRPA, <a href="#">Greening Without Gentrification, November 26, 2019</a></li> </ul>	<p><a href="#">Improving Systems to Achieve Equitable Park Access</a>: Using Policy to Overcome Acquisition Challenges in Tukwila, Washington, with new equity policy and tax levy. Other communities in examples.</p> <p>NYC <a href="#">Community Parks Initiative</a>: Addresses targeted investments and programming across neighborhoods with equity focus.</p> <p>Chicago <a href="#">Green Schoolyards Program Case Study</a>: City Parks Alliance. Partnership with schools to improve playgrounds in underserved areas.</p>  <p><a href="#">Puget Sound Regional Council</a>, Stormwater Parks program.</p> <p>Seattle <a href="#">linear parks/ green infrastructure</a>.</p> <p>Aspen Institute’s Project Play team reports on how well youth are being served in defined geographic areas, across country including <a href="#">Seattle-King County, Tacoma-Pierce County</a>: Only 19% of Pierce County youth receive 60 minutes of daily physical activity, below the national (24%) and state (23%) averages. The State of Play–Pierce County advisory group aspires to increase Pierce County’s physical activity rate to at least the national average, if not higher, through collective and individual actions.</p>	<p>Address equity and park investments in Capital Facilities Plan through levels of service on distribution, quality, and amount.</p> <p>Leverage schools and stormwater or other public facilities to add park and recreation facilities that can serve as hubs and create multiple funding and implementation streams.</p> <p>Engage neighborhoods in tactical short-term as well as long term phased park improvements especially in underserved areas.</p> <p>Optimize the open space already in hand, such as streets and alleyways, schoolyards, and brownfield redevelopment.</p> <p>Develop anti-displacement strategies related to park and green infrastructure.</p>


## Heat island mitigation

Description	Examples	Potential Policy/ Strategy
<p>Increase resilience to extreme heat. Recognize health impacts to sensitive populations. Adapt urban environments through canopy cover, pavement/roof treatments, and smart growth.</p>	<p><a href="#">Sacramento Metropolitan, 2019, Urban Heat Island Mitigation Plan</a>: Pilot projects, best practices, implementation mechanisms across West Coast. Vegetation cover, cool pavement, cool and green roofs, electric vehicles, and smart growth.</p> <p><i>Example Portland Eco Roof</i></p> 	<p>Enhance Vancouver <a href="#">Urban Forestry Program</a> and implement Management Plan</p> <p>Address building and street adaptations for cool/green roofs and pavement.</p>
<p>Articles and Studies:</p> <ul style="list-style-type: none"> <li>EPA <a href="#">Heat Island Cooling Strategies</a></li> <li>EPA <a href="#">Reduce Heat Island Effect</a></li> </ul>	<p><a href="#">Heat Island Community Actions Database, August 2023</a>: EPA database of examples of policies, codes, and programs across country. Can filter examples.</p> <p><a href="#">Redmond 2050</a> updates to Green Building Incentive Program (RZC 21.67).</p> <p><a href="#">LEED Heat Island Reduction Measures</a>: Sustainable Sites.</p>	

**Tree canopy, urban shade, landscaping, green infrastructure**

Description	Examples	Potential Policy/ Strategy
<p>Natural and built solutions that decrease temperatures and improve water quality in an urban environment.</p>	<p>King Conservation District, <a href="#">Puget Sound Urban Tree Canopy and Stormwater Management Handbook, 2021</a>.</p>	<p>Increase tree canopy cover to boost carbon sequestration, reduce heat islands, and improve air quality, prioritizing overburdened communities. (Menu of Measures).</p>
<p><b>Tree Canopy:</b> Tree canopy covers the ground and shades the area below it.</p>	<p>Port of Seattle, <a href="#">Student engagement model, tree canopy enhancement projects, June 2022</a>.</p>	<p>Provide temporary or permanent shade structures in parks or in rights of way to supplement the shade capacity of newly planted trees.</p>
<p><b>Green Infrastructure:</b> Stormwater management systems that mimic nature’s ability to soak up and store water.</p>	<p>City of <a href="#">Clovis, Urban Greening Master Plan, 2015</a> and Fontana <a href="#">Urban Greening Master Plan, ASLA Award, 2020</a>: Green Streets and Places.</p>	<p>Develop or modify design standards to integrate exterior building features that reduce the impacts of climate change and increase resilience. (Menu of Measures).</p>
<p>Articles and Studies:</p> <ul style="list-style-type: none"> <li>• Urban Greening, <a href="#">Climate Action for Healthy People, Healthy Places, Healthy Planet: Urban Greening &amp; Green Infrastructure, Climate Change and Health, 2016</a></li> <li>• <a href="#">Building green infrastructure to enhance urban resilience to climate change and pandemics, 2021</a></li> <li>• <a href="#">Green Infrastructure and Gentrification: Harness the Benefits, Avoid the Displacement</a>, by Renee Mazurek, Apr 24, 2023</li> </ul>	 <p><a href="#">Denver Green Infrastructure Implementation Plan</a>.</p>	

## Mixed uses and Housing variety

Description	Examples	Potential Policy/ Strategy
<p>Increase opportunities for physical activity, reduced greenhouse gases, and improved community connections through mixed use neighborhoods.</p>	<p><a href="#">Middle Housing in 6 cities</a>, Sacramento, Portland, Minneapolis.</p>	<p>Land Use Alternatives, focusing on mixed uses in focal points as well as middle housing implementation across low density residential areas.</p>
<p>Increase access to housing ownership and affordability. Increase amenities that support quality of life.</p>		<p>Consider inclusionary housing and regulatory incentives for mixed use and infill housing (density or FAR bonuses, SEPA infill exemptions, MFTE, etc. per housing needs assessment and housing action plan).</p>
<p>Articles and Studies:</p> <ul style="list-style-type: none"> <li>• <a href="#">What is a Mixed-Use Neighborhood?</a>, Blue Zones 2020</li> <li>• <a href="#">Impacts of Affordable Housing on Health</a>, Center for Housing Policy, 2015</li> </ul>	<p><a href="#">Title X: Middle Housing Toolkit</a>: Objective Design + Development Standards (ODDS), Puget Sound Region.</p> <p><a href="#">Expanding affordable housing opportunities, case studies</a>: Policy and zoning.</p> <p><a href="#">Port Orchard Municipal Code Sec. 20.139.055</a>: Provides side-by-side duplex and attached house design standards (July 2024).</p> <p><a href="#">ULI Case Studies</a>: Select mixed use or district/corridor, and cities.</p>	
<p><i>[See also Connected and accessible neighborhoods and Growth near transit ]</i></p>		

## Buffering from highways / Reduce air and noise pollution

Description	Examples	Potential Policy/ Strategy
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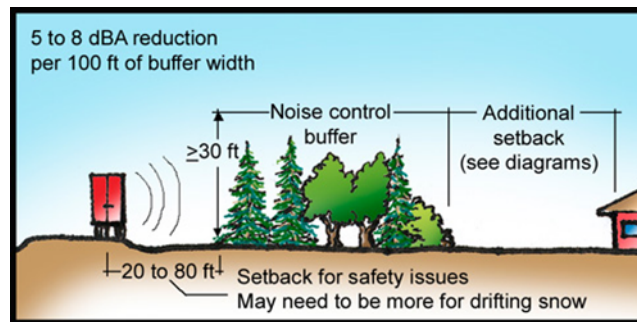
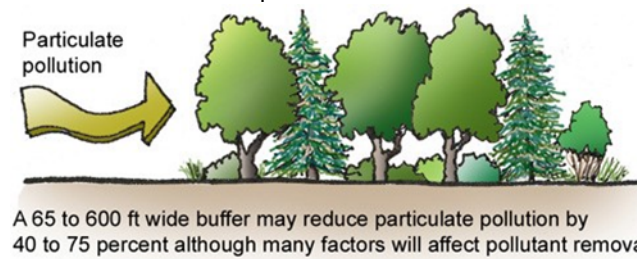
Address right of way treatments and abutting site and building design to reduce exposure to air pollution and noise due to high volume roadways.

Articles and Studies:

- EPA, [Living Close to Roadways: Health Concerns and Mitigation Strategies](#)
- [Urban Institute, The Polluted Life Near the Highway](#), 2022
- University of Washington Mobile Observations of Ultrafine Particles ([MOV-UP](#)) study
- [Noise abatement requirements](#) under HUD in areas subject to noise

[Air Quality and Land Use Planning](#), 2023: Review of Literature by Bellevue, with Mitigation Strategies – land use (limiting sensitive uses), urban design, barriers/walls/vegetation, highway lids, building design and ventilation.

[USDA Air Quality and Conservation Buffers](#): Manual to enhance visual quality, control noise levels, control air pollutants and odor.



Adapt urban landscape to reduce exposure of overburdened populations and sensitive uses to air pollution and noise through vegetation, site, and building design.

Create opportunities for community led action plans to address needs of communities in subareas near industrial, port, and highway locations.

[Community Air Action Planning, Oregon](#): New program.

[West Oakland Community Action Plan](#): Community led, addressing port and industrial area. Has annual reports and monitoring.

[Tacoma Air Quality Pilot Program](#): Test prototype air sensors for potential for measurable observations that can be compared to [Tacoma's Equity Index](#).

## Water pollution

Description	Examples	Potential Policy/ Strategy
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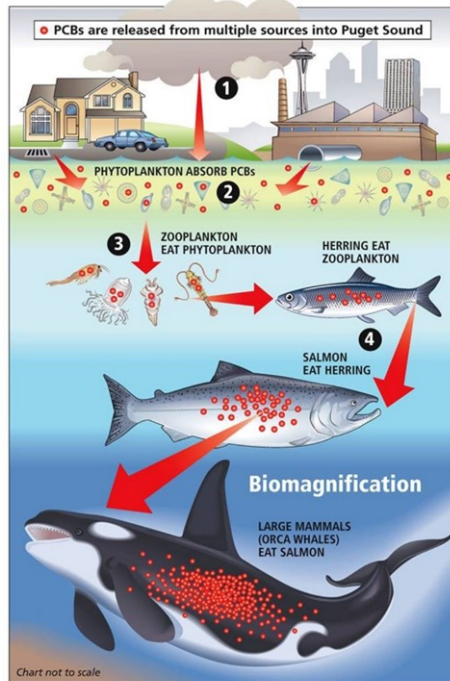
Implement land use strategies to minimize water pollution and reduce contamination.

[King County Clean Water Healthy Habitat Strategic Plan, 2020.](#)

Collaborate with WSU Vancouver Extension and utilize their [Water Research Center](#) through staying up to date on water quality trends in the state.

Articles and Studies:

- [Water Quality: Agencies Should Take More Actions to Manage Risks from Harmful Algal Blooms and Hypoxia](#), 2022
- [Water Infrastructure: Technical Assistance and Climate Resilience Planning Could Help Utilities Prepare for Potential Climate Change Impacts](#), 2020
- [Urban Water: Strategies That Work](#), 2013





Source: *Impact of Water Pollution on the Environment State of Salmon, n.d.*


[Adopt a Storm Drain - Sweep Up, Rake Up, Pick Up](#), Tacoma: Individuals, organizations and businesses can participate to adopt a storm drain in their neighborhood and commit to keeping it clear of litter, debris, and pollution. The program's goal is to reduce stormwater pollution.

Create educational opportunities for residents to learn about proper disposal of household chemicals and water quality best practices.

**Conservation of forest and agricultural land, urban farms and forests**

Description	Examples	Potential Policy/ Strategy
<p>Protection of contiguous forest canopy and urban farms in cities to provide ecosystem services and food security.</p> <p>Urban farms are likely privately owned and larger than a community garden. Community forests may have recreation elements, but a primary goal is conservation of larger forest patches in urban area.</p>	<p><b>Kitsap County:</b> <a href="#">Port Gamble Heritage Park Master Plan</a>, 2011-2021, 3500 acres.</p> <p><b>Clark County:</b> <a href="#">78th Street Heritage Farm Master Plan</a>, 2020-2024.</p> 	<p>Enhance Vancouver <a href="#">Urban Forestry Program</a> and implement Management Plan.</p> <p>Promote urban agriculture with zoning allowances and incentives. Consider models of affordable housing and agriculture (“agrihood”).</p>
<p>Articles and Studies:</p> <ul style="list-style-type: none"> <li>• MRSC, <a href="#">Local Government-Supported Urban Agriculture Adds Equity and Climate Change Benefits for the Public</a>, May 2024</li> <li>• Healthy Food Policy, Project, <a href="#">Zoning for Urban Agriculture</a>, 2024</li> <li>• <a href="#">DNR’s Urban and Community Forestry program</a></li> </ul>	<p>NRCS: <a href="#">Urban Agriculture and Climate Change in the Northwest</a>, includes Village Gardens, <b>Portland.</b></p> <p><a href="#">Community Forest Lands (ACFL): Anacortes</a>, Washington.</p> 	

## Community gardens

Description	Examples	Potential Policy/ Strategy
<p>Implement a community garden program to promote community wellbeing, resiliency of local food systems, and support environmental stewardship.</p> <p>Articles and Studies:</p> <ul style="list-style-type: none"> <li>• <a href="#">Public Health Benefits of Community Gardens</a>, 2024</li> <li>• <a href="#">Community gardens and their effects on diet, health, psychosocial and community outcomes: a systematic review</a>, 2022</li> <li>• <a href="#">Community Gardening: Stress, Well-Being, and Resilience Potentials</a>, 2020</li> </ul>	<p><a href="#">P-Patch Gardening Program</a>, Seattle.</p> <p><a href="#">Community Garden Program</a>, Bellingham.</p> <p><a href="#">Community Garden Program</a>, Auburn.</p>  <p><a href="#">Community Gardens</a>, Tigard, Oregon.</p>	<p>Encourage the expansion and maintenance of community gardens by ensuring equitable access to land and offering educational resources for new gardeners.</p>

## Healthy streets

Description	Examples	Potential Policy/ Strategy
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Open more public spaces for people to use by closing streets to pass through traffic. Closed streets are open to people walking, biking, and playing. This initiative improves community connections and individual health.

- [Healthy Streets](#), Seattle.
- [Healthy Streets](#), Bellevue.
- [Safe Streets](#), Spokane.
- [Slow Street Program](#), San Francisco.
- [Open Streets](#), New York.
- [Open Streets](#), Washington, D.C.

Implement Main Street pilot program to close residential streets to through traffic. Closed streets may improve safety for people walking, biking, and playing and enhance community connection.

- Articles and Studies:
- [Rethinking Streets to Drive Commerce and Connection – Not Just Cars](#), 2024
  - [Ditch Cars for Open – and Equal – Streets](#), 2022
  - [The Benefits of Closing a Street](#), 2017



Consider utilizing the [Safe Streets and Roads for All Grant Program](#) to finance the pilot program.



## Emergency shelter spaces, resilience hubs, neighborhood meeting points

Description	Examples	Potential Policy/ Strategy
<p>Provide temporary daytime or overnight shelter or resources to protect community members.</p>	<p><a href="#">Clark Regional Emergency Services Agency (CRESA)</a>. <a href="#">Hazard Sheltering</a>, Spokane. <a href="#">Extreme Heat and Cooling Centers</a>, Snohomish County.</p>	<p>Consider partnering with local libraries and schools to provide emergency cooling and heating shelters.</p>
<p>Articles and Studies:</p> <ul style="list-style-type: none"> <li>MRSC, <a href="#">Severe Weather Shelters for Winter and Beyond, 2022</a></li> <li><a href="#">Severe Weather Shelters</a>, Washington State Resources</li> <li>Urban Sustainability Directors Network, <a href="#">Resilience Hubs</a></li> </ul>	<div data-bbox="435 510 1057 856" data-label="Image"> </div> <p>Seattle, <a href="#">Citywide Resilience Hub Plan</a>. <a href="#">Resilience Hub Pilot Project</a>, Washington D.C.</p>	<p>Develop resilience hubs – community-serving facilities that are designed to support residents, coordinate communication, distribute resources, and reduce carbon pollution while enhancing quality of life. (Menu of Measures)</p>

## Food access

Description	Examples	Potential Policy/ Strategy
<p>Neighborhoods or places where access to affordable, healthy food options (especially fresh fruits and vegetables) is restricted or nonexistent.</p>	<ul style="list-style-type: none"> <li>• <a href="#">What 5 Cities are Doing to Change the Way America Eats</a>, January 2016.</li> <li>• Farmbrite, <a href="#">Combating Food Deserts: How Some US States Are Leading the Way, December 2023</a>.</li> <li>• <a href="#">Clark Food &amp; Farm Network</a>.</li> </ul>	<p>Review and amend existing zoning policies that restrict supermarket development in areas with low access to fresh and healthy foods.</p>
<p>Articles and Studies:</p> <ul style="list-style-type: none"> <li>• <a href="#">Food Insecurity among the Overall Population in Clark County</a>, 2019</li> <li>• <a href="#">Downtown Vancouver's Block 10: The Grocery Gap</a>, 2019</li> <li>• <a href="#">Assessment of Healthy Food Availability in Washington State- Questioning the Food Desert Paradigm</a>, 2017</li> <li>• <a href="#">Characteristics and Influential Factors of Food Deserts</a>, 2012</li> </ul>		<p>Partner with faith-based and neighborhood organizations to provide healthy and fresh food. Prioritize areas with the greatest need.</p> <p>Utilize Vancouver's <a href="#">Local Food Action Plan</a>.</p> <p>Explore converting underutilized public land to urban farms.</p> <p>Consider allowing mobile farmers markets and food trucks to serve more neighborhoods.</p>

**Access to healthcare and social services**

Description	Examples	Potential Policy/ Strategy
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Clark County, [Community Health Assessment and Improvement Plan](#):

Parkland-Spanaway [Blue Zones Project](#), with MultiCare, Virginia Mason, and Pierce County. Includes Life Radius Approach.

Through partnerships with Clark County Health, distribution of Vancouver’s human services funding, and land use growth strategy that improves access to health, social, recreational, and food resources.

*Access to health care means having “the timely use of personal health services to achieve the best health outcomes.” Access to health care consists of four components:*

- *Insurance coverage: insured people are more likely to receive medical care and less likely to have poor health status;*
- *Primary care provider: having a usual source of care is associated with adults receiving recommended screening and prevention services;*
- *Timeliness: ability to get health care when the need is recognized; and*
- *Workforce: capable, qualified, culturally competent providers.*



US Department of Health and Human Services, [Access to Health Services](#), Healthy People 2030:

*Social services are programs and services that improve the wellbeing of individuals, families, and communities.*