Planning Commission Meeting Agenda

February 10, 2026
5:00 PM

City Hall Aspen Conference Room
415 W. 6th Street | Vancouver, WA
Join Teams Meeting
Dial: +1 347-941-5324
Meeting ID: 257 335 320 116

1. **Call to Order and Roll Call**
2. **Approval of Minutes**

   Adoption of Minutes – January 27, 2026
3. **Workshop**

   Comprehensive Plan Update: Draft Introduction, Parks, Transportation, Climate, Equity and Public Facilities and Service Chapters | Rebecca Kennedy, Deputy Director | Domenique Martinelli, Senior Long-Range Planner, Community Development Department
4. **Break 6:00 – 6:30 pm**
5. **Community Forum**
   To provide public testimony, please see instructions below.
6. **Workshop**

   Comprehensive Plan Update: Code Details Pt. 2 | Rebecca Kennedy, Deputy Director | Mark Person, Senior Land Use Planner, Community Development Department
7. **Staff and Chair Communications**

Adjournment

Members

Patrick Adigweme
Chair

Zach Pyle
Vice Chair

Kate Castenson
Nena Cavel
Sandra Beck
John Jay
Alyssa Wheeler

Community Development Department
415 W. 6th Street
P.O. Box 1995
Vancouver, WA 98668
360-487-7800
Relay: 711
cityofvancouver.us

Community Forum Instructions
The public is invited to speak regarding any issue. Members of the public testifying are asked to limit testimony to

three minutes. There are three ways to provide comments:

1. Writing: Public comments can be submitted in writing (name, address, contact information and comments) via email to PlanningCommission@cityofvancouver.us by noon on the day of the meeting.
2. Remotely: Complete the online form before noon the day of the meeting and join via phone or Teams (details on each agenda). Staff will call on you to speak when it's your turn.
3. In Person: Complete the online form before noon the day of the meeting or a speaker request form in person prior to the start of the Community Forum portion of the meeting.

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CITY OF Vancouver WASHINGTON

Planning Commission

Meeting Minutes
Tuesday, January 27, 2026
4:30 p.m.
City Hall Aspen Room
415 W. 6th Street | Vancouver, WA

The meeting was called to order at 4:32 pm

Commission Members Present: Patrick Adigweme, Zach Pyle, Nena Cavel, Sandra Beck, Alyssa Wheeler, John Jay (arrived 4:56pm), Kate Castenson

Staff Present: Rebecca Kennedy, Deputy Community Development Director and Planning Commission staff liaison; Becky Rude, Deputy City Attorney and Planning Commission staff attorney; Maricsa Acosta, Support Staff; Bryan Snodgrass, Principal Planner, and Greg Turner, Land Use Manager, presented

Motion by Commissioner Pyle, seconded by Commissioner Cavel to approve January 13, 2026 meeting minutes**.** Motion carried unanimously.

Workshop: Overview of Planning Commission Bylaws, Open Public Meetings Act, Conflict of Interest and disclosure/recusal requirements
Presenter: Becky Rude, Deputy City Attorney, City Attorney's Office

Staff explained that the meeting was intended as a training and refresher for the Planning Commission and an educational opportunity for the public. The purpose was to provide context on the rules, standards, and ethical obligations guiding the Commission's work, including transparency, accountability, and avoiding conflicts of interest. Staff also noted the session would review the state planning framework, including the Growth Management Act, and explain what occurs after the Planning Commission makes a recommendation, including how development applications are reviewed, evaluated, and approved or modified. Overall, the meeting was designed to clarify the Commission's role and how it fits within the broader development review process.

The Deputy City Attorney provided an overview training on the legal and procedural frameworks governing the Planning Commission's work. The workshop was intended to set expectations and provide context rather than deliver in-depth legal instruction, with a focus on awareness, communication norms, and recognizing potential legal issues. Staff emphasized that municipal governance differs from nonprofit and private-sector boards and is governed by prescribed state and local laws that limit discretion in how the Commission conducts its business.

Members

Patrick Adigweme
Chair

Zach Pyle
Vice Chair

Nena Cavel

Sandra Beck

Alyssa Wheeler

John Jay

Kate Castenson

Community Development Department

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Key Points

- **Training Focus:** Overview on local governance rules, appearance of fairness and conflict-of-interest doctrines, Open Public Meetings Act and Public Records Act requirements, and additional reference resources.
- **Governing Authority:** Planning Commission operations are guided by the Revised Code of Washington, City Charter, City Council policy, and the Vancouver Municipal Code, which defines roles, authority, and procedures.
- **Term Limits:** City Council policy limits service on boards and commissions to two terms. The Municipal Code and bylaws will be updated to align with this policy; current Commissioners serving a third term will not be affected.
- **Commission Role:** Responsibilities include Comprehensive Plan and zoning amendments, development code changes, and master plans over 25 acres in size. The Commission may serve in informational, advisory, or decision-making roles depending on the item and stage of review.
- **Bylaws and Handbook:** Commission bylaws govern meeting operations and may be updated by the Commission as long as they remain consistent with the Municipal Code. The Planning Commission handbook consolidates key procedures and guidance due to the Commission's broad authority.

Commissioner Discussion and Staff Responses

Vice Chair Pyle

Q: Will the Commission be voting on or making a recommendation on updates to the VMC sections that govern how the Planning Commission operates as part of the Comprehensive Plan and code update? Staff explained that although Planning Commission provisions are in Title 20 of the VMC, they are not automatically included in the Comprehensive Plan or code update. Authority, structure, and scope of the Planning Commission are governed by City Council under the City Charter. The Commission does not amend its own authority through code changes but does have authority over its bylaws, which govern internal operations.

Q: Does this include provisions such as the 25-acre threshold in VMC 20.220, which the Commission discussed at the last workshop? Staff stated that no changes to the 25-acre threshold are currently proposed. Any modifications to those provisions would occur through City Council action, and the Planning Commission would not have decision-making authority over them. Updates to Commission bylaws would require Commission review and approval. Staff added that while the Commission may provide advisory feedback to City Council on how land use review processes function under the Growth Management Act, final authority over the Commission's jurisdiction and scope remains with City Council.

Rebecca noted that in prior code amendments, including revisions to VMC 20.285, the Planning Commission reviewed and provided input on provisions describing the types of applications it considers. Staff agreed to follow up to clarify how those past practices align with the current code update and emphasized that Commission feedback on the effectiveness and outcomes of land use review processes is encouraged and informs City Council decision-making.

Commissioner Beck

Noted that the Comprehensive Plan process has highlighted areas that feel unclear or "murky," particularly when evaluating proposals that technically meet code requirements but may raise broader concerns. She indicated this is not tied to a single example but expects it will continue to arise.

Q: How should the Commission assess proposals that comply with the code but still raise concerns related to quality of life, safety, or broader impacts that may not be clearly addressed in the code?
Staff acknowledged the concern and explained that prior discussion focused more on procedural guidance than substantive evaluation criteria. Stating that the Comprehensive Plan is the primary framework for evaluating land use proposals, including assessing consistency with plan goals, priorities, and policies. Staff emphasized that the Commission's current responsibility is to ensure the Comprehensive Plan meets Growth Management Act requirements and reflects local community values, noting that commissioners' local knowledge is critical in weighing how a proposed change is more or less consistent with Comprehensive Plan goals and policies.

Commissioner Beck agreed but noted that the Planning Commission handbook outlines specific review responsibilities and criteria that do not always align neatly with Comprehensive Plan checklists. She observed that proposals can sometimes be evaluated in a "check-the-box" manner, which may not fully capture the Commission's responsibility to consider broader impacts, contributing to a sense of ambiguity.

Staff explained that some level of ambiguity is intentional and inherent in the process. The Planning Commission is designed as a deliberative body, with commissioners bringing varied perspectives, values, and priorities. Through public hearings, discussion, and debate, the Commission works collectively to weigh those perspectives and reach decisions that best reflect community interests. Staff emphasized that decisions are not expected or intended to be unanimous.

Workship Overview (continued) – Washington Open Government Laws

Staff continued the workshop with an overview of Washington's open government and ethics laws, focusing on transparency, fairness, and public accountability. The discussion covered how commissioners must conduct business openly, manage conflicts of interest, avoid improper communication, and comply with the Open Public Meetings Act and Public Records Act. The training emphasized disclosure, public process, and best practices to protect public trust and reduce legal risk.

Staff reviewed the appearance of fairness doctrine and its application to quasi-judicial matters, noting that while it is legally required only in certain cases, the City applies it broadly as a best practice. Commissioners were advised to disclose any relationships, interests, or prior knowledge that could reasonably appear to affect impartiality. Disclosure is often sufficient, though recusal may be appropriate in some circumstances. Staff also reviewed restrictions on ex parte communications, emphasizing that private discussions about pending matters should be avoided and that any unsolicited communications must be disclosed on record. When recusals would prevent decision-making, the doctrine of necessity may apply.

The workshop also covered conflicts of interest under the state Code of Ethics, emphasizing that commissioners may not use their position for personal benefit and may carry personal liability for violations. Staff stressed that potential conflicts could arise inadvertently and should be disclosed early so staff can provide guidance.

Staff then reviewed the Open Public Meetings Act (OPMA), including training requirements, the definition of a meeting, and the prohibition on conducting Commission business through serial communications outside public meetings. Best practices were emphasized, including routing questions through staff and using public meetings to share information.

The Public Records Act (PRA) was also summarized, with staff noting that communications related to city business, regardless of format, are considered public records. Commissioners were advised to avoid using

personal platforms for official business and to direct any public records requests to staff. Staff concluded by noting that additional training resources are available and encouraged commissioners to consult staff when questions arise.

Commissioner Discussion and Staff Responses

Chair Adigweme

Q: What is the period of time that public records are required to exist? Staff explained the retention periods vary widely depending on the type of record. The state provides a detailed chart outlining retention from a few years to permanent archival at the State Archives. In practice, the department reviews records quarterly to determine if they need to be retained. Transitory records are kept only as long as they are useful. The goal is to ensure that public records provided in response to requests are meaningful and reflect the complete picture of the activity.

Commissioner Beck

Q: I take notes during presentations with only my questions and no answers or comments. Is that considered a transitory record? Staff explained that personal notes consisting only of individual thoughts and not created for the Planning Commission as a body do not qualify as public records. Therefore, they are not required to be retained or submitted. Transitory records generally include drafts, informal notes, or materials not intended to document official Commission actions. Only records created for, used by, or shared with the Commission in the conduct of its business qualify as public records.

Community Forum Testimony

One individual had signed up to speak remotely but was not yet online. The Commission agreed to accommodate their testimony later in the agenda if they joined. The individual did not return, and no comments were provided.

Workshop: Overview of Washington State Growth Management Act
Presenters: Bryan Snodgrass, Principal Planner, Community Development Department

Staff provided an overview of the Growth Management Act (GMA), which guides comprehensive planning and land use regulation for certain Washington cities and counties. The session highlighted how the GMA establishes goals for housing, transportation, economic development, critical areas, and climate, and how Vancouver's Comprehensive Plan and zoning implement these requirements. Staff discussed the different roles of Counties and Cities under GMA, and emphasized city responsibilities for housing and capital facilities, as well as recent changes to state requirements that impact plan updates and development standards.

Key Points:

- **GMA Goals and Requirements:** Cities must adopt comprehensive plans that meet 14 statewide goals, including land use, housing, transportation, parks, economic development, and climate considerations. All properties receive both comprehensive plan and zoning designations.
- **Housing:** Cities must plan for housing across income categories, including emergency housing, and address racially disparate impacts. Counties select an overall population target from a range provided by the state, determine the number of housing units needed to serve that population using a state

mandated methodology, and then distributed minimum housing requirements by income band to cities and unincorporated urban growth areas.

- **Capital Facilities:** Plans must align transportation, utilities, and other capital facilities with growth targets, including financing and project identification.
- **Critical Areas:** Cities must protect wetlands, fish and wildlife habitat, floodplains, aquifer recharge areas, and geologically hazardous areas using best available science.
- **Urban Growth Areas (UGAs):** UGAs accommodate growth targets with county-city coordination. Cities provide urban services; counties provide regional services. Unincorporated urban lands are expected to annex eventually; urban densities outside UGAs are generally prohibited.
- **Plan Amendments and Updates:** Comprehensive plans are updated every 10 years, with 5-year monitoring reports. Annual amendments are allowed but generally limited to once per year, with exceptions for emergencies or capital projects. Housing capacity reports are required post-update to assess development across income bands.
- **Key New Requirements:**
    - Plan for housing across all income bands, including middle housing in single-family zones.
    - Allow up to four middle housing units and up to two accessory dwelling units (ADUs) per lot.
    - Include a climate element in the plan.
    - Support increased density and limit off-street parking near BRT and LRT stations.

Commissioner's Comments & Questions

Commissioner Jay

Q: What penalties could potentially be levied against counties or cities by the state government for failing to comply with GMA deadlines? Staff explained that there are generally two types of enforcement mechanisms. First, jurisdictions can be subject to appeals for failure to act if required plans are not adopted on time. Second, the state maintains a continuously updated list of jurisdictions not in compliance, which could affect eligibility for certain future grants. Staff emphasized that the state generally focuses on jurisdictions that are aware of requirements but fail to make progress, rather than being punitive toward those actively working toward compliance.

Commissioner Beck

Q: How does the projected population relate to assessed land capacity, both within the City of Vancouver and the Vancouver Urban Growth Area (VUGA)? Is the UGA considered separately in these calculations? Staff clarified that population and housing targets are first established at the county level with city consultation. The county assigns targets to urban growth areas and cities, which are then translated into housing unit requirements across income bands. Vancouver must demonstrate sufficient land capacity within the city to meet its assigned targets. Population and housing outside city boundaries within the UGA are the county's responsibility. Expanding city boundaries increases the city's targets rather than redistributing existing numbers. This approach ensures each jurisdiction demonstrates capacity for its assigned numbers. City and UGA targets are calculated in parallel but separately.

Commissioners Wheeler, Castenson, Cavel, and Vice Chair Pyle had no questions.

Workshop: Overview of Development Review Process
Presenters: Greg Turner, Land Use Manager, Community Development Department

Staff provided an overview of Vancouver's development review process, explaining that after the Planning Commission provides a discretionary recommendation, City Council makes a discretionary decision, and development review handles implementation. This ensures that submitted projects undergo all required reviews, impacts are assessed, and necessary improvements, such as sidewalks, roads, or sewer extensions, are implemented. Impacts identified site-specific comprehensive plan designation change requests, including non-project SEPA analyses, are addressed and enforced during development review.

Development Review Goals: The development review process coordinates land use, engineering, and building reviews to facilitate development while minimizing impacts. It ensures interagency coordination with departments such as Public Works (transportation, sewer, drinking water, surface water, garbage and recycling), Fire, Fish and Wildlife, and the Department of Ecology. Staff produce comprehensive reports that summarize findings, outline conditions, and provide public notice to guide projects toward compliance with city standards.

Development Codes: The primary code guiding development review is Title 20 (Land Use & Development Code) of the Vancouver Municipal Code (VMC), which regulates land uses, setbacks, building heights, density, landscaping, trees, and other development standards. Engineering codes cover transportation, water, sewer, stormwater, and connections to city infrastructure. Fire and building codes ensure compliance with life safety, energy standards, ADA requirements, and construction regulations.

Review Procedures: The development review process occurs in three primary stages. Land use review focuses on site layout, access, density, parking, building pads, and design, and includes public review and environmental assessment. Engineering review evaluates infrastructure requirements such as streets, utilities, and grading, ensuring consistency with land use approvals. Building review addresses detailed building plans for life safety, energy codes, ADA compliance, and construction permits, and may occur concurrently with other stages. Concurrent review facilitates efficiency but requires a complete application. Land use planners play a critical role throughout the process by managing projects, coordinating across departments, and responding to applicants to ensure smooth and timely processing. Their efforts ensure smooth processing and contribute to Vancouver's reputation as a developer-friendly city in the region.

Staff outlined the common types of development applications processed in Vancouver, providing a brief description for each:

- Site Plan Reviews: Approval of building layouts on a specific site or sites.
- Conditional Use Permits: Required for uses that may impact neighboring properties; allows conditions to be placed on the approval.
- Subdivisions and Short Plats: Land divisions into multiple lots.
- Planned Developments and Mixed-Use Master Plans: Larger projects, often with several phases, that go through a master planning process.
- Shoreline Permits: For projects along rivers or shorelines.
- Design Review: Ensures projects, particularly downtown, meet architectural and design guidelines; administratively reviewed by planning staff.

- Critical Area Permits: Required for sites with wetlands, steep slopes, or other sensitive environmental features.
- Public Facility Master Plans: Large-scale municipal projects.
- Variances: Requests to deviate from code standards like setbacks.
- Tree Removal Permits: removal of protected trees
- Rezones: Changes to zoning designation for a specific property or set of properties.
- Zoning Code Text Amendments: changes to regulations in the text of the development code.
- Minor Land Use Permits: Covers small-scale improvements like sheds or decks.

Procedural Classifications:

- **Exempt:** Minimal discretion, staff-level decision, no public notice; includes small-scale projects and will include middle housing up to 6 units in the new code in alignment with state law.
- **Type I**: Staff-level with minimal discretion; completeness check required, no public notice or hearing; new thresholds allow larger projects for faster review.
- **Type II**: Staff-level with some discretion; 14-day public comment period; appeals go to hearings examiner; typical for larger site plans and small subdivisions.
- **Type III:** Higher discretion, public hearing required, hearings examiner decision; appeals to City Council; typical for larger subdivisions or complex projects.
- **Type IV**: Legislative-style projects with significant discretion; two public hearings and City Council final decision; includes plan developments, rezones, and code amendments.

Staff walked the Commission through an example of a Type II site plan review to illustrate the process in practice. The example highlighted the sequential steps that typically occur:

1. Applicant submits pre-application request; staff reviews and prepares report with requirements, fees, and contacts.
2. Applicant submits full site plan; staff checks completeness and initiates public notice and State Environmental Policy Act (SEPA) review (14 days).
3. Planners verify zoning compliance; engineers review infrastructure. Staff drafts report with comments and conditions.
4. Staff report and final SEPA determination issued; approval is typical, denials are rare. Appeals possible within 14 days.
5. After approval, building plans are submitted, reviewed, and permits are issued, allowing construction to begin.

Staff emphasized that this example demonstrates how staff manage both the regulatory review and project management responsibilities, ensuring projects comply with city codes while facilitating efficient processing.

Commissioner Discussion and Staff Responses

Commissioner Castenson

Q: Could you explain more about the guidance regarding thresholds that determine what type of review process is used? It seemed from the examples that it was based on both the size of the project and its complexity. If beyond tonight's scope, where can we learn more? Staff explained that thresholds are generally based on project size and the anticipated review length. Smaller projects typically qualify as Type I, medium projects as Type II, and projects requiring a public hearing or greater scrutiny are Types III or IV. Some overlap can occur, but the criteria are defined in the local code. Updates to the code may adjust certain projects from Type II to Type I.

Q: To confirm, the thresholds and criteria are established in the code? Staff responded yes, the thresholds are codified but also allow for local discretion.

Commissioner Jay

Q: I'm curious about the role of the hearings examiner versus the Planning Commission or City Council. How is it decided which body hears a project, particularly for Type IV actions? Staff noted that Type III projects are always heard by the hearings examiner. Type IV projects go to the hearings examiner or the Planning Commission, depending on size, and final decisions are made by the City Council.

Staff shared the example of the Vancouver Innovation Center, a Type IV master plan for an area more than25 acres in size and thus reviewed by the Planning Commission. Type IV projects 25 acres or larger go the Planning Commission for initial review, per the development code. Type IV projects less than 25 acres in size are heard by the hearings examiner. The 25-acre threshold is a city interpretation rather than a state law requirement, meant to distinguish projects with broader policy or citywide impacts.

Commissioners Wheeler, Beck, and Cavel had no questions.

Staff & Commissioner Communications

Rebecca followed up on two items from the previous Commission meeting. First, regarding fulfillment centers, she explained that in the draft code these are allowed in institutional campus, industrial employment, and heavy industrial districts. Institutional campus and industrial employment districts have a 250,000-square-foot limit, while heavy industrial has no limit. Buildings over 250,000 square feet are subject to additional standards, including visual impact mitigation and climate action measures. She noted that mapping shows strong alignment between existing and future allowed locations and that no new large warehouse fulfillment centers have been submitted since the code change, indicating the market is currently saturated.

Chair Adigweme

Q: Does this include developments at the Port of Vancouver? Staff clarified that the Port is considered heavy industrial and could develop large warehouses if they meet mitigation standards. Being a public agency, the Port also considers broader employment and community goals in their land use decisions.

Secondly Rebecca addressed "double jumps" in zoning, where land shifts two intensity levels in the new preferred land use alternative. She summarized locations, including portions of St. John/St. James, Rose Village, Fourth Plain, the northern Vancouver Innovation Center, PeaceHealth along Mill Plain, Image neighborhood near 112th/49th, and areas west of Walmart on Fourth Plain. These changes generally reflect Council direction to increase intensity along transit corridors and take advantage of underutilized or buildable lots. She noted that some isolated cases, such as Fruit Valley, were due to individual property adjustments to make an existing single-family uses conforming. A map is available for reference.

Commissioner Beck

Q: Are there any double jumps near the Heights development? Staff noted that while there are existing intensity differences, the Heights area does not see any new changes under the preferred alternative.

Chair Adigweme

Expressed appreciation that the agenda can serve as a vehicle to communicate key issues.

Commissioner Beck

Reminded the Commission that she will not be available for the February meeting. Staff noted that a briefing could be scheduled for her before or after the meeting if needed.

Commissioner Jay

Praised Becky for hosting OPMA training sessions, noting it was the best one he attended recently.

Commissioners Cavill, Pyle, Wheeler, Castenson had no further comments.

Adjournment

With no further business, the January 27, 2026, meeting of the Vancouver Planning Commission was adjourned at 7:29 pm

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Patrick Adigweme, Chair Date

OUR VANCOUVER

OUR FUTURE 2045

Comprehensive Plan – Draft Chapter Review

Rebecca Kennedy (she/her), Deputy Director, Community Development
Domenique Martinelli (she/her), Senior Planner, Community Development

February 10, 2026

Welcome

Purpose / Agenda

- ➡ Provide a high-level overview of draft chapters currently under development
- ➡ Discuss *why* each chapter is organized the way it is
- ➡ Highlight legal requirements, policy direction, and chapter organization
- ➡ Seek Planning Commission input on overall direction, clarity, and alignment
- ➡ Review next steps / discussion

Introduction



Equity and Inclusion



Climate and Environment



Parks and Recreation



Transportation



Public Facilities and Infrastructure

Legal Framework: GMA

- Washington's Growth Management Act (GMA) establishes:
  - ➡ What elements must be included in a Comprehensive Plan
  - ➡ How those elements must relate to one another
- Implemented through:
  - ➡ RCW 36.70A – statutory requirements
  - ➡ WAC 365-196 – detailed guidance and Commerce checklists
- The Plan must demonstrate:
  - ➡ Internal consistency
  - ➡ Data-supported assumptions
  - ➡ Capacity to accommodate growth through 2045
- All chapters must be informed by analysis and coordinated with required elements

Legal Requirements by Chapter

- **Introduction**
  - ➡ Non-mandatory element, but standard in most plans.
  - ➡ Establishes the plan's purpose, context, and internal consistency under RCW 36.70A
- **Equity**
  - ➡ Not required to be a standalone element
  - ➡ Provides the plan-wide framework to address equitable outcomes and comply with state requirements related to racially disparate impacts, environmental justice, and policy addressing historically underserved communities that overlap with multiple elements.
- **Climate**
  - ➡ Mandatory element under RCW 36.70A.070(9)
  - ➡ Must address climate mitigation, GHG emissions reduction, resilience/adaptation, and environmental justice.

Legal Requirements by Chapter

- **Parks and Recreation**
  - ➡ Not required to be standalone chapter but supports the mandatory Capital Facilities element RCW 36.70A.070(3)
  - ➡ Establishes parks LOS, identifies demand/need, and guides park investment aligned with growth.
- **Transportation and Mobility**
  - ➡ Mandatory element under RCW 36.70A.070(6)
  - ➡ Must address multimodal system planning, concurrency/LOS, financing, and regional coordination.
- **Public Facilities and Infrastructure**
  - ➡ Mandatory element under RCW 36.70A.070(3)
  - ➡ Must include facility inventory, LOS standards, capital facilities plan, and financing strategy.

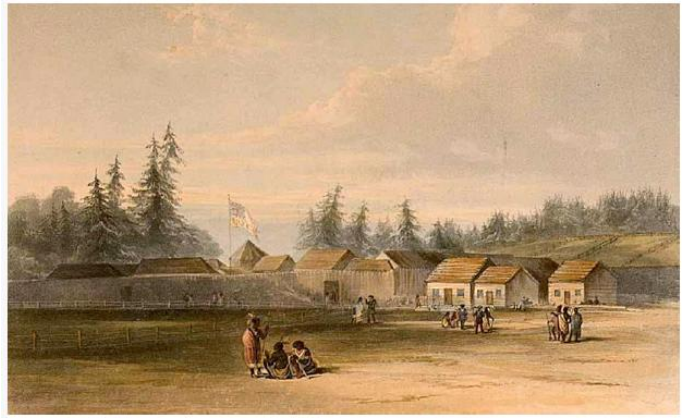
Chapter Organization

Context → strategy → implementation

- Each chapter is designed to move the reader through:
  - ➡Historical context & current conditions
  - ➡Vision Statement
  - ➡Identification of key challenges and trends the policy strategy is responding to
  - ➡Community feedback to support the claims
  - ➡Equity Lens – relevant supporting data and fact finding – how are equity priority communities impacted, and how do we address from a policy standpoint?
  - ➡Goals and policies to address those challenges and guide future decisions
- This structure ensures:
  - ➡Policies are grounded in data and lived experience
  - ➡Council and the community can clearly see how decisions today affect long-term outcomes

Introduction Section

- Brief overview of community history
- Highlights issues facing the community today, and issues and trends we expect to address over the next 20 years.
- Displays Community Vision Statement – overall vision for the plan and the community over the next 20 yrs
- Includes implementing plans, which are adopted as part of the plan by reference, along with supplemental exhibits and reports:
- Includes defined terms and key definitions found throughout the plan
- Includes a "how to use this document" section
- 2/2 Council Feedback (throughout document)
  - ➡ Consistent wording structure for goals and policies.
  - ➡ Communicate clear story/message with maps and figures







Equity– Policy Approach

- **EI-1** Equitable Community
- **EI-2** Universal Design & Access
- **EI-3** Youth & Aging Population
- **EI-4** Transparent & Inclusive Governance

- Responds to historic and ongoing policies that have produced persistent disparities in housing stability, health outcomes, environmental exposure, and access to opportunity across Vancouver.
- Establishes equity as a plan-wide lens, guiding how growth, investment, and policy decisions are evaluated across all chapters rather than treated as a standalone topic.
- Uses the Equity Index, Displacement Risk Assessment, and other census data to identify communities most impacted by disparities.
- Coordinates equity policies across all chapters to ensure that future growth delivers tangible benefits to historically underserved communities.

Climate – Policy Approach

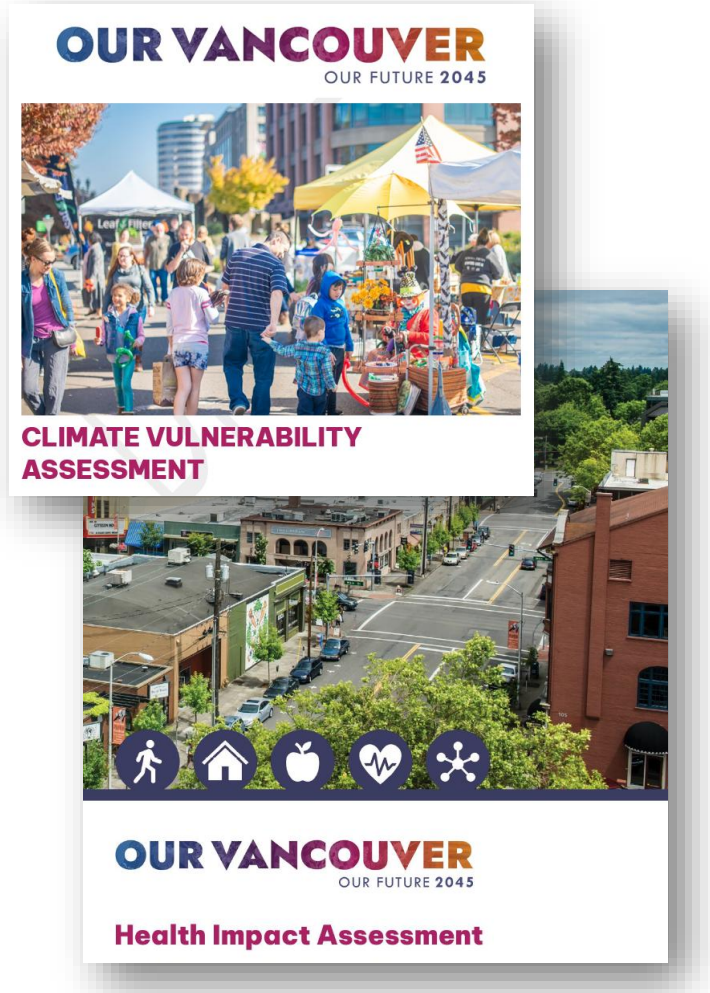
- **CL-1** Resiliency and Climate Adaptation
- **CL-2** Increase Biodiversity and Enhance Natural Systems
- **CL-3** Decrease Emissions
- **CL-4** Environmental Health

- Responds to increasing climate risks—including extreme heat, wildfire smoke, flooding, and air quality impacts—that are already affecting Vancouver and are projected to intensify over time.
- Integrates climate mitigation and adaptation into land use, transportation, housing, and infrastructure planning rather than treating climate action as a standalone effort.
- Aligns emissions reduction, resilience strategies, and environmental justice goals with the CAF to support coordinated, climate-resilient growth and long-term public health outcomes.
- 2/2 Council Feedback:
  - ➡ Add GHG reduction goals by sector

Climate – Supplemental Work

The Climate & Environment chapter is supported by two supplemental exhibits that inform policy direction, and help to satisfy RCW requirements

- **Climate Vulnerability Assessment (CVA)**
  - ➡ Identifies where climate hazards are most severe in Vancouver
  - ➡ Analyzes who is most exposed and least able to adapt
  - ➡ Maps climate exposure and vulnerability
  - ➡ Supports compliance with RCW 36.70A.070(9)
- **Health Impact Assessment (HIA)**
  - ➡ Evaluates how land use, transportation, housing, and infrastructure decisions affect public health outcomes
  - ➡ Analyzes who experiences disproportionate health burdens
  - ➡ Supports RCW for addressing environmental justice and community health
- **Greenhouse Gas (GHG) Emissions Inventory**
  - ➡ Summarizes key sources of GHG emissions
  - ➡ Establishes mitigation framework and reduction strategies



Parks – Policy Approach

- **PR-1** Increase Community Health Through Recreation
- **PR-2** Parks, Trails and Natural Spaces
- **PR-3** Community Health and Wellness
- **PR-4** Thriving Cultural Landscape

- Responds to uneven access to parks, trails, and recreational opportunities, particularly in historically underserved neighborhoods and areas experiencing rapid growth.
- Establishes parks, natural areas, and cultural spaces as essential infrastructure that supports health, equity, climate resilience, and community connection.
- Aligns parks planning with the Growth Concept, equity priorities, and the Capital Facilities Plan to ensure park investment keeps pace with growth.
- 2/2 Council Feedback:
  - ➡ Incorporate arts
  - ➡ Parks level of service analysis
  - ➡ Discuss Columbia River

Transportation – Policy Approach

TM-1 Integrated Transportation and Connectivity

TM-2 Low Carbon Mobility Choices

TM-3 Efficient Freight Access

TM-4 Eliminate Traffic Fatalities (Vision Zero)

- Responds to safety concerns, rising transportation costs, and lack of access to safe multimodal travel options and facilities.
- Helps shift from an auto-centric model to a people-focused, multimodal system that prioritizes safety, accessibility, and reliability for all users.
- Implements the adopted Transportation System Plan through multimodal level-of-service standards, low-stress networks, and Vision Zero principles.
- Coordinates transportation investments with housing, climate, and land use strategies to reduce vehicle miles traveled, improve access to jobs and services, and lower emissions.
- 2/2 Council Feedback:
  - ➡ Support programming to activate infrastructure
  - ➡ Add target for converting vehicle trips

Public Facilities – Policy Approach

PF-1 High Quality Facilities and Infrastructure

PF-2 Government Services and Financing

PFI-3 Infrastructure Enhances Public Safety

- Identifies existing infrastructure and investment needs and responds to increasing service demands.
- Emphasizes maintaining, modernizing, and equitably upgrading existing facilities.
- Prioritizes climate-resilient and cost-effective infrastructure that supports compact development and long-term fiscal sustainability.
- Aligns levels of service, capital planning, and funding decisions with land use, transportation, parks, and equity goals to support coordinated implementation.
- 2/2 Council Feedback:
  - ➡ Libraries and schools discussion
  - ➡ Clarifications on maps, figures, locations

Next Steps

- **Draft of Plan & Code**
  - ➡ Mid-February: Release of drafts for public
    - Simultaneous Department of Commerce 60-day review
  - ➡ March: PC review of Community Experience, Equity & Inclusion, Annexation and Implementation Chapters + Code
- Adoption Process
  - ➡ April: Initiate Planning Commission recommendation process
  - ➡ May: Initiate Council adoption process
    - Supported by Final Environmental Impact Statement (Final EIS)

Community Presentations

Thur, Feb 19
4p-6p
Virtual

Thur, Feb 26
11a-1p
Virtual

Sat, Feb 28
11a-1p
City Hall

Wed, Mar 4
5:30-7:30p
Cascade Park Community Library


Questions and Discussion
www.beheardvancouver.org/plan2045

CITY OF Vancouver WASHINGTON

MEMORANDUM

DATE: February 10, 2026

TO: Chair Adigweme and Planning Commissioners

FROM: Rebecca Kennedy, Deputy Director, Community Development Department
Domenique Martinelli, Senior Planner, Community Development Department

RE: **OUR VANCOUVER – Draft Comprehensive Plan Chapters – Introduction, Climate (CL), Parks (PR), Transportation and Mobility (TM), Equity and Inclusion (EI), Public Facilities and Services (PFS)**

Intent
This is the second in a series of three workshops focused on draft chapters of the Our Vancouver Comprehensive Plan 2045 update. The intent of these workshops is to provide the Planning Commission with early drafts for review, consideration and comment prior to releasing a full draft for community review.

This workshop is focused on the Introduction section and the Climate & Environment, Parks, Transportation and Mobility, Equity, and Public Facilities & Services chapters. Staff is looking for Planning Commission review and comment on the draft chapters broadly as well as the following:

- Layout and readability
- Completeness and legibility of information presented, including vision statement, community feedback, supporting analysis and data, and goals and policies.
- Gaps and areas needing further clarification or refinement

This memo summarizes the legal framework guiding each chapter, the key issues identified through technical analysis and community engagement, the overarching policy strategies, and how each chapter is organized to support implementation.

Background
The City of Vancouver's Comprehensive Plan provides the overall long-term vision and policy direction to manage the built and natural environment in Vancouver for the next 20 years and provide necessary public facilities to achieve that vision. The City adopted its first comprehensive plan under Washington's Growth Management Act in 1994 (Chapter 36.70A RCW), with a major re-write occurring in 2004, and a less substantive update occurring more recently in 2011. As demographic changes, market conditions, council priorities and other factors have shifted since 2011, it's necessary to re-imagine the existing growth strategy as part of the current Comprehensive Plan Periodic Review cycle.

The City began the process of updating the plan in late 2022, and has conducted a multi-phase, equity-centered community engagement process to inform the Plan's vision, the land use framework, and overall policy direction. Engagement included hundreds of in-person and virtual conversations, extensive survey and mapping activities, sustained collaboration with Community Partners representing equity-priority populations and community working groups representing specific interest groups, and multiple City Council and Planning Commission workshops at key milestones. Input gathered across visioning, alternatives development, Draft EIS review, and refinement of the Preferred Alternative directly informed the draft policies and growth framework now before the Planning Commission.

Since 2023, several foundational technical analyses have been prepared to inform this update, including the Housing Needs Assessment, Economic Conditions and Opportunities Analysis, Equity Analysis, Climate Vulnerability Assessment, and Health Impact Assessment. The analysis and data that came out of this work is reflected in each chapter narrative, as well as the goals and policy sections.

Introduction Section
While the Introduction chapter is not a standalone mandatory element under the Growth Management Act, it serves a critical functional role in establishing the Comprehensive Plan's purpose, scope, and internal consistency under RCW 36.70A. State law requires that all elements of the Comprehensive Plan be internally consistent and grounded in adopted population allocations, growth assumptions, and statutory requirements. The Introduction chapter provides the framework that links required plan elements, outlining the historical context of the community into the present, and establishes the organizing logic for the plan as a whole.

The Introduction also fulfills key procedural requirements by documenting the City's planning context, summarizing community conditions and trends, articulating the community vision, and explaining the role of the Comprehensive Plan in guiding future land use decisions, capital investments, and implementation actions. In this way, the chapter provides the foundation for demonstrating compliance with the GMA and related statutes across all plan elements.

The Introduction chapter is organized to establish shared context and orient readers to the Comprehensive Plan:

- **Purpose and Planning Context** – Explains why the Comprehensive Plan update is occurring, the scale of anticipated growth, and the challenges and opportunities facing Vancouver over the next 20 years.
- **Community History and Evolution** – Provides historical context, including Indigenous history, patterns of growth and disinvestment, and past planning decisions that shaped current conditions.
- **Community Conditions and Key Issues** – Summarizes current demographic, economic, housing, and environmental conditions that inform the plan's priorities.

- **Anticipated Trends Through 2045** – Identifies major trends expected to shape Vancouver's future, including population growth, climate impacts, demographic change, and economic restructuring.
- **Role of the Comprehensive Plan** – Clarifies how the plan guides land use, infrastructure, budgeting, and coordinated decision-making across the City.
- **Community Vision Statement** – Articulates the shared long-term vision that the goals and policies in subsequent chapters are designed to achieve.
- **Plan Structure and Implementation Framework** – Explains how chapters, goals, policies, and implementation actions are organized and how the City will work toward its intended outcomes over time.

Chapter 2 – Equity and Inclusion

Legal Requirements

The Equity & Inclusion chapter is not a standalone mandatory element of the Comprehensive Plan under the Growth Management Act; however, state law requires that all required elements of the plan be internally consistent and that implementation steps address racially disparate impacts and advance equitable outcomes. Recent state legislation—including requirements related to housing, climate, transportation, and environmental justice—explicitly direct jurisdictions to consider how policies affect historically marginalized and overburdened communities.

Under RCW 36.70A and related statutes and guidance, the City is required to plan for growth in a way that does not exacerbate displacement, inequitable access to housing, environmental health disparities, or barriers to mobility and opportunity. The Equity & Inclusion chapter provides the framework for meeting these obligations by establishing equity as a guiding lens applied across all chapters of the Comprehensive Plan, ensuring compliance with state law while responding to local conditions and Council and community priorities.

The Equity & Inclusion chapter is required to be internally consistent with all elements of the Comprehensive Plan—particularly Housing, Land Use, Transportation, Climate & Environment, Parks and Recreation, and Economic Opportunity—to ensure that growth, investment, and regulations advance equitable access to resources, services, and opportunity citywide.

Policy Direction

The Equity and Inclusion chapter establishes equity as a foundational principle for Vancouver's long-term growth and decision-making. Technical analysis and engagement conducted during the plan update affirm that historic and ongoing policies related to land use, housing, transportation, and economic development have produced persistent inequities in housing stability, wealth, health outcomes, environmental exposure, and access to opportunity—disproportionately affecting communities of color, people with low incomes, people with disabilities, LGBTQ+ residents, immigrants and refugees, and other historically underserved groups.

Rather than treating equity as a standalone program area, the chapter advances an integrated, systems-based approach that embeds equity into planning, policy development, capital investment, and implementation across the Comprehensive Plan. Policies focus on addressing root causes of inequity, repairing past harms where possible, and ensuring that future growth delivers tangible benefits to communities that have experienced disinvestment and exclusion.

A central component of the plan is the use of data-driven tools—including the City's Equity Index, Displacement Risk Assessment, Climate Vulnerability Assessment, and Health Impact Assessment—to guide decision-making and prioritize investment. The chapter also emphasizes accountability, transparency, and meaningful community partnership as essential conditions for achieving equitable outcomes over the 20-year planning horizon.

Chapter Organization
The Equity & Inclusion chapter is organized to move from historical context to implementation, establishing equity as both a value and a practical framework for action:

- **Introduction** – Establishes equity as fundamental to Vancouver's future and summarizes existing disparities in housing, health, income, environmental exposure, and access to services.
- **Past Policies and Exclusionary Practices** – Documents how historic land use, housing, transportation, and economic policies produced inequitable outcomes and shaped present-day conditions.
- **Community Conditions and Disparities** – Examines inequities related to housing stability, homeownership, income and wealth, transportation safety, health outcomes, parks access, food access, and environmental exposure.
- **Vision Statement** – Articulates a future where Vancouver acknowledges past harms, centers impacted voices, and ensures all residents have what they need to thrive.
- **Equity as a Lens** – Introduces the Equity Framework and Equity Index as tools applied across all chapters to evaluate who benefits, who is burdened, and how inequities are addressed.
- **Equity Priority Communities** – Identifies populations and neighborhoods that have experienced systemic exclusion and are prioritized for equitable investment.
- **Recent Equity-Centered Policy Advancements** – Highlights recent City actions and initiatives that demonstrate progress and set the foundation for future work.
- **Goals and Policies** – Establishes long-term goals and coordinated policy direction to advance equitable outcomes across the built environment, services, and governance.

Community Feedback
Highlights key engagement takeaways gathered during the planning process related to equity and inclusion. Key themes include:

- Strong concern about housing affordability, displacement, and housing stability, with support for middle housing, renter protections, multigenerational housing, and culturally specific housing options.
- Consistent calls for universal design, ADA accessibility, and inclusive public spaces that support people with disabilities and aging populations.

- Emphasis on the importance of ongoing inclusion of BIPOC, LGBTQ+, low-income, disabled, immigrant, and formerly incarcerated community members in civic decision-making.
- Community support for prioritizing investment in historically underserved areas such as Fourth Plain, Fruit Valley, and Rose Village to improve access to parks, transit, services, and economic opportunity.

Goals and Policies
The Equity & Inclusion chapter organizes policies around four primary goals:

- **EI-1: Equitable Community** – Reduce disparities in health, housing, income, environmental quality, and access to opportunity.
- **EI-2: Universal Design and Access** – Ensure public spaces, infrastructure, housing, and development are accessible, inclusive, and adaptable for people of all ages and abilities.
- **EI-3: Focus on Youth and Aging Populations** – Support residents across the lifespan through accessible housing, childcare, transportation, and community resources.
- **EI-4: Transparent and Inclusive Governance** – Build trust through inclusive engagement, language access, representation, and accountability in decision-making.

Chapter 6 – Climate and Environment
Legal Requirements
The Climate & Environment chapter is a **mandatory element** of the Comprehensive Plan under **RCW 36.70A.070(9)** and must address both climate change mitigation and climate resilience. State law requires fully planning cities to reduce greenhouse gas emissions, plan for climate impacts, and integrate climate considerations into land use, transportation, housing, infrastructure, and public facilities planning over the 20-year planning period.

Under RCW 36.70A.070(9) and associated Commerce guidance, the climate element must include policies to reduce vehicle miles traveled and greenhouse gas emissions, increase energy efficiency, and support a transition to low-carbon systems, as well as policies to improve community resilience to climate hazards such as extreme heat, flooding, wildfire smoke, and other climate-related risks. The chapter must specifically address environmental justice issues, specifically how climate impacts and climate investments intersect with equity, recognizing that climate risks and adaptive capacity are not evenly distributed across populations or geographies.

The Climate & Environment chapter is required to be internally consistent with other elements of the Comprehensive Plan—particularly the Land Use, Housing, Transportation & Mobility, Capital Facilities & Services, and Economic Opportunity chapters—to ensure that growth patterns, infrastructure investments, and public services collectively support climate mitigation, adaptation, and long-term environmental sustainability. The chapter is supported by two key analytical subcomponents—the City's Climate Vulnerability Assessment and Health Impact Assessment—which provide the technical foundation for the chapter's mitigation, adaptation, and equity-focused policies. Together, these analyses identify where climate hazards such as extreme heat, wildfire smoke, flooding, and air quality impacts are most acute, who is most exposed, and how those risks intersect with existing health disparities and built environment conditions. Incorporating these findings directly into the

chapter demonstrates compliance with RCW 36.70A.070(9) by grounding climate policies in locally specific risk, vulnerability, and health data, and by addressing environmental justice considerations as required under state law.

Policy Direction
The Climate & Environment chapter establishes climate action and environmental stewardship as foundational to Vancouver's long-term health, safety, and prosperity. Technical analysis and engagement conducted during the plan update confirm that Vancouver is already experiencing climate impacts, including increased heat exposure, wildfire smoke events, and localized flooding, with projected risks intensifying over time. These impacts disproportionately affect low-income households, communities of color, older adults, people with disabilities, and residents with limited access to cooling, clean air, or transportation options.

Rather than treating climate mitigation and adaptation as separate efforts, the chapter advances an integrated approach that links emissions reduction, resilience planning, and environmental protection. Policies emphasize reducing climate pollution through compact land use patterns, multimodal transportation, and energy-efficient buildings, while also strengthening natural systems, infrastructure resilience, and community preparedness to withstand climate hazards.

A central component of the chapter is an explicit equity lens. The chapter prioritizes directing climate investments, nature-based solutions, and resilience strategies to neighborhoods and populations facing the greatest climate exposure with the least access to resources. Climate policies are intentionally coordinated with housing stability, public health, and anti-displacement strategies to ensure that climate action supports community well-being without exacerbating inequities.

The chapter positions climate action as a shared responsibility across City departments and a core consideration in future planning, capital investment, and regulatory decisions. Climate policies are designed to guide implementation through coordinated updates to development regulations, functional plans, capital programs, and interagency partnerships over the life of the Comprehensive Plan.

Chapter Organization
The Climate & Environment chapter is organized to clearly link climate science, community impacts, and policy response, moving from risk identification to coordinated mitigation and adaptation strategies:

- **Introduction** – Establishes climate change as a defining challenge for Vancouver's 2045 planning horizon and frames the chapter's integrated focus on climate mitigation and climate adaptation.
- **Vision Statement** – Articulates a future where Vancouver is a low-carbon, climate-resilient city with healthy ecosystems, safe neighborhoods, and communities prepared for climate impacts.
- **Climate Hazards and Local Risk Context** – Identifies the primary climate hazards affecting Vancouver, including extreme heat, extreme precipitation, flooding, drought,

and wildfire smoke, and describes where these risks are concentrated geographically and which populations are most exposed.

- **Greenhouse Gas Emissions** – Summarizes key sources of local greenhouse gas emissions and establishes the mitigation framework that guides emissions reduction strategies across land use, transportation, buildings, and infrastructure.
- **Health and the Built Environment** – Examines how climate hazards and emissions interact with the built environment to affect public health, including heat exposure, air quality, housing conditions, and access to safe mobility and green space.
- **Equity Lens and Environmental Justice** – Applies an environmental justice lens to climate risks and responses, identifying communities that face disproportionate climate exposure and health burdens and prioritizing equitable investment in climate policy implementation.

Community Feedback
Highlights key engagement takeaways gathered during the planning process related to the chapter. Below are some key takeaways:

- Community members consistently identified climate change as an immediate, lived issue, citing increased heat, wildfire smoke, flooding, and air quality impacts already affecting daily life in Vancouver.
- Residents emphasized that climate action should be embedded in land use, housing, transportation, and infrastructure decisions, rather than treated as a standalone environmental effort.
- Equity was a central theme, with participants noting disparities in tree canopy, access to cooling, flood protection, and environmental quality across neighborhoods.
- Community members stressed that climate investments should prioritize populations and areas most exposed to climate risks while avoiding unintended displacement or affordability impacts.
- Strong support emerged for nature-based solutions—such as urban forestry, green stormwater infrastructure, and habitat protection—that provide climate resilience alongside public health and livability benefits.

Goals and Policies
The Climate Chapter organizes policies around four primary goals:

- **CL-1: Resilience and Climate Adaptation**- invest in sustainable and resilient systems and prepare for and mitigate impacts from climate change.
- **CL-2: Increase Biodiversity and Enhance Natural Systems-** build green infrastructure and preserve natural spaces.
- **CL-3: Decrease Emissions**- reduce emissions and pollutants and implement sustainable practices.
- **CL-4: Environmental Health**- improve health conditions by protecting and enhancing local ecosystems.

Chapter 7 – Parks, Recreation & Cultural Services

Legal Requirements

The Parks, Recreation & Cultural Services chapter supports the Capital Facilities element, a mandatory component of the Comprehensive Plan under RCW 36.70A.070(3). The Growth Management Act requires cities to plan for adequate public facilities, including parks, recreation facilities, trails, and open space, to serve anticipated growth over the 20-year planning period. This includes establishing level-of-service standards, identifying facility needs, and demonstrating that planned development can be supported within projected funding capacities.

State law also requires coordination between parks planning, land use planning, and development regulations to ensure that park acquisition and development keep pace with population growth and changing community needs. The Parks and Recreation chapter fulfills this role by translating the adopted Vancouver Parks, Recreation and Cultural Services Comprehensive Plan into land use–relevant policy direction and aligning parks planning with the Growth Concept, zoning framework, and capital facilities planning.

The chapter is required to be internally consistent with other elements of the Comprehensive Plan—particularly the Land Use, Housing, Transportation & Mobility, Climate & Environment, Public Facilities and Services, and Equity & Inclusion chapters—to ensure that parks, trails, and cultural spaces are equitably distributed, accessible, and integrated into the city's overall growth strategy.

Policy Direction

The Parks, Recreation and Cultural Services chapter establishes parks, trails, natural areas, and cultural spaces as **essential infrastructure** that supports community health, climate resilience, equity, and quality of life as Vancouver grows. Technical analysis confirms that while Vancouver has a diverse and valued park system, existing access and level-of-service gaps persist—particularly in historically underserved neighborhoods and areas experiencing rapid growth. Rather than focusing solely on park acreage, the chapter advances a more holistic approach to parks planning that integrates **access, quality, equity, connectivity, and climate resilience**. Policies emphasize expanding park access within a 10-minute walk, improving the condition and functionality of existing parks, and diversifying park types to meet the needs of a denser, more urban city.

Equity is a central organizing principle. The chapter applies an equity lens to identify where park access, tree canopy, recreational opportunities, and cultural amenities are unevenly distributed, and prioritizes investment in neighborhoods with the greatest need. Parks and recreation are also positioned as key tools for climate adaptation, improved public health, support for youth and aging populations, and building community connection. The chapter aligns long-range parks planning with the Capital Improvement Program (CIP), park impact fees, and future parks plan updates, ensuring that land use decisions and infrastructure investments are coordinated and fiscally sustainable over the life of the Comprehensive Plan.

Chapter Organization
The Parks and Recreation chapter is organized to link community values, system evaluation, and implementation strategy:

- **Introduction and Vision Statement** – Establishes the role of parks, recreation, and cultural services in supporting community health, equity, climate resilience, and quality of life.
- **Vancouver Parks, Recreation & Cultural Services (VPRCS) Comprehensive Plan Overview** – Summarizes the adopted parks plan and explains how its goals and strategies are carried forward through the Comprehensive Plan.
- **Essential Spaces Framework** – Introduces parks, trails, natural areas, and cultural spaces as essential community infrastructure.
- **Existing Parks and Recreation System** – Provides an inventory of parklands, facilities, classifications, and services.
- **Level of Service, Parks Demand, and Parks Need** – Evaluates existing access, identifies gaps, and establishes acquisition and development needs based on adopted standards.
- **Equity and Access Analysis** – Applies demographic, geographic, and service-area analysis to guide equitable investment.
- **Preferred Growth Alternative and Future Parks Planning** – Explains how parks planning aligns with the Growth Concept and anticipated development patterns.
- **Capital Facilities Planning and Funding** – Identifies capital needs, funding tools, and implementation mechanisms.
- **Goals and Policies** – Establishes policy direction for parks, recreation, trails, natural spaces, and cultural services.

Community Feedback
Highlights key engagement takeaways gathered during the Our Vancouver planning process and the VPRCS Comprehensive Plan (adopted in 2021) related to parks and recreation. Key themes include:

- Strong community support for increasing **equitable and safe access** to parks and open spaces, particularly in East Vancouver, in the Fourth Plain corridor, and other underserved areas.
- Desire to **maintain, upgrade, and expand existing parks**, including shade, tree canopy, restrooms, playgrounds, and safety improvements.
- Calls for **culturally responsive spaces and programming**, with low-cost and/or free recreation opportunities for youth and families.
- Interest in parks as places for **community connection**, including trails, community centers, markets, libraries, and waterfront spaces.
- Support for incorporating **climate-resilient design**, native landscaping, and natural area preservation into park planning and development.

Goals and Policies
The Parks and Recreation chapter organizes policies around four primary goals:

- **PR-1: Increase Community Health Through Recreation** – Support physical, mental, and social well-being through inclusive recreation opportunities.

- **PR-2: Parks, Trails, and Natural Spaces** – Expand and connect parks, trails, and natural areas to support recreation, biodiversity, and climate resilience.
- **PR-3: Community Health and Wellness** – Use parks and public spaces as part of the City's broader health and wellness infrastructure.
- **PR-4: Thriving Cultural Landscape** – Support arts, culture, heritage, and creative expression through parks and public spaces.

Chapter 8 –Transportation and Mobility
Legal Requirements
The Transportation & Mobility chapter is a **mandatory element** of the Comprehensive Plan under **RCW 36.70A.070(6)**. State law requires cities to plan for a transportation system that supports anticipated growth over the 20-year planning period, is coordinated with land use patterns, and includes provisions for concurrency, level of service, and regional coordination.

Under the Growth Management Act, the transportation element must include an inventory of existing and planned transportation facilities, level-of-service standards- including integration of a new Multimodal Level of Service standard (MMLOS)- and a financing plan to fund system improvements. The chapter must also demonstrate consistency with adopted land use assumptions and ensure that transportation investments are adequate to serve planned development.

The Transportation & Mobility chapter is required to be internally consistent with other elements of the Comprehensive Plan—particularly the Land Use, Housing, Climate & Environment, Public Facilities & Services, Parks, Recreation & Cultural Services, and Equity & Inclusion chapters—to ensure that growth patterns, infrastructure investments, and mobility options collectively support safety, access, climate and equity goals.

Policy Direction
The Transportation & Mobility chapter establishes a shift from an auto-centric system toward a people-focused, multimodal transportation network that prioritizes safety, accessibility, equity, and climate outcomes. The chapter relies heavily on the City's 2024–2044 Transportation System Plan (TSP), which was adopted by City Council in January 2024 following extensive technical analysis and community engagement, and is incorporated by reference into the Comprehensive Plan. Rather than measuring success primarily through vehicle throughput or roadway capacity, the chapter advances a multimodal level-of-service (MMLOS) framework that evaluates how well the system serves people walking, biking, rolling, using small mobility devices, taking transit, driving, and moving freight. Policies emphasize building low-stress networks, completing sidewalks, adding and improving bike and small mobility facilities, improving transit reliability and frequency, and designing streets to safely accommodate all users.

Equity and safety are central themes. The chapter recognizes that a significant share of Vancouver households do not have access to a vehicle and rely on transit and active transportation to move around the community, and that historically underserved neighborhoods experience higher safety risks and infrastructure gaps than other areas of the City. Transportation investments are intentionally coordinated with housing, climate, and

economic strategies to reduce vehicle miles traveled, lower greenhouse gas emissions, and improve access to jobs, essential services, and community amenities.

The chapter positions transportation planning as a coordinated, ongoing process that aligns the Comprehensive Plan with the TSP, six-year Transportation Improvement Program (TIP), Capital Facilities Plan (CFP), ADA Transition Plan, and regional transportation planning efforts.

Chapter Organization
The Transportation & Mobility chapter is organized to connect vision, system performance, and implementation:

- **Introduction and Vision Statement** – Establishes transportation as a system that must be safe, accessible, and reliable for all users, regardless of age, ability, income, or location.
- **TSP Context** – Explains the relationship between the Comprehensive Plan and the adopted Transportation System Plan, which provides detailed implementation guidance.
- **Existing Transportation System and Networks** – Describes Vancouver's multimodal street network, including pedestrian, bicycle and small mobility, enhanced transit, freight, vehicle, and aviation systems.
- **Equity Lens and Multimodal Level of Service** – Introduces the City's shift to multimodal concurrency and low-stress network standards to better serve all travel modes.
- **Active Transportation and Transit Support** – Focuses on completing pedestrian and bicycle and small mobility networks, improving transit access and reliability, and supporting mode shift.
- **Transportation Demand Management and Parking** – Addresses strategies to manage growth, right-size parking, and reduce reliance on single-occupancy vehicles.
- **Transportation Forecast and Climate Outcomes** – Evaluates future travel demand, vehicle miles traveled, and opportunities to reduce emissions through coordinated land use and transportation strategies.
- **Transportation Improvements and Financing** – Summarizes capital needs, funding sources, and implementation tools, including the City's Street Funding Strategy, grants, impact fees, and regional partnerships.
- **Goals and Policies** – Establishes policy direction for integrated transportation, behavior change, freight movement, and traffic safety.

Community Feedback
Key engagement takeaways gathered during the planning process related to transportation and mobility include:

- Strong community concern about traffic safety, particularly for people walking, biking, rolling, and using transit.
- Broad support for completing sidewalks, improving crossings, and building low-stress bicycle and small mobility networks.
- Desire for more frequent, reliable, and accessible transit service, especially for people without access to a vehicle.

- Emphasis on reducing transportation costs and improving access to jobs, schools, parks, and services.
- Support for transportation investments that reduce emissions, improve air quality, and enhance neighborhood livability.

Goals and Policies
The Transportation & Mobility chapter organizes policies around four primary goals:

- **TM-1: Integrated Transportation and Connectivity** – Provide a reliable, frequent, and accessible multimodal transportation system that connects residents to key destinations.
- **TM-2: Change Travel Behavior** – Expand low-carbon travel options and reduce reliance on single-occupancy vehicles.
- **TM-3: Efficient Freight Access** – Support safe and efficient movement of goods while minimizing conflicts and environmental impacts.
- **TM-4: Eliminate Traffic Fatalities (Vision Zero)** – Eliminate traffic-related fatalities and serious injuries for all users, regardless of mode or ability.

Chapter 9 –Public Facilities and Services
Legal Requirements
The Public Facilities and Services chapter is a **mandatory element** of the Comprehensive Plan under **RCW 36.70A.070(3)**. State law requires the City to plan for adequate public facilities and services—including water, sewer, stormwater, transportation, parks, fire, police, schools, libraries, and general government facilities—to serve anticipated growth over the 20-year planning period. The chapter must demonstrate that planned development is supported by sufficient infrastructure, consistent with adopted levels of service, concurrency requirements, and funding capacities.

Under the Growth Management Act, the chapter must include an inventory of existing public facilities, a forecast of future needs based on population and employment growth, adopted level-of-service standards, and a capital facilities plan identifying how necessary improvements will be financed. The chapter must also ensure that land use decisions remain consistent with available infrastructure funding and service capacity. The Public Facilities and Services chapter is required to be internally consistent with other elements of the Comprehensive Plan—particularly the Land Use, Housing, Transportation & Mobility, Climate & Environment, Parks, Recreation & Cultural Services, and Economic Opportunity chapters—to ensure that growth patterns, capital investments, and service delivery are coordinated, equitable, and fiscally sustainable.

Policy Direction
The Public Facilities and Services chapter establishes public infrastructure and services as essential systems that support health, safety, equity, climate resilience, and quality of life as Vancouver grows. Technical analysis confirms that continued population and employment growth will place increasing demands on utilities, transportation systems, emergency services, schools, and community facilities, requiring sustained and strategic investment over the planning horizon. Rather than focusing solely on expansion, the chapter emphasizes maintaining, modernizing, and equitably upgrading existing infrastructure while directing

new investment to areas experiencing growth and the impacts of historic underinvestment. Policies prioritize cost-effective, climate-resilient infrastructure that supports compact development patterns, reduces long-term maintenance burdens, and improves system reliability.

Equity is a central theme of the chapter. The chapter recognizes that access to high-quality public facilities and services has not been evenly distributed across the city and commits to prioritizing investments in underserved neighborhoods. The chapter also reinforces the need to upgrade aging City facilities to meet ADA standards, improve seismic resilience, and ensure that public spaces and services are accessible to people of all ages and abilities. The chapter positions infrastructure planning as a coordinated, ongoing process that links the Comprehensive Plan to functional plans, the Capital Improvement Program (CIP), the Capital Facilities Plan (CFP) and annual budgeting. Policies are designed to guide long-term investment decisions, interagency coordination, and transparent prioritization over the life of the plan.

Chapter Organization
The Public Facilities and Infrastructure chapter is organized to connect service needs, infrastructure capacity, and long-term investment planning:

- **Introduction and Vision Statement** – Establishes the role of public facilities and services in supporting equitable, efficient, and climate-resilient growth.
- **Public Facilities and Services Inventory** – Summarizes existing infrastructure and service providers, including utilities, transportation, parks, emergency services, schools, libraries, and general government facilities.
- **Future Demand and Capacity Analysis** – Evaluates how anticipated growth will affect infrastructure demand and identifies where system upgrades or expansion may be needed.
- **Equity Lens** – Applies the City's Equity Index and related tools to guide prioritization of infrastructure investments in underserved communities.
- **Levels of Service and Concurrency** – Establishes service standards and identifies Tier I and Tier II facilities subject to concurrency and planning assumptions.
- **Capital Facilities Forecast and Financing Plan** – Identifies 20-year capital needs and a six-year financing plan aligned with projected funding capacity.
- **Goals and Policies** – Provides policy direction for infrastructure investment, service delivery, public safety, and transparent governance.

Community Feedback
Highlights key engagement takeaways gathered during the planning process related to public facilities and infrastructure. Key themes include:

- Strong support for ensuring that infrastructure and services keep pace with growth without increasing costs for existing residents.
- Emphasis on equitable access to emergency services, utilities, and community facilities across all neighborhoods.
- Calls for infrastructure that is resilient to climate change and environmental hazards.
- Interest in culturally responsive public facilities and services that reflect community needs.

- Desire for safer streets, improved traffic enforcement, and better access for emergency vehicles.

Goals and Policies
The Public Facilities and Infrastructure chapter organizes policies around three primary goals:

- **PFS-1: High Quality Facilities and Infrastructure** – Provide high-quality, efficient, and well-maintained facilities and utilities that support a growing population.
- **PFS-2: Government Services and Financing** – Ensure transparent, equitable, and coordinated funding and prioritization of public infrastructure and services.
- **PFS-3: Infrastructure Enhances Public Safety** – Investments advance community safety, contribute to emergency preparedness and support disaster response.

Next Steps

- The Draft Comprehensive Plan and Title 20 Land Use and Development Code will be released for public review in mid-February, to ensure alignment with State Department of Commerce review timelines and meeting the June 2026 adoption deadline.
- Planning Commission will conduct its third workshop reviewing the Draft Comprehensive Plan on March 10 focused on the Community Experience and Annexation Chapters and key implementation actions.

Staff Contact

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- Domenique Martinelli (she/her) Senior Planner, Community Development Domenique.Martinelli@cityofvancouver.us

Attachments

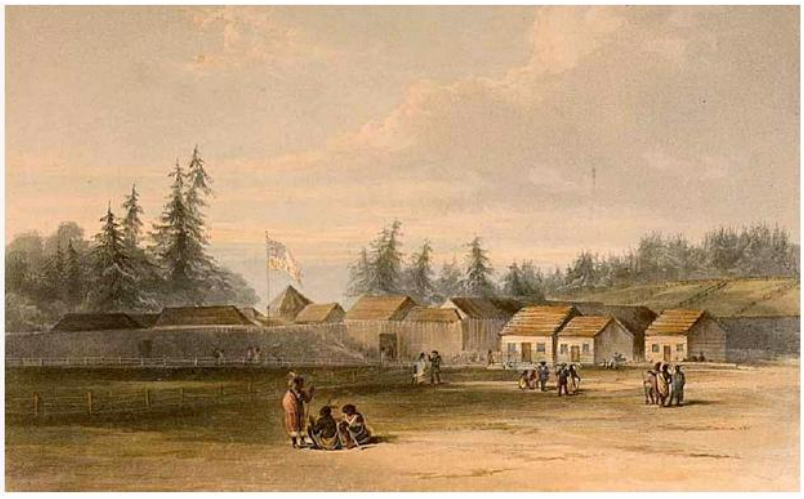
- Draft Introduction Section
- Draft Equity & Inclusion Chapter
- Draft Climate & Environment Chapter
  - Climate Vulnerability Assessment
  - Health Impact Assessment
- Draft Parks, Recreation & Cultural Services Chapter
- Draft Transportation & Mobility Chapter
- Draft Public Facilities and Services Chapter

Introduction

Vancouver is a city defined by change. Once a modest trading outpost, it has grown into Washington's fourth largest city and the primary urban center of Clark County, with more than 200,000 residents today. By 2045, that number is projected to exceed 281,000, a scale that underscores the importance of intentional planning to accommodate new growth and ensure livability and opportunity for all community members.

Throughout its history, Vancouver's identity has been shaped by rapid, transformational shifts. The city is currently in the middle of a major transformation, shifting from a traditionally suburban development pattern to a more urban character as land resources decrease, and where access to amenities and services, a range of transportation options, and a variety of housing types and price ranges are increasingly important. Economic and cultural changes are also reshaping how people live and work. Remote and hybrid employment is more common, housing is increasingly unattainable for many low- and middle-income residents, smaller household sizes are driving different housing needs, and younger generations place a premium on inclusive public spaces and vibrant cultural life. These shifts frame a central challenge of the Comprehensive Plan: managing growth in ways that enhance our daily experiences, strengthen the social fabric, and create neighborhoods where all residents can thrive and prosper.

OUR Evolution as a Community



Vancouver's history begins with the Indigenous peoples who historically have inhabited and stewarded this land for more than 10,000 years, and whose descendants continue to be a part of the Vancouver community today. The Chinook people lived in large rectangular houses made of cedar planks, located in towns along the north bank of the "Wimahl" River, or "Big River," near its confluence with Oregon's Willamette River. Rich in salmon, plants, and berries, the Chinook lived in relative abundance and became prolific traders. Included in this extensive trade network were the nearby Cowlitz and Klickitat tribes. The Cowlitz likely lived along the Cowlitz River a short distance upstream from its confluence with the Columbia River. They traveled by canoe on the Columbia River near present day Vancouver and passed through the area by land regularly as well. The arrival of Europeans to this area beginning in the mid-1700s brought waves of smallpox and other diseases that devastated Native communities. By the early 1800s, when Lewis and Clark passed through the area, the Native population had suffered significant losses. Today, the Chinook Indian Nation—comprising

five constituent tribes—continues to advocate for federal recognition, which was briefly granted in 2001 and rescinded in 2002.



The Hudson's Bay Company established Fort Vancouver in 1825 as a fur trading post and administrative center. Chinookan and Cowlitz peoples were hired by the Company in their traditional roles as middlemen, which facilitated the Company's access to the established trade network in the area. Within two decades, the Fort became the hub of commerce for the region, housing the first school, library, and theater on land that is now known as the state of Washington. By the 1840s, it was the largest concentration of people on the West Coast. While company officers lived within the stockade, the broader workforce and their families lived in Kanaka Village, a multicultural settlement including Hawaiian Islanders, French Métis, Iroquois, and local Native people.

American settlers began arriving in the 1840s, and after the U.S.–Canada border was fixed at the 49th parallel in 1846, Fort Vancouver's role declined. The U.S. Army established barracks nearby in 1849, drawing additional settlers and cementing Vancouver's military importance. The city was incorporated in 1857 with roughly 1,700 residents, becoming one of the first incorporated cities in Washington Territory. By 1880, Vancouver had become the third-largest town in the territory. Records from the late 19th century show the presence of Chinese laborers and Buffalo Soldiers—segregated army regiments of Black American men—stationed at Vancouver Barracks, though the broader white community discriminated against these groups.

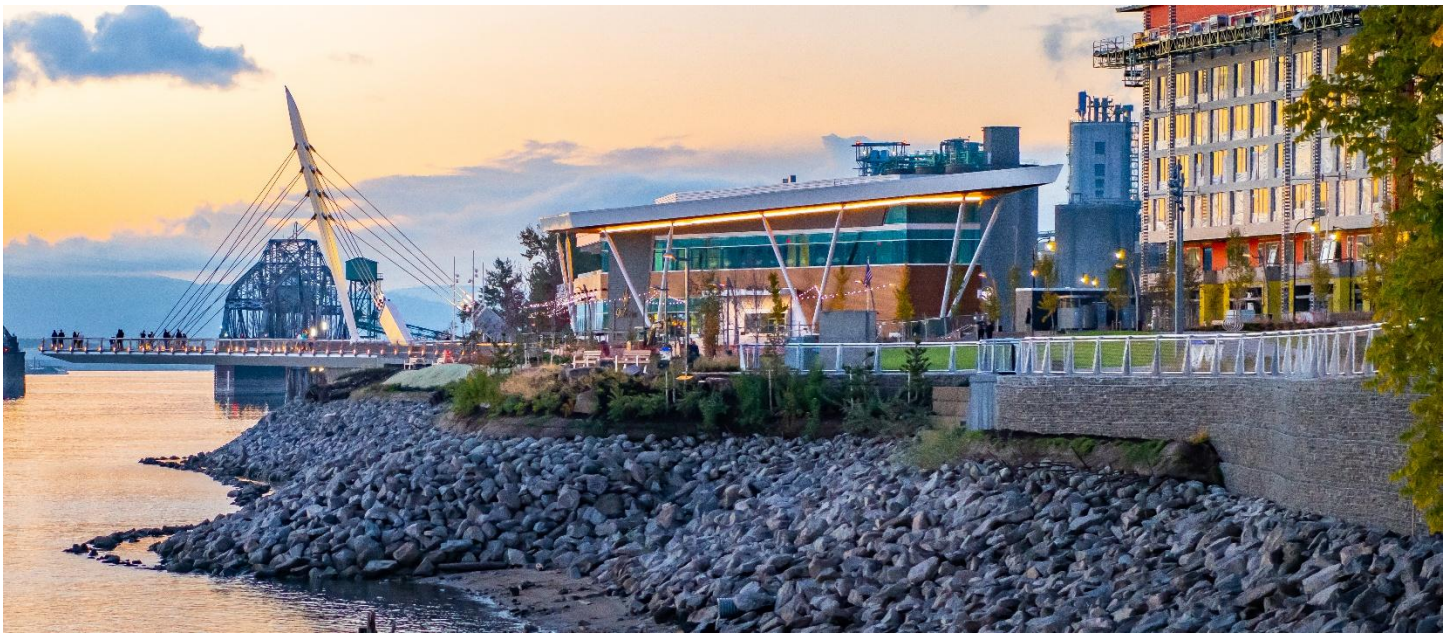
The early 20th century saw Vancouver expand through annexation (1909) and infrastructure investment. The opening of the Vancouver–Hayden Island Railroad Bridge in 1906 and the Interstate Bridge in 1917 connected the city more directly to the region and fueled industrial growth. Immigrant families, including Japanese farmers, shaped the agricultural economy but faced discriminatory laws. In 1940, Alcoa opened a major aluminum plant, followed by the Kaiser Shipyards in 1942, which tripled the city's population almost overnight. To meet the need for housing, the Vancouver Housing Authority constructed more than 12,000 family units and 10,000 dormitories, reshaping neighborhoods across the city. After the war, most temporary wartime housing was demolished or converted into subdivisions.



Postwar decades also brought new infrastructure and urban renewal. Construction of Interstate 5 in the 1950s cut through neighborhoods and severed connections to downtown, accelerating suburban development and retail flight. The City adopted its first comprehensive plan in 1957, establishing segregated land uses and suburban street patterns. Urban renewal programs in the 1960s and 1970s demolished portions of downtown housing stock, displacing lower-income residents and impacting historic buildings. In 1973, Oregon passed Senate Bill 100, which established an urban growth boundary and limited outward expansion into farmland surrounding Portland. New restrictions on growth south of the river, along with construction of the I-205 bridge to Vancouver, catalyzed a significant amount of growth occurred in Clark County, particularly in what is now East Vancouver.

The late 20th century and early 21st century marked another transformation. Annexations in the late 1990's and mid 2000's dramatically expanded city boundaries, nearly doubling the city's overall population, while the growth of high-tech industries and large-scale redevelopment efforts reshaped the urban core. Long term investments and strategic planning such as the Esther Short Park Redevelopment Plan, the 2007 Vancouver City Center Vision (VCCV), and the development of the Waterfront reconnected Vancouver to its riverfront and created a renewed sense of civic identity.

Today, Vancouver is home to just over 200,000 residents and is one of the most diverse communities in the region. Since 2010, communities of color have grown by over 60%, and BIPOC populations countywide have nearly doubled. The City continues to confront challenges of housing affordability, displacement, climate change, and infrastructure needs while building on a long legacy of resilience. With the 2022 Climate Action Framework, 2023 Strategic Plan, 2024 Transportation System Plan and the 2025 Comprehensive Plan update, Vancouver is setting the stage for its next chapter: a future that honors its Indigenous roots, addresses past inequities, and creates a more equitable, sustainable, and prosperous community for generations to come.



What Issues Face the Community in 2026?

Housing Affordability and Displacement. Housing costs have risen dramatically in the past decade, with median rents increasing by more than 60 percent since 2011 and home prices nearly tripling. Nearly half of all renters are cost-burdened, with more than a quarter paying over half their income on housing. Displacement risk is highest for Black, Hispanic/Latine, and lower-income households, many of whom are concentrated in neighborhoods along the Fourth Plain corridor, Fruit Valley, and Walnut Grove, and in the northeast corner of the City. Meeting the state-mandated target of more than 38,000 new housing units by 2045 will require both increasing production, streamlining regulations and reducing review timelines, and finding new sources of funding to both preserve and build new rent-restricted affordable housing.

Climate Change and Environmental Stress. Vancouver is already experiencing the effects of climate change, from extreme heat and wildfire smoke to flooding and degraded air quality, with these impacts expected to increase over the next 20 years. Vulnerable populations—including older adults, children, and households with low incomes or limited English proficiency—face disproportionate exposure to these hazards. Neighborhoods with less tree canopy and higher concentrations of pavement, such as parts of the Fourth Plain corridor and East Vancouver, are more susceptible to urban heat. Addressing climate resilience is critical not only for physical infrastructure but also for the daily comfort, health, and safety of residents.

Evolving Demographics and Community Needs. The city is transitioning from a suburban to a more urban environment, with demand growing for smaller, more affordable homes near transit, parks, and

Community Overview

- Population: **202,600**
- Median Age: **36.8 years**
- Youth: **21% under 18 years**
- Seniors: **21% are 65 yrs +**
- Size: **51.84 square miles**
- Housing Units: **71,649**
- Tenure: **49% rent, 51% own**
- Median Home Sales Price: **$477,000**
- Median Household Income: **$76,799**
- Disability Status: **14.7%**
- Has a Bachelors Degree or Higher: **31.2%**
- Speaks a language other than English: **14.7%**
- Veteran Status: **7.7 %**

neighborhood services. The share of residents over 65 is increasing, households are getting smaller, and more residents live alone. This creates new needs for accessible housing, social infrastructure, and community spaces that foster connection and reduce isolation.

Economic Shifts and Inequities. Vancouver has attracted new employers in healthcare, technology, and education, strengthening its job base. Yet median household income remains below the county average, and many jobs in retail and service sectors do not pay a living wage. Economic disparities persist along racial lines, with Black and Hispanic households earning significantly less than the citywide median. Supporting small businesses, expanding workforce development, adding family wage jobs, and ensuring proximity between jobs and housing are critical to building a resilient and inclusive economy.

Safety and Social Cohesion. Public safety remains a concern, particularly with rising traffic fatalities and injuries involving pedestrians and bicyclists. Residents consistently express a desire for safer streets, more inviting public spaces, and stronger social connections. Building trust in civic institutions, fostering participation in cultural and community life, and ensuring that residents feel represented in the built environment are essential to a positive community experience.

What Key Trends Do We Anticipate Addressing Over the Next 20 Years?

Vancouver's next two decades will be shaped by rapid growth, demographic transition, climate impacts, and economic restructuring. The community issues we face today—housing affordability, environmental stress, inequity, and safety—are projected to intensify without decisive, coordinated planning. Looking ahead to 2045, several major trends will frame the choices before us.

- **Continued Population, Housing and Employment Growth -** By 2045, Vancouver is projected to grow by over 81,000 new residents and will need at least 38,000 new housing units to address our existing housing deficit and meet new demand. The employment base will also need to grow by an additional 44,600 jobs to provide local employment opportunities and reduce commutes between other major employment centers in the region.

  Table 3-1. 2024 population, housing units, and jobs and projected future capacity

	2024	Projected Growth	2045
Population	200,000	+81,000	281,000
Housing Units	86,000	+38,000	124,000
Jobs	100,000	+44,600	144,600

- **Intensifying Housing Need, Affordability Pressures, and Displacement Risk -** Even as production increases, the need for affordable housing and supportive housing will outpace market delivery. Cost burdens are expected to grow for renters, seniors, single-person households, and Black, Hispanic/Latine, Pacific Islander, and immigrant communities. Market pressures will continue to concentrate displacement risk in areas like Fruit Valley, the Fourth

Plain corridor, requiring intentional anti-displacement strategies and more robust equitable development tools.

- **Increasing Climate Hazards and Community Vulnerability -** By 2045, Vancouver is projected to experience significantly more days of extreme heat, more intense atmospheric river events, longer wildfire smoke seasons, and reduced summer stream flows. These impacts will disproportionately affect residents with lower incomes, limited English proficiency, disabilities, older adults, and households living in heat-vulnerable areas with low tree canopy. Infrastructure—particularly stormwater, water supply, the energy grid, transportation corridors, and older housing stock—will require major adaptation and resilience upgrades. Vancouver will need to integrate nature-based solutions, extreme heat response systems, and community-scale resilience hubs into its long-range planning.
- **Shifting Demographics, Aging, and Changing Household Types -** The city will continue to diversify racially and culturally, with growing immigrant communities and multigenerational households. The share of seniors will rise significantly, increasing demand for accessible housing, aging-in-place options, and supportive community services. More residents will live alone, amplifying the need for social infrastructure—public spaces, libraries, neighborhood centers, cultural hubs, and inclusive civic life—to reduce isolation and strengthen community belonging.
- **Transforming Economy and Labor Market -** Vancouver's economy is increasingly bifurcated, with large numbers of higher-wage jobs in healthcare, technology, engineering, creative industries, and professional services, as well as lower wage service sector jobs. Traditional manufacturing, logistics, and construction- industries where Vancouver doesn't not perform well relative to the overall region- will remain essential to providing living-wage jobs for residents without postsecondary education. Remote and hybrid work will continue influencing where people live and how they travel, increasing demand for flexible workspaces, neighborhood-serving services, and multimodal infrastructure. As commercial redevelopment accelerates, the City will need to strategically manage finite employment land, support small businesses, foster entrepreneurship, and expand opportunities for workforce development.
- **Greater Emphasis on Safe, Connected, Low-Carbon Mobility -** Traffic fatalities and serious injuries—especially those impacting pedestrians—are likely to rise without significant safety investments. Over the next two decades, Vancouver must find ways to shift travel behavior to more climate friendly options, walking, rolling, cycling and transit Electrification of transportation, expansion of active transportation networks, and redesign of high-injury corridors throughout the City will be critical to both safety and climate goals.
- **Growing Expectations for Equity, Representation, and Community Voice -** Community expectations for repair of past harms, culturally responsive government, and equitable investment will continue to grow. Residents increasingly expect transparent data, meaningful power-sharing, and policies that correct historical inequities in housing, environmental conditions, transportation access, and economic opportunity. Over the next 20 years, Vancouver will need to strengthen partnerships with neighborhood organizations, cultural communities, Tribes, and community-based groups to co-create solutions and ensure a sense of community ownership and buy-in.

Role of the Comprehensive Plan

Comprehensive plans are the centerpiece of local planning efforts and are a foundational tool for shaping outcomes in the built and natural environment and addressing the key issues a community faces. These 20-year plans articulate a community vision through a series of goals, policies, and actions that guide the day-to-day decisions of elected officials and local government staff. While growth and change have and will always be a part of our lives, comprehensive plans are created by local governments with the community to help coordinate and plan for that growth, establish common goals, support the environment, and support our collective health, safety, and high quality of life.

The City of Vancouver is required to develop a Comprehensive Plan under Washington's Growth Management Act (GMA), with specific requirements outlined in the Revised Code of Washington (RCW) Section 36.70A. First adopted in 1994 and updated in 2004, Vancouver's Comprehensive Plan has evolved alongside the city's growth, setting the policy framework for urban centers, housing diversity, and service provision. This updated plan extends the community vision to 2045 and establishes goals, policies, and actions that better address the issues and trends outlined above.

Community Vision Statement

"Vancouver is an equitable and prosperous community, which ensures that all residents, businesses and organizations benefit from the growth and advancement we make together.

Vancouver will be recognized for our quality of life, as evidenced by affordable housing in vibrant, safe and walkable neighborhoods, access to jobs and economic opportunity for all, and leading-edge efforts to address climate change."

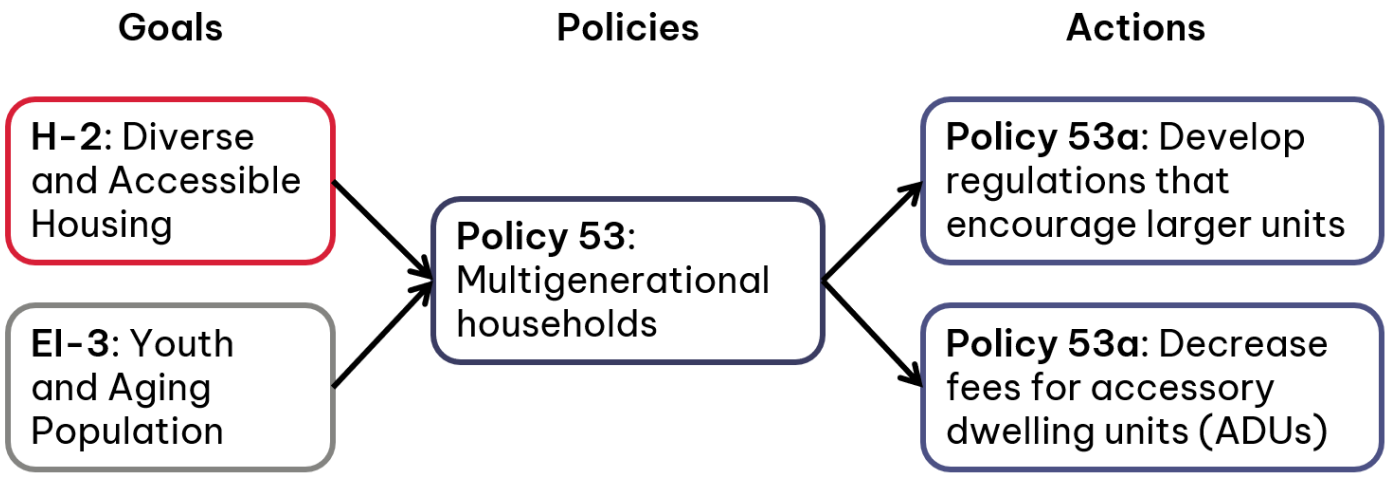
How the Plan is Structured

This Comprehensive Plan is centered around the plan's **community vision statement**. The vision statement is the result of a detailed visioning process, which engaged more than 1,000 community members between June 2022 and February 2023. The plan vision statement serves as the basis from which all other goals and policies in the plan are developed.

The Comprehensive Plan is organized into the following chapters. Each chapter also has its own vision statement as well as a set of goals associated with that chapter.

- **CE - Community Experience**
- **EI - Equity and Inclusion**
- **LU - Land Use and Development**
- **H - Housing**
- **EO - Economic Opportunity**
- **CL - Climate and Environment**
- **PR - Parks and Recreation**
- **TM - Transportation and Mobility**
- **PFI - Public Facilities and Infrastructure**
- **AN - Annexation**
- **Implementation**

Each goal is described in the relevant chapter and includes a list referencing the policies that support the goal. Because community priorities are interconnected, most policies end up supporting multiple goals and are repeated under multiple goals throughout the plan. Applying policies to multiple goals helps strengthen the connections between what we want to achieve (i.e., the vision and goals) and what we need to do to get there (i.e., the policies and actions). A complete list of all policies and the goals they support is available in the Policies and Implementation Chapter.



Graphic for illustrative purposes only.

Related Plans and Policies

This updated Comprehensive Plan builds on existing plans and policy guidance established by City Council. Key plans and policies include:

- 2023-2029 Strategic Plan
- Climate
  - Climate Action Framework (CAF), 2022
  - Climate Adaptation Strategy, 2022
- Housing
  - Housing Action Plan (updated regularly)
  - Reside Vancouver Anti-Displacement Plan, 2019
- Parks and Recreation
  - 2022-2031 Vancouver Parks, Recreation and Cultural Services (PRCS) Comprehensive Plan
  - Culture Arts and Heritage Plan, adopted 2018
- Five-Year Economic Development Strategy, 2025
- Transportation
  - 2024-2044 Transportation System Plan (TSP), 2024
  - 2026-2031 Transportation Improvement Program (TIP)
  - Pearson Airport Master Plan (update underway)
- Utilities
  - Stormwater Management Program Plan (SWMP Plan), 2025
  - 2011 General Sewer Plan, update in process, adoption anticipated 2026-2027
  - 2026-2031 Water, Sewer and Surface Water Capital Improvement Program (CIP)
  - 2016 Comprehensive Water System Plan, amended 2022, update in process, adoption anticipated 2026-2027
- Long Range Facilities Plan, 2025
- Urban Forestry Management Plan (UFMP), 2023
- Shoreline Master Program, adopted 2011, last amended 2021
- Critical Areas Ordinance, 2024
- Other Jurisdictions and Agencies
  - 2025-2030 CTRAN Transit Development Plan
  - Regional Transportation Council (RTC) Regional Transportation Plan, 2024
  - 2025-2030 Comprehensive Countywide Solid Waste Management Plan
  - Vancouver School District Capital Facilities Plan, 2022
  - Evergreen Public Schools Capital Facilities Plan, 2026
  - Fort Vancouver Regional Libraries Comprehensive Facilities Plan (2025)

Supporting Comprehensive Plan Documents

In addition to the Comprehensive Plan, number of documents were prepared during the update process in order to inform the overall policy approach, and fulfil the requirements under RCW 36.70A. These items are identified below:

A. Equity Framework
B. Equity Analysis
C. Community Partnership Framework
D. Public Involvement Plan
E. Vision and Goals Framework
F. Community Atlas
G. Overall Engagement Summary
H. Housing Needs Assessment
I. Economic Conditions and Opportunities Analysis
J. Health Impact Assessment
K. Climate Vulnerability Assessment
L. Greenhouse Gas Emissions Inventory
M. Racially Disparate Impact Analysis
N. Land Capacity Analysis
O. Transportation Finance Plan
P. Capital Facilities Plan 6-and 20-year project lists

Glossary

[Coming Soon]

Equity and Inclusion



2

Introduction

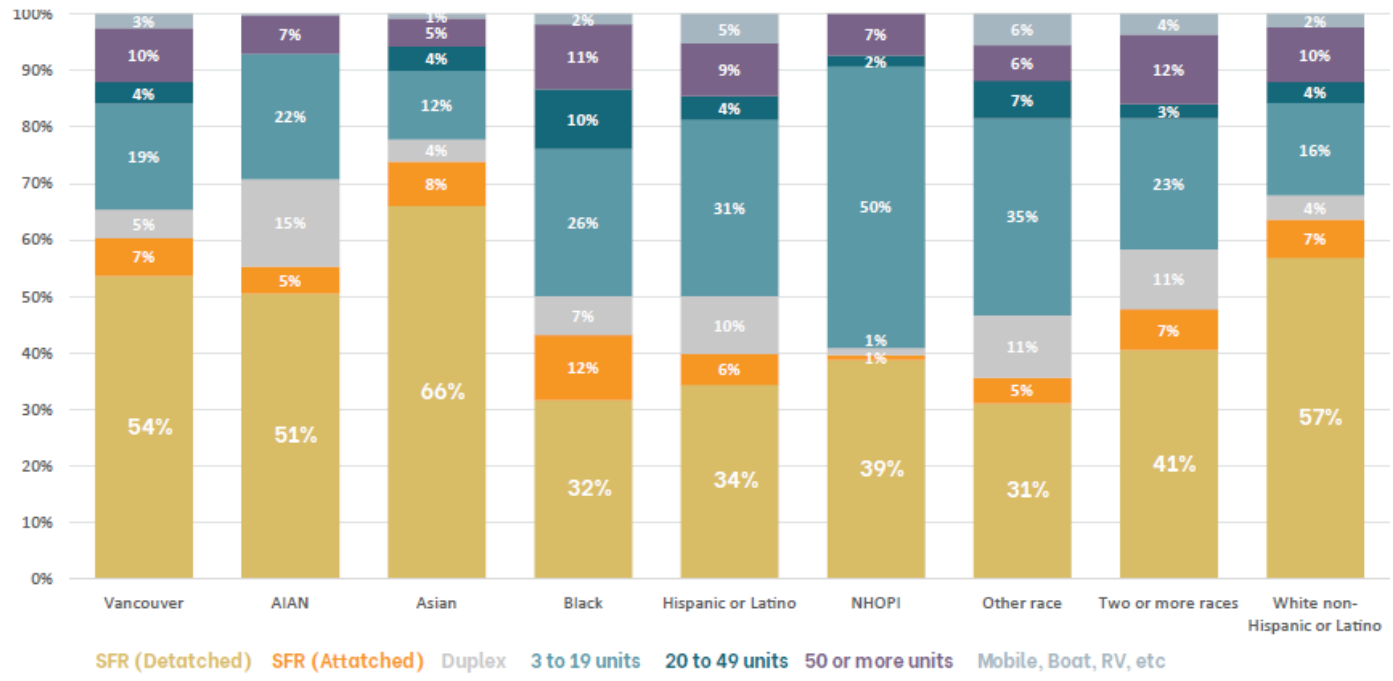
An equity approach is fundamental to shaping a future where every Vancouver community member can thrive. For too long, systemic barriers—including exclusionary housing policies, disinvestment, and unequal access to education, employment opportunities, and wealth-building opportunities—have actively harmed communities of color, people with low incomes, people with disabilities, LGBTQ+ residents, and other historically underserved groups. These barriers are not accidental, but the product of societal structures and systems that shaped Vancouver's growth over time. These barriers are visible in disparities in housing stability, wealth, health outcomes, educational attainment, access to safe transportation, and exposure to environmental risk. Vancouver is experiencing rapid demographic change: communities of color grew by 64% between 2010 and 2020, and 14.7% of residents speak a language other than English at home. In 2021, 51% of households were cost burdened[1], and neighborhoods like Bagley Downs and Meadow Homes face childhood poverty rates above 50%. Access to amenities is also uneven: areas in west and central Vancouver host the majority of essential services, while neighborhoods east of I-205, along Fourth Plain, and in parts of Fruit Valley have less access to parks, transit, sidewalks, safe roadway crossings and grocery stores. It's important for the City to take a targeted and local approach to addressing inequitable outcomes in the built environment and use the tools it has available to address them. This chapter provides a lens through which to understand all the other chapters within the Comprehensive Plan, helping the City focus on equity in both the process and outcomes when implementing the plan.

Past Policies and Exclusionary Practices

Historic policy direction around growth and development in the City emphasized low-density, single-family neighborhoods and imposed minimum lot sizes and parking requirements that limited access to affordable housing choices, particularly for lower-income and non-white households. In 2023, 46% of land area in the City was zoned to exclusively allow the construction of a single home on one lot. The City historically has effectively limited the development of naturally occurring, small-scale density in many neighborhoods by applying land use standards that only allow single-family homes.. This effectively has excluded "middle housing" forms—duplexes, triplexes, courtyard apartments—which can provide affordable pathways to ownership and rental housing, and has contributed to the overall undersupply of housing in Vancouver and the Clark County region.People of color face a variety of structural barriers, which have impacted wealth accumulation over generations, and on average, resulted in less available wealth and purchasing power to contribute to housing. Black, Hispanic, and Native Hawaiian and Pacific Islander households are less likely to live in a single-family home, and are less likely to own their homes.

[1] Our Vancouver – Housing Needs Assessment, April 2024, pg 48

Figure 1 – Housing Units by Race, Decennial Census 2020



Additionally, housing options attainable by renters, immigrants, and people of color are often in areas near major transportaion corridors, rail lines, and industrial areas, which leave these residents vulnerable to pollution, disinvestment, or redevelopment pressures without tools to ensure stability. Similarly, transportation design standards prioritized vehicle throughput over safety for people walking or biking. This contributed to inequitable safety outcomes, with higher crash rates in lower-income and BIPOC neighborhoods where residents are more likely to walk or rely on transit.[2] Economic development policies historically emphasized recruitment of large employers and external sources of investment. While these strategies created jobs, they often overlooked the needs of small, locally owned businesses, particularly those owned by entrepreneurs of color. Business ownership remains disproportionately concentrated among White residents, while Black, Latino, and immigrant entrepreneurs have been underrepresented and clustered in lower-cost, aging corridors.

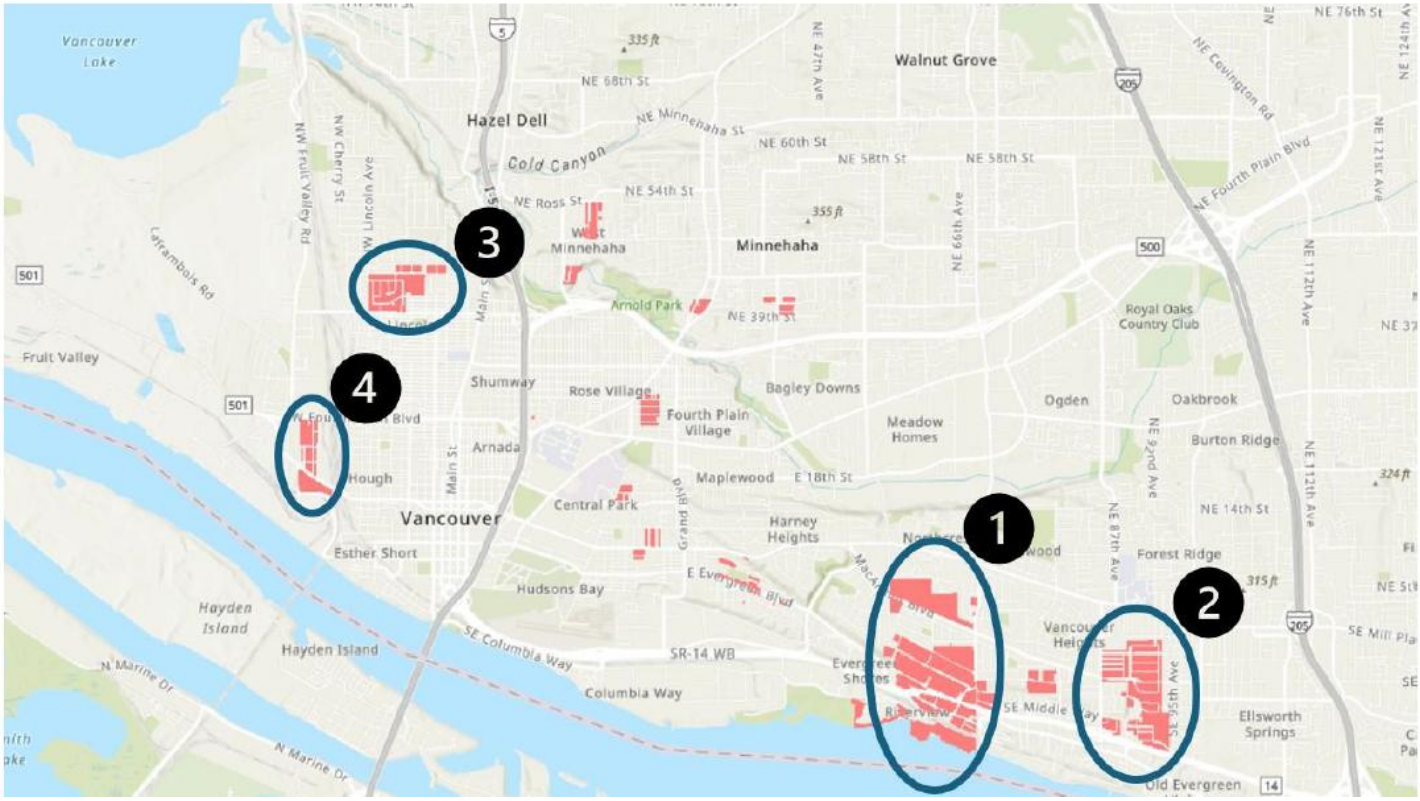
Housing, Homeownership, and Houselessness

Housing policy in Vancouver has long reflected national patterns of exclusion. Racial covenants, conditions, and restrictions (CC&Rs) once prohibited households of color from purchasing property in a select number of neighborhoods in the city. These restrictions were most prevalent in the Heights and Evergreen Highlands, and Riverview neighborhoods, as well as parts of central Vancouver such as the Lincoln Neighborhood and Sampson Avenue in east Fruit Valley. While the 1968 Fair Housing Act made these racial restrictions illegal and unenforcable, the barriers they created to

[2] Local Road Safety Plan, 2022

homeownership limited the ability of families of color to build intergenerational wealth. This contributes to the housing and economic disparities we see today.

Figure 2 – Neighborhoods with Racially Restrictive Covenants (University of Washington Racial Restrictive Covenants Project)



In 2021, more than half of Black households (52%) and nearly half of Hispanic households (45%) had housing costs that were 30% or more of their income[3]. In Vancouver, people of color, renters, and low-income households are at a greater risk of experiencing homelessness. Rising rents and redevelopment pressures in areas along Fourth Plain and in Fruit Valley compound these inequities, driving displacement risk in some of Vancouver's most vulnerable communities.

Income and Wealth Gaps

Vancouver's median household income was $76,733 in 2023, compared to $84,000 in Clark County and $84,000 statewide. Black households make $24,000 less, and Hispanic or Latino/a populations make $11,000 less than the median household income for Vancouver on average.[4]. These inequities are

[3] Housing Needs Assessment
[4] American Community Survey 5 Year Estimates – 2019-2023

reflected in broader income inequality.In Vancouver in 2024, the top 10% of households held twice as much income than that of the bottom 45% of households.







Vision: Equity and Inclusion

We strive to build an equitable and inclusive community that recognizes and respects intersecting identities. We do this through intentional action that seeks to acknowledge and repair injustices of the past while charting a new course, centering voices that were excluded and, in many instances, continue to be excluded from decision-making processes. We follow the guidance and expertise of those who have been directly impacted by exclusionary practices and racist and oppressive systems, to design a more equitable future for our community. We examine the intended and unintended consequences of past, current and proposed policies with an equity lens, and work towards increasing pathways to access and participation. Reparative actions, universal access, and physical and mental health are critical priorities in creating inclusive environments.

Transportation

Transportation access and safety remain inequitable across the city. Nearly 75% of fatal and severe crashes occur on arterial and collector streets, disproportionately located in lower-income neighborhoods. Crashes are most common at non-intersection locations without traffic control, where pedestrians and cyclists face higher risks. These patterns mirror inequities in access to safe, reliable, and affordable transportation options, which in turn affect access to employment and services. Low-income residents and people of color are more likely to rely on walking, biking, and transit, yet also face the greatest exposure to traffic collisions and unsafe street conditions (Local Road Safety Plan, 2022). Employment access is particularly limited for residents without cars, with many jobs clustered along highway corridors or in areas underserved by transit.

Health, Education, and Life Outcomes

Disparities in social determinants of health—housing, education, and income—translate directly into health inequities. Life expectancy can vary by more than a decade between neighborhoods. While 92% of adults hold a high school diploma, only 32% hold a bachelor's degree, with stark differences by race: fewer than 20% of Black and Hispanic adults have a four-year degree compared to more than 40% of white and Asian adults. Childhood poverty exceeds 50% in neighborhoods such as Bagley Downs and Meadow Homes, shaping lifelong disparities in health, earnings, and opportunity.

Parks, Food Access, and Tree Canopy

Access to public amenities also differs across the city. Census block groups with higher proportions of people of color have less tree canopy than the city on average, reducing shade and increasing vulnerability to extreme heat. Several areas identified as equity-priority communities, including Fourth Plain, Fruit Valley and the Mountain View neighborhood face limited access to fresh and affordable food options, further compounding health disparities. Vancouver's Climate Vulnerability Assessment shows that higher percentages of BIPOC and low-income households are more likely to live in areas exposed to extreme heat, flooding, and air pollution. These same households often lack access to resources like health care, insurance, or air conditioning, making adaptation to climate change more challenging. As climate hazards intensify, the inequities in resilience and recovery will grow unless addressed directly.

Recent Advancements in Equity-Centered Policy

Over the past decade, the City of Vancouver has begun to reorient its policies toward equity and inclusion. These changes reflect both community advocacy and recognition that past practices reinforced disparities. The City has taken meaningful steps, and the current Comprehensive Plan update represents the most significant opportunity yet to embed equity into every aspect of growth and development.

Citywide Focus on Equity and Inclusion. In 2020, the City Council has adopted equity as one of their key priorities, demonstrating a commitment to institutionalizing equity across planning, budgeting, and service delivery.

- **Reside Vancouver.** Adopted in 2020, Reside Vancouver is an anti-displacement strategy that outlines how the City can help stabilize vulnerable communities, such as renters, people with lower incomes, and people of color, and support them as they move towards financial self-sufficiency over time. Based on the strategy's vulnerability assessment, the recommendations are tailored to the Maplewood and Meadow Homes neighborhoods. It emphasizes tenant protections, affordable housing production, and neighborhood reinvestment and formed the foundation for policy work around equity and land use that the City is implementing through the Comprehensive Plan.

- **Fourth Plain for All and ARPA Investments.** Federal relief funds during the COVID-19 pandemic were leveraged to advance equity. 75% of funding the City received during the American Rescue Plan Act (ARPA) went to funding improvements along the Fourth Plain Corridor, in housing, parks, public spaces, economic development and community building. The City has also created the Fourth Plain Commons, which has become a model for future public private partnerships in constructing affordable housing and support for community services. The City has also invested in the Fruit Valley Action Plan, which directed resources to one of Vancouver's most underserved neighborhoods.
- **Embedding equity in all plans.** In 2023, equity was included as a core value of the 2023-2029 Strategic Plan and a foundational piece of the Transportation System Plan update and Climate Action Framework. These policy documents guided the goals and policies in the transportation, climate, and other chapters of the updated Comprehensive Plan.

These efforts highlight the investments and efforts the City has conducted recently, and outline the continued work the City needs to conduct over the lifespan of this 20-year plan.

Equity As A Lens

This Comprehensive Plan is the first in Vancouver's history to have a direct, intentional focus on equity within its policy work. The Equity Framework for this plan provides the principles and process that guide this work and was developed with a core advisory group, called the Community Partners. The Community Partners group was composed of members from and/or organizations that serve equity priority communities. In addition to helping create the Equity Framework, this group worked in partnership with staff to design policies, draft recommendations, and ensure that the lived experiences of historically underserved communities directly informed the plan update.

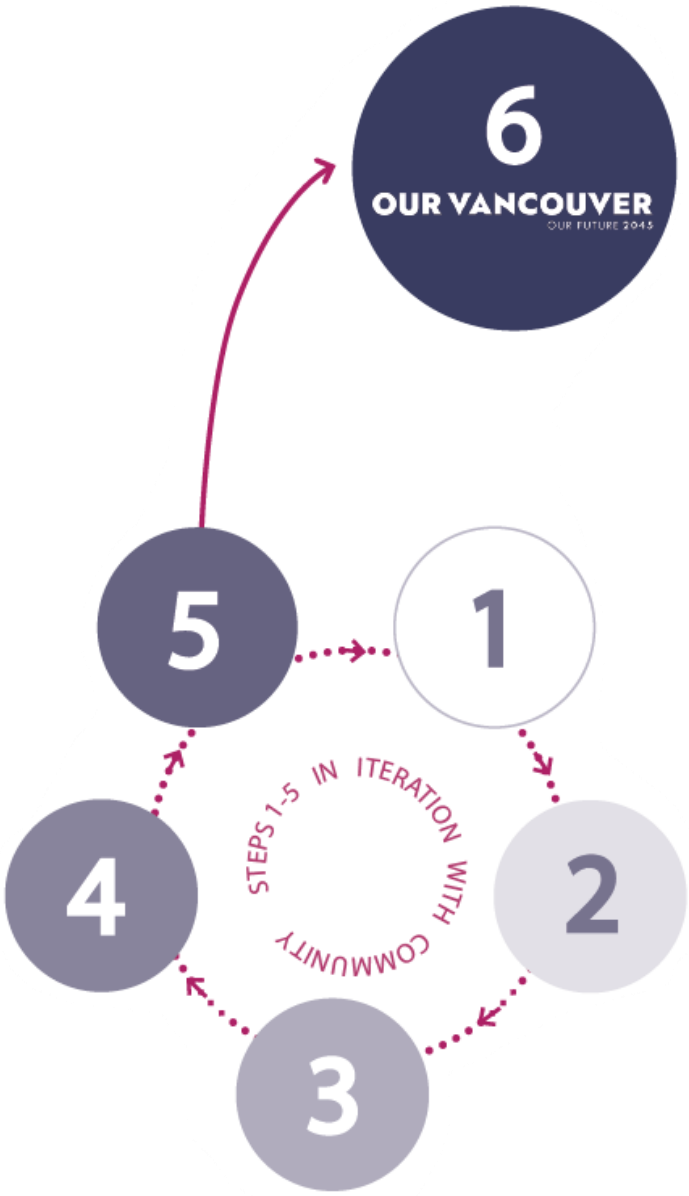
This co-creative method was central to the process. Instead of engaging communities at the end of decision-making, implementing the plan's Equity Framework allowed more integrated policy making at the beginning—to shape questions, surface root causes, and generate solutions together.

Equity Priority Communities

- BIPOC communities
- People with low incomes
- People with disabilities, including neurodivergence
- Youth and children
- LGBTQ+ individuals
- Renters
- Homeless Population
- Small business owners
- Refugees
- Undocumented population
- Formerly incarcerated populations

To put these principles into practice, the Equity Framework lays out a six-step process that was applied in each chapter of the plan:

1. **Identify outcomes** that reflect equity goals.
2. **Develop metrics** to measure progress toward those outcomes.
3. **Assess baseline** gaps and root causes using data disaggregated by race, income, language, and geography.
4. **Apply an equity lens**, asking who benefits, who is burdened, who has been excluded, what unintended impacts might arise, and who is accountable.
5. **Propose** goals, policies, and strategies that address the root causes of inequity.
6. **Implement** with transparency, engaging communities in accountability and monitoring.





Guiding Community Investment and Decision Making with Data.

A central component in addressing structural inequities is ensuring that resources are directed where they are needed most. Vancouver's **Equity Index** provides a clear, data-driven foundation for this work. By combining eight demographic indicators—including race, income, renter status, education, language access, disability, youth, and older adults—the index identifies neighborhoods with the highest levels of vulnerability and social need. This index helps decision makers understand who could benefit or be burdened by policy decisions and prioritize investments in neighborhoods where the need is greatest. The Equity Index was used in the Comprehensive Plan Update to help understand baseline gaps and root causes (step 3 of the Equity Framework) and apply an equity lens to the goals and policies in this Plan.

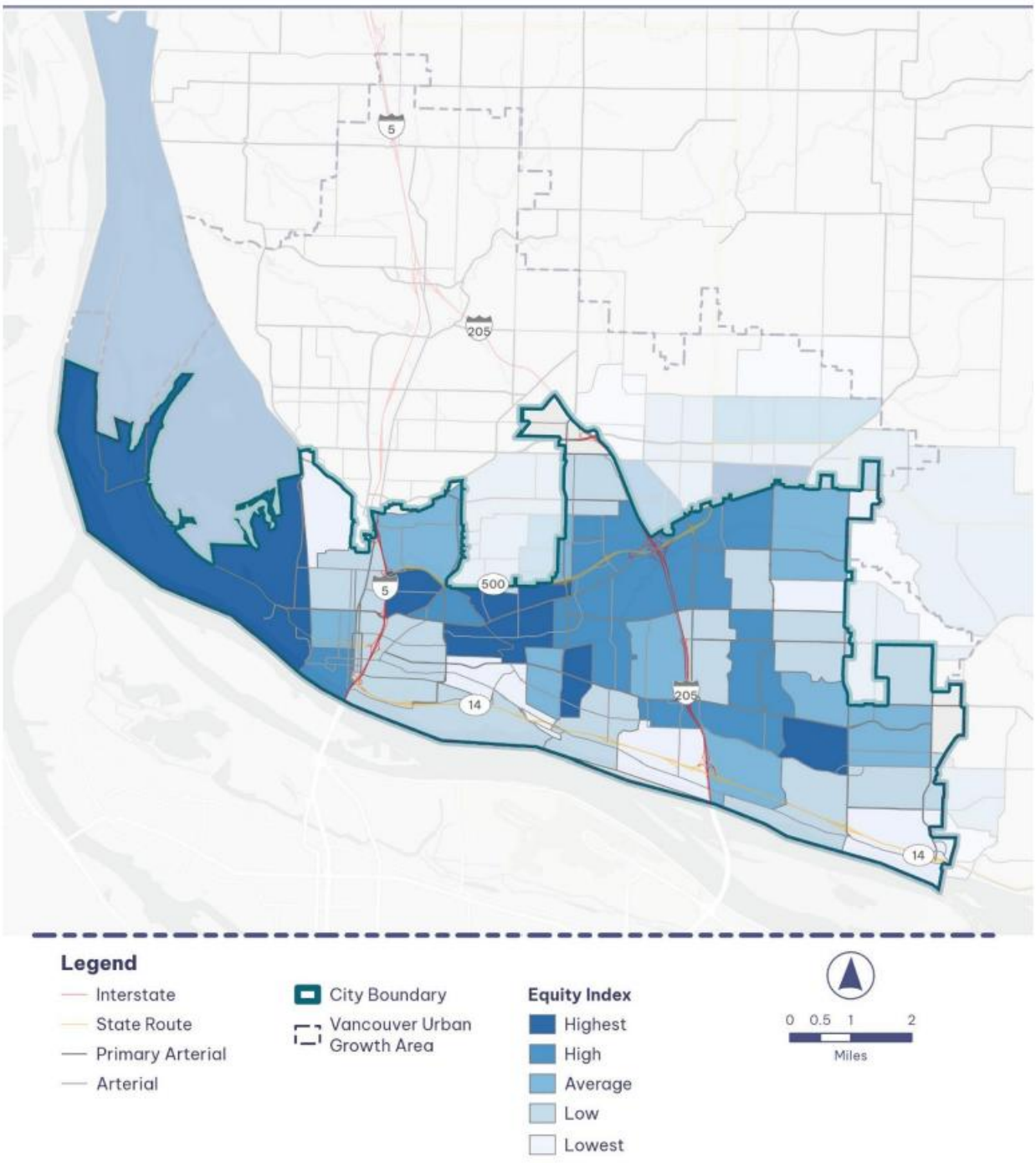
The highest concentrations of need are along **Fourth Plain Boulevard and surrounding neighborhoods**—including Bagley Downs, Meadow Homes, Maplewood, Kevanna Park, Image, Rose Village, and Fruit Valley—where poverty, cost burden, and environmental health disparities overlap.

Community Feedback

- Desire for the City to acknowledge historical injustice and systemic racism, take reparative action, and be bold and transparent in its equity commitments.
- Want accessibility and disability inclusion to be centered in planning, design, and community engagement.
- Desire for culturally specific resources, inclusive events, and community spaces that reflect diverse identities and support youth, seniors, and people with disabilities.
- Concerns about displacement and a desire to balance new development with protections for existing residents.
- People experience inequities in access to parks, healthcare, jobs, housing, transportation, and public spaces, and want tailored, culturally aware approaches rather than one-size-fits-all solutions.
- Want the City to demonstrate visible progress on equity goals and to implement them in partnership with impacted communities.

The index also reveals growing displacement vulnerability in neighborhoods east of I-205, such as Cascade Highlands and Mountain View, where rapid demographic change and rising housing costs signal emerging displacement risks. By embedding the Equity Index and Equity Framework into planning and budgeting decisions, Vancouver can ensure that investments over the next 20 years are both equitable and accountable, focusing on the communities most impacted by systemic barriers and past disinvestment.

Figure 3 – The City's Equity Index, which shows populations that have been historically underserved or disproportionately impacted by systemic inequities are geographically concentrated.



Vancouver's future depends on confronting deeply rooted inequities. The census tracts that meet the threshold for high vulnerability are the neighborhoods where cost burdens, environmental health disparities, and limited access to essential services overlap, underscoring the compounding effects of historic disinvestment. This Comprehensive Plan responds by embedding equity into all chapters—using data, community partnership, and accountability to guide decisions. In doing so, Vancouver can chart a path toward a city where opportunity and belonging are not the privilege of a few, but the shared foundation for all.

Goal: EI-1 Equitable Community

All community members have equitable and inclusive access to opportunities and resources, including communities most impacted by past and present exclusionary practices.

Key Actions

placeholder for top 5 actions identified through staff technical working groups

Vancouver's ability to create a thriving and resilient future depends on whether all community members—especially those who have been most impacted by inequities—can share in its opportunities. Today, gaps in health, housing, income, and environmental quality remain stark: households of color face higher rates of cost burden and lower homeownership, life expectancy and health outcomes differ dramatically by neighborhood, and communities in central and eastern Vancouver experience greater exposure to noise, air, and heat pollution. Goal EI-1 recognizes that closing these gaps is not only about short-term programs, but also about redesigning structural systems of belonging, support, and fairness across every aspect of city life.

The policies under this goal chart a long-term approach to correcting these deficiencies. By broadening access to health care, addressing environmental health disparities, and expanding income-based and culturally specific housing in connected and accessible neighborhoods, the City aims to stabilize at-risk households and reduce displacement by 2045. Emergency rental assistance and anti-displacement strategies are designed to help families remain in their homes so they can benefit from new public and private investments. Parallel efforts to expand educational opportunities, workforce training, and career pathways will help close persistent income and employment gaps, enabling more residents to access living-wage jobs and wealth-building opportunities.

Cultural and civic inclusion are also integral to the solution. Investments in arts, heritage, and cultural programs, coupled with community-driven design of public spaces, ensure that residents see themselves reflected in Vancouver's identity and have meaningful opportunities to shape its future. Finally, this goal focuses on using data to inform decision making, utilizing the City's Equity Index, Equity Framework, Displacement Risk Assessment, and Climate Vulnerability Assessment to guide community investment, prioritizing neighborhoods with the greatest need, ensuring that progress

toward equity is measurable and sustained. Taken together, these strategies set Vancouver on a path to repair past harm and create equitable outcomes over the 20-year life of the Comprehensive Plan.

Supporting Policies			Related Goals
2	**Welcoming and Supportive Community**	Build a community that welcomes new residents, supports at-risk individuals, and includes historically excluded community members in all aspects of civic life, shifting from transactional to relational approaches to government and community relationships.	CE-2, EI-1
21	**Mitigate Noise Pollution**	Reduce and mitigate noise pollution from major stationary and mobile sources (air travel, vehicles, freight, and railroads, high intensity industrial uses), prioritizing vulnerable populations and reducing the impact in residential, commercial, and natural areas.	EI-1, CL-4
22	**Reduce Environmental Health Disparities from Pollution**	Focus on areas with high environmental health disparities when mitigating the impacts of air, water, heat, noise, and light pollution.	EI-1, CL-4
29	**Access to Education and Employment**	Reduce barriers to accessing education and employment opportunities, so all community members can reach their full potential.	EI-1, EO-1
31	**Support Small Businesses**	Foster inclusive economic growth through education and resources that support small business owners, entrepreneurs and members of historically excluded and underserved communities.	EO-4, EO-1, EI-1
34	**Leverage City Owned Assets for Affordable Commercial Space**	Utilize City-controlled real estate to provide affordable commercial leasing opportunities for small and emerging businesses.	EO-4, EI-1, EO-2

35	**Expand Workforce Development and Career Pathways**	Ensure all residents have access to career pathways, workforce training, and entrepreneurship opportunities that lead to living-wage jobs and wealth creation, with a focus on underrepresented communities.	EO-1, EI-1, CE-4
40	**Access to Services and Amenities**	Expand access to municipal and community-based services and amenities by prioritizing investment in underserved areas.	PFS-1, EI-1, LU-1
49	**Health Access**	Broaden access to essential healthcare and services in underserved populations and address built environment causes of health disparities.	EI-1, PR-3
50	**Utilize Data to Guide Investment**	Utilize the City's Equity Index, Displacement Risk Assessment tool, and climate vulnerability assessment to guide public investments and infrastructure improvements.	EI-1, PFS-1, CL-1
53	**Invest in Underserved Areas**	Prioritize infrastructure, housing, and public service investments in underserved neighborhoods and areas of the City that have not benefitted from past investments.	PFS-1, EI-1
54	**Support Mental Health Access**	Partner with nonprofits to help expand access to culturally inclusive mental health, behavioral health, and physical health resources.	PR-3, EI-1
73	**Center Impacted Voices in the Development of Community Spaces**	Engage community organizations and individuals representing diverse lived and cultural experiences in the planning, design and programming of community spaces.	CE-1, CE-5 EI-1, EI-4, PR-4
84	**Income Based Housing in Connected and Accessible Neighborhoods**	Facilitate development of income-based housing in connected and accessible neighborhoods, and in areas with access to resources and services.	H-2, EI-1, LU-1
94	**Emergency Rental Assistance**	Provide financial support to help at-risk households remain in their homes, preventing eviction and displacement.	H-4

96	**Reduce Displacement in the Face of New Growth**	Implement anti-displacement strategies and actions that protect residents and businesses in advance of public investment so communities can remain in place and benefit from improvements.	H-4, EI-1
100	**Culturally Specific and Identity-Based Housing**	Work with partners to facilitate and fund housing that reflects the cultures, identities and needs of Vancouver's unique population groups.	H-4, EI-1
117	**Access to Arts and Cultural Programs**	Improve access to arts, cultural, and heritage programs by reducing barriers to participation, prioritizing underserved and historically underserved communities, and investing in related programs.	H-2, CE-2, EI-1, H-4

Goal: EI-2 Universal Design & Access

Public spaces, public infrastructure, and public and private buildings are universally designed and meet best practices for accessibility and inclusion.

Key Actions

placeholder for top 5 actions identified through staff technical working groups

Designing for a wide range of ages, abilities, and circumstances is essential to ensuring that all Vancouver residents can navigate, participate, and thrive with safety and dignity. Today, nearly 14% of residents live with one or more disabilities, while neighborhoods along the Fourth Plain Corridor, east of I-205 and in Fruit Valley have higher concentrations of older adults and households without vehicles. These patterns point to inequities in mobility, access, and independence, and highlight the urgent need for housing, transit, parks, and community spaces designed with accessibility at the core. These conditions also underscore the need to systematically upgrade City facilities and public infrastructure to meet ADA standards, consistent with the City's adopted ADA Transition Plan, to ensure compliance with federal law and remove long-standing barriers to access across municipal buildings, parks, rights-of-way, and services. Goal EI-2 responds by making accessibility a foundational value across public spaces, infrastructure, housing, and private development, directly supporting **LU-1: Connected and Accessible Neighborhoods**, which envisions communities where everyone can reach services, jobs, parks, and cultural spaces within their daily lives.

Over the next 20 years, the policies under this goal aim to reduce these disparities by embedding universal design principles in all new public facilities, incentivizing their adoption in private development, and expanding retrofits for existing homes. These measures ensure that housing options are accessible, inclusive, and adaptable—supporting multigenerational households and enabling residents to age in place.

This goal also calls for stronger connections between housing and natural spaces. By siting new homes near existing and future parks, and by improving the accessibility of parks and greenways in historically underserved neighborhoods, the City will close long-standing gaps in access to the physical and mental health benefits of nature. Taken together, these strategies directly address

existing deficiencies in equitable outcomes—ensuring that, by 2045, Vancouver has created inclusive environments where residents of all ages and abilities are connected, supported, and able to thrive in their neighborhoods.

Supporting Policies			Related Goals
27	**Resilient, Transit-Supportive Infrastructure**	Invest in infrastructure that supports reliable, frequent, and accessible transit service, while adapting to localized climate impacts. Prioritize improvements in underserved communities and areas with high climate vulnerability. These investments should expand mobility options, improve neighborhood access, and deliver health, economic, and social benefits.	TM-2, PFS-3, EI-2
51	**Universal Design**	Incentivize universal design principles in private development, and implement within all public development and public spaces. Support accessibility retrofits for existing homes and prioritize affordable housing options tailored to multi-generational living, aging in place, and a wide range of abilities.	EI-2, PR-1, H-2
55	**Aging Populations**	Ensure that residents have support for aging within community, and downsizing through diverse housing options, accessible services, and reliable transit to ensure long-term livability and independence	H-2, EI-3
68	**Accessible Mobility for All**	Ensure transportation systems meet universal design standards, prioritizing mobility solutions for disabled, senior, youth, and low-income residents across all modes.	EI-2, EI-3, TM-1,
69	**Increase Access to Community Spaces (Third Spaces)**	Facilitate and provide accessible and inclusive community gathering spaces, with a focus on populations vulnerable to social isolation.	CE-1, EI-2, LU-1
76	**Broaden Equitable Access to Natural Spaces and Parks**	Site new accessible and attainable housing close to existing and future parks, ensuring equitable access to existing facilities, and investing in new and improved facilities in underserved neighborhoods.	CL-4, PR-3, H-1, EI-2

Goal: EI-3

Focus on Youth and Aging Population

The built environment supports community members from childhood through later life, with families and caretakers benefitting from robust youth programs and accessible childcare, enabling children to excel and parents to actively participate in the workforce. Aging populations benefit from accessible infrastructure, inclusive urban design, accessible housing, and opportunities for social connection.

Key Actions

placeholder for top 5 actions identified through staff technical working groups

Vancouver's future depends on how well the city supports residents across the entire lifespan—from young children and families to older adults seeking to age in place. Today, more than 22% of Vancouver's population is under the age of 18, while nearly 16% are over the age of 65. The City will see significant growth in both youth and senior populations by 2045, with increasing demand for childcare, accessible housing, and transportation options that allow residents to live independently and remain connected to their communities. Without intentional planning, these demographic shifts risk deepening existing inequities in access to housing, mobility, and essential services.

Policies under EI-3 aim to create a built environment that supports community members through every stage of life. Expanding access to affordable and accessible childcare facilities is critical for enabling parents and caretakers to participate in the workforce while ensuring children can thrive. At the same time, Vancouver must prepare for an aging population by supporting accessible housing options near services and reliable transit, and by encouraging downsizing opportunities that allow seniors to stay rooted in their communities with dignity and independence.

Housing policy also plays a central role. By incentivizing multigenerational housing, the City will expand living options that allow families to pool resources, provide care within households, and create culturally inclusive homes that meet the needs of Vancouver's diverse communities.

Finally, this goal emphasizes the importance of **community resources that foster multigenerational connection**. This includes safe play areas for children, accessible public facilities, and programming that brings youth and older adults together—strengthening social ties and reducing isolation.

Supporting Policies			Related Goals
30	**Support Access to Childcare**	Support the development of new childcare facilities in the City and eliminate regulatory barriers preventing their creation.	EI-3, EO-1
55	**Aging Populations**	Ensure that residents have support for aging within community, and downsizing through diverse housing options near accessible services and reliable transit to ensure long-term livability and independence	EI-3
56	**Multigenerational Households**	Incentivize development of housing types suitable for multigenerational living.	EI-3, H-2
68	**Accessible Mobility for All**	Ensure transportation systems meet universal design standards, prioritizing mobility solutions for disabled, senior, youth, and low-income residents across all modes.	EI-2, EI-3, TM-1,
76	**Resources for Youth and Aging Populations**	Prioritize programs and infrastructure that support youth and aging populations, including safe play areas, accessible housing, robust childcare, public facilities and community programs that foster multigenerational interaction.	EI-3, PFS-1

Goal: EI-4

Transparent and Inclusive Governance

Community members have trust in City government, built and sustained through equitable and inclusive community engagement, language access, equitable access to programs, technology and resources, an emphasis on building trust-based relationships with partners and community members, regular reporting of progress and outcomes, and co-creative and transparent decision-making processes.

Key Actions

placeholder for top 5 actions identified through staff technical working groups

Equity cannot be achieved without trust, accountability, and inclusion in the decisions that shape Vancouver's future. For too long, many communities—particularly immigrants and refugees, BIPOC residents, renters, people with disabilities, and low-income households—have been excluded from decision-making or faced barriers to participating fully in civic life. Nearly 20% of Vancouver residents speak a language other than English at home, with Spanish and Russian/Slavic among the most common, yet access to multilingual services has lagged behind this need. These inequities reflect systems that have not only produced uneven outcomes but have also left impacted communities without a meaningful seat at the table.

Clear access to information and services is essential so everyone can take part in civic life. Some community members — including people with limited English proficiency (LEP) and those who use American Sign Language (ASL) — experience language-related barriers when trying to find information, use programs, or participate in decisions that affect them.

Language access supports each of the City's core values: livability; sustainability and resiliency; innovation; equity and inclusion; and community trust and relationships. It also helps us meet our strategic priorities: community safety, climate action, economic opportunity, and high-performing government. Together, these values and priorities guide employees to support the diversity of our residents and actively remove barriers to effective communication.

Goal EI-4 addresses these gaps by embedding transparency, accountability, and representation into City governance. Policies under this goal call for inclusive engagement processes that move beyond one time relationship approaches toward long-term, reciprocal trust-based relationships. This means centering the voices of communities most directly impacted by policy decisions, from the design of community spaces to the implementation of smart technology. By utilizing an equity lens in technology and data systems, the City commits to reducing embedded bias, preventing harm, and ensuring that digital practices and smart city tools expand rather than limit opportunity.

Building a fair and accountable government also requires that decision-making bodies reflect the diversity of the community. This goal directs the City to strengthen representation on boards and commissions, ensuring that voices of historically excluded groups play a meaningful role in shaping land use, housing, transportation, and economic policies. This goal also emphasizes multilingual and culturally competent services, acknowledging that language access and cultural context are essential for true participation. Partnerships are also a key element of inclusive governance, through building deeper, sustained relationships with tribal communities and land stewards, integrating their knowledge, perspectives, and priorities into planning and decision-making. This goal calls for embedding community benefits into private development and redevelopment projects, ensuring that growth directly delivers value to impacted neighborhoods through affordable housing, small business space, or public amenities.

Finally, EI-4 establishes a strong framework for accountability. The City will track implementation of Comprehensive Plan policies using clear metrics, report back to the community in accessible formats, and maintain open data platforms that allow residents to monitor investments and progress. By connecting this transparency with consistent feedback loops, the City creates an ongoing process of co-governance that keeps equity commitments front and center.

Supporting Policies		Related Goals
23 **Inclusive Use of Technology**	Utilize an equity lens to evaluate, assess, develop, and implement any use of smart technology to reduce embedded biases, and ensure that residents are not discriminated against or systemically or interpersonally harmed.	**CE-4** Innovation

52	**Incorporate Community Outcomes into Development**	Develop mechanisms to integrate community benefits into private development that requires discretionary land use review and City-led redevelopment projects.	**H-4** Prevent Displacement
73	**Center Impacted Voices in the Development of Community Spaces**	Engage community organizations and individuals representing diverse lived and cultural experiences in the planning, design and programming of community spaces.	**CE-1** Social Infrastructure **EI-4** Transparent and Inclusive Governance **PR-4** Thriving Cultural Landscape
74	**Multilingual and Culturally Competent Services**	Ensure all city services are accessible in multiple languages and delivered with cultural competency.	**CE-2** Inclusive and Affirming Environments **H-3** Reduce Homelessness **PR-4** Thriving Cultural Landscape
101	**Engage with Tribal Community Members**	Foster meaningful partnerships with tribal communities and land stewards, integrating their knowledge, priorities, and cultural perspectives into local decision-making processes.	**CL-2** Increase Biodiversity and Enhance Natural Systems
102	**Tracking Progress and Reporting Back**	Build transparency and accountability with the community through regular tracking of plan implementation and consistently reporting out on progress in an accessible manner.	**None**
103	**Boards and Commissions**	Ensure boards and commissions reflect community demographics and provide diverse voices a meaningful role in decision-making and policy development.	**None**
104	**Ethical and Fair City Processes**	Promote ethical and fair governance by embedding accountability in City processes, ensuring access for historically excluded communities, mitigating bias, and fostering ethical use of technology and digital practices.	**CE-4 Innovation**

109	**Inclusive Engagement**	Foster inclusive, community-led engagement rooted in inclusion, trust, and long-term relationship-building, and centering the voices of those who are most directly impacted by outcomes of City processes.	**CE-1 Social Infrastructure**
110	**Future Updates**	Continue to update the Comprehensive Plan and implementing regulations in response to the annual review process, state mandated 5-year Implementation Progress Report, and 10-Year periodic review requirement that includes updates to long-term growth forecasts and regional land capacity analysis.	None
111	**Monitoring Progress**	Regularly review progress towards implementation of the Vancouver Comprehensive Plan goals and policies using the metrics identified for each policy.	None
129	**Open Government**	Ensure transparent and equitable access to government data by maintaining open, user-friendly platforms that allow community members to understand, engage with, and influence public decisions and investments.	PFS-2 Government Services and Financing CE-4 Innovation
148	**Support Neighborhood Organizations**	Support the growth and stability of neighborhood associations as key partners in establishing local pride, connection, and representation within Vancouver's distinct neighborhoods.	CE-1, CE-5, EI-4

Climate and Environment



6

Introduction

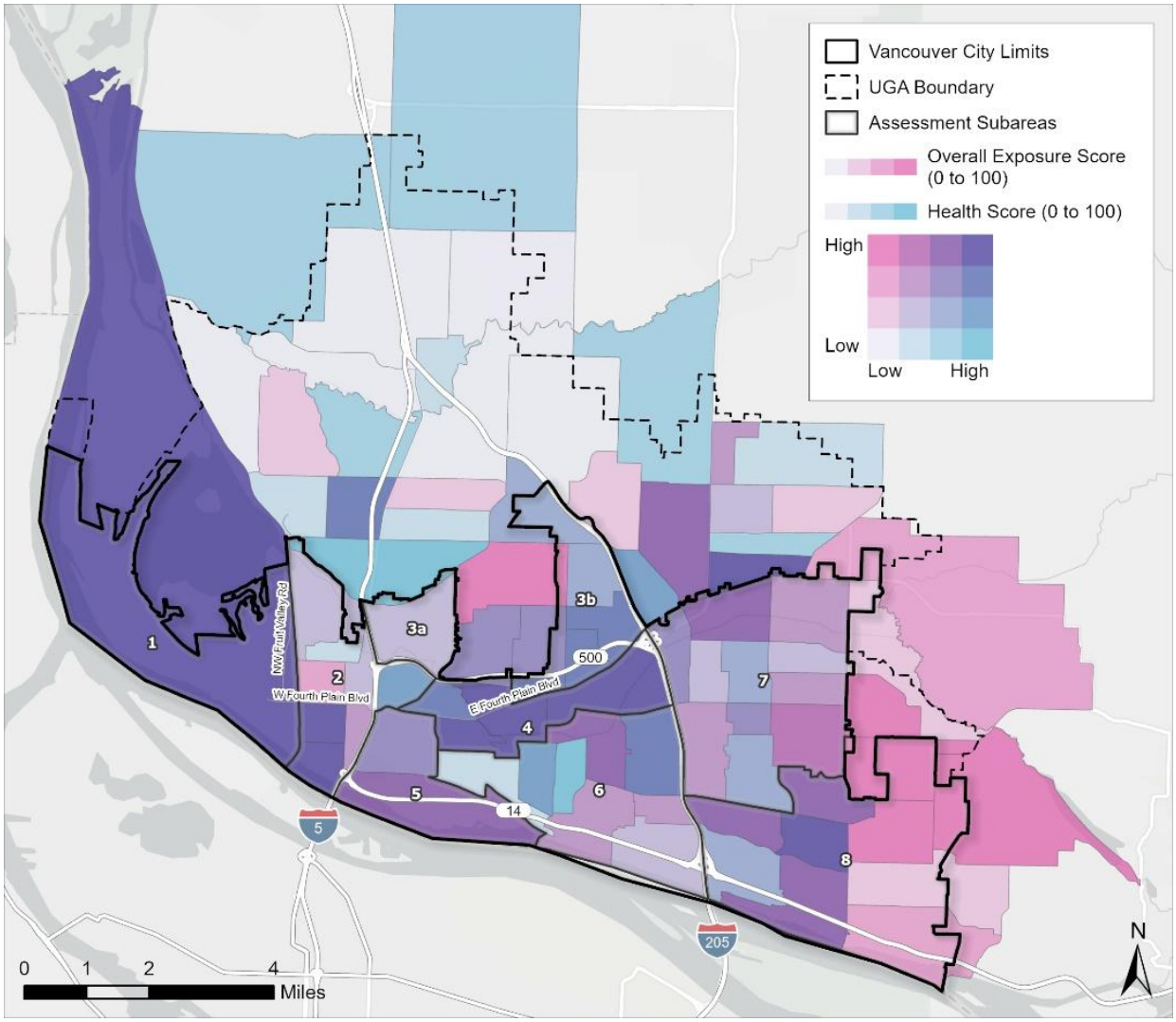
Climate change is no longer a distant threat in Vancouver. Rising temperatures, wildfire smoke, and more frequent flooding events are impacting the health of our residents, the resilience of our infrastructure, and the vitality of our natural systems. These impacts are expected to worsen over the next twenty years without significant interventions on a national or global scale to reduce carbon emissions. In the face of an environment that is rapidly changing due to these impacts – which includes increased wildfire risk, extreme heat, smoke and poor air quality exposure and increased flooding, the City can play a key role in mitigating some of these impacts and increasing overall community resilience.



Downtown Vancouver, WA during the 2020 Wildfire Season.

For decades, Vancouver's land use patterns have added to local greenhouse gas emissions. Much of Vancouver's post-war growth occurred through low-density residential development separated from jobs, services, and daily needs, resulting in an urban form where most households rely on driving for nearly every trip. This pattern has contributed to transportation becoming the city's largest source of emissions, consistent with regional and statewide trends. At the same time, older housing stock and commercial buildings—many built long before modern energy codes—continue to generate substantial emissions through inefficient heating, cooling, and ventilation systems. Historic industrial activity, the concentration of commercial corridors along auto-oriented arterials, and development patterns that

expanded outward rather than upward have further locked in a built environment that consumes more energy and produces more air pollution than compact, mixed-use neighborhoods. These patterns have also produced uneven climate burdens: neighborhoods with lower tree canopy, more impervious surface, and older buildings—often the same communities facing socioeconomic and health disparities—experience both higher emissions exposure and greater climate vulnerability, reinforcing many of the inequities identified in the Climate Vulnerability Assessment and Health Impact Assessment. The Climate Vulnerability Assessment identifies where climate hazards such as extreme heat, flooding, wildfire smoke, and air quality impacts are most concentrated in Vancouver and which populations are most exposed based on age, health, housing conditions, and access to resources. The Health Impact Assessment examines how these climate risks interact with land use, transportation, housing, and infrastructure decisions to shape health outcomes, helping translate climate exposure

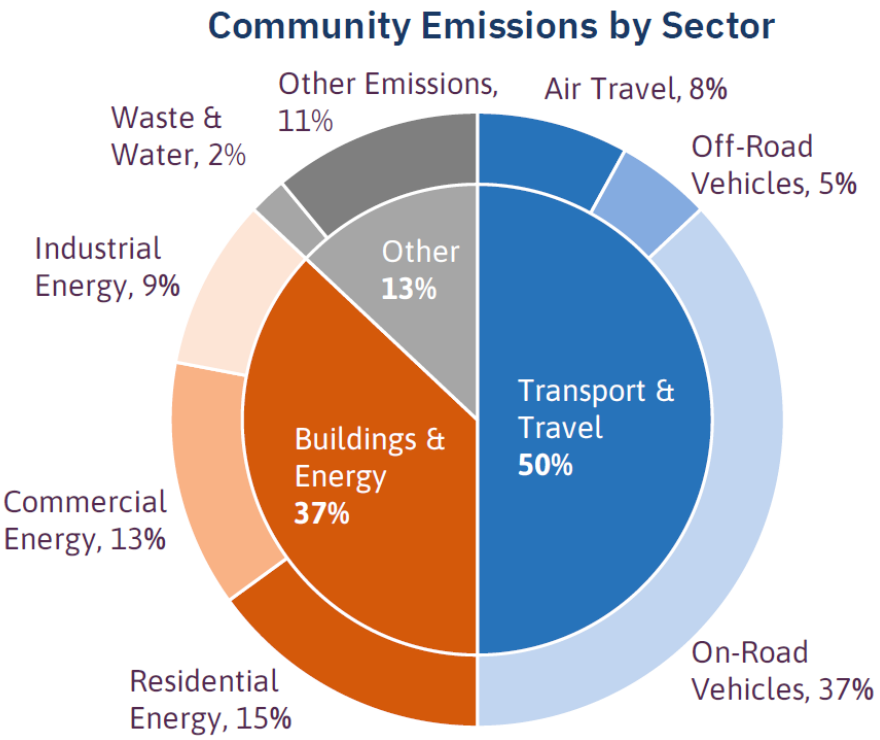


into actionable policy direction that advances equity and public health. Both of these documents are supplemental reports to this Comprehensive Plan.

Exhibit 1: Climate Exposure Versus Health Impact Score

Over the past five years, the City of Vancouver has taken an increasingly coordinated approach to climate action through development and implementation of its **Climate Action Framework (CAF)**, which establishes targets and strategies to reduce greenhouse gas emissions while advancing equity, public health, and resilience. The CAF guides City action across municipal operations and the broader community, informing investments in energy efficiency, fleet electrification, renewable energy, transportation demand management, and land use and development practices that support compact, low-carbon growth. The Climate Action Framework sets a goal of achieving net zero community wide emissions by the year 2040.

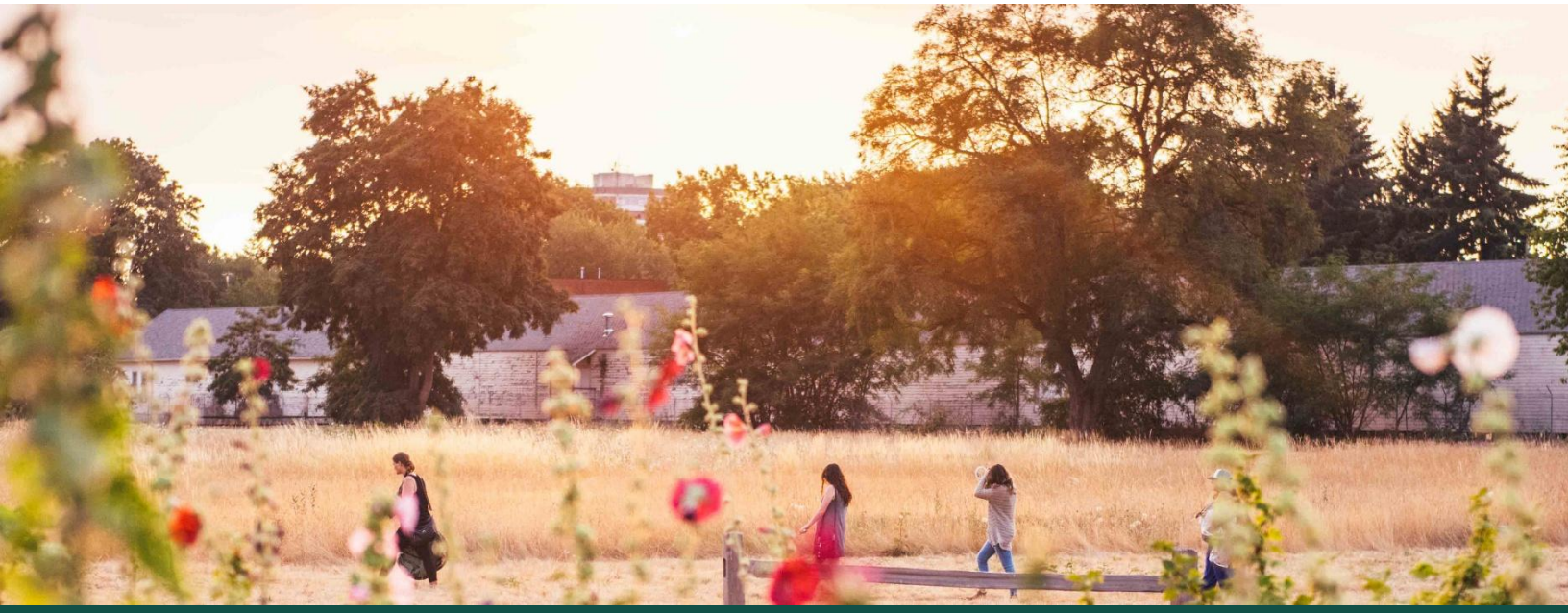
Exhibit 1: Community Emissions by Sector, 2023



The City's most recent Greenhouse Gas Inventory in 2023 shows measurable progress alongside significant remaining challenges. Municipal operations emissions have declined approximately 54 percent since the 2007 baseline, driven by cleaner electricity, fleet fuel switching, energy efficiency improvements, and operational changes, though additional action is needed to meet the City's interim and long-term reduction targets. Community-wide emissions have declined by approximately 27 percent since 2007, with reductions largely attributable to grid decarbonization and efficiency gains; however, emissions are projected to increase without substantial policy intervention. The inventory confirms that transportation remains the single largest source of community emissions, followed by buildings and energy use, underscoring the importance of land use patterns, transportation choices, and building performance as primary levers for achieving emissions reductions. These findings directly inform the Climate & Environment chapter's emphasis on compact development, multimodal transportation, and energy-efficient buildings as core climate strategies.

Due to a variety of socioeconomic factors and structural inequities, not all population groups in our community experience the impacts of climate change equally, and are less able to adapt and respond to those impacts when faced with them. Areas with the highest combined climate exposure, health sensitivity, and equity disparities are concentrated along the Fourth Plain corridor (Maplewood, Meadow Homes, Bagley Downs), Fruit Valley, central Vancouver south of SR-500, and southeast Vancouver. These neighborhoods include higher proportions of people of color, low-income households, renter households, adults without a four-year degree, households with limited English

proficiency, and persons with disabilities. These characteristics are identified as indicators of reduced adaptive capacity in the City's Equity Index, a composite, data-driven tool used to identify communities that experience disproportionate barriers to opportunity. Additionally, these populations tend to overlap with areas of the City where residents experience greater health risks such as asthma, chronic obstructive pulmonary disease, diabetes, heart disease, poor physical health, and



Vision: Climate and Environment

We envision a future where there is balance between the built and natural environment, with resilient and thriving communities that are well prepared to adapt to the impacts of climate change. We commit to expanding green spaces and the ecosystems they host, building sustainable infrastructure, combating heat islands and providing every community member with multimodal transportation options that reduce greenhouse gas emissions. We will invest in projects and initiatives that support those most impacted by climate change and engage all community members in finding solutions. We will prioritize the development of infrastructure and community spaces that are ready to function during times of disaster and create places where people continue to be able to live, work and play as climate changes.

poor mental health.

As Vancouver grows, there are also opportunities to develop a built environment that supports increased health outcomes. Policy efforts to encourage physical activity, support food access, bolster community connections, mitigate health hazards, and support housing access and financial security that are outlined in this chapter can improve wellbeing for current and future residents, particularly those with the greatest health disparities. Vancouver must also grow in ways that make it easier for residents to walk, bike, roll, or take public transit to their daily destinations, instead of relying primarily

on single-occupancy vehicles. Where driving is needed, trips should be shorter. Achieving this will require advancing many of the strategies outlined in this plan, including creating more compact land use patterns, expanding diverse housing options, improving walking and cycling infrastructure, and encouraging a thoughtful mix of land uses to lower community-wide greenhouse gas emissions. This chapter establishes a coordinated approach to reducing greenhouse gas emissions, decreasing per-capita vehicle miles traveled, and preparing for the local impacts of climate change. It is grounded in the findings of the **Climate Vulnerability Assessment (Exhibit x)** and the **Health Impact Assessment Exhibit x)**, which together provide the technical basis for understanding current and future climate hazards, who is most affected, and which assets and systems face the greatest risks.

Climate Hazards

Vancouver's approach to climate resilience recognizes that climate change impacts are not experienced evenly across the city. The effects of extreme heat, heavy rainfall, drought, and wildfire smoke intersect with existing inequities in health, housing, and infrastructure. Climate modeling suggests that hazards will become more intense and more frequent by 2050.



Warming and Extreme Heat: The annual number of extremely hot days and warm nights in the Northwest has been above the long-term average over the past decade, and the annual number of extremely cold nights over the same period has been below the long-term average. Future warming in the region is expected to exacerbate regional heatwave intensities. It is particularly magnified on impervious areas in urban areas like Vancouver.

- **6 °F hotter** average summer maximum temperature by 2050
- **+39 hot days** (over 90°F humidex / heat + humidity) by 2050



Extreme Precipitation Events: The frequency and intensity of extreme precipitation events are projected to increase across the region. A greater number of strong atmospheric events and fewer moderate and weak events are projected to occur and are projected to reach farther inland. In Vancouver, major flooding along rivers and streams is less likely due to flood control structures and greenways but there is a risk along the Port and other areas that are low lying, and there is a risk of urban flooding elsewhere.

- **13% more total precipitation** in a 2-year storm by 2050.
- **14% more total precipitation** in a 25-year storm by 2050.



Flooding and Infrastructure: Riverine flooding as well as localized urban flooding is a growing concern in Vancouver due to aging stormwater infrastructure, particularly in older neighborhoods with combined sewer systems. These systems are increasingly overwhelmed by intense rainfall events, leading to surface flooding and sewer overflows.

- **More frequent high streamflows** (every 9 years for Burnt Bridge Creek and every 21 years for Columbia River, instead of every 25 years) by 2050.

Decreasing Summer Precipitation and Increasing Drought: Summer precipitation is projected to decline. Observed lower stream flows in summer are expected to decrease. This could affect fish and other aquatic life in Vancouvers streams.

- **34% chance of lower than normal precipitation** (at or below 75% of normal) by 2050
- **Lower summer streamflows** (-5% for Burnt Bridge Creek and -21% on Columbia River) by 2050

Increasing Wildfire Likelihood and Smoke: An increase in wildfires in the Pacific Northwest could expose people in Vancouver and the broader region to more wildfire smoke. Increased wildfire smoke events are straining indoor air quality in public facilities. Many community centers and senior centers lack adequate HVAC systems or filtration, limiting their ability to serve as clean air shelters during smoke events.

- **37% greater** chance of climate and fuel conditions being conducive to wildfire =
- **9 more** high fire danger days in Vancouver annually by 205

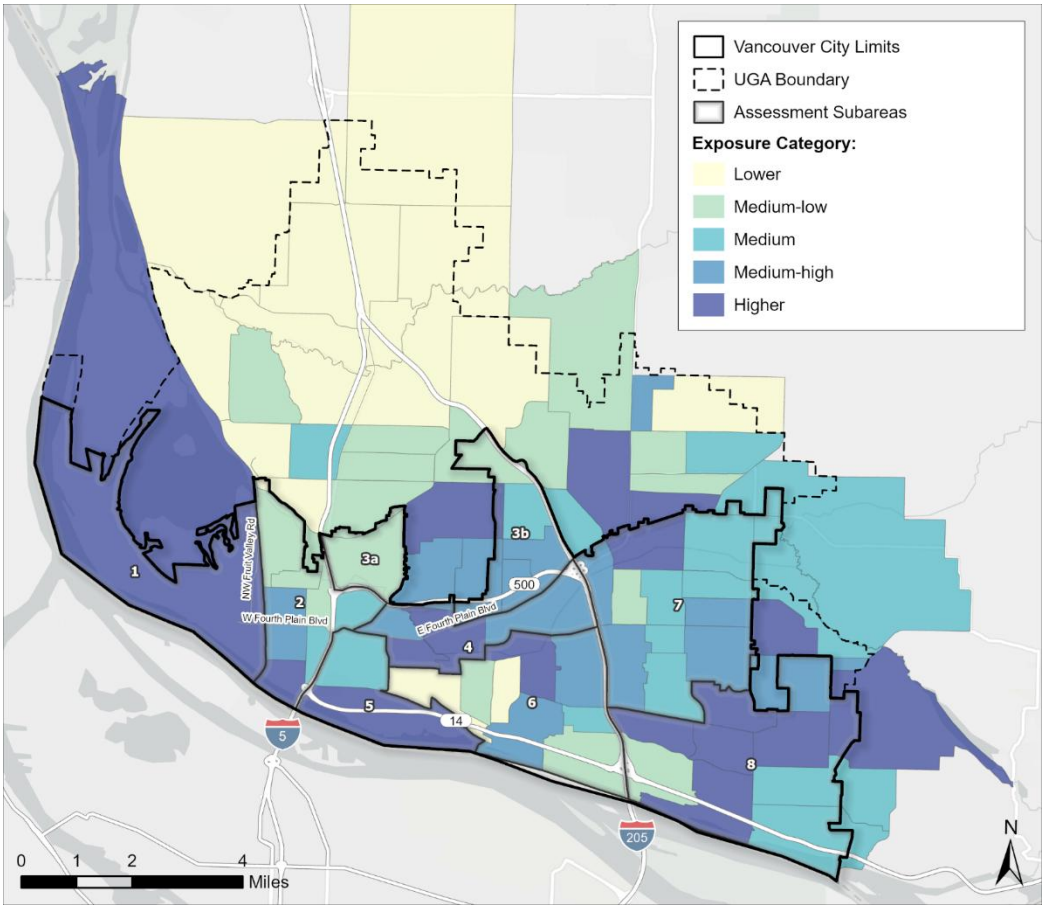


Exhibit 2: Climate Exposure Index
Source: BERK, 2025

These hazards and their associated impacts vary substantially across Vancouver's neighborhoods. Some populations are at higher risk of climate impacts than others, based on location, health sensitivities, and access to resources. Areas at higher risk include those with more pavement and fewer trees, parts of the City prone to flooding and the 100 year floodplain, and areas adjacent to industrial land uses and transportation emissions, and higher exposure to air quality impacts.

Conditions like asthma, chronic obstructive pulmonary disorder (COPD), diabetes, heart disease, hypertension, poor physical health, poor mental health, and lack of health insurance are linked to higher sensitivity.

- Bagley Downs, Maplewood, and Meadow Homes—along with the Fruit Valley and Mountain View neighborhoods—face the highest combined exposure to climate hazards and the lowest equity scores, reflecting greater social and economic vulnerability and fewer resources to adapt.
- East Vancouver, including areas near the Vancouver Mall and along SE Mill Plain Boulevard, experiences the city's greatest heat exposure, driven by low tree canopy (below 20 percent) and high impervious surface coverage.
- West Vancouver, especially around Vancouver Lake and the Port, faces the highest flood and precipitation exposure due to low-lying topography and aging stormwater infrastructure. Central corridors around Burnt Bridge Creek also experience repeated surface flooding during intense rainfall events.
- Air quality and smoke exposure are more pronounced east of NW Fruit Valley Road, along SR 14, and in southeast Vancouver, where prevailing winds concentrate wildfire smoke during regional fire events

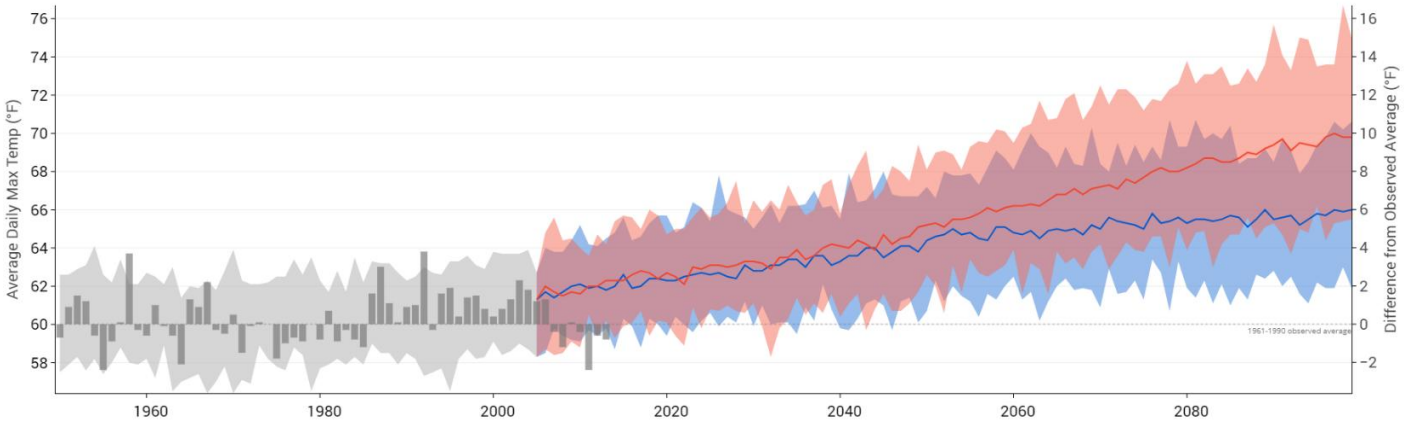


Exhibit 3: Average Daily Max. Temp. (°F) – Historic and Projected Trends – Clark County, WA

Vancouver's climate risk is the product of both natural systems and long-standing development patterns that have concentrated people, infrastructure, and industry in areas more exposed to hazards. Historically, industrial land uses and transportation corridors were sited along Vancouver's western shoreline, adjacent to the Columbia River and Vancouver Lake. This legacy has left these neighborhoods with higher exposure to flooding, stormwater overflow, and poor air quality, while also limiting green space and tree canopy. The *Climate Vulnerability Assessment* identifies these same areas as having some of the city's lowest adaptive capacity, due to older housing, lower incomes, and aging infrastructure.

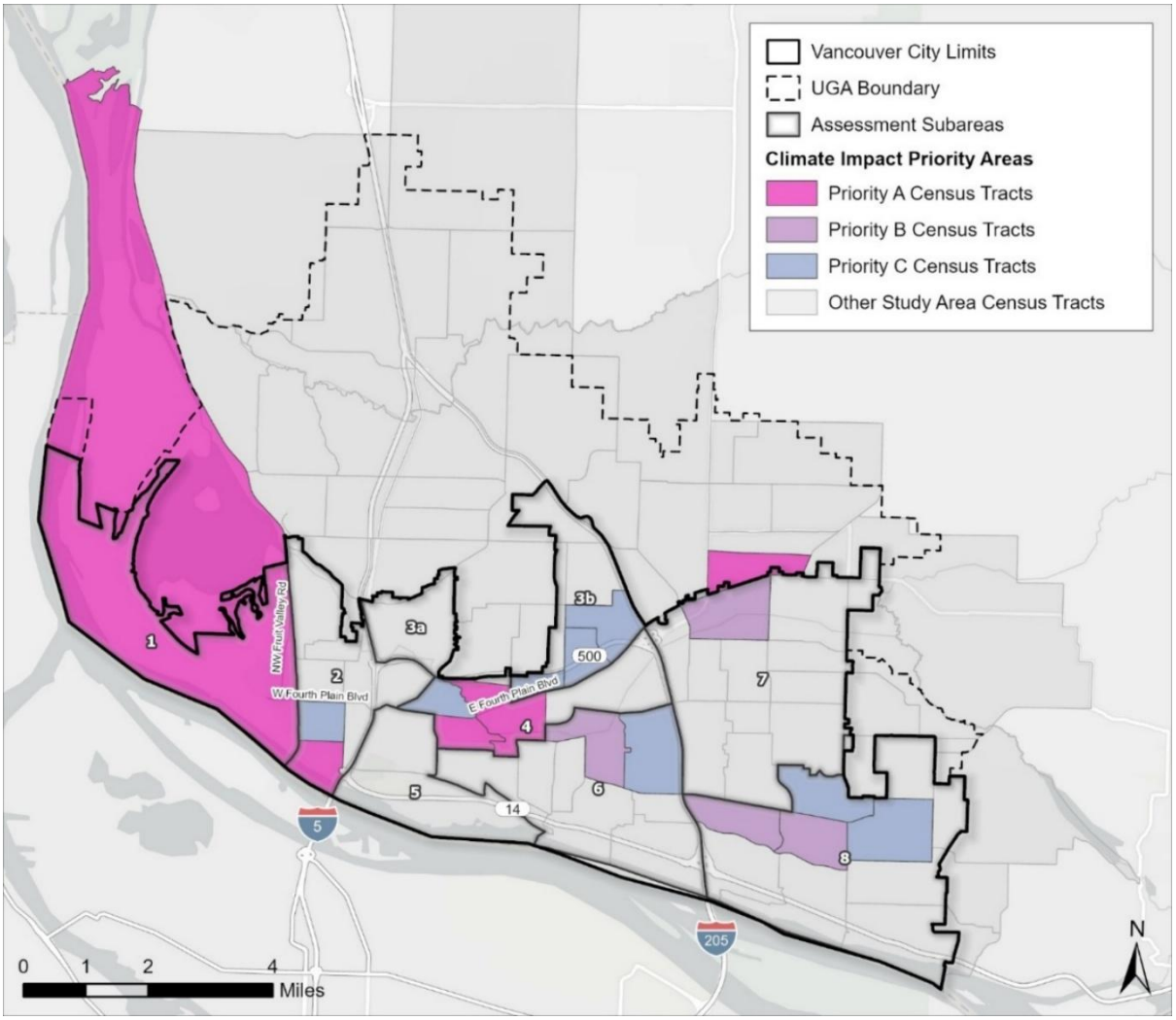


Exhibit 4: Census Tracts with Higher Vulnerabilities to Climate Impacts

Greenhouse Gas Emissions

As climate impacts become more intense and frequent, it is increasingly urgent that Vancouver takes action to reduce greenhouse gas emissions which are the driving force of climate change. Emissions in Vancouver mostly come from how we get around and how we heat, cool, and power buildings. Air travel, vehicles and equipment (like cars, delivery trucks, boats, and lawn mowers), electricity use, and natural gas use are major sources. Over time, residents on average have used less natural gas, driven fewer miles, and sent less waste to the landfill, even as our local economy has progressed.

The City's Climate Action Framework sets forth a goal that the City be carbon neutral by 2040. The Framework anticipates that with current technologies and existing policies, Vancouver could reach approximately 80% of its goal towards carbon neutrality. With policy changes and technological innovations Vancouver will strive to close the remaining gap. This Element reflects the City's policy changes and actions to reach its goal through reducing emissions from City owned buildings,

operations, infrastructure, and municipal fleet; supporting transportation options; regulating land use; advancing technology and infrastructure; and partnering on regional economic development.

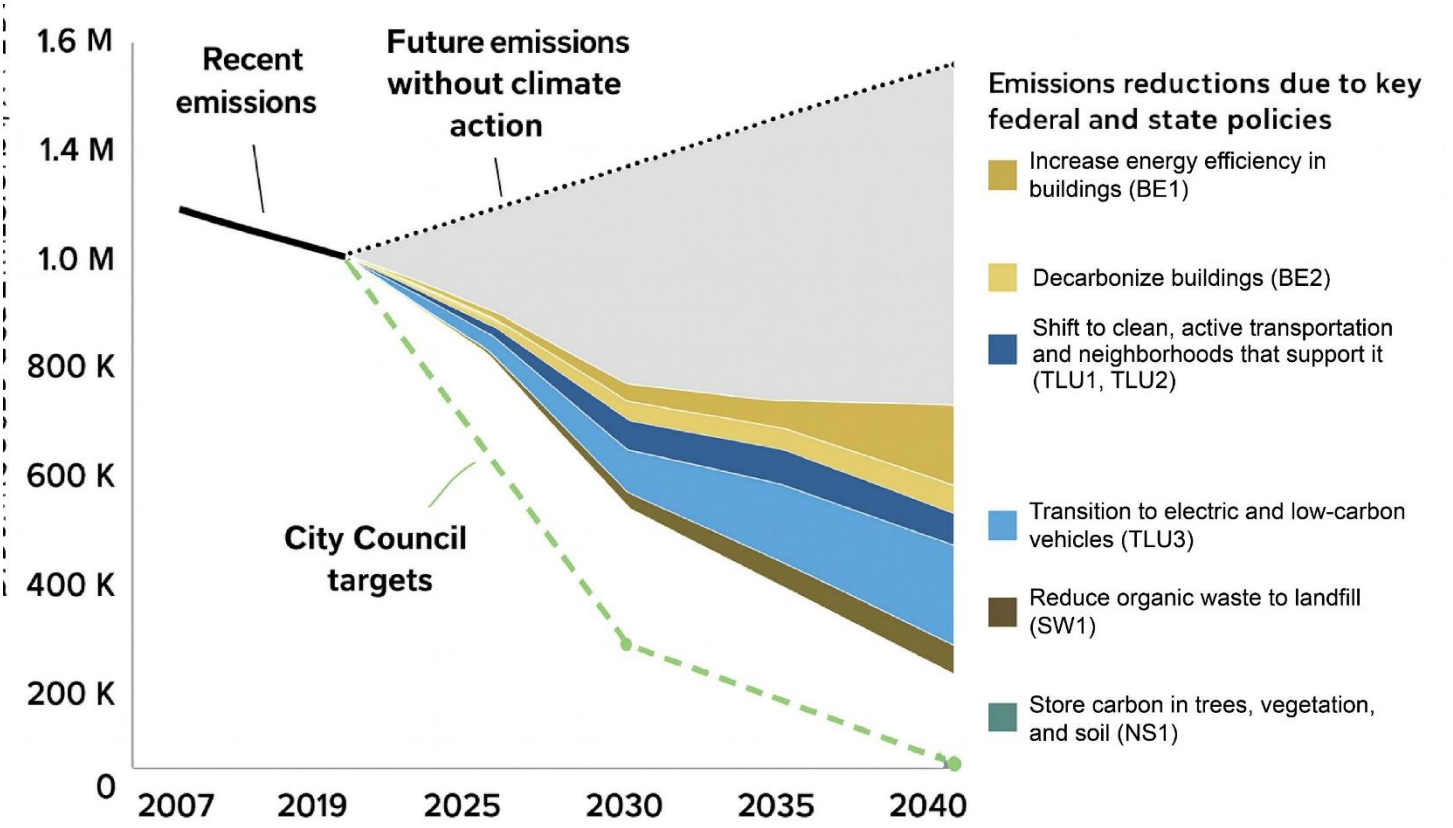


Exhibit 5: Wedge Analysis – Climate Action Framework

Health and the Built Environment

Land use and urban design shape the health of our communities. Safe and accessible walking and biking routes, access to parks, proximity to grocery stores and other services, housing access, and financial security all affect people's wellbeing on a day-to-day basis. Exposure to poor air and water quality, noise, heat, and climate impacts can have negative effects. City policies that emphasize health benefits and minimize hazards can lead to better health outcomes for Vancouver residents. The City can support physical activity through parks and active transportation. Access to parks varies citywide: Fruit Valley, Rose Village,

Health Facts

5.5% Workers who get some physical activity on their commute (walk, bike, or take transit)

16% of households receive SNAP benefits

48% Students who receive free and reduced school lunch

30 Estimated deaths per year from poor air quality exposure (PM2.5)

1 in 8 Households living below the federal poverty level

Fourth Plain Village, and some areas on the east side of Vancouver have less than 20% of the park acreage needed to meet the City's established level of service[1]. As of 2024, 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[2]. Many existing car trips are under 5 miles long. Improved pedestrian and bicycle safety and connectivity could make active transportation an option for more people. Land use planning that encourages mixed uses and more services near homes can also make it easier to walk and bike on a regular basis.

Much of the Vancouver population has food access challenges. 16% receive Supplemental Nutrition Assistance Program (SNAP) support and 48% of public school students receive free and reduced school lunch[3]. Access to supermarkets varies citywide: some areas don't have any within a mile. Other food resources include food banks, community gardens, and local farmers markets. City efforts can help support access to food by facilitating the density and commercial space needed to support new stores, and by promoting community gardens and other food-related uses.

Access to other amenities also varies. There is generally lower access to services, in terms of quantity and variety, in Fruit Valley, Rose Village, and some areas west of I-205 and the east side of the city. A range of health hazards also affect Vancouver residents. Vancouver is especially impacted by air pollution, with an estimated 30 deaths per year associated with PM 2.5 concentration[4]. Other threats like climate hazards and noise vary by location. City policies can help

Equity Lens

Some communities experience greater climate hazard and health disparities than others:

- Persons that are elderly may have more limited mobility or preexisting health conditions, and children under 5 years old may have a harder time regulating temperature and may have underdeveloped immune systems.
- Low-income households may be more susceptible to illnesses and have limited resources to adapt or respond to climate change.
- Persons that speak English less than very well may have more difficulties during evacuation and difficulties accessing post-disaster funding.
- Households with lower incomes are more likely to lose more work hours due to weather.
- BIPOC populations are more likely to have new asthma diagnoses due to particulate air pollution.
- Areas with less tree canopy are exposed to more heat, and communities of color have less coverage in Vancouver.

[1] City of Vancouver. (2022). *Vancouver Parks, Recreation, and Cultural Services Plan.*
[2] Design Workshop. (2024). *Our Vancouver Community Atlas.*
[3] U.S. Census Bureau. (2022). *American Community Survey (5-year Estimates)*. Retrieved from data.census.gov ; Design Workshop. (2024). *Our Vancouver Community Atlas.*
[4] *Improving Air Quality in Overburdened Communities Highly Impacted by Air Pollution: 2023 Report.*

mitigate these hazards by influencing things like tree canopy cover, placement of growth, stormwater management, and other factors.

Housing and economic issues are also tied to health and wellbeing. Affordability and displacement are pressing issues in Vancouver, and many older units may have exposure to hazards like lead and asbestos. About 1 in 8 households is living below the federal poverty level and average wages are especially insufficient for single parent households[5]. City policies to encourage housing affordability, safe and healthy housing, and a strong local economy can create opportunities for all Vancouver residents to thrive.

Community Feedback

- Through Resilience Rising in May and June 2025, participants with Fourth Plain Forward, the Southwest Washington Equity Coalition, and Washington Conservation Action repeatedly raised issues of inequitable access to resources like air conditioning, clean air shelters, and public cooling infrastructure.
- Through engagement for the Climate Adaptation Strategy in 2023, physical elements that community members would like to see include water features such as splash pads, urban gardens and fruit trees, more tree coverage, and community centers or public spaces for neighbors to connect with one another.
- Air, water, and noise pollution are major concerns, viewed as top issues affecting neighborhood health and tied to worries about traffic, industrial uses, and incompatible land uses.
- Strong desire to protect and expand natural assets, including preserving open space, preventing habitat loss, increasing tree canopy and shade, planting native species, and creating more community gardens and green spaces.
- Broad support for climate-friendly and sustainable development practices, such as concentrating growth near transit, improving energy efficiency, expanding solar, enhancing stormwater management, and balancing development with forest and agricultural land conservation.
- Community resilience is a priority, with interest in cooling features, resilient infrastructure, emergency preparedness, and using public buildings, transit centers, and natural systems (like trees) as resilience assets.
- Access to essential health, food, and social services is critical, including medical facilities, fresh food, culturally and physically accessible services, and resources for vulnerable populations.
- People value clean, quiet, nature-connected neighborhoods, emphasizing the importance of mitigating noise, reducing pollution, improving compatibility between land uses, and ensuring development does not degrade environmental quality.

[5] U.S. Census Bureau (2023), MIT (2025)

Goal: CL-1

Resilience and Climate Adaptation

Vancouver is a resilient and sustainable city that is prepared to mitigate and adapt to the localized impacts of climate change including sea level rise, landslides, flooding, more intense winter storm conditions, drought, heat, smoke, and wildfire.

Key Actions

Hold for top 5 actions identified through TWG process

Vancouver's climate response depends on preparing for and adapting to the localized impacts of climate change that are already unfolding across the region. Rising temperatures, more frequent wildfire smoke events, intense rainfall, flooding, and prolonged drought conditions are affecting residents in every neighborhood—and disproportionately harming frontline communities with fewer resources to cope. Goal CL-1 establishes a coordinated, community-centered approach to safeguarding public health, strengthening infrastructure, and ensuring that all residents have equitable access to the protections they need as climate conditions intensify. This goal embraces the reality that resilience is built through both physical investments and strong social networks, and it positions Vancouver to adapt proactively rather than reactively.

At the core of this approach is robust disaster recovery and emergency response, which ensures that residents—particularly older adults, people with disabilities, unhoused residents, low-income households, and linguistically isolated communities—can access emergency information, cooling or clean-air shelters, medical care, and recovery assistance during climate-related events. Supportive policies include building trust with community-based organizations, cultural groups, and neighborhood networks, acknowledging that these relationships are essential for effective emergency communication and resource distribution.

Vancouver's Climate Vulnerability Assessment shows that heat exposure is most severe in neighborhoods with limited tree canopy, high impervious surfaces, and existing social and health inequities. Policies under this goal commit the City to cooling these neighborhoods through strategic

shade structures, expanded green space, and climate-appropriate tree canopy—especially in Equity Priority Neighborhoods. These nature-based solutions not only cool streets and homes but also improve air quality, reduce stormwater runoff, and create healthier public environments.

The approach also proposed integrating climate-resilient infrastructure and buildings into both public projects and private development, including green stormwater systems, drought-tolerant landscaping, cool roofs, and building upgrades that increase energy efficiency, improve indoor air quality, and reduce emissions. Expanding solar access for low-income renters and homeowners supports both equity and long-term energy resilience. Policies that advance solid waste reduction, composting, and resource recovery further reduce emissions and environmental impacts.

Supporting Policies			Related Goals
3	**Disaster Recovery and Emergency Response**	Develop plans and resources to ensure effective emergency response and equal access to emergency services and recovery resources, mitigating risks from natural disasters, climate-related hazards, and social disruptions.	CE-3, CL-1, PFS-3
4	**Reduce Heat Island Effect**	Minimize impacts of the urban heat island effect, reduce temperature disparities for equity priority neighborhoods, and safeguard vulnerable populations from the adverse effects of extreme heat through proactive measures.	CL-1, CL-2, CL-4
5	**Incorporate Climate Resilient Infrastructure into Development**	Integrate climate resilience best practices into development and infrastructure projects and investments in public spaces.	CL-1, CL-2, PFS-1
6	**Energy Efficient and Climate Resilient Buildings**	Ensure that buildings contribute to the City's greenhouse gas reduction goals, protect occupants from climate hazards and extreme weather, and minimize harm to wildlife and natural ecosystems.	CL-1, CL-3
7	**Solar Access**	Expand solar access for low-income homeowners and renters.	CL-1, CL-3

8 **Reduce Solid Waste**	Increase waste diversion rates through a system that minimizes landfill reliance, reduces greenhouse gas emissions, prioritizes composting and encourages resource recovery. Properly ensure waste that cannot be recycled is diverted to landfills.	CL-1, CL-3, CL-4, EO-3, PFS-1
9 **Conserve Water Resources**	Encourage water-efficient technologies and practices to reduce consumption and ensure sustainable water availability amid climate change and growing demand.	CL-1, CL-4, PFS-1
10 **Stormwater Management**	Improve water quality and reduce flood risks by managing stormwater flows, promoting natural groundwater infiltration, reducing runoff, and advancing effective stormwater management systems that protect watersheds.	CL-1, PFS-1
11 **Adapt Infrastructure to Climate Change**	Retrofit existing infrastructure, parks and natural spaces, and construct new facilities to adapt to the localized impacts of climate change impacts.	CL-1, PFS-1, PFS-3
50 **Equity and Climate Data**	Incorporate the City's Equity Index, Displacement Risk Assessment tool, and climate vulnerability assessment in public investment and infrastructure improvement decisions.	EI-1, PFS-1, CL-1
75 **Climate Resilient Spaces**	Incorporate elements of climate resiliency into new public spaces.	CL-1, CE-1, PR-1, PFS-3, LU-3
107 **Historic and Culturally Significant Resources**	Protect and preserve significant cultural, historic, archeologic, and ecologic community resources. Promote preservation, restoration, and rehabilitation of historic and architecturally significant structures.	CE-5, CL-1, CL-2, PR-4

113	**Build a resilient economy**	Encourage business growth, retention, and expansion, with an emphasis on family-wage jobs and foster resilience within Vancouver's economy.	LU-2 CL-1, EO-3
114	**Reduce climate impact exposure to Vancouver's neighborhoods.**	Establish development regulations that incorporate best practices for reducing the risk of wildfire, extreme heat, flooding, and other climate-exacerbated hazards.	CL-1
131	**Pilot Projects**	Encourage the use of short-term pilot projects for park, transportation, and general infrastructure improvements before making long-term investments to foster innovation, test feasibility, and increase community buy-in.	CE-4, PR-2, TM-2, CL-1
137	**Redundancy in Infrastructure**	Design, construct, and maintain capital infrastructure systems with resiliency and redundancy to minimize the risk of system failure during natural hazards, climate-related events, or other disruptions. Prioritize investments that diversify supply sources, strengthen backup systems, and enhance adaptive capacity so essential services can be maintained or restored quickly in the event of a failure.	PFS-3, CL-1

Goal: CL-2 Increase Biodiversity and Enhance Natural Systems

Vancouver has thriving ecosystems, build green infrastructure and preserve natural spaces that enhance air quality, provide natural cooling, sequester carbon, and beautify neighborhoods, enriching residents' quality of life, and fostering rich and diverse plant and animal life.

Key Actions

Hold for top 5 actions identified through TWG process

Vancouver's natural systems—its forests, waterways, wetlands, riparian corridors, and open spaces—are essential to the city's long-term resilience, ecological health, and quality of life. This goal strengthens these systems by proposing solutions to restore habitat, expand green infrastructure, improve tree canopy, and protect the ecological functions that cool neighborhoods, filter air and water, sequester carbon, and sustain a diversity of plant and animal life. As climate impacts intensify, these natural assets also serve as vital buffers against heat, flooding, drought, and poor air quality.

CL-2 emphasizes protecting and restoring the city's Critical Areas and Shorelines, ensuring no net loss of ecological function and advancing conservation design principles that support salmon-bearing streams, wetlands, and riparian habitats. The goal further commits to restoring degraded natural areas, improving habitat quality, and identifying climate refugia—places with naturally cooler conditions, stable hydrology, or intact vegetation that can sustain species under climate stress. These strategies help maintain biodiversity while preserving the ecological processes that safeguard water quality, reduce erosion, and support community wellbeing.

Expanding and equitably distributing tree canopy is a cornerstone of this goal. Increasing canopy to 28%—and prioritizing low-canopy, equity priority neighborhoods—provides natural cooling, reduces heat island effects, improves air quality, and enhances stormwater infiltration. Integrated climate-resilient infrastructure, such as green streets, bioswales, and permeable surfaces, complements this

work by managing runoff, reducing localized flooding, and bringing greenery into urban areas where it is most needed.

CL-2 also strengthens habitat connectivity, linking parks, natural areas, and open spaces through linear greenways and active transportation corridors. These networks support wildlife movement, expand pollinator habitat, and create shaded, walkable routes for residents. Complementary policies promote native landscapes, food forests, and agroforestry, which enhance soil health, support food security, and foster cultural knowledge-sharing. Conservation of environmentally sensitive lands ensures long-term protection for ecologically significant areas.

Another key component of CL-2 is building meaningful partnerships with Tribal nations and Indigenous land stewards, whose knowledge and cultural priorities deepen ecological understanding and inform stewardship practices. The goal also aligns closely with efforts to protect historic, cultural, and archeological resources, recognizing the intertwined nature of cultural heritage and ecological resilience.

Supporting Policies			Related Goals
4	**Reduce Heat Island Effect**	Minimize impacts of the urban heat island effect, reduce temperature disparities for equity priority neighborhoods, and safeguard vulnerable populations from the adverse effects of extreme heat through proactive measures.	CL-1, CL-2, CL-4
5	**Incorporate Climate Resilient Infrastructure into Development**	Integrate climate resilience best practices into development and infrastructure projects and investments in public spaces.	CL-1, CL-2, PFS-1
12	**Protect Critical Areas and Shorelines**	Protect existing Critical Areas within the City, and Shorelines of Statewide Significance, and ensure no net loss of ecological functions through avoidance of impacts, conservation design principles, and compensatory mitigation when loss of ecological function cannot be avoided.	CL-2
13	**Restore Critical Areas and Shorelines**	Support restoration and enhancement of Critical Areas and Shorelines of Statewide Significance by private landowners, or through City / nonprofit acquisition and other initiatives.	CL-2

14	**Equitable Distribution of Tree Canopy**	Meet tree canopy coverage goal of 28%, using the City's Equity Index to target investment in underserved neighborhoods lacking coverage.	CL-2, PR-2
15	**Habitat and Species Under Stress from Climate Change**	Take inventory of and protect climate refugia, and fish and wildlife habitat needs for species under stress from climate change.	CL-2, CL-4
26	**Conserve Land For Open Space and Preservation**	Acquire environmentally sensitive land with ecological benefits for the purpose of conservation.	PR-2, CL-2
101	**Engage with Tribal Community Members**	Foster meaningful partnerships with tribal communities and land stewards, integrating their knowledge, priorities, and cultural perspectives into local decision-making processes.	EI-4, CL-2
107	**Historic and Culturally Significant Resources**	Protect and preserve significant cultural, historic, archeologic, and ecologic community resources. Promote preservation, restoration, and rehabilitation of historic and architecturally significant structures.	CE-5, CL-1, CL-2, PR-4
132	**Pollinator Habitats**	Support a healthy urban ecosystem by embedding pollinator habitat into public and private development, prioritizing pesticide-free landscaping, enhancing biodiversity, and connecting natural spaces across the city through pollinator-friendly plantings.	CL-2, PR-2, PR-3, CL-4
133	**Native Landscapes**	Incorporate native plantings, food forests, and agroforestry into parks and public spaces to support food security, ecological health, and cultural knowledge sharing	PR-3, CL-2, EO-3

Goal: CL-3 Decrease Emissions

Vancouver is a carbon neutral community that excels in reducing carbon emissions and criteria pollutants through implementing sustainable practices and green infrastructure.

Key Actions

Hold for top 5 actions identified through TWG process

Achieving a carbon-neutral future requires transforming how Vancouver produces and uses energy, constructs buildings, manages waste, and moves people and goods throughout the community. This goal establishes a comprehensive approach to reducing greenhouse gas emissions and criteria pollutants by integrating clean energy, efficient buildings, sustainable transportation, and circular-economy practices into the city's long-term growth strategy. This goal supports both climate mitigation and public health by cutting pollution at its source and ensuring that the benefits of cleaner air, lower utility costs, and healthier environments reach all Vancouver residents.

A major focus of CL-3 is reducing emissions from buildings and infrastructure, which account for a significant share of community-wide emissions. Policies supporting this goal advance energy-efficient and climate-resilient building design, encourage adaptive reuse of existing structures, and promote the use of low-carbon and regionally sourced materials to reduce embodied carbon in new construction. Expanding solar access—especially for low-income renters and homeowners—along with supporting renewable energy storage and grid upgrades, ensures that the energy Vancouver uses becomes increasingly clean, reliable, and affordable. Complementary procurement and maintenance practices further lower emissions by prioritizing green materials, reducing plastics and harmful chemicals, and adopting sustainable alternatives across City operations.

Another major element of this approach is long term changes needed to shift Vancouver's transportation and land use patterns. The policies outlined in this plan promote low-carbon transportation alternatives—including electric vehicles, hybrid technologies, and emerging clean-

fuel options—while investing in the infrastructure needed to support them. Equally important, this goal calls for land use patterns that lower per-capita vehicle miles traveled (VMT) by concentrating new housing and employment in key centers identified in the growth concept. By coordinating with regional partners such as Clark County, RTC, and C-TRAN, Vancouver aligns local decisions with regional mobility systems to expand multimodal options, reduce congestion, and improve air quality.

Waste reduction is a key component of this goal. Policies that increase waste diversion, enhance composting and resource recovery, and reduce food waste help cut emissions from landfills and support a more circular local economy. Ensuring surplus food is redirected to underserved communities also advances food security, equity, and community health.

Supporting Policies			Related Goals
6	**Energy Efficient and Climate Resilient Buildings**	Ensure that buildings contribute to the City's greenhouse gas reduction goals, protect occupants from climate hazards and extreme weather, and minimize harm to wildlife and natural ecosystems.	CL-1, CL-3
7	**Solar Access**	Expand solar access for low-income homeowners and renters.	CL-1, CL-3
8	**Reduce Solid Waste**	Increase waste diversion rates through a system that minimizes landfill reliance, reduces greenhouse gas emissions, prioritizes composting and encourages resource recovery. Properly ensure waste that cannot be recycled is diverted to landfills.	CL-1, CL-3, CL-4, EO-3, PFS-1
16	**Reduce Built Environment Emissions**	Reduce emissions from buildings, structures, and, infrastructure in the community.	CL-3, PFS-1
17	**Low Carbon Fuels**	Support the transition to low-carbon fuels by expanding local production and distribution, supporting infrastructure growth, and adoption incentives.	CL-3, CL-4
18	**Embodied Carbon**	Source materials used in the construction and development of new housing and commercial spaces from within the region, utilize low carbon materials, or utilize materials found on site, reducing embodied carbon.	CL-3, EO-3

19	**Support the Use of Renewable Energy**	Encourage new renewable energy infrastructure and promote development of storage systems to ensure a stable, resilient, and sustainable energy grid.	CL-3, PFS-1
24	**Environmentally Conscious Procurement and Maintenance**	Include criteria related to the use of environmentally sustainable materials and practices in procurement processes and maintenance contracts.	PFS-1, CL-3
44	**Adaptive Reuse**	Support efforts to retrofit or repurpose underutilized buildings, structures and infrastructure for the development of new housing and commercial spaces.	LU-2, CL-3
57	**Low Carbon Transportation Alternatives.**	Adopt new technologies and invest in supportive infrastructure to increase the adoption of electric, hybrid, and alternative fuel vehicles to reduce community emissions.	CL-3
58	**Reduce VMT and GHG Per Capita**	Implement land use patterns that reduce vehicle miles traveled, traffic congestion, and associated greenhouse gas emissions per capita, while improving safety and air quality.	CL-3, CE-3, TM-2
89	**Regional Planning**	Coordinate closely with Clark County, other cities, and other government entities such as C-TRAN, the Regional Transportation Council (RTC), and school districts to sustainably manage urban growth areas, efficiently deliver urban services, expand regional transit and multimodal connectivity, and coordinate on shared goals and responsibilities, in accordance with adopted countywide planning policies.	LU-4, CL-3, TM-2, TM-1
147	**Reduce Food Waste**	Reduce food waste in the community, and ensure surplus food supply is directed to underserved communities without fresh food access.	CL-3, EO-3
155	**Reduce Emissions through Built Environment Characteristics**	Reduce greenhouse gas emissions through promoting urban form that allows a greater mix of uses, shortens trip distances, reduces block lengths, and increases viability of transit.	CL-3, LU-1

Goal: CL-4 Environmental Health

Community members experience better environmental health conditions through the protection and enhancement of local ecosystems, improved air and water quality, reduced exposure to environmental hazards and increased access to natural spaces.

Key Actions

Hold for top 5 actions identified through TWG process

Environmental health is essential to community wellbeing, and the policy approach proposed in this plan responds by focusing on improving the air, water, ecosystems, and neighborhood conditions that shape daily life for Vancouver residents. Climate change and historic land use patterns have created uneven exposures to pollution, extreme heat, flooding, noise, and environmental hazards—disproportionately affecting frontline communities identified in the Climate Vulnerability Assessment and Health Impact Assessment. The policies in this section aim to reduce these disparities by protecting ecosystems, improving environmental quality, and expanding access to healthy natural spaces and community resources.

A central strategy outlined in this goal is reducing the urban heat island effect and improving air quality, particularly in areas with limited tree canopy or residents who face greater health risks. Investments in shade, vegetation, and climate-resilient building design help safeguard people during extreme heat and wildfire smoke events, while targeted efforts to improve indoor air quality reduce exposure to particulates, nitrogen dioxide, carbon monoxide, and other harmful pollutants common in older or poorly ventilated homes.

Reducing environmental burdens also requires rethinking how waste, fuels, and materials flow through the city. Expanded waste diversion, composting, and resource recovery cut pollution associated with landfills, while support for low-carbon fuels and cleaner transportation technologies reduces emissions of pollutants that disproportionately impact neighborhoods along high-traffic corridors. Addressing noise pollution from freight, aviation, industrial operations, and

major roadways further improves quality of life, especially in residential areas and places where vulnerable populations live.

Healthy ecosystems play a critical role in environmental health. Policies promote identifying and protecting species and habitats under climate stress, conserving climate refugia, and expanding pollinator-friendly, pesticide-free landscapes that enhance biodiversity. Conservation and restoration efforts also support cleaner waterways, healthier soils, and stronger ecological connections across the city. Water-efficient technologies and conservation practices help maintain long-term water availability and protect the integrity of local watersheds.

Equitable access to natural spaces and community facilities is another essential focus. Expanding parks and green spaces in underserved neighborhoods, improving connections to existing natural areas, and ensuring housing is located near parks supports both physical and mental wellbeing. New and expanded community centers offer cultural, recreational, and educational programming, strengthening social networks and providing safe indoor spaces during climate-driven events. Land use strategies—including brownfield remediation, infill development on underutilized lots, and careful siting of new housing away from major stationary pollution sources—further reduce residents' exposure to environmental hazards.

Supporting Policies			Related Goals
4	**Reduce Heat Island Effect**	Minimize impacts of the urban heat island effect, reduce temperature disparities for equity priority neighborhoods, and safeguard vulnerable populations from the adverse effects of extreme heat through proactive measures.	CL-1, CL-2, CL-4
8	**Reduce Solid Waste**	Increase waste diversion rates through a system that minimizes landfill reliance, reduces greenhouse gas emissions, prioritizes composting and encourages resource recovery. Properly ensure waste that cannot be recycled is diverted to landfills.	CL-1, CL-3, CL-4, EO-3, PFS-1
9	**Conserve Water Resources**	Encourage water-efficient technologies and practices to reduce consumption and ensure sustainable water availability amid climate change and growing demand.	CL-1, CL-4, PFS-1
15	**Habitat and Species Under Stress from Climate Change**	Take inventory of and protect climate refugia, and fish and wildlife habitat needs for species under stress from climate change.	CL-2, CL-4

17 Low Carbon Fuels	Support the transition to low-carbon fuels by expanding local production and distribution, supporting infrastructure growth, and adoption incentives.	CL-3, CL-4
20 Indoor Air Quality	Improve indoor air quality for residents most susceptible to negative impacts from exposure to particulates, carbon monoxide, nitrogen dioxide, and lead.	CL-4
21 Mitigate Noise Pollution	Reduce and mitigate noise pollution from major stationary and mobile sources (air travel, vehicles, freight, and railroads, high intensity industrial uses), prioritizing vulnerable populations and reducing the impact in residential, commercial, and natural areas.	EI-1, CL-4
22 Reduce Environmental Health Disparities from Pollution	Focus on areas with high environmental health disparities when mitigating the impacts of air, water, heat noise, and light pollution.	EI-1, CL-4
28 Reduce Impacts of Point Source Pollution on Housing	Avoid siting new housing near known stationary sources of air, water, heat and light pollution, and facilitate site and building design that mitigates impacts from stationary pollution sources for both new and existing housing.	CL-4, LU-2
46 Underdeveloped Lots and Brownfields	Prioritize, facilitate, and incentivize development on infill and underutilized lots, and clean up of brownfield sites.	LU- 3, LU-4, LU-1, PFS-1, CL-4
76 Broaden Equitable Access to Natural Spaces and Parks	Increase access to existing parks, and site new accessible and attainable housing close to existing and future parks, ensuring equitable access to existing facilities, and investing in new and improved facilities in underserved neighborhoods.	CL-4, PR-3, H-1, EI-2
132 Community Centers	Establish multipurpose community centers offering social, recreational, educational, and cultural programming, especially in underserved areas.	CL-4, PR-3, PFS-1

OUR VANCOUVER

OUR FUTURE 2045



CLIMATE VULNERABILITY ASSESSMENT

Prepared by: BERK Consulting, Inc.

Date: September 2025

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1. Summary and Introduction

Purpose

The Pacific Northwest including Vancouver is experiencing extreme heat, drought, extreme precipitation, flooding, and exposure to wildfires, especially smoke. These climate impacts affect Vancouver's people, places, and infrastructure.

This Vancouver Climate Vulnerability Assessment report supports the **OUR VANCOUVER 2045 COMPREHENSIVE PLAN** periodic update. In particular, it informs the development of the resilience sub-element of the newly required climate change and resilience element under HB 1181. Vancouver anticipates an integrated element addressing "Climate, Environment, Community Health, Sustainability and Resiliency."

Scope and Context

This vulnerability assessment considers the Washington Department of Commerce *Climate Element Planning Guidance*, December 2023, and evaluates the potential for climate exposure to community assets as well as potential health and environmental sensitivities to climate change impacts. The capacity of Vancouver's people, places, and infrastructure to adapt to climate change is also addressed, along with potential strategies to enhance Vancouver's adaptive capacity.

The chapters of the report include:

1. Summary and Introduction
2. Climate Change in Vancouver
3. Residents Vulnerable to Climate Change Impacts
4. Planning for Climate Change
5. Vulnerability & Risk Assessment

This Chapter 1 Summary and Introduction provides an overview of findings of the report. Chapter 2 describes climate change trends that affect Vancouver and Clark County. Chapter 3 describes residents with socioeconomic or health conditions or disparities that are potentially vulnerable to climate change impacts. Chapter 4 describes Vancouver's plans, strategies, and related initiatives addressing climate adaptation and mitigation. Chapter 5 evaluates vulnerability and risk through eleven sectors including:

- Agriculture and Food Systems
- Buildings & Energy
- Cultural Resources & Practices

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- Economic Development
- Emergency Management
- Health & Well-being
- Ecosystems
- Transportation
- Waste Management
- Water Resources
- Zoning & Development

This report builds on Vancouver's extensive work to address climate change mitigation and adaptation, including, but not limited to:

- Vancouver Climate Action Framework (2022)
- Vancouver Climate Adaptation Strategy (2022)
- Vancouver 2023 Inventory of Community and Government Operations Greenhouse Gas (GHG) Emissions (2024)
- Vancouver Equity Index (2022)
- Reside Vancouver An Anti-Displacement Plan (2023)
- Clark Regional Natural Hazard Mitigation Plan: Volume 2—Planning Partner Annexes, Vancouver Annex (2023)

In addition to this vulnerability assessment, related work is underway to address other aspects of the pending "Climate, Environment, Community Health, Sustainability and Resiliency Element" including:

- **Climate Resilience Policy Evaluation**: Audits policies and

DEFINITIONS

Adaptive Capacity: The ability of a person, asset, or system to adjust to a hazard, take advantage of new opportunities, or cope with change.

Assets: People, resources, ecosystems, infrastructure, and the services they provide. Assets are the tangible and intangible things people or communities value.

Climate Change: A change in the average weather patterns such as temperature and rainfall in a region over a long period of time.

Climate Resilience: The ongoing process of anticipating, preparing for, and adapting to changes in climate and minimizing negative impacts to our natural systems, infrastructure, and communities.

Exposure: The presence of people, assets, and ecosystems in places where they could be adversely affected by hazards.

Impacts: Effects on natural and human systems that result from hazards. Evaluating potential impacts is a critical step in assessing vulnerability.

Overburdened Community: A geographic area where vulnerable populations face combined, multiple environmental harms and health impacts, and includes, but is not limited to, highly impacted communities as defined in RCW 19.405.020.

Sensitivity: The degree to which a system, population, or resource is or might be affected by hazards.

Vulnerability: The propensity or predisposition of assets to be adversely affected by hazards. Vulnerability encompasses exposure, sensitivity, potential impacts, and adaptive capacity.

(Commerce, 2023) (US Climate Resilience Toolkit, 2021) (NASA, 2024)

provides recommendations to amend or add policies.

- **Climate Mitigation:** Implementing the City's Climate Action Framework, the City has inventoried GHG emissions and will use a similar approach to evaluate Vancouver's growth strategies called "land use possibilities." The City is also reviewing vehicle miles traveled (VMT) reduction through active trip potential.
- **Environment:** An Environmental Impact Statement is evaluating Vancouver 2045 Land Use Possibilities.
- **Health:** A Health Impact Assessment of the Vancouver 2045 land use possibilities has been developed to evaluate the Periodic Update land use possibilities and other policy issues.

Climate Impacts in Vancouver

Vancouver is feeling the effects of climate change including the following Pacific Northwest trends (Chang, 2023):

- **Warming and Extreme Heat:** The annual number of extremely hot days and warm nights in the Northwest has been above the long-term average over the past decade, and the annual number of extremely cold nights over the same period has been below the long-term average. Future warming in the region is expected to exacerbate regional heatwave intensities. It is particularly magnified on impervious areas in urban areas like Vancouver.
- **Extreme Precipitation Events:** The frequency and intensity of extreme precipitation events are projected to increase across the region. A greater number of strong atmospheric events and fewer moderate and weak events are projected to occur and are projected to reach farther inland. In Vancouver, major flooding along rivers and streams is less likely due to flood control structures and greenways but there is a risk along the Port and other areas that are low lying, and there is a risk of urban flooding elsewhere.
- **Flooding and Infrastructure:** Riverine flooding as well as localized urban flooding is a growing concern in Vancouver due to aging stormwater infrastructure, particularly in older neighborhoods with combined sewer systems. These systems are increasingly overwhelmed by intense rainfall events, leading to surface flooding and sewer overflows.
- **Decreasing Summer Precipitation and Increasing Drought:** Summer precipitation is projected to decline. Observed lower stream flows in summer are expected to decrease. This could affect fish and other aquatic life in Vancouvers streams.
- **Increasing Wildfire Likelihood and Smoke:** An increase in wildfires in the Pacific Northwest could expose people in Vancouver and the broader region to more wildfire smoke. Increased wildfire smoke events are straining indoor air quality in public facilities. Many community centers and senior centers lack adequate HVAC systems or filtration, limiting their ability to serve as clean air shelters during smoke events.

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See Chapter 2 Climate Change in Vancouver for additional information about climate impacts in Vancouver.

Climate Vulnerability Index

Vancouver also developed a Climate Vulnerability Index (CVI) in parallel with this assessment to evaluate over 30 indicators of climate vulnerability, scaled to US Census block groups, to identify areas and populations more vulnerable to extreme heat, flooding and extreme precipitation, and air quality/smoke. The CVI allows Vancouver to compare areas within the city to itself. The CVI does not compare Vancouver to other areas across the county or state.

Vulnerability is defined as the sum of exposure to climate shocks and stresses, the sensitivity of people or environment to the shock, and the capacity of the community and place to cope with consequences of the climate event. (UKAID, 2011) (US Climate Resilience Toolkit, 2021)

Vulnerability = Exposure + Sensitivity - Capacity to Adapt

The Vancouver CVI presents a series of indices and bivariate intersections including Vancouver's first index regarding Climate Exposure. The CVI includes a bivariate view of Exposure in relation to the City's Equity and Displacement indices which have elements of sensitivity and adaptive capacity. In addition, a Vancouver Health Index was prepared with components of population health sensitivity, and an Exposure x Health bivariate map was created.

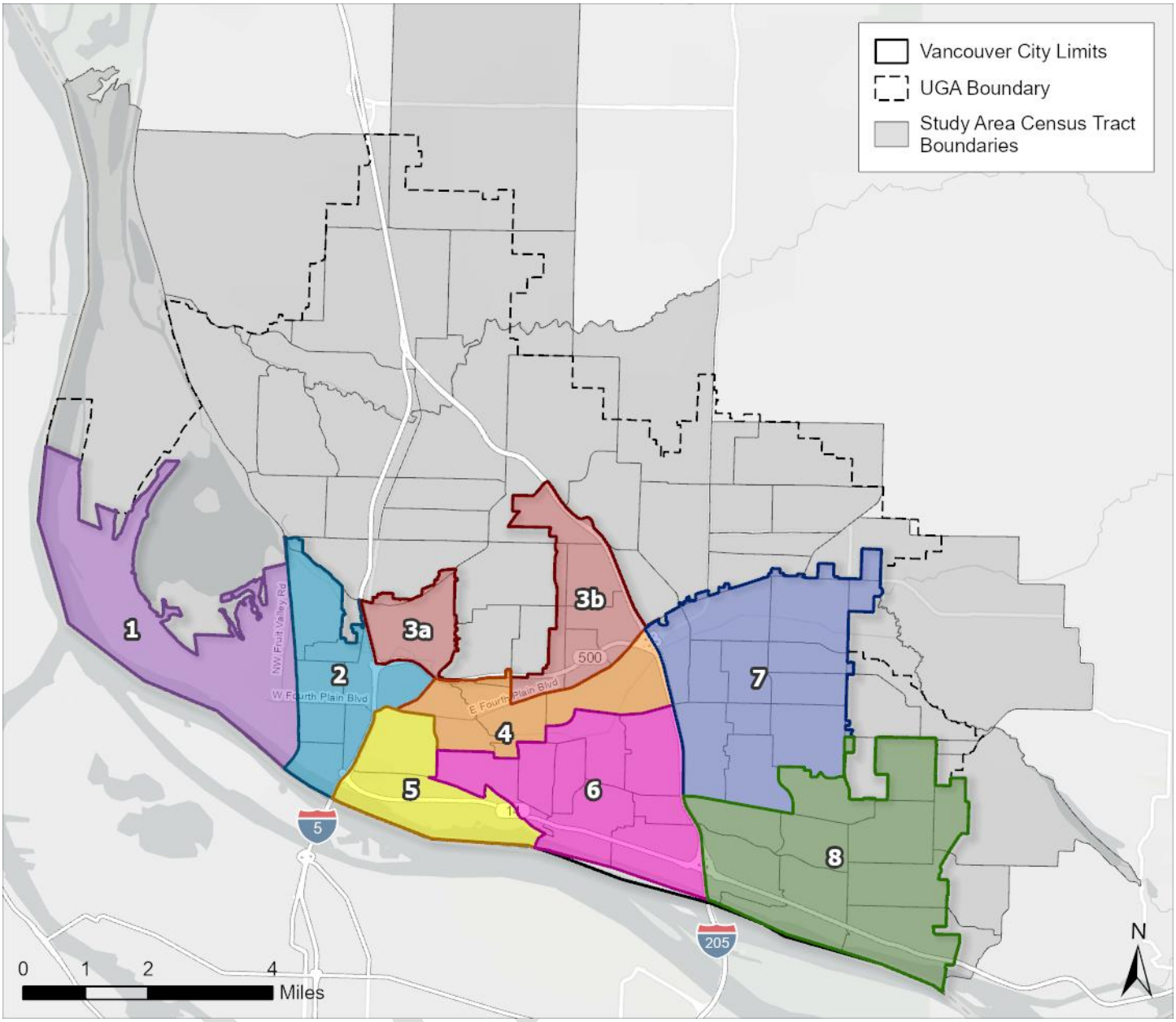
Vulnerable Places and Communities

Parts of Vancouver are more vulnerable to the impacts of climate change than others. For example, there are particular areas in the city – such as "heat islands" with more pavement and fewer trees, floodplain and landslide hazard areas, and areas with limited access to transit – that may experience larger effects from climate change. In addition, some communities and populations – including older adults, individuals living alone, and people with low incomes, disabilities, and/or limited English proficiency – may be more sensitive to climate impacts and require special consideration when planning for climate resiliency.

This study references areas in west, central, and east Vancouver in eight study areas, and identifies vulnerable places and communities. See Exhibit 1.

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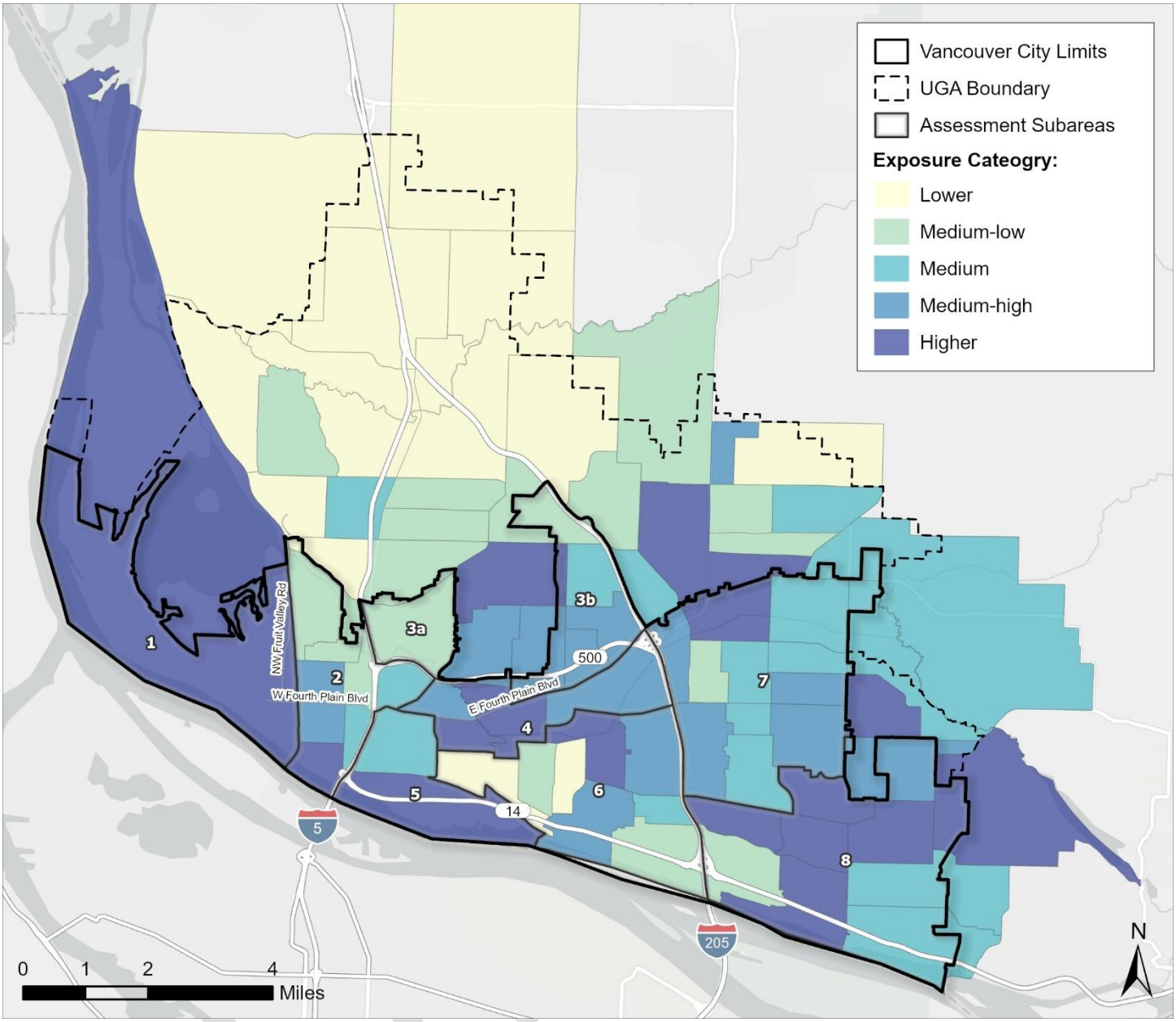
Exhibit 1: Vancouver Areas of Focus



Source: City of Vancouver, BERK 2025.

The Vancouver CVI Exposure Index identifies the following areas at risk of exposure to climate impacts including extreme heat, flooding, or air quality/smoke: Area 1 west of NW Fruit Valley Road, southern edges of Areas 2 and 5 along the Colombia River, Areas 4 and 7 along E Fourth Plain Boulevard, and Area 8 in southeast Vancouver. See Exhibit 2.

Exhibit 2: Exposure Index

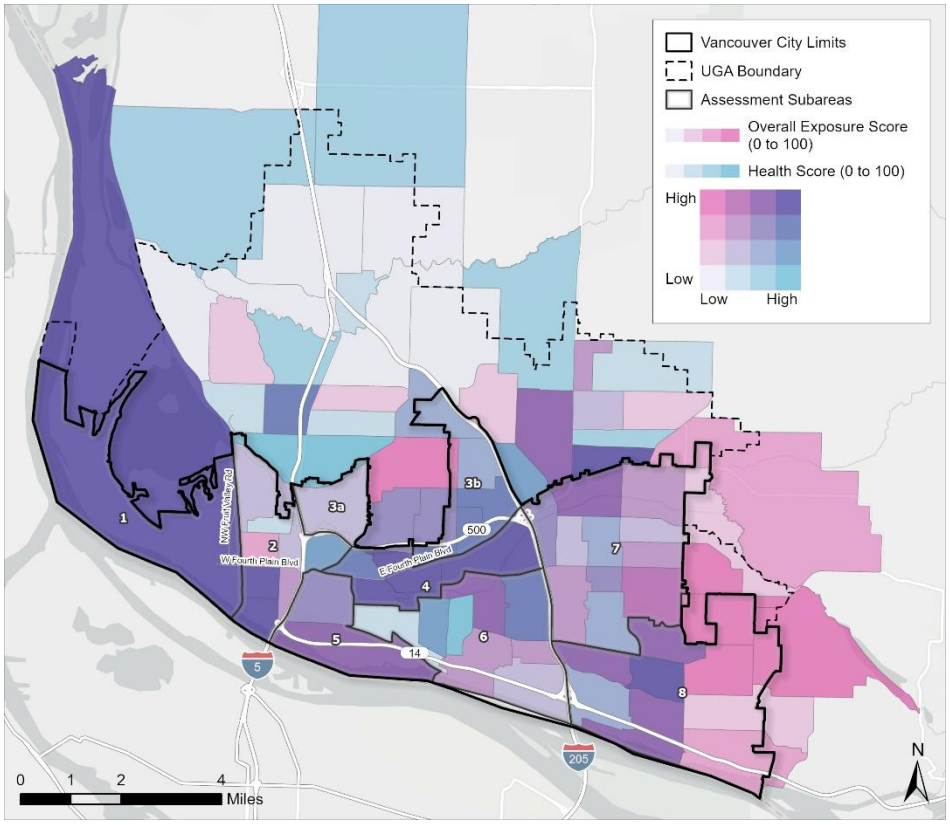


Source: BERK 2025.

Combining Vancouver's Climate Exposure Index plus its Health Index shows populations with vulnerabilities exposed to climate impacts in similar locations in Areas 1, 2, 4, and 8. Census block groups with higher Exposure and higher Equity disparities are found in Areas 1, 2, 4, 7, and 8. See Exhibit 3.

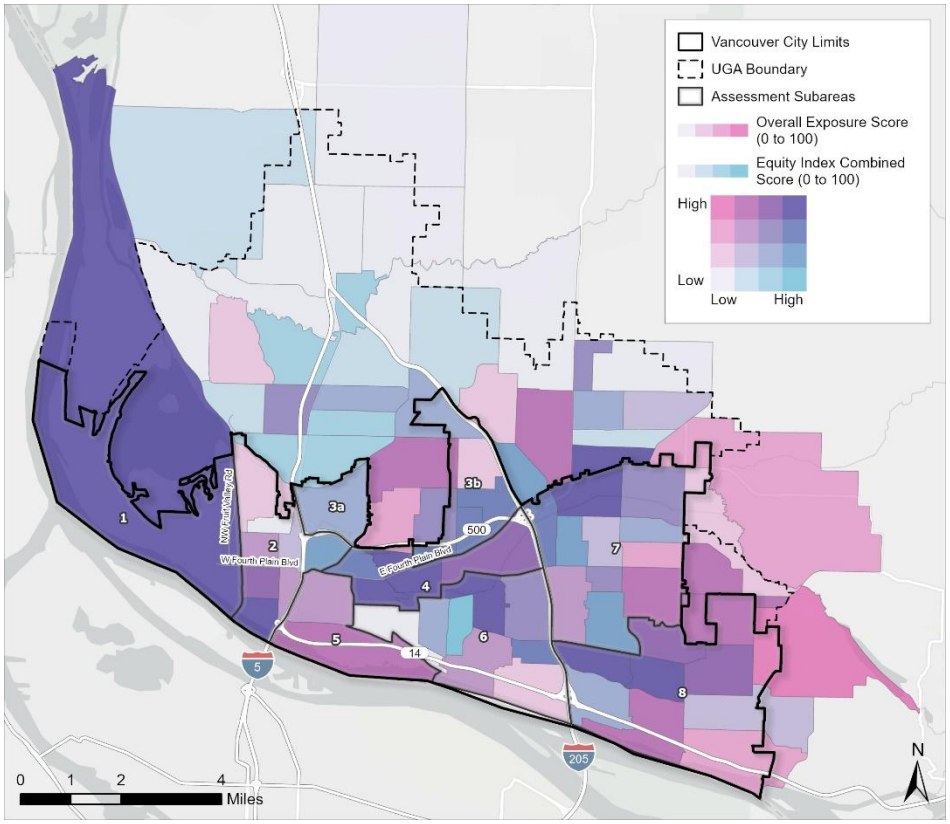
Exhibit 4 and Exhibit 5 provide a table and map with Census tracts having with higher exposure and higher equity or health disparities, and are priorities to address climate adaptation and improve areas that have low or moderate adaptive capacity.

Exhibit 3: Exposure with Health and Equity



Exposure x Health

Locations of higher exposure and health-sensitive populations: West and Central parts of Vancouver along East Fourth Plain Blvd.



Exposure x Equity

Locations of higher exposure and overburdened communities: Vancouver Lake and NW Fruit Valley Road, blocks south of SR 500 and along Fourth Plain Blvd, and Mountain View and Cascade Highlands in East Vancouver.

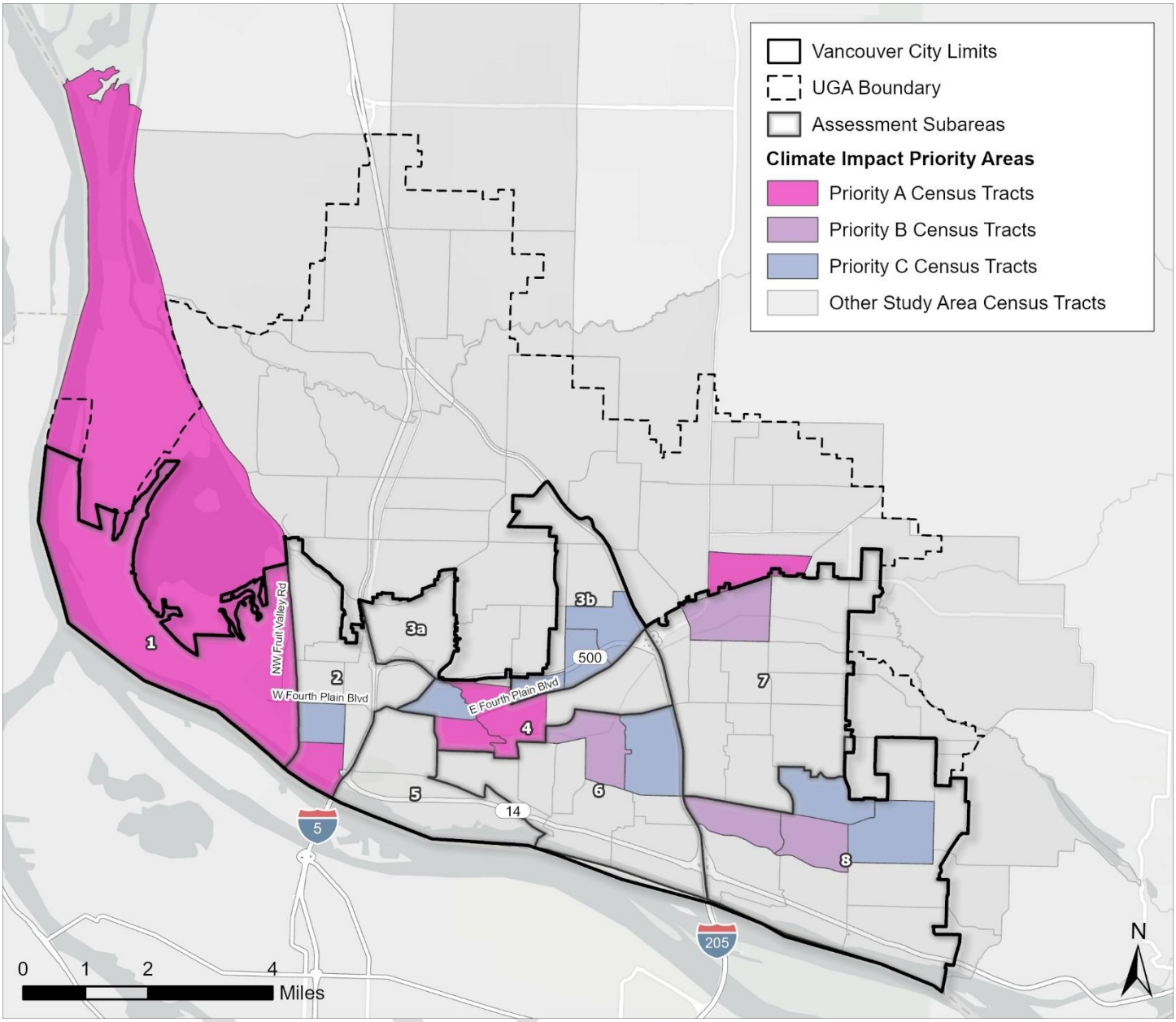
Source: BERK 2025.

Exhibit 4: Census Tracts with Higher Vulnerabilities to Climate Impacts

Census Tracts	Subarea	Percent of Tract in City Limits	Heat Exposure	Flooding/ Precipitation Exposure	Smoke/Air Quality Exposure	Overall Exposure	Health Conditions	Equity Disparities Index	Priority	Adaptive Capacity
53011041005	1	34.9%	Medium-high	Higher	Lower	Higher	Higher	Higher	A	Moderate (Lake)
53011042300	2	100.0%	Medium	Medium-high	Higher	Medium-high	Higher	Medium-high	C	
53011042400	2	99.3%	Higher	Higher	Medium	Higher	Higher	Higher	A	
53011041111	3b	97.1%	Medium-high	Medium	Medium	Medium-high	Higher	Higher	C	Moderate (Tree)
53011041113	3b	100.0%	Higher	Medium-high	Medium-low	Medium-high	Higher	Higher	C	Moderate (Tree) Moderate SMAP
53011041114	3b	100.0%	Higher	Medium	Medium-low	Medium-high	Higher	Higher	C	Moderate (Tree) Moderate SMAP
53011041600	4	99.6%	Medium-high	Higher	Medium	Higher	Higher	Higher	A	Low (Tree) ATP*
53011041700	4	100.0%	Medium	Higher	Medium	Medium-high	Higher	Medium-high	C	Low (Tree) ATP*
53011042700	4	100.0%	Medium-high	Higher	Medium	Higher	Higher	Higher	A	Low (Tree)
53011041205	6	100.0%	Medium-high	Higher	Medium-high	Higher	Medium-high	Higher	B	Moderate SMAP ATP*
53011041206	6	100.0%	Higher	Medium-low	Medium-high	Medium-high	Higher	Medium-high	C	Low (Tree) Moderate SMAP ATP*
53011040706	7	7.4%	Higher	Medium-high	Medium-low	Higher	Higher	Higher	A (-)	
53011041312	7	100.0%	Higher	Higher	Medium-low	Higher	Medium-high	Higher	B	
53011041320	8	100.0%	Higher	Medium	Medium-high	Higher	Medium-high	Medium-high	C	ATP*
53011041322	8	100.0%	Higher	Medium	Medium-high	Higher	Medium-high	Higher	B	
53011041323	8	100.0%	Higher	Medium	Medium-high	Higher	Medium-high	Higher	B	ATP*
53011041329	8	100.0%	Higher	Medium	Higher	Higher	Lower	Medium-high	C	

A=Higher Overall Exposure and Higher Health and Equity Disparities
B = Higher Overall Exposure and either Higher Health Disparities or Higher Equity Disparities
C = Medium High or Higher in one or more exposures and either Health or Equity Disparities
(-) County Unincorporated
*Active Trip Potential (ATP): locations where short vehicle trips could convert to e-bike, bike, or walking trips with more supportive infrastructure; or where more development could build on existing strengths.
Source: See Chapter 2. BERK, 2025.

Exhibit 5: Map of Census Tracts with Higher Vulnerabilities to Climate Impacts



A=Higher Overall Exposure and Higher Health and Equity Disparities
B = Higher Overall Exposure and either Higher Health Disparities or Higher Equity Disparities
C = Medium High or Higher in one or more exposures and either Health or Equity Disparities
Source: See Chapter 2. BERK, 2025.

Climate Planning Engagement

Vancouver Climate Adaptation Strategy, 2022

In 2022, Vancouver engaged Hatch Planning and Toulan School of Urban Studies and Planning at Portland State University to prepare a *Vancouver Climate Adaptation Strategy*, which included a community engagement process. (Hatch Planning and City of Vancouver, 2022)

- a community-wide survey with 140 responses
- six pop-up events in different locations, and
- five small group conversations

The populations targeted for engagement are similar to those living in areas considered highly vulnerable in Exhibit 5, and included:

- Communities of color, particularly Hispanic or Latino
- High-poverty groups
- Linguistically isolated groups (Spanish, Russian or Eastern European language-speakers)
- Youth, particularly those in informal daycare
- Older adults, particularly those living alone
- Houseless people, including Safe Stay communities
- Manual or outside laborers, especially farmers, landscapers, and trades organizations
- People with disabilities
- Transit-dependent residents

Engagement findings are summarized below and throughout Chapter 5 Vulnerability & Risk Assessment. This 2025 Climate Vulnerability Assessment carries forward from this 2022 effort which recommended a comprehensive vulnerability assessment.

Exhibit 6: Vancouver Climate Adaptation Strategy Engagement Findings

1 Most community members had negative experiences during severe weather events - the wildfire smoke of 2020 and heat wave of 2021. Negative experiences were due to a loss of work time, discomfort and health issues, the canceling of events, and more.	**2** Aside from severe heat and wildfire smoke, participants also worried about snowy and icy weather events, and particularly the power outages and difficulty of travel that comes with those events.
3 Participants identified several circumstances that made it more difficult to deal with severe weather events. These include: • Lack of air conditioning or air purification • Lack of access to a car	• Lack of communication regarding preparedness • Need to work outside during severe weather events • Lack of resources for people with disabilities

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4 While many residents do feel prepared for future heat waves and other events, they expressed serious concerns about the safety and well-being of their neighbors and community.	**5** Many participants had ideas for how the city can help them in the future, including providing resources to help households have alternative energy sources in the event of power outages, the creation of cooling and warming shelters, creating community-led disaster drills to help people understand how to stay safe and prepared, and prioritizing low-income or houseless people in city policy to ensure their safety.
6 Some physical elements that community members would like to see include water features such as splash pads, urban gardens and fruit trees, more tree coverage, and community centers or public spaces for neighbors to connect with one another.	**7** Participants cited the need for community education on environmental issues and sustainability through programming and incentives, including conferences, talks, and videos that share the importance of sustainability as well as other educational materials. Participants, particularly those in small group conversations, also saw a need for increased public engagement about this issue.

Source: (Hatch Planning and City of Vancouver, 2022)

Resilience Rising, 2025

As part of the City of Vancouver's ongoing climate resilience planning efforts, a series of *Resilience Rising* community events were hosted in late May and early June 2025 in partnership with Fourth Plain Forward, the Southwest Washington Equity Coalition (SWEC), and Washington Conservation Action. These events focused on elevating local voices and experiences around climate-related risks and responses in neighborhoods most impacted by extreme heat, wildfire smoke, and flooding.

The gatherings were designed to complement this 2025 Climate Vulnerability Assessment and a related Adaptive Capacity Assessment (see following section) by grounding technical recommendations in lived experience. A total of 76 residents participated across three events in **Fruit Valley, Fourth Plain, and Mountain View**, each selected due to their high climate risk scores and social vulnerability indicators.

At each event, there was an interactive mapping exercise which invited participants to identify local assets, risks, and resilience opportunities in their neighborhoods. Participants used stickers, markers, and post-it notes to annotate the maps in both English and Spanish, with bilingual facilitators on hand to support discussion. A common theme throughout was the desire for more equitable access to climate-resilient infrastructure—including safe gathering spaces, localized food and resource hubs, and culturally relevant emergency response strategies.

Engagement results are highlighted in Exhibit 7 and throughout this study.

Exhibit 7: Resilience Rising Engagement Summary

Climate Risks Are Experienced Unequally. Participants noted that extreme heat, flooding, and wildfire smoke have disproportionate impacts across the city, especially for residents in East and Central Vancouver. Barriers include: • Transportation limitations for seniors, youth, and people with disabilities • Fear or mistrust of federal-linked spaces among undocumented communities • Lack of signage or public awareness of available resources	**Schools, Religious Facilities, and Businesses as Anchors.** Participants were enthusiastic about repurposing underused or privately owned spaces to provide cooling, clean air, and resource distribution during future climate events. Specific suggestions included equipping schools with air filtration and backup power, training church volunteers, and leveraging local businesses to help spread emergency information.
Food Security and Local Food Systems. Several participants expressed interest in expanding community food forests, edible landscaping, and culturally relevant gardens to increase food access and resilience. Many attendees pointed to successful local examples—including fruit tree gleaning programs and community partnerships—that show potential for scaling.	**Community-Led Solutions and Trusted Messengers.** Residents expressed a strong interest in building neighbor-to-neighbor networks and empowering local leaders to help organize emergency response. Ideas included community phone trees, CERT team recruitment, and creating preparedness flyers with the contact information of trusted local point people.
Gaps in Infrastructure and Communication. Participants identified several physical and procedural gaps that hinder preparedness and resilience: limited cooling centers with adequate space and signage, public transit challenges during storm events, lack of emergency information in multiple languages, and difficulty navigating scattered resources.	**Desire for Action and Accountability.** While attendees appreciated the opportunity to provide input, some were skeptical about whether tangible changes would result. Still, most remained hopeful and urged the City and its partners to prioritize the ideas that came directly from community voices, especially those grounded in lived experience and local expertise.

Source: (City of Vancouver, 2025)

Adaptive Capacity Assessment 2025

The City of Vancouver met with an interdepartmental team and with regional emergency management agencies to develop more specific asset mapping and adaptive capacity recommendations overlaying locations of critical facilities and places of assembly on top of maps of exposures such as extreme heat, flooding, and wildfire/smoke including:

- Fire and Police Stations
- Libraries, Senior Centers, and Community Centers, often serving as warming or cooling shelters
- Schools
- Parks and Trails
- Transit Stops
- Water, Sewer, and Stormwater

The asset maps help to pinpoint the most pressing areas for investment. Results are included in relevant sector evaluations in Chapter 5 Vulnerability & Risk Assessment, and in the Appendix.

Vulnerability and Risk Summary by Sector

Across 11 sectors, Chapter 5 Vulnerability & Risk Assessment considers vulnerable places and communities and risk of impacts (probability and magnitude). A summary of the results for the 11 sectors is shared in Exhibit 6.

Sectors most at risk across multiple climate impacts, with the greatest potential for loss and affecting vulnerable communities include:

- Buildings & Energy
- Emergency Management
- Health and Wellbeing
- Transportation
- Water Resources

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Exhibit 8: Vulnerability and Risk Summary by Sector

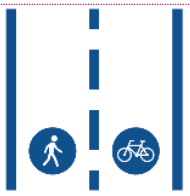
Sector	Likely Climate Impacts in next 10+ years				Magnitude of Loss			City Responsibility			Vulnerable Communities			Areas Most Affected							
	Heat	*Fire*	*Precip*	*Drought*	*Less*	*More*	*Most*	*Less*	*More*	*Most*	*Less*	*More*	*Most*								
Agriculture and Food Systems	■	■	■	■	■			■	■		■	■		1	2	3A	3B	4	5	6	7	8
Buildings & Energy	■	■			■	■		■	■		■	■	■	1	2	3A	3B	4	5	6	7	8
Cultural Resources & Practices	■	■	■	■	■	■		■	■		■	■		1	2	3A	3B	4	5	6	7	8
Economic Development	■	■	■		■	■		■	■		■	■		1	2	3A	3B	4	5	6	7	8
Emergency Management	■	■	■		■	■		■	■		■	■	■	1	2	3A	3B	4	5	6	7	8
Health & Well-being	■	■			■	■		■	■		■	■	■	1	2	3A	3B	4	5	6	7	8
Ecosystems	■	■	■	■	■	■		■	■		■	■		1	2	3A	3B	4	5	6	7	8
Transportation	■	■	■		■	■	■	■	■		■	■	■	1	2	3A	3B	4	5	6	7	8
Waste Management	■	■	■		■			■			■			1	2	3A	3B	4	5	6	7	8
Water Resources	■	■	■	■	■	■	■	■	■	■	■	■	■	1	2	3A	3B	4	5	6	7	8
Zoning & Development	■	■	■	■	■	■		■	■	■	■	■		1	2	3A	3B	4	5	6	7	8

Sources: See Chapter 5. Compiled by BERK, 2025.

Vancouver has planned for climate action and hazard management planning. However, new or more extensive resilience strategies could be implemented to address gaps or opportunities. See Exhibit 7. These are further described in Chapter 5 Vulnerability & Risk Assessment.

Exhibit 9: Sectors, Priorities, and Resilience Strategies

Sector	Potential Concerns/ Priorities	Who is Most Affected?	Highlighted Resilience Strategies
Agriculture & Food Systems	Urban agriculture and local food systems, community gardens, food banks	Residents in poverty or in food deserts Community garden users	 Increase Food Resilience & Access
Buildings and Energy	Naturally occurring affordable housing New housing development, new business spaces	Residents in older housing stock, particularly those who are cost burdened New construction, commercial or residential	 Building Retrofits/Design Renewable Energy
Cultural Resources	Historic and archaeological site protection Critical areas protection Food sovereignty	Tribes Historic property owners	 Natural Infrastructure
Economic Development	Outdoor jobs Recreation events Transportation system interruption	Outdoor workers Tourism/recreation oriented businesses Health care providers Commuters	 Green technology, circular economy, connected city Complete/ Sustainable Communities Local Businesses Support Emergency Response

Sector	Potential Concerns/ Priorities	Who is Most Affected?	Highlighted Resilience Strategies
Emergency Management	Cooling and clean air centers, storm management, redundant functions	Persons with health sensitivities Emergency personnel	 Disaster Management and Service Continuity Partner with Community Based Organizations
Health & Well-being	Tree canopy equity Health services access Access to cooling and clean air centers due to lack of transportation, lack of awareness, or mistrust	Persons with health sensitivities Unsheltered persons	 Improve transportation access to facilities and services CBOs as Essential Resilience Partners Neighborhood specific community preparedness and pilot projects
Ecosystems	Trees, riparian areas, stream flows, water quality	Neighborhoods with high impervious areas, and limited green or blue infrastructure	 Urban Forest
Transportation	Regional and local commuting, acute stormwater flooding, heat and transit	Transit dependent populations such as those with disabilities or lower incomes	 Infrastructure Upgrades

Sector	Potential Concerns/ Priorities	Who is Most Affected?	Highlighted Resilience Strategies
Waste Management	Heat, smoke and outdoor workers; extreme weather and debris	Outdoor workers Neighborhoods with extensive/older tree canopy	 Debris management plan, smoke protections Planning to Reduce Exposure & Monitoring Risk
Water Resources	Demand on stormwater system Water system resilience Wastewater Plant fortification	Neighborhoods with high impervious areas, and limited green or blue infrastructure	 Natural Infrastructure
Zoning	Tree canopy, infill housing and business nodes with multimodal mobility	Households with cost burdens, areas with low connectivity, park gap areas, low active trip areas, communities with disparities in tree canopy	 Complete/ Sustainable Communities

Policy Recommendations

A **Climate Resilience Policy Evaluation** under separate cover is summarized by sector in Chapter 5. Strengthening policies in the new Climate, Environment, Community Health, Sustainability and Resiliency Element will give purpose and direction to climate actions and strategies.

Use of Report

This Climate Vulnerability Assessment has provided a foundation for developing climate resilience policies and adaptive capacity strategies with city departments and the community.

This report, in conjunction with a related Climate Resilience Policy Evaluation, has helped the City prepare a Climate Element of the Comprehensive Plan Periodic Update.

2. Climate Change in Vancouver

Regional Climate Trends

The Pacific Northwest including Vancouver are experiencing extreme heat, extreme precipitation, drought and reduced summer stream flows, and exposure to wildfires, especially smoke. Key findings of the Fifth National Climate Assessment, Northwest chapter, (Chang, 2023) include the following for Washington, Oregon, and Idaho:

- **Warming and Extreme Heat:** Annual average air temperatures in the region have risen by almost 2°F since 1900. Washington and Idaho have warmed by nearly 2°F, and Oregon has warmed by 2.5°F. Relative to 1900–2020, the annual number of extremely hot days and warm nights in the Northwest has been above the long-term average over the past decade, and the annual number of extremely cold nights over the same period has been below the long-term average. Future warming in the region is expected to exacerbate regional heatwave intensities.
- **Extreme Precipitation:** The frequency and intensity of extreme precipitation events are projected to increase across the region. Long, narrow bands of atmospheric water vapor transport, commonly known as atmospheric rivers (ARs), are associated with extreme precipitation in the western United States, where they contribute an average of 30%–45% of total winter precipitation. A greater number of strong AR events and fewer moderate and weak events are projected to occur. ARs are projected to reach farther inland.
- **Summer Precipitation and Drought:** Summer precipitation is projected to decline under all scenarios, although it will be variable, contributing to more frequent, longer, and more severe regional drought conditions that increase wildfire risk and decrease water availability. Observed lower stream flows in summer are expected to decrease even further due to reduced snow storage, increased evapotranspiration, and longer lags between summer precipitation events.

> ...Some scientists have described the 2021 heat dome as a 1,000-year event made 150 times more likely by climate change. Instead of being a rare anomaly, events like the heat dome could occur every five to 10 years with 2 degrees C of global warming, they say.
>
> ... An estimated 1,400 deaths in the United States and Canada were attributed to the heat dome. Shellfish and other marine animals experienced mass die-offs. Crops were lost, sections of Interstate 5 buckled, and Portland's Max commuter train shut down when its attached power lines melted.
>
> ~ (Kramer, 2024)

The University of Washington Climate Impacts Group has developed a climate resilience mapping tool addressing climate hazards, indicators, and impacts for each county in the

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state, including Clark County. Some of the data is available at a smaller scale than the county. Information from the tool has been gathered for the year 2050 using the Representative Concentration Pathway (RCP) 8.5 GHG concentration level, which is a very high GHG scenario. The GHG scenarios do not differ significantly prior to 2050. The year 2050 is similar to the 2045 Comprehensive Plan periodic update horizon. See Exhibit 9.

Exhibit 10: Climate Change by Year 2050 (Change 2040-2069 compared to Historic 30 Years, Typically 1980-2009, RCP 8.5)

Climate Hazard	Potential Impacts	Climate Data for Clark County
 **Extreme Heat**	Warmer summers are expected to increase the potential for heat stress on plants and trees and ecosystems, and increase demand for irrigation. Warmer summers are expected to increase concentrations of air pollutants, such as ozone and some vector-borne illnesses, such as West Nile virus. Warmer stream temperatures have the potential to reduce water quality and habitat quality for fish and wildlife. Extreme heat is anticipated to increase the demand for building cooling, increase concentrations of air pollutants, and increase health impacts for sensitive populations.	+6 °F change in average summer (June - August) maximum temperature + 39 days in annual 90°F maximum humidex days (heat + humidity) Average August stream temperature: • 20.9 °C Burnt Bridge Creek • 18.4 °C Fisher Creek • 23.1 to 23.6 °C Columbia River
 **Drought**	In freshwater ecosystems, less summer precipitation will contribute to lower stream flows, reduce water quality, and increase water temperatures. In terrestrial ecosystems, less summer precipitation will contribute to drought stress and reduce the growth and productivity of some plants. More frequent and severe droughts due to low summer precipitation are expected to increase the need for emergency services to plan, prepare, and respond to water shortages. Increases in annual precipitation have the potential to increase groundwater recharge. Changes in the timing and intensity of precipitation and increases in water demand and evaporation are expected to offset increases in groundwater recharge due to more annual precipitation.	34% chance in 2050 that summer precipitation is at or below 75% of normal -5%, Burnt Bridge Creek, and -21% on Columbia River, percent change in low streamflow in summer (June-September) 9.3% average percent change in total annual precipitation -17.9% change in average July 15 - September 15 total precipitation

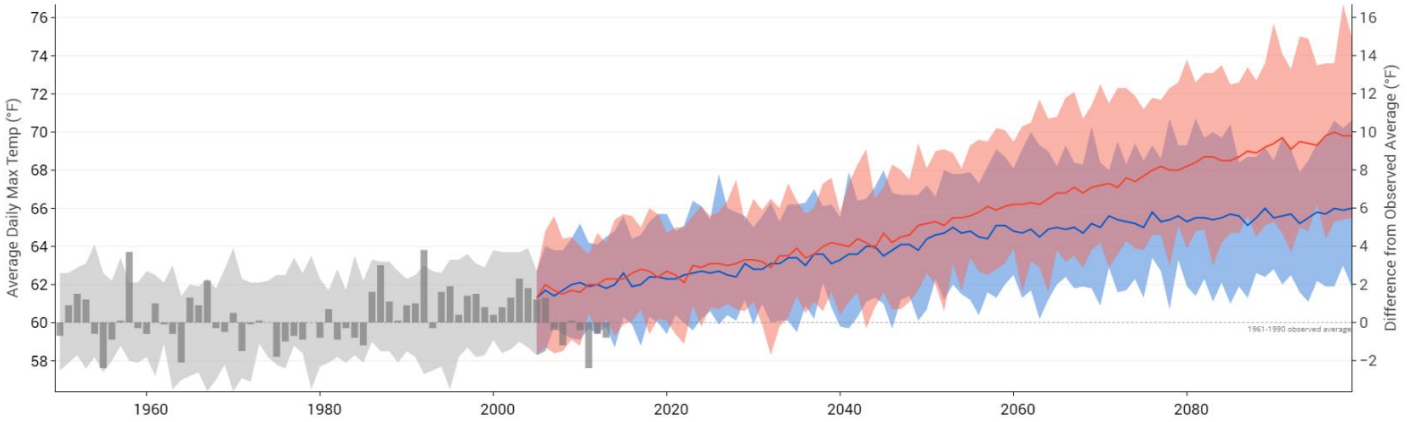
Climate Hazard	Potential Impacts	Climate Data for Clark County
 Wildfire & Smoke	More frequent wildfires have the potential to reduce forest habitat for some wildlife and increase establishment of invasive species. More frequent wildfires have the potential to increase runoff and sediment to streams. More days with high wildfire danger are expected to affect businesses through more frequent closures of recreation areas and restrictions on outdoor activities during the wildfire season. Poor air quality due to more wildfire smoke can cause adverse respiratory health effects.	In Vancouver 37% chance the average likelihood of climate and fuel conditions being conducive to wildfire (Countywide average is 9%). Change in high fire danger days, 9 days in Vancouver (8 days for Clark County average.
 Extreme Precipitation	Heavier precipitation is expected to intensify flooding in low-lying areas and require higher capacity storm water drainage systems. This could reduce the suitability of some areas for certain land uses and require relocation of some development. More disruptions to business operations and damage to infrastructure including transportation.	13% increase in the total precipitation of the 2-year storm. 14% change in the total precipitation of the 25-year storm.
 Flooding	Higher stream flows are expected to increase riverine flooding within existing floodplains and could expand flooding to new areas not currently in existing floodplains. Higher stream flows reduce the availability of slow-water habitat and can increase sedimentation that affects habitat quality. Higher stream flows are expected to increase riverine flooding, which can damage roads, bridges, and railways and overwhelm drainage structures, such as culverts.	14% change, along Burnt Bridge Creek, in the annual maximum streamflow -5% Columbia River in the annual maximum streamflow Frequency in high streamflow Burnt Bridge Creek, 9.0 years; Columbia River 21.1 years; instead of every 25 years

Source: (Raymond, Climate Mapping for a Resilient Washington, 2022)

Other climate change trends available from the US Climate Toolkit Climate Explorer shows increases in extreme heat are clear at either RCP 4.5 or RCP 8.5. See Exhibit 10 and Exhibit 11.

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Exhibit 11: Average Daily Max. Temp. (°F) – Historic and Projected Trends – Clark County, WA

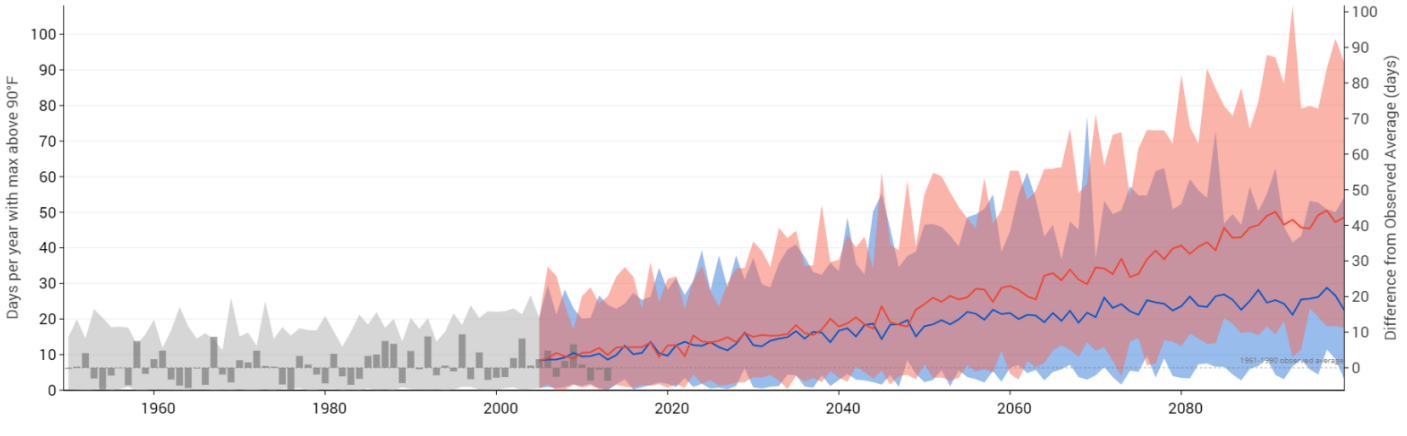


Note: For the contiguous US, graphs and maps for 1950 - 2013 show averages of observations recorded at individual climate and weather stations. Data are available from NOAA's National Centers for Environmental Information. Graphs in Climate Explorer show results generated by global climate models for the Coupled Model Intercomparison Project Phase 5 (CMIP5). For the contiguous US, the climate model data were statistically downscaled using the Localized Constructed Analogs method (LOCA; Pierce et al. 2014).
Source: (US Climate Resilience Toolkit, 2024)

Average Daily Maximum Temperatures are projected to rise to over 64 °F by 2040.

- 1961–1990 observed average: 60 °F
- 2005 observed: 61.3 °F
- Projection Higher Emissions RCP 8.5: 2040 64.4 °F | 2050 65.6 °F
- Projection Lower Emissions RCP 4.5: 2040 63.8 °F | 2050 64.7 °F

Exhibit 12: Days with Max. Temp. > 90°F – Historic and Projected Trends – Clark County, WA



Note: For the contiguous US, graphs and maps for 1950 - 2013 show averages of observations recorded at individual climate and weather stations. Data are available from NOAA's National Centers for Environmental Information. Graphs in Climate Explorer show results generated by global climate models for the Coupled Model Intercomparison Project Phase 5 (CMIP5). For the contiguous US, the climate model data were statistically downscaled using the Localized Constructed Analogs method (LOCA; Pierce et al. 2014).
Source: (US Climate Resilience Toolkit, 2024)

Days w/ maximum temp > 90°F are projected to increase by at least 17 days by 2040 and 20 days by 2050.

- 1961–1990 observed average: 6.3 days with maximum above 90
- 2005 observed: 8.7 days
- Projection Higher Emissions RCP 8.5: 2040 19.5 days| 2050 26.4 days
- Projection Lower Emissions RCP 4.5: 2040 17.2 days| 2050 20.2 days

CLIMATE MODELS

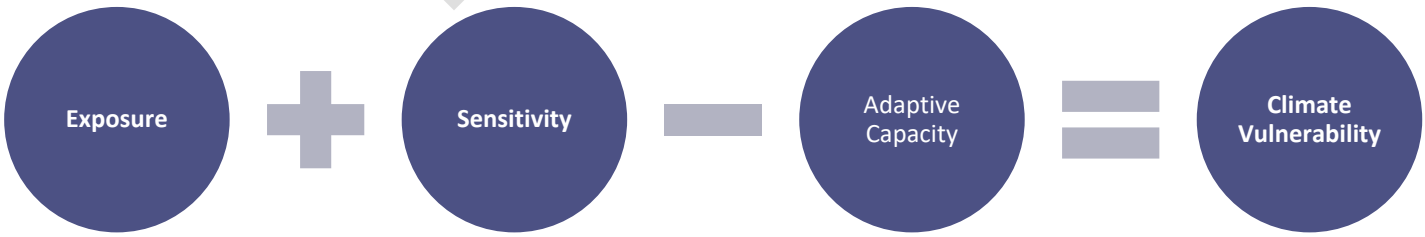
Climate models are mathematical representations of processes important in the Earth's climate system. The Representative Concentration Pathways (RCPs) describe four different 21st century pathways of GHG emissions and atmospheric concentrations, air pollutant emissions and land use; they include a stringent mitigation scenario (RCP2.6), a low scenario (RCP 4.5), an intermediate scenario (RCP4.5), and one scenario with very high GHG concentration (RCP8.5). Scenarios without additional efforts to constrain emissions lead to pathways ranging between RCP6.0 and RCP8.5. RCP2.6 is representative of a scenario that aims to keep global warming likely below 2°C above pre-industrial temperatures. See Intergovernmental Panel on Climate Change (IPCC), 2021: https://ar5-syr.ipcc.ch/topic_futurechanges.php.

Climate projections are typically based on historical trends (e.g., 1980-2009). The projections are mid-points of 30 year periods and the average of multiple global climate models. The higher GHG scenario (RCP 8.5) causes more warming by the end of the century compared to the moderate (A1B) and lower (RCP 4.5) scenario, but the scenarios do not differ significantly prior to 2050. For near-future applications, the choice of GHG scenario is less important than for late century applications. See: https://cig-wa-climate.nkn.uidaho.edu/.

Climate Vulnerability Evaluation

Climate vulnerability is defined as the sum of exposure to a changing climate and the inherent sensitivity of people or environments to a changing climate, minus capacity of the community and place to cope with impacts of a changing climate. See Exhibit 12 and Exhibit 13. For example, there are areas that are more vulnerable due to extreme heat, such as "heat islands" with more pavement and less trees, or areas with a higher concentration of older residents (health sensitivity). There are areas that are vulnerable to extreme precipitation such as floodplains and landslide hazard areas, along with populations that live alone or have less access to a vehicle (low adaptive capacity). (US Climate Resilience Toolkit, 2021)

Exhibit 13: Elements of Climate Vulnerability



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Exhibit 14: Definitions of Climate Vulnerability and Indicators

Exposure	Sensitivity	Adaptive Capacity	Vulnerability
The presence of people, assets, and ecosystems in places where they could be adversely affected by hazards	The degree to which a system, population, or resource is or might be affected by hazards.	The ability of a person, asset, or system to adjust to a hazard, take advantage of new opportunities, or cope with change.	The propensity or predisposition of assets to be adversely affected by hazards. Vulnerability encompasses exposure, sensitivity, potential impacts, and adaptive capacity.
Common Indicators Extreme Heat Extreme Precipitation Flooding Wildfire Smoke and Danger Air Pollution	Common Indicators < 5 years old > 65 years old Steep slopes / geologic hazards Waterbodies on 303d list Diabetes Asthma Respiratory disease Heart Disease	Common Indicators People of Color Poverty Less than high school degree Linguistic Isolation Living Alone Housing Cost Burden Access to Vehicle Housing Condition Population Density Urban Heat Island Impervious Surface Unemployment Outdoor Professions Population no health insurance Tree canopy coverage Access to Open Space	Common Indicators Combination of exposure, sensitivity and adaptive capacity indicators

Source: (US Climate Resilience Toolkit, 2021) (Yu, 2021)

Through the climate vulnerability assessment process, this study produced a Climate Vulnerability Index (CVI). The goal of the CVI is to create a geospatial tool that synthesizes key climate, environmental, and community data to inform the City's land use and climate planning work. The CVI is designed to identify areas within Vancouver that are more vulnerable to climate change.

The Vancouver CVI presents a series of indices and bivariate intersections. The Exposure Index represents the City's first index regarding Climate Exposure. In addition, to support the CVI, a Vancouver Health Index was also prepared with components of population health sensitivity. The CVI also makes use of the City's Equity Index which considers facets of sensitivity and adaptive capacity, particularly socioeconomics. Altogether the following intersections were made:

- **Climate Exposure** intersection with **Vancouver Equity Index** analysis
- **Climate Exposure** intersection with **Community Health Metrics**

CLIMATE INDEX DESCRIPTION AND SCORING

Building an index is the process of standardizing or normalizing data to allow for 'apples-to-apples' comparisons between dissimilar datasets. The data is summarized at the block group level for each block group in the planning area (Vancouver + UGA). After each block group contains the summarized metric for each of the exposures, z-score standardization is used to rank each exposure indicator. Z-scores represent how many standard deviations from the mean a given value is. These allow us to understand how a given indicator value for a block group relates to the rest of the dataset. For example, looking at urban heat islands, if a block group had a z-score value of -1.5, that would mean that urban heat island exposure in that block group is relatively low compared to the rest of the planning area. On the other hand, if it had a score of +1.5, that would mean exposure is relatively higher in that block group compared to the rest of the planning area. Once z-scores are calculated for each block group and each indicator, they are considered standardized, and because they are all representing the same metric (number of standard deviations away from the mean), they can be averaged together to create multidimensional metrics or indices.

Climate Exposure, Equity, and Health

Exhibit 14 details the datasets used to analyze exposure to heat, precipitation/flooding, and smoke/air quality. These datasets provide for the greatest granularity and spatial resolution for use in an index. Notably, this list excludes climate projections for the region produced by the University of Washington Climate Impacts Group, as they do not have high enough spatial resolution to show geographic variability across the City of Vancouver.

Exhibit 15: Exposure Index Metrics and Data Sources

Category	Metric	Description	Source	Data Year(s)
Heat	Land Surface Temperature – Urban Heat Islands	Average Land Surface Temperature	LANDSAT8 / BERK Consulting	2019-2023
Heat	Heat Wave Exposure - Hazard Type Risk Index Score	Heat Wave Exposure - Hazard Type Risk Index Score	FEMA National Risk Index for Natural Hazards	2023
Heat	Low Tree Canopy	Percent of Tract NOT Intersecting Tree Canopy	City of Vancouver / WDFW High Resolution Change Detection	2019 / 2017
Flooding / Precipitation	100- and 500-yr Floodplains	Percent of Tract Intersecting 100- or 500-yr Floodplains (excluding the actual waterways from which floods originate)	FEMA FIRM Floodplains	2021

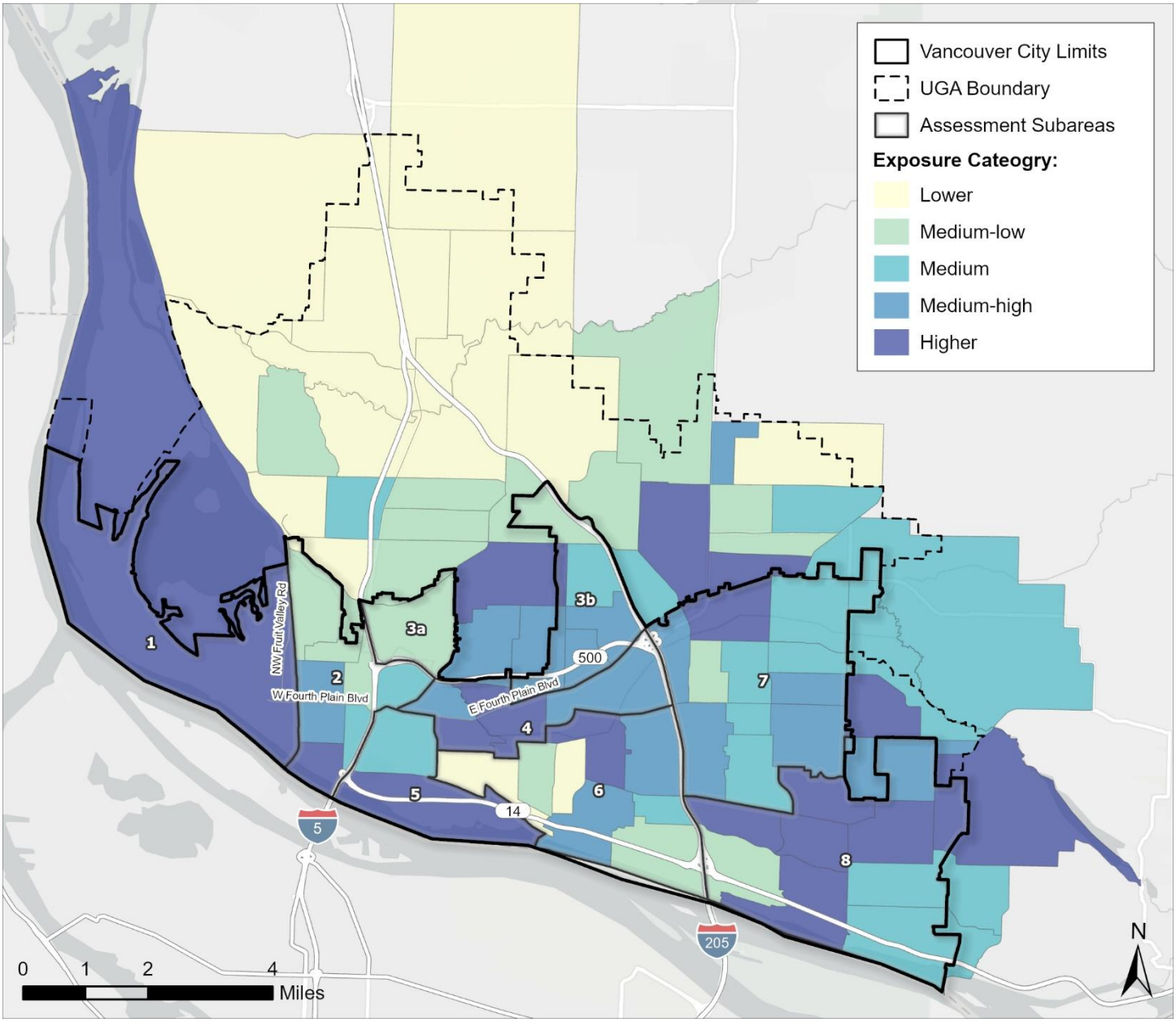
Category	Metric	Description	Source	Data Year(s)
Flooding / Precipitation	Urban Flooding - Impervious Surfaces	Percent of Tract Comprised of Impervious Surfaces	City of Vancouver / WDFW High Resolution Change Detection	2019 / 2017
Flooding / Precipitation	Riverine Flooding Exposure - Hazard Type Risk Index Score	Riverine Flooding Exposure - Hazard Type Risk Index Score	FEMA National Risk Index for Natural Hazards	2023
Smoke / Air Quality / Fire	Wildland Urban Interface	Percent of Land Area Intersecting WUI Intermix or Interface	WA DNR	2019
Smoke / Air Quality / Fire	Proximity to High Traffic Volume	Average Annual Daily Traffic at Major Roads Within 500 meters of Census Block Centroid	EJ Screen	2020
Smoke / Air Quality / Fire	Ozone Concentration	Average Ozone Concentration	NW-AIRQUEST Regional Background Design Values, 2014-2017 estimates	2014-2017
Smoke / Air Quality / Fire	Ozone Concentration	Ozone annual mean top 10 of daily maximum 8-hour concentration in air	EJ Screen / US EPA	2019
Smoke / Air Quality / Fire	PM2.5 Background Concentration	Average PM2.5 Concentration	Field PM2.5 2014 – 2017 estimates from the Washington State Department of Ecology	2014-2017
Smoke / Air Quality / Fire	PM2.5 Background Concentration	PM 2.5 levels in air measured using an annual average	EJ Screen / US EPA	2019

Sources: Compiled by BERK, 2025.

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Combining indicators of extreme heat, extreme precipitation/flooding, and wildfire danger/smoke, a unified index is presented below. The areas with the highest exposure to climate change are identified west of I-5 around Vancouver Lake and along NW Fruit Valley Rd, between I-5 and I-205 in central Vancouver south of SR 500, along Fourth Plain Blvd and E 18th St, and in east Vancouver along SE Mill Plain Blvd. See Exhibit 15.

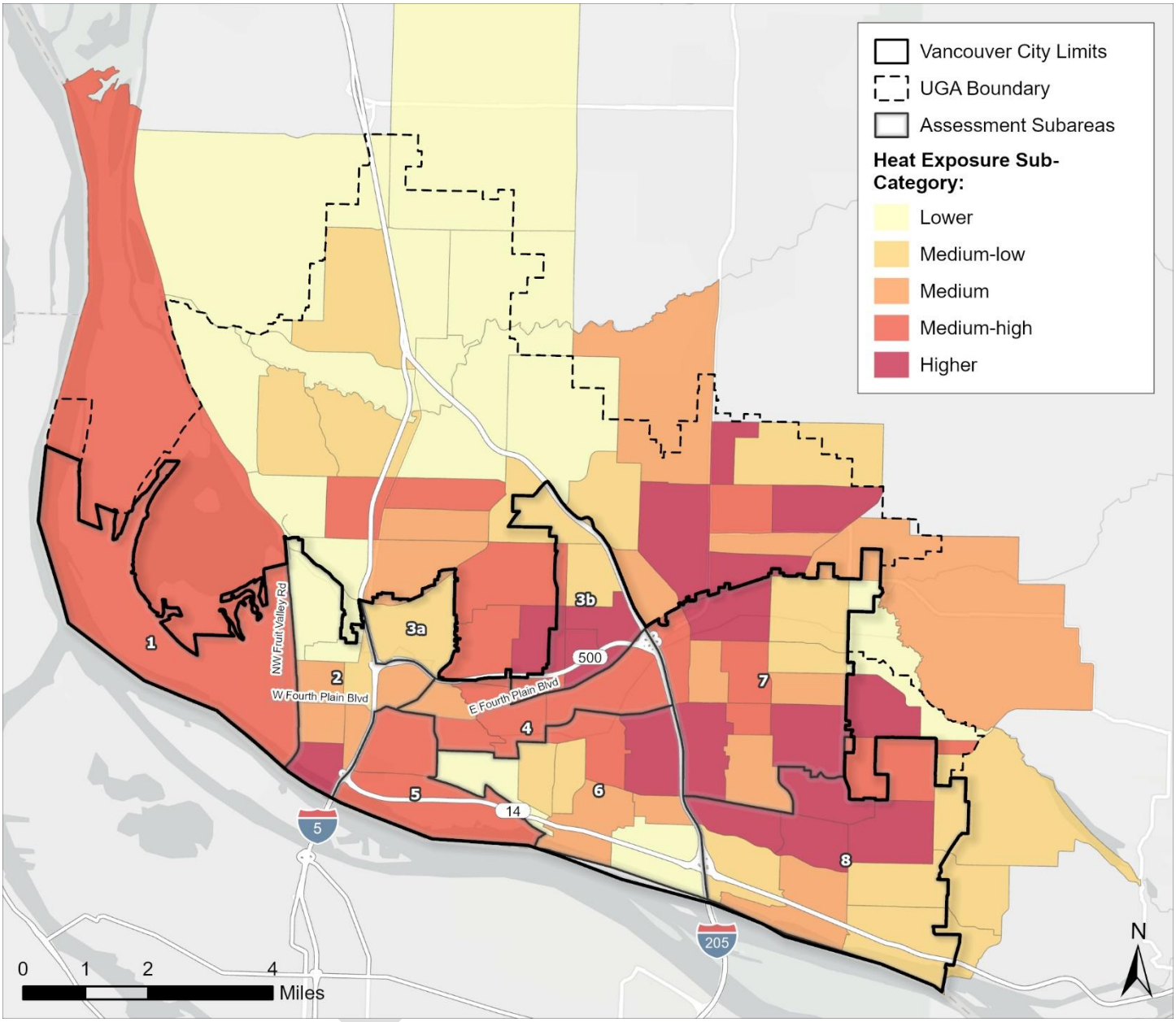
Exhibit 16: Vancouver Climate Exposure Index



Source: BERK Consulting, 2025.

Extreme heat is a driver of climate exposure east of I-205 and along SE Mill Plain Blvd, as well as areas in the UGA. Medium high exposure to extreme heat is found around Vancouver Lake and in other areas in east Vancouver. See Exhibit 16.

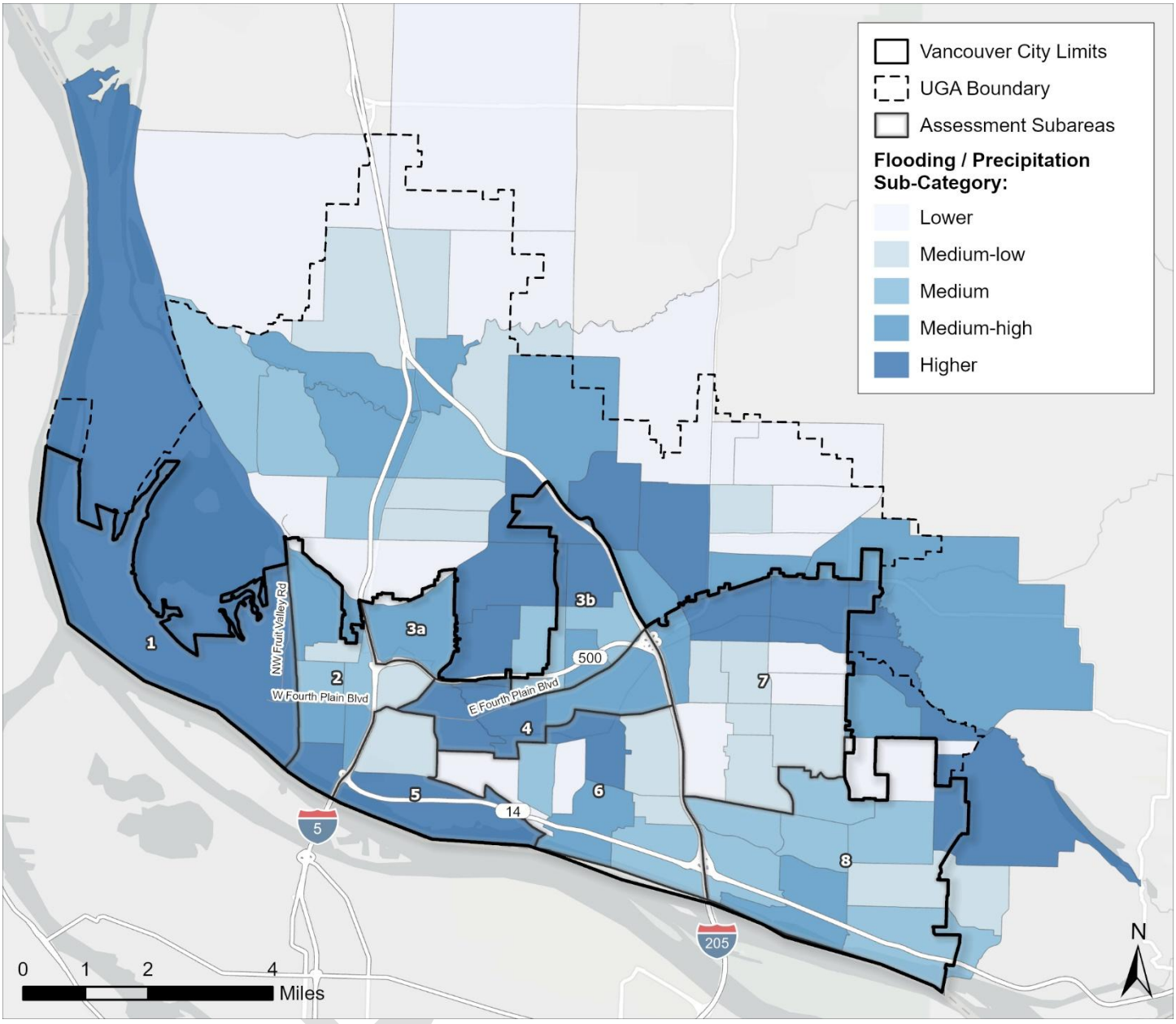
Exhibit 17: Extreme Heat Exposure Index



Source: BERK Consulting, 2025.

Higher exposure to flooding and extreme precipitation is identified around Vancouver Lake and in central Vancouver around Burnt Bridge Creek. See Exhibit 17.

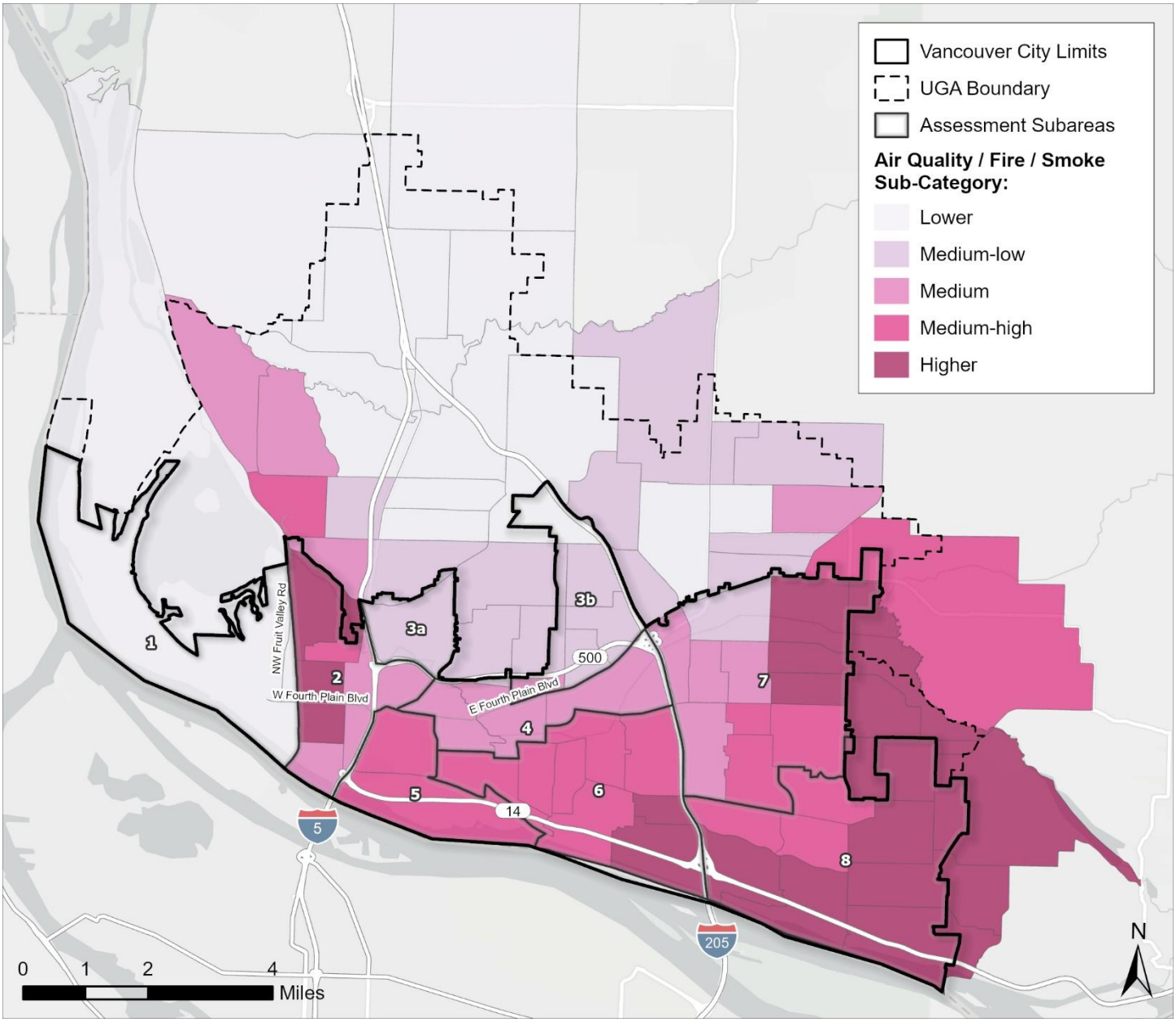
Exhibit 18: Flooding and Precipitation Exposure Index



Source: BERK Consulting, 2025.

Areas of higher Air Quality/Smoke/Wildfire exposure are east of NW Fruit Valley Rd, along SR 14 and in southeast Vancouver. While some data sources suggest wildfire risk around Vancouver Lake, the block has very low ozone scores and low to average PM2.5 scores. The Wildland Urban Interface for that area also is not as high as for other blocks in East Vancouver. See Exhibit 18.

Exhibit 19: Air Quality/Smoke/Wildfire Exposure



Source: BERK Consulting, 2025.

Equity Index + Climate and Equity

The City created an Equity Index with a number of metrics meant to

> *"translate the self-expressed values and local knowledge of underrepresented or underserved community members into a data-driven mapping exercise. The results of the mapping exercise can be used in multiple ways. For example, to identify priority investment areas; to tailor programmatic offerings into specific communities; or to simply better understand the dynamics of social vulnerability across a geographic landscape."*

Metrics include aspects of sensitivity (age) and adaptive capacity (socioeconomics) such as race, language, poverty, renter households, and education. See Exhibit 19.

Exhibit 20: Equity Index Metrics

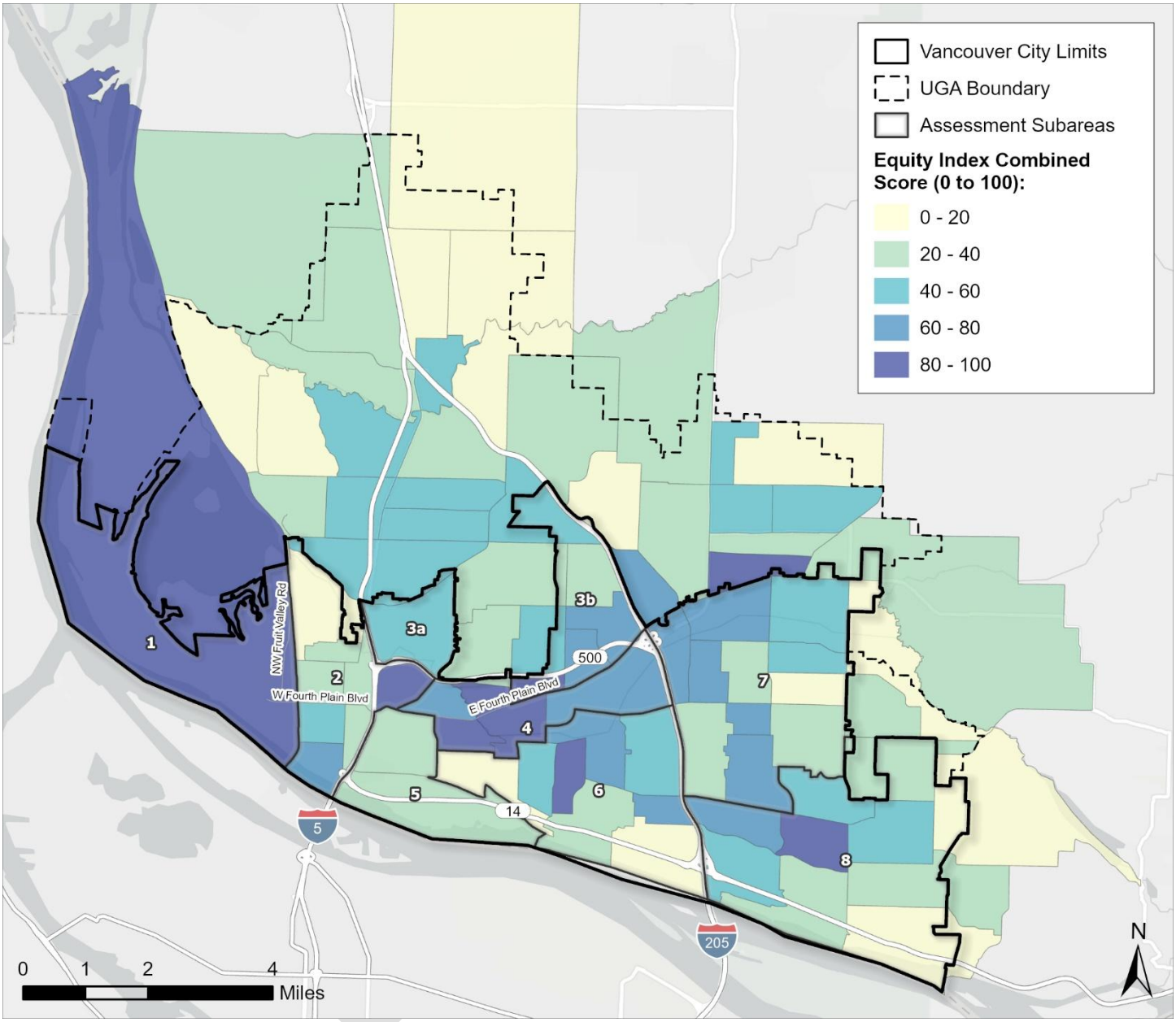
Metric	Source 2010-2020	Relationship to Vulnerability
People of color	ACS B03002	Adaptive Capacity
People below 200% poverty	ACS C17002	Adaptive Capacity
Renter households	ACS B25003	Adaptive Capacity
Adults without a 4-yr degree	ACS B15002	Adaptive Capacity
Households with limited English proficiency (LEP)	ACS C16002	Adaptive Capacity
Persons with disabilities	ACS B18101	Adaptive Capacity
Youth (0-17)	ACS B01001	Sensitivity
Older adults (65+)	ACS B01001	Sensitivity

Source: (City of Vancouver, 2022)

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The Equity Index results show communities with higher Equity disparities along Fourth Plain Boulevard such as Maplewood, Meadow Homes, and Baley Downs neighborhoods. See Exhibit 20.

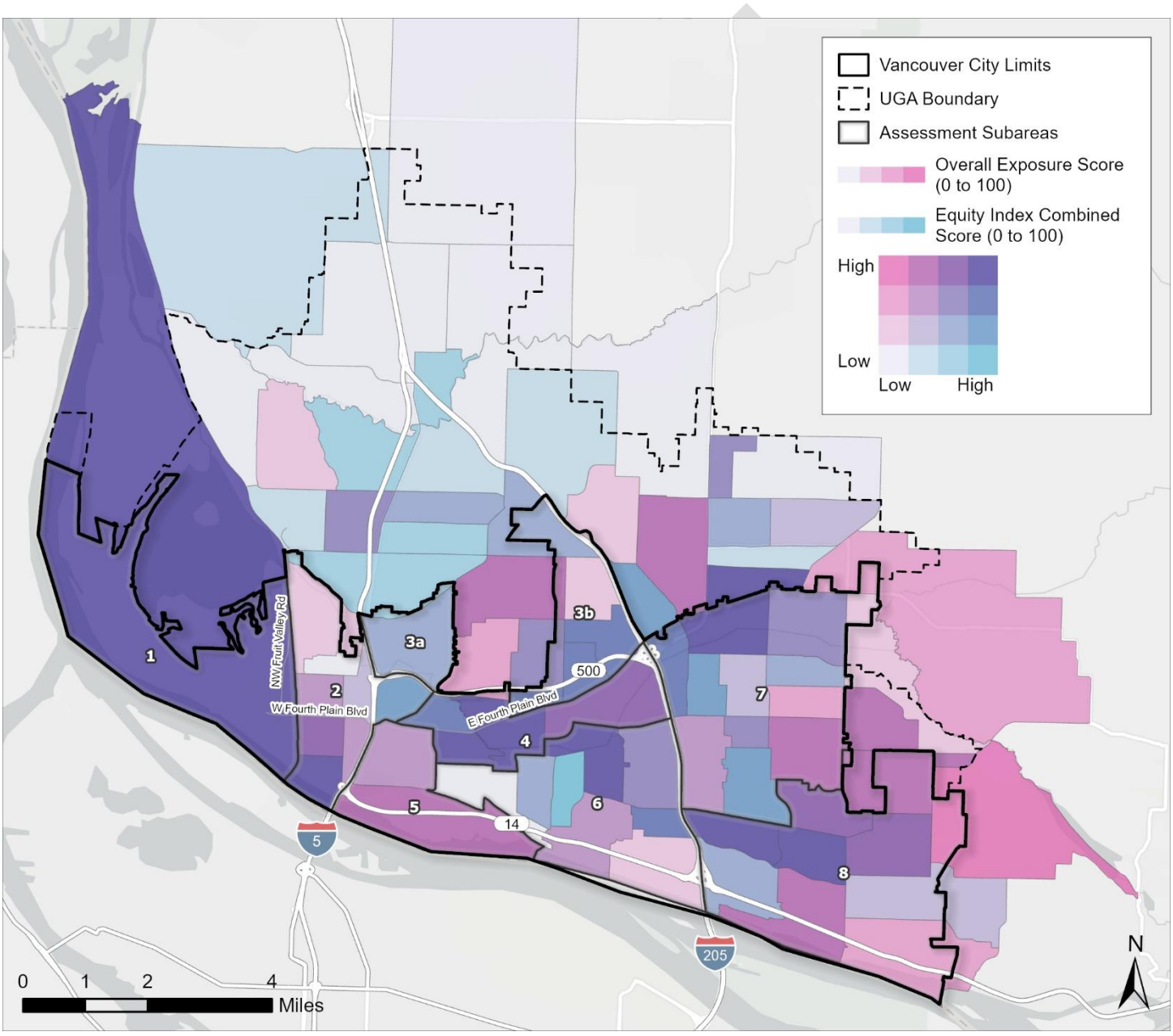
Exhibit 21: Equity Index Score for Vancouver



Source: (City of Vancouver, 2022): BERK 2025.

Considering both climate exposure and equity, the bivariate analysis shows areas with higher scores on both indices. A closer review of conditions and strategies include locations such as Vancouver Lake and NW Fruit Valley Road, Census tracts south of SR 500 and along Fourth Plain Boulevard as well as neighborhoods in southeast Vancouver. See Exhibit 21.

Exhibit 22: Climate Exposure + Equity Index



Source: (City of Vancouver, 2022); BERK 2025.

Health Index + Climate and Health

Some attributes shown in the literature to correlate to higher sensitivity are asthma, chronic obstructive pulmonary disorder (COPD), diabetes, heart disease, poor physical health, and poor mental health. These data points were available at the tract-level from the Centers for Disease Control (CDC Places). See Exhibit 22.

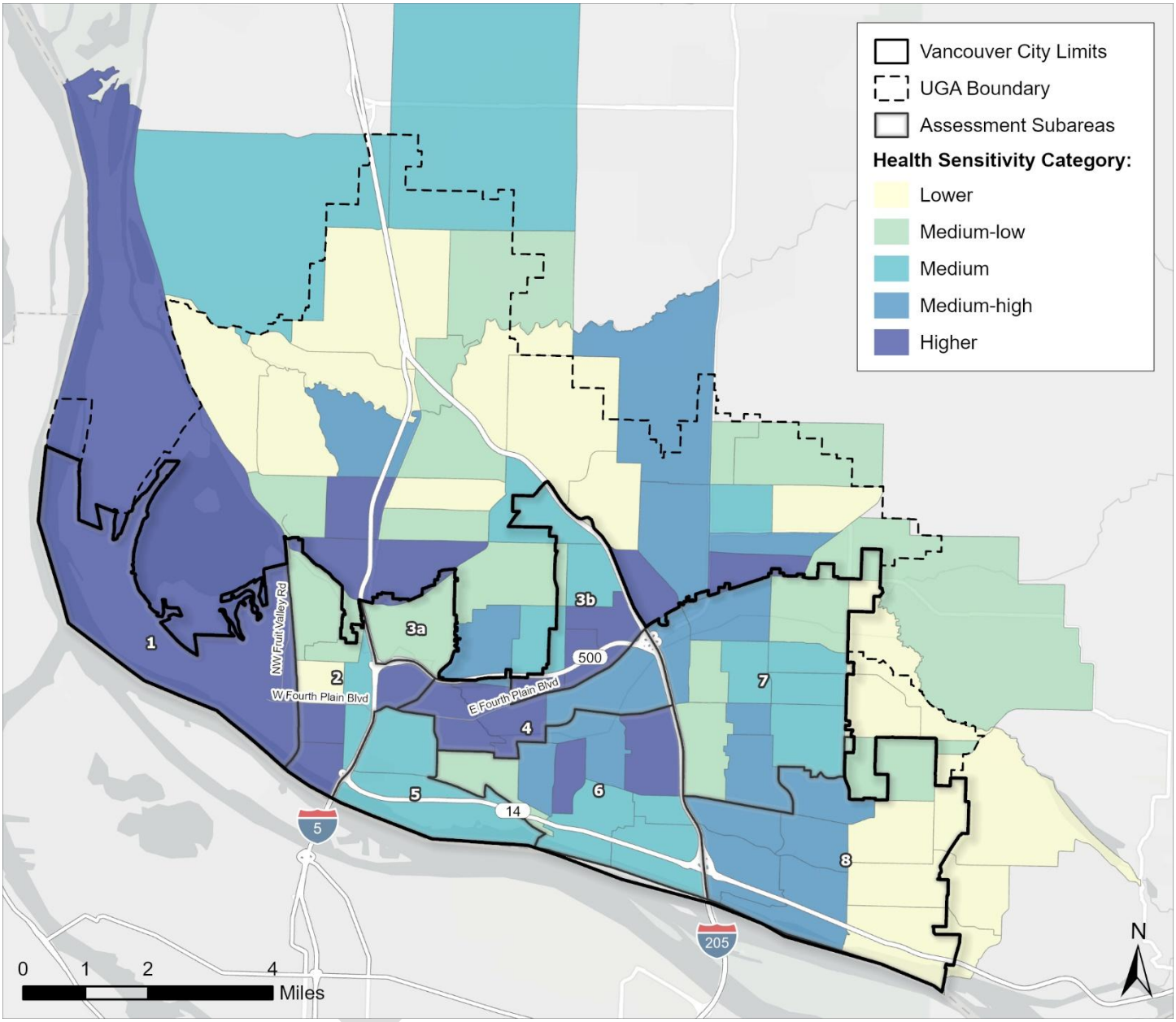
Exhibit 23: Health Data Considered in Health Index

Indicator	Variable Name	Definition
Health Insurance Access	CDC Places	Model-based estimate for crude prevalence of current lack of health insurance among adults aged 18-64 years, 2021
Hypertension	CDC Places	Model-based estimate for crude prevalence of high blood pressure among adults aged >=18 years, 2021
Asthma	CDC Places	Model-based estimate for crude prevalence of current asthma among adults aged >=18 years, 2021
Coronary Heart Disease	CDC Places	Model-based estimate for crude prevalence of coronary heart disease among adults aged >=18 years, 2021
COPD	CDC Places	Model-based estimate for crude prevalence of chronic obstructive pulmonary disease among adults aged >=18 years, 2021
Diabetes	CDC Places	Model-based estimate for crude prevalence of diagnosed diabetes among adults aged >=18 years, 2021
Poor Mental Health	CDC Places	Model-based estimate for crude prevalence of mental health not good for >=14 days among adults aged >=18 years, 2021
Poor Physical Health	CDC Places	Model-based estimate for crude prevalence of physical health not good for >=14 days among adults aged >=18 years, 2021

Source: CDC Places, 2021.

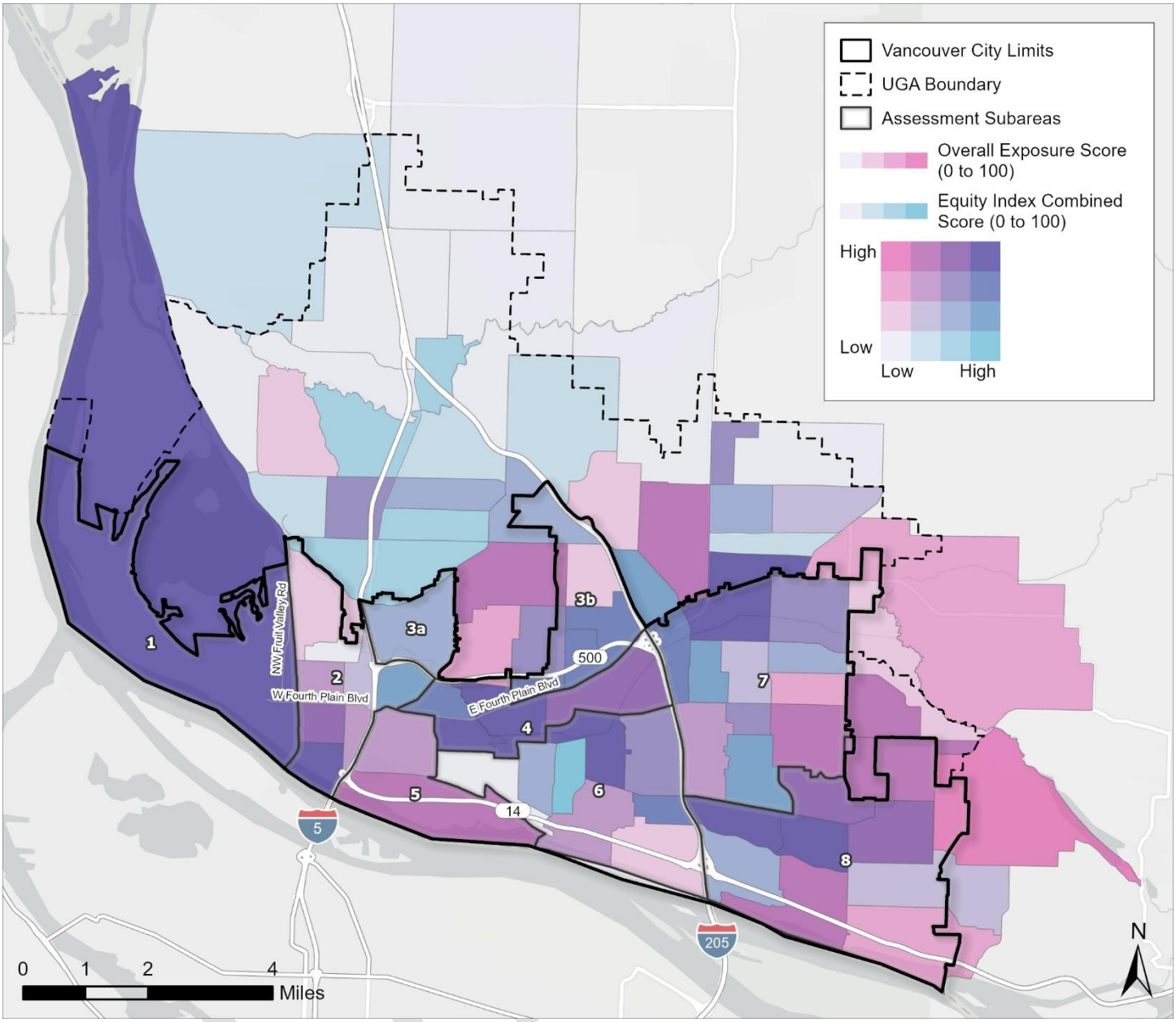
Health Index results are similar to Equity Index results with populations having more sensitive health conditions in west and central parts of Vancouver. See Exhibit 23 for the Health Sensitivity Index and Exhibit 24 for a bivariate Exposure and Health Sensitivity map.

Exhibit 24: Health Index – Vancouver



Source: CDC Places, 2021; BERK Consulting, 2025.

Exhibit 25: Exposure and Health Index – Bivariate Map



Source: BERK Consulting, 2025.

3. Residents Vulnerable to Climate Change Impacts

People Vulnerable to Climate Change

Vancouver is home to 202,600 residents (OFM 2024). It is a growing community along the Columbia River and the Portland Metro area. While vibrant with opportunities, some socioeconomic factors may result in Vancouver communities having more challenges when coping with climate hazards and impacts:

- Over 15% experience poverty
- About 15% identified that they have a disability
- 8.3% are without health insurance
- 1 out of 5 speak a language other than English at home
- 32.5% are non-White residents

Source: ACS 2017-2021 per **OUR VANCOUVER** Equity Analysis, March 2024

Vancouver's share of populations with these characteristics are higher than the shares for Clark County and the State of Washington.

Communities that tend to be more vulnerable to climate change related impacts are those that are already at health, social, and economic risk, including older people, children, low-income families, persons of color, and immigrant communities. (EPA, 2021)

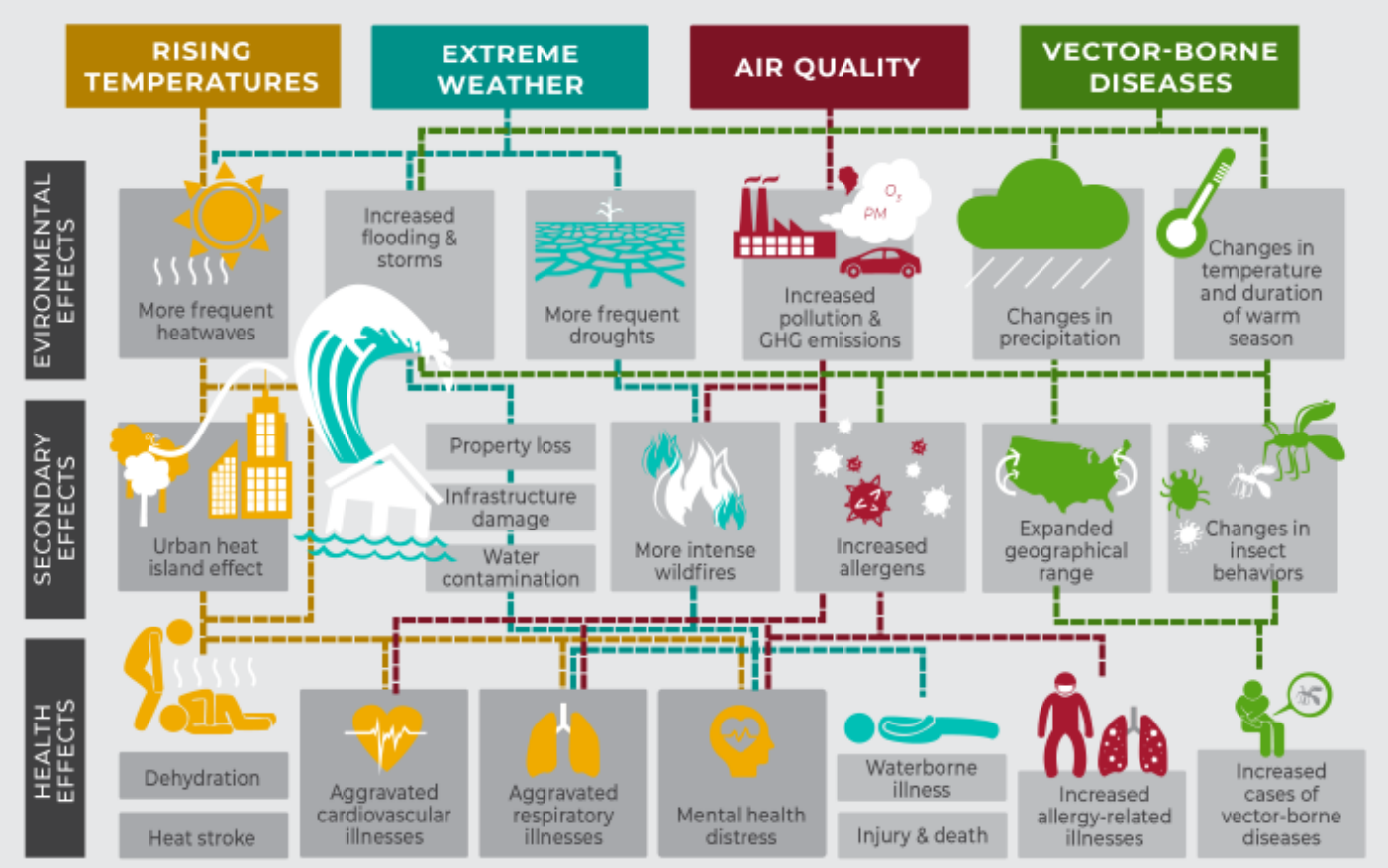
- Persons that are elderly may have more limited mobility or preexisting health conditions, and children under 5 years old may have a harder time regulating temperature and may have underdeveloped immune systems.
- Low-income households may be more susceptible to illnesses and have limited resources to adapt or respond to climate change.
- Communities of color may have cumulative exposures to pollution and health and social disparities.
- Persons that speak English less than very well may have more difficulties during evacuation and difficulties accessing post-disaster funding.

Sources: (Yu, 2021) (Hayden, 2023)

A graphic summary of how climate change affects health is in Exhibit 25.

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Exhibit 26: How Climate Change Affects Health



Source: (American Public Health Association, 2024)

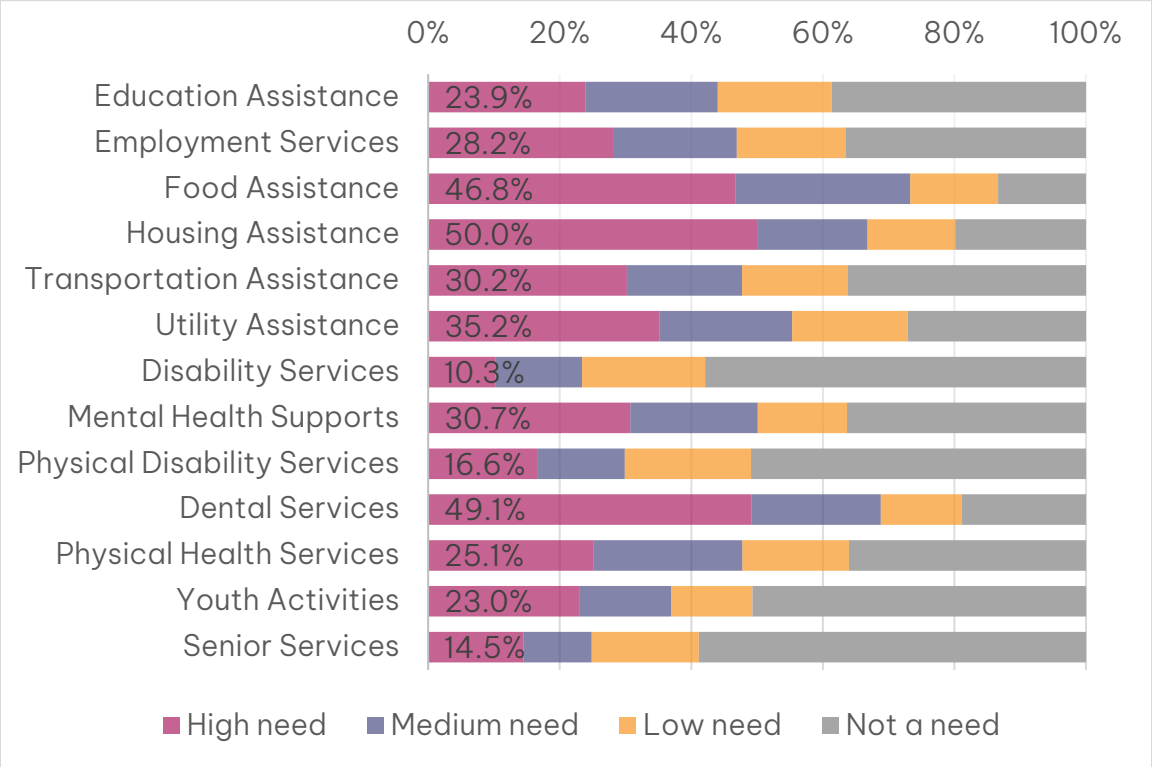
Health Sensitivities

Some health attributes that correlate to higher sensitivity are asthma, chronic obstructive pulmonary disorder (COPD), diabetes, heart disease, poor physical health, and poor mental health. Using the Centers for Disease Control (CDC) Places information at a census tract level, a health index was developed for the purposes of this study. See Exhibit 23 in the prior chapter. These persons may be more vulnerable to climate change hazards.

Vancouver residents participated in a Clark County Health community needs assessment in 2023-2024. See Exhibit 26. Results showed the types of economic and physical challenges that predispose populations to climate vulnerability and offer areas of focus to improve resilience:

- Higher needs – assistance with housing, food, transportation, and utilities
- Moderate needs – support with dental, mental, and physical health services

Exhibit 27: Clark County Needs Assessment Survey 2024: Vancouver Respondent Findings



Source: Clark County Public Health, March 2024

Capacity to Adapt and Equity

Populations in Vancouver with potential socioeconomic disparities include persons in poverty, persons with disabilities, renter households, persons with high school or less education, and persons of color. These populations may have less resources to prepare for or respond to climate impacts. For example, in the Northwest United States, an EPA study in 2021 found that those with lower incomes are much more likely than those with higher incomes to have the highest labor hour losses among weather-exposed workers. BIPOC populations were more likely to have new asthma diagnoses due to particulate air pollution which can be exacerbated by climate change. (EPA, 2021) Vancouver's Equity Index considers the relative concentrations of these populations by Census block. Areas with populations that may have Equity disparities include Fruit Valley and Fourth Plain Blvd). See Exhibit 20 in the prior chapter.

Engagement with underserved community members could help surface priorities for investment in public services as well as locations needing more investment in amenities like parks, tree canopy, services, stormwater treatment, sidewalks, and others.

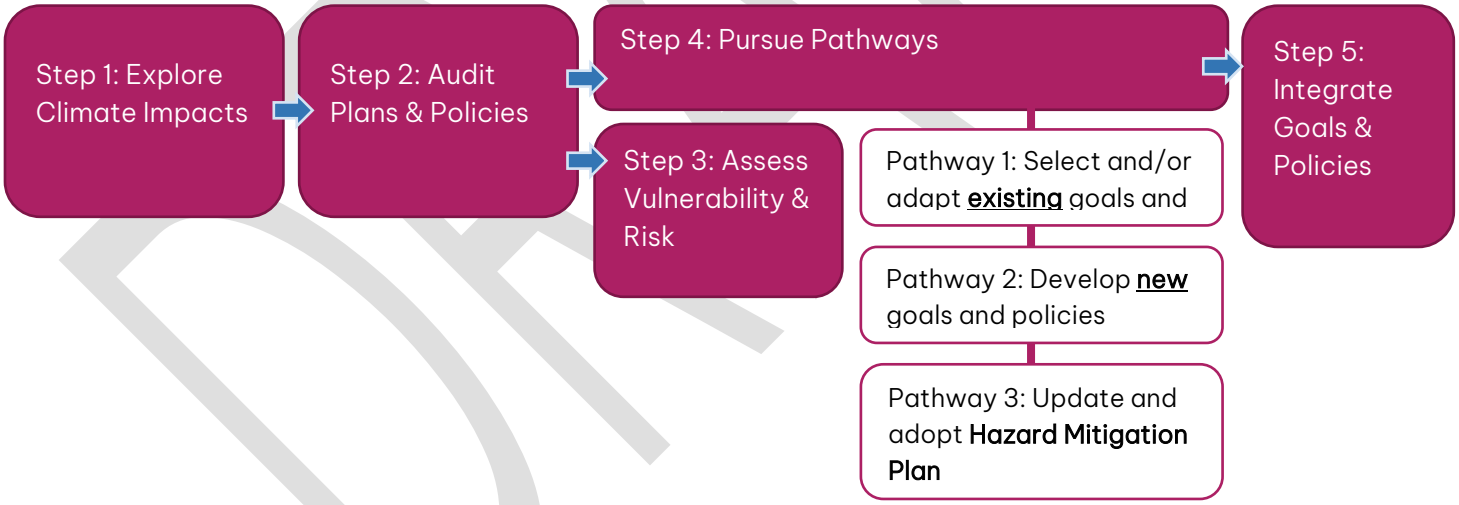
4. Planning for Climate Change

Growth Management

The State legislature passed HB 1181 requiring a Climate Change & Resiliency Element. The element is to provide actions to reduce GHG emissions and per capita VMT. The element also must "equitably enhance resiliency to, and avoid or substantially reduce the adverse impacts of, climate change in human communities and ecological systems through goals, policies, and programs." The goals, policies and programs should be based on the best available science and credible climate projections and impact scenarios. Both the GHG reduction sub-element and the resiliency sub-element must prioritize GHG reductions and climate resilience actions that benefit overburdened communities.

The State of Washington Department of Commerce has developed guidance (Commerce, 2023) to develop the climate element including both GHG reduction and resiliency sub-elements. This document provides a Vancouver Climate Vulnerability Assessment consistent with Steps 1 through 3. A separate policy evaluation recommends adapting existing or proposing new goals and policies to address Steps 2 and 4. See Exhibit 27.

Exhibit 28: Climate Resilience Sub-Element Steps – Washington Department of Commerce



Source: (Commerce, 2023)

This Vulnerability Assessment addresses Resilience sub-element step 3. Regarding the GHG sub-element, the City has developed GHG emission reduction goals in a Climate Action Framework and has inventoried GHG emissions. The City is in the progress of developing per capita VMT goals with the Comprehensive Plan periodic update.

Related Vancouver Climate Planning Efforts

Climate Action Framework (2022)

In December 2022 Vancouver adopted a 2040 goal to be carbon neutral. A range of strategies was developed to address GHG reductions across energy, transportation, solid waste, and land use sectors, and build capacity with the city government as well as engage equitably with the community. Strategies are listed below. A wide range of actions were identified to implement each strategy.

- Strategy EQ-1. Enhance resilience of overburdened communities
- Strategy EQ-2. Build a more community-driven, circular economy
- Strategy EQ-3. Support growth of the green technology workforce
- Strategy BE-1. Increase use and storage of renewable energy while reducing consumption
- Strategy BE-2. Decarbonize homes, businesses, and other buildings
- Strategy TLU-1. Create neighborhoods that support clean modes of transportation
- Strategy TLU-2. Shift driving trips to clean, active modes of transportation
- Strategy TLU-3. Decarbonize and electrify vehicles
- Strategy TLU-1. Create neighborhoods that support clean modes of transportation
- Strategy TLU-2. Shift driving trips to clean, active modes of transportation
- Strategy NS-1. Increase carbon storage in trees, vegetation, and soil
- Strategy NS-2. Improve ecosystem resilience
- Strategy NS-3. Conserve Water Resources
- Strategy SW-1. Require recycling and organic material management
- Strategy SW-2. Zero out wastewater emissions
- Strategy GOV-1. Mainstream sustainability at the City, including staff capacity

The City is implementing the strategies and actions and monitoring GHG emissions to achieve the ambitious overarching goal of carbon neutrality.

Climate Adaptation Strategy (2022)

The Vancouver Climate Adaptation Strategy was developed for the City by Hatch Planning associated with Portland State University. The report was intended to guide climate adaptation policies, and with the results of engagement – a survey, six pop-up events, and five focus groups – identified the following recommendations:

> **1. Climate-Ready Communities** - Provide essential services for communities to increase resiliency, and expand and increase inclusive access to services. Cultivate community connections to build resilient communities.

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2. Communication and Education - Increase community-wide awareness of climate adaptation strategies and available resources. Foster communication and collaboration between the City and residents, and among residents and community organizations.

3. Green Infrastructure - Bolster green infrastructure in the urban environment that reduces urban heat island effects and mitigates poor air quality. Install green infrastructure in the built environment to increase the resiliency of structures.

4. Land Use and the Built Environment - Implement sustainable land use policies to address changing climate conditions. Promote building and development standards for public and private facilities.

5. Food Security - Increase equitable access to food in the face of rising food prices and insecurity. Promote self-sufficiency through local food production.

6. Governance - Institutionalize climate adaptation strategies among City departments.

Equity and Displacement Indices

Vancouver has developed the Vancouver Equity Index to understand communities and places that have had less investment and are underserved. This can inform policy, budgets, and programs. In addition, Vancouver developed a Displacement Index to identify places in Vancouver experiencing or likely to experience displacement due to redevelopment or due to the expense of housing. This tool is used to inform the City's Comprehensive Plan to avoid impacts where possible and to develop anti-displacement policies.

The Reside Vancouver, Anti-Displacement Strategy, contains four strategies: people, preservation, production, and prosperity. Underneath these strategies are the following recommended actions:

- Manufactured Dwelling Park (MDP) Zoning
- Right of First Refusal
- Anti-Displacement Impact Assessments
- Rental Registration Program
- "Qualified" Local Small Businesses in Public Procurements
- Joint-Labor Management and Job Training Partnerships
- Community Investment Trusts

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Some Reside Vancouver strategies could support economic development and zoning and development climate strategies, such as green technology jobs and building quality housing that meets environmental health standards. (Thread Community Planning, 2023)

OUR VANCOUVER - COMPREHENSIVE PLAN 2045 – Climate Planning

The City is currently updating its comprehensive plan to encourage a connected and accessible. Per the City's approach (City of Vancouver, WSP, 2024) this means the following:

- Accessibility focuses on universally designed places, and the ability for all residents regardless of physical or neural capabilities or incomes to be well served by their built environment.
- Connectivity is intended to communicate how people are connected to services and amenities in neighborhoods, as well as how neighborhoods connect and inter-relate to one another.

The plan will review active trip potential to improve connectivity and increase bicycle and pedestrian trips. The City is evaluating these growth strategies for their ability to provide lower per capita GHG emission and VMT. The land use plan will be supported by a climate change and resilience element per HB 1181.

Community Health

Overburdened Communities Highly Impacted by Air Pollution

Communities across Washington State are exposed to air pollution from stationery, mobile, and other environmental sources. Vancouver was identified as a potentially overburdened community by the Washington State Department of Ecology in its 2023 report due to the city's proximity to major interstates like I-5 and I-205, the nearby industrial uses in the City of Portland, exposure to state-wide and regional wildfire smoke, and socioeconomic and demographic factors that exacerbate negative health outcomes. (Washington Department of Ecology, 2023) (Ecology W. D., 2024)

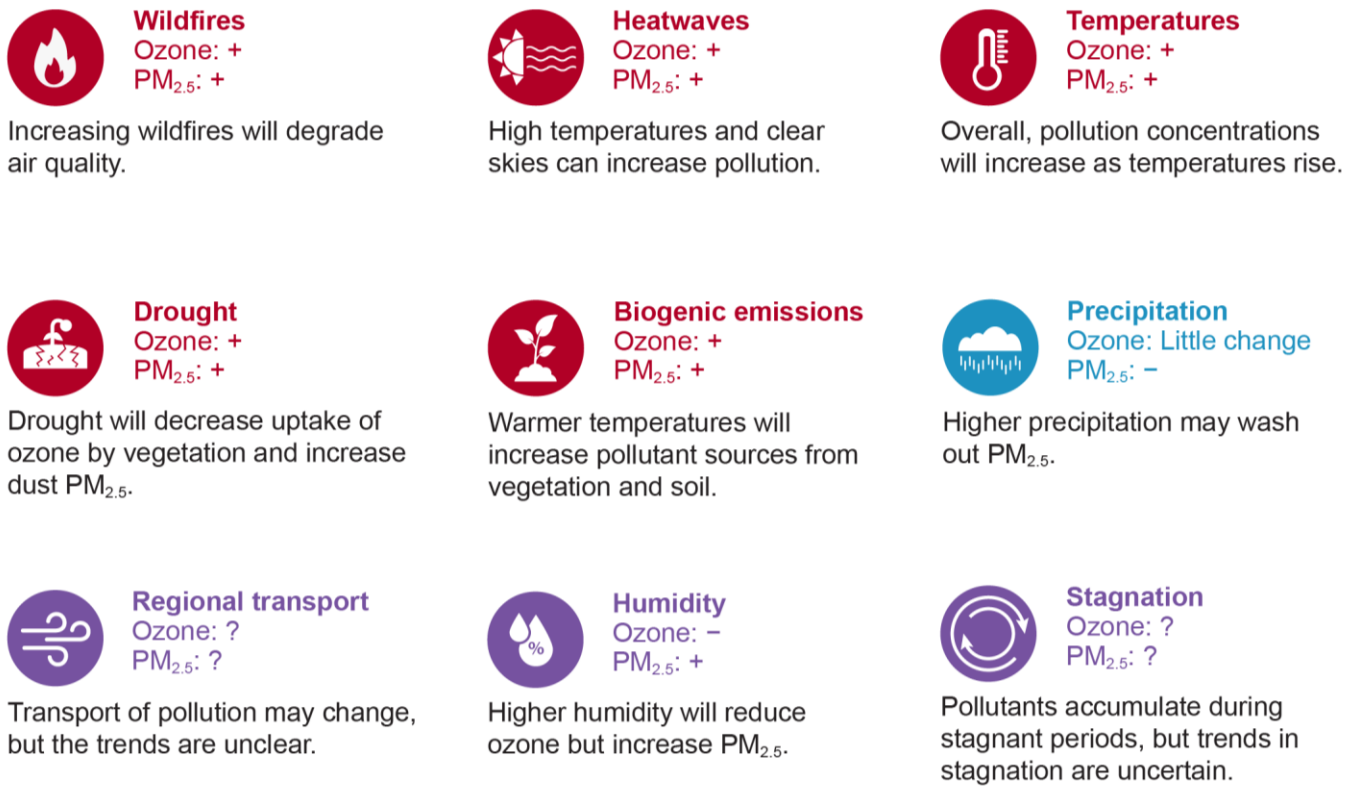
Poor air quality has been linked to negative health outcomes and in overburdened communities. The following impacts are more common in overburdened communities and can be linked to high concentrations of criteria pollutants:

- Heart and lung disease at higher rates than state average
- 2.4 year 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 ($PM_{2.5}$) from human-caused sources than the statewide average.

- Older adult people of color have a higher risk of death from breathing fine particles ($PM_{2.5}$) compared to older white adults in the same area. (Washington Department of Ecology, 2023)

Climate change can directly degrade air quality such as during extreme heat events, causing ozone levels to be higher. Higher PM 2.5 pollution levels could also occur during heatwaves, Increasing wildfires would result in smoke and PM 2.5 exposure. (West, 2023) See Exhibit 28.

Exhibit 29: Climate Change Impacts on Ozone and PM 2.5 over the United States



CAPTION: Climate change is projected to alter concentrations of two key US air pollutants, ozone and $PM_{2.5}$, through several processes. Red icons signify increased ozone and $PM_{2.5}$, and the blue icon denotes decreased $PM_{2.5}$. Plus and minus signs indicate the expected pollutant response to climate-driven changes in meteorology. Question marks and purple icons denote uncertainty in either the response or in how the meteorological process will change with climate change. Given uncertainties and regional differences in pollution responses, the magnitude of these responses is not presented.
Source: (West, 2023)

Ecology intends to place air monitors in overburdened communities and publish biennial reports on community criteria pollution levels, greenhouse gas emissions, and health impacts. The Climate Commitment Act also requires Ecology to develop standards and strategies to reduce the criteria air pollution in overburdened communities highly impacted by air pollution.

Vancouver can coordinate with Ecology as it monitors pollutants and as it implements its Climate Action Framework to reduce greenhouse gas emissions.

Adaptive Capacity Assessment

This report is also in conversation with the City's **Adaptive Capacity Assessment (2025)**, which focused on understanding the systems, resources, and conditions that enable communities to respond to climate hazards. Findings from the Adaptive Capacity Assessment have been integrated—helping to illuminate where and why vulnerability varies, and what additional actions may be needed to support at-risk populations and infrastructure. (City of Vancouver, 2025)

Health Impact Assessment

The City prepared a Health Impact Assessment (HIA) that 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 HIA also analyzes health-related conditions around these themes:

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

The HIA addresses impacts from gaps in the built environment for secure and active lives, and access to services important for day to day living, as well as a range of health hazards. Analysis of these conditions has provided a basis for improved policies addressing community health.

Some sectors addressed in this Vulnerability Assessment overlap with the Health Impact Assessment such as Agriculture and Food Systems, Health and Well-being, and Zoning and Development.

Health and climate resilience are considered together in the Comprehensive Plan Update policies.

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5. Vulnerability & Risk Assessment

Introduction

This report provides a planning level evaluation of climate impacts in Vancouver. It describes communities, places, and infrastructure that may be more or less vulnerable. It describes current or potential new strategies to enhance Vancouver's resilience. This assessment informs new or amended policies in the Comprehensive Plan periodic update. Data, policies, and implementation strategies would be updated and evolve over time.

The climate impacts and strategies are reviewed across 11 sectors in the following order:

- Agriculture & Food Systems
- Buildings & Energy
- Cultural Resources & Practices
- Economic Development
- Emergency Management
- Health & Well-being
- Ecosystems
- Transportation
- Waste Management
- Water Resources
- Zoning & Development

For each sector, the following information is provided:

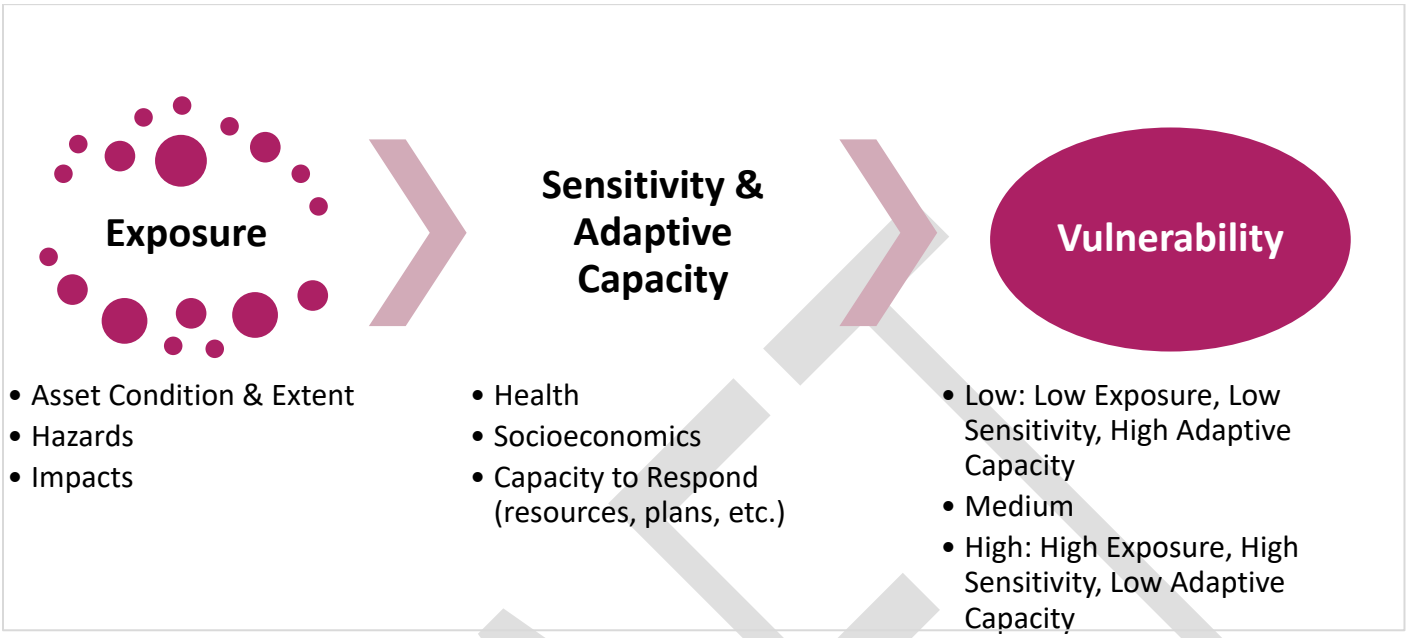
- Sector Overview and Assets
- Potential Climate Impacts
- Adaptive Capacity
- Vulnerability Summary
- Gaps and Opportunities

The Vulnerability Summary is based on criteria described below.

Vulnerability Criteria: Under each sector, the Census tracts or Areas (1 through 8) with higher exposure, higher sensitivity, or lower adaptive capacity are identified. Key indicators or assets that are most impacted are also considered. See Exhibit 29. These planning level considerations of vulnerability and risk can help Vancouver identify and prioritize policies and development regulations. Also see a Climate Resilience Policy Evaluation available under separate cover.

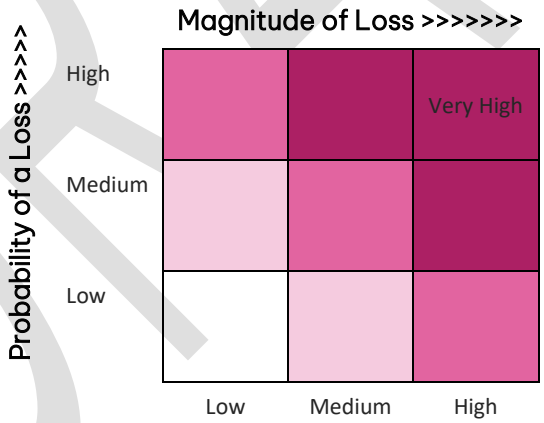
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Exhibit 30: Assessment of Climate Vulnerability



Source: (US Climate Resilience Toolkit, 2024), BERK 2025.

Risk Criteria: Under each sector, a summary of Risk is provided considering likely climate impacts in 10+ years, magnitude of loss, extent of City responsibility, and effect on vulnerable communities. (See sidebar on following page.)



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RISK: PROBABILITY AND MAGNITUDE

Probability is the potential that the impact would occur during the 20-year planning period, and is informed by the Natural Hazards Mitigation Plan (Clark Regional Emergency Services Agency, 2023), University of Washington Climate Impacts Group resiliency mapping tool (Raymond, Climate Mapping for a Resilient Washington, 2022), and other literature.

Probability is based on whether climate impacts have occurred or are possible during the short term (5 years), medium term (10 years), and long term (20 years).

- All sectors would be impacted by extreme heat and wildfire smoke or worsening air quality, and these impacts have occurred and are most likely to occur in the next 5-10 years making them a medium or high probability.
- Severe flooding in the 100-year floodplain is a lower probability given the limited floodplain and flood protection infrastructure, but urban stormwater impacts are more likely at least with a medium probability in the next 10 years.

Magnitude would vary across the landscape and by sector, and considers:

- The potential for multiple climate impacts.
- The City's responsibility for system management or recovery needs.
- Whether costs would broadly affect vulnerable populations (extent or numbers) including those with health sensitivities or low resources (adaptive capacity).

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Agriculture & Food Systems

Sector Overview and Assets

The food system in Vancouver is comprised of various sites and services: places to buy food, such as grocery stores and farmers markets; services combating food insecurity, such as food pantries and free and reduced school lunches; opportunities for food growing and urban foraging, such as gardens and fruit-bearing trees; and the supply chain systems that transport and process food. There is only a small amount of urban agriculture within Vancouver, but Clark County has an active farming community that serves the city through area farmer's markets and community supported agriculture programs, where households can buy a share of produce during the growing season.

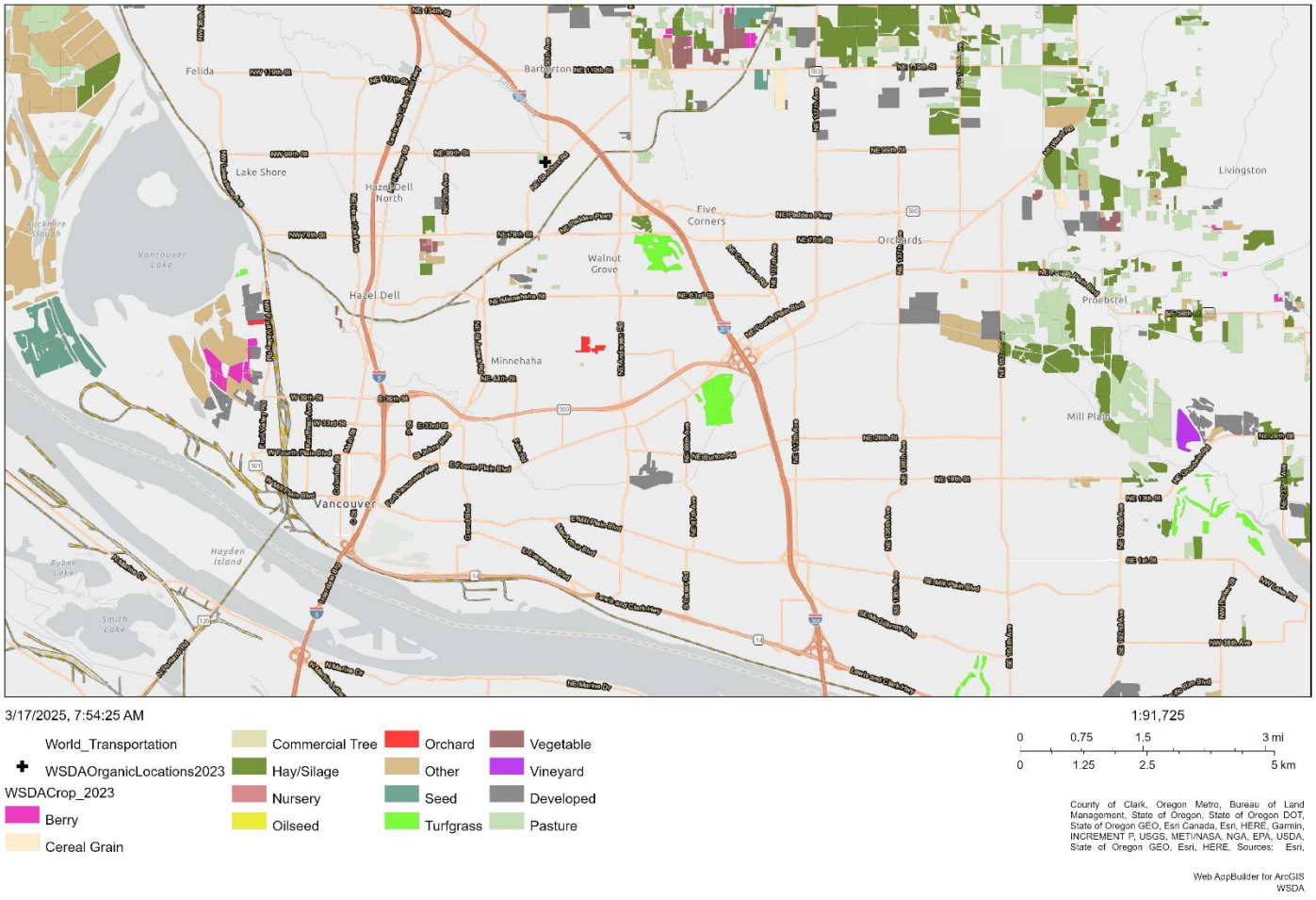
The Clark County Community Needs Assessment survey, conducted by Clark County Public Health in 2024, found that food assistance and access to fresh and healthy foods were among the top physical health services needs for Vancouver respondents (Clark County Public Health, 2024).

Key assets for agriculture and food systems in Vancouver include:

- A small amount of urban agriculture, mostly located near Vancouver Lake (Area 1) and along NE Fourth Plain Boulevard (Area 7) (see Exhibit 30)
- Farmer's markets, including the Downtown Market (year-round) and East Vancouver Market (seasonal)
- Community Supported Agriculture (CSA) programs (generally offered by farms outside of city limits)
- City community gardening program (five sites across the city including Areas 1, 4, 5, 6, 7)
- Grocery stores (see Exhibit 31)
- Food pantries (operated by Clark County Food Bank and partner organizations—see Exhibit 32)
- Food transportation and supply chain
- School lunch programs, including free and reduced school lunches
- Home gardens
- Fruit-bearing trees in the right-of-way and in parks

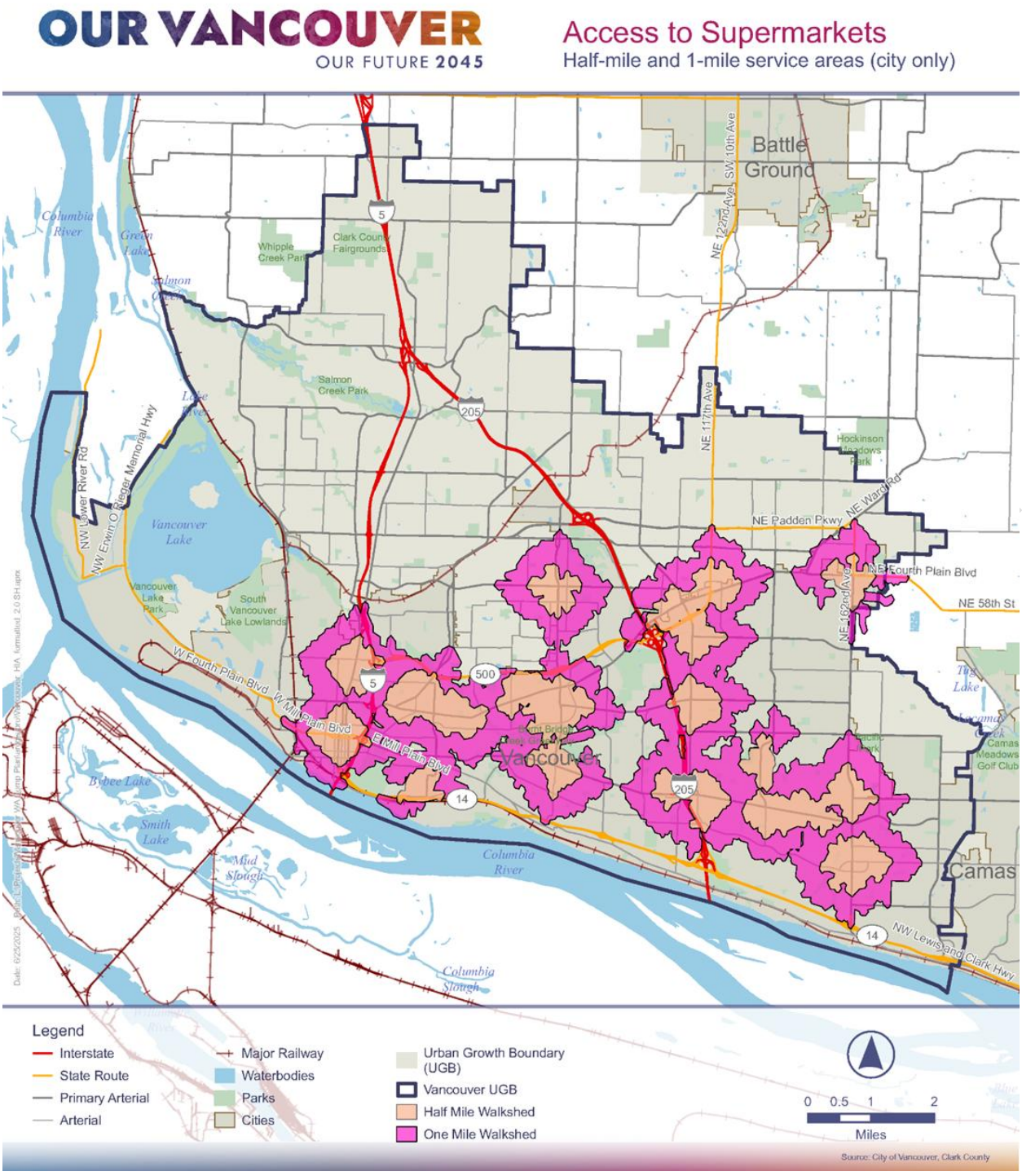
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Exhibit 31: Agricultural Inventory – Vancouver Vicinity



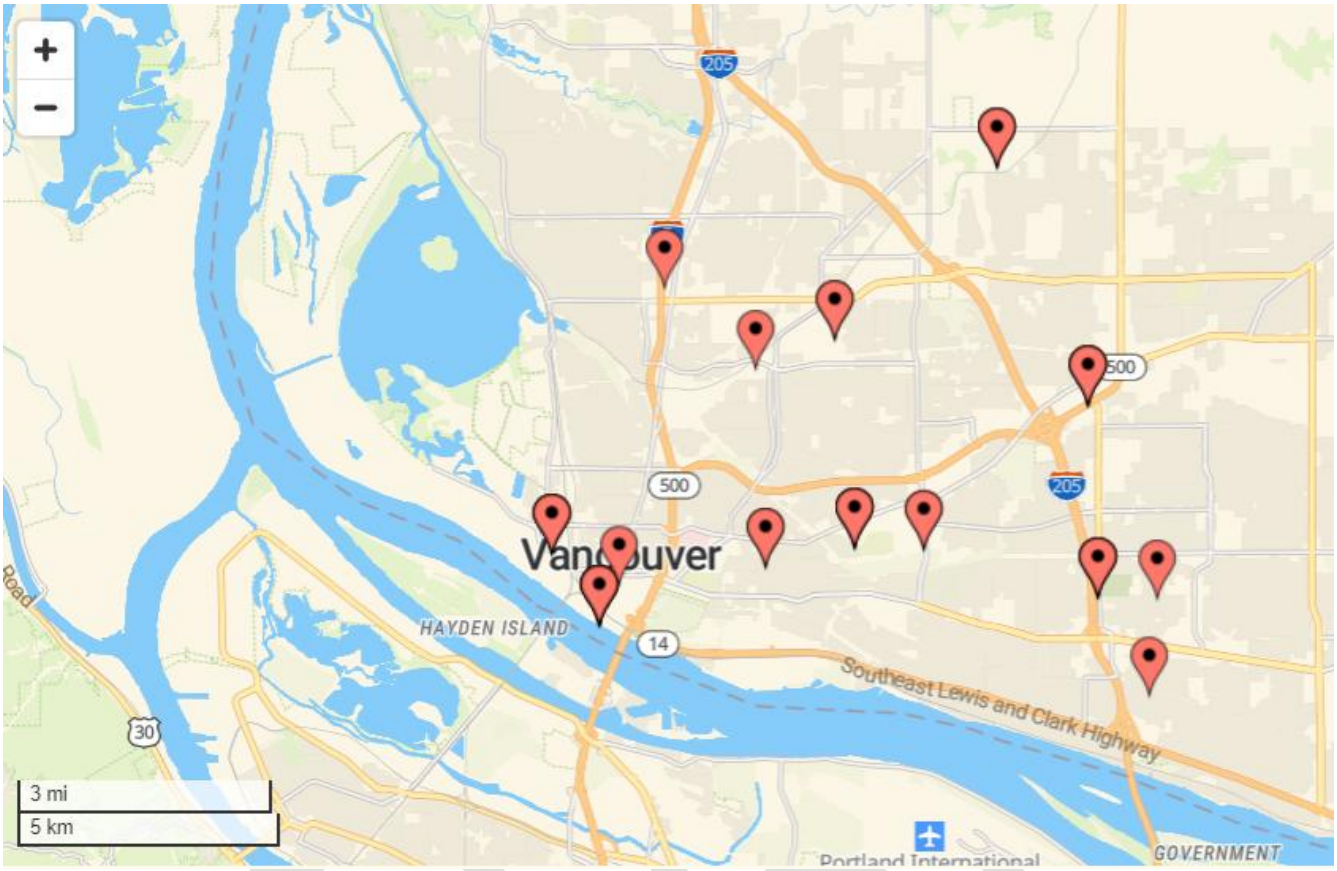
Source: (Washington State Department of Agriculture, 2023)

Exhibit 32: Supermarket Access



Source: WSP 2024, BERK 2024.

Exhibit 33: Clark County Food Pantry Sites



Source: (Clark County Food Bank, 2024)

Potential Impacts

Heat, extreme precipitation, flooding, drought, wildfire, and smoke are all expected to impact food systems in Vancouver, including crop viability and watering costs, health of farmers and gardeners, demand for food banks and other resources, costs for operating grocery stores, logistics for the transportation of food, and farmers market operations.

- Extreme heat and drought can stress plants in farms and gardens, as well as public fruit-bearing trees, affecting yields, viability of urban agriculture, and availability of some local food items. Watering costs also increase in such events, impacting producers and possibly resulting in higher food prices. Extreme precipitation and flooding events could also result in crop loss. While much of the city is likely to be exposed to similar levels of drought and extreme heat, agriculture is highly sensitive and primarily located on the west side. The west and central areas of the city are also more exposed to extreme precipitation and flooding.

- Extreme heat can increase the cost of food refrigeration for businesses and households. This can impact several links of the food system, including harvesting, transportation, distribution, and household use.
- Unsafe temperatures and smoke can impact the work and wellbeing of farmers, gardeners, and city maintenance staff, who work outside. These events can also result in cancelled outdoor farmers markets, and food banks may become more crowded as extreme weather refuges for those who are experiencing housing insecurity. Individuals without a vehicle may also be unable to safely travel to get food.
- Wildfire and flooding may affect some food transportation routes at a regional level, impacting the logistics of food businesses in Vancouver. Local flooding could also impact household access to grocery stores.
- Areas near Vancouver Lake and on the eastern edge of the city are within the wildland urban interface and may be susceptible to wildfire, including the city's primary area for urban agriculture on the west side.
- Assets like grocery stores may be less sensitive to climate impacts than agriculture, which is highly dependent on predictable weather patterns and less able to recover from shocks. Therefore, the west area of the city, where most of the urban agriculture is located, may be more sensitive than other areas.

Adaptive Capacity

Adaptive capacity of food systems in Vancouver varies by asset type.

Food banks, SNAP support, and free and reduced school lunch programs already see a lot of demand in Vancouver: 15.5% of households receive Supplemental Nutrition Assistance Program (SNAP) support (American Community Survey, 2022). In the 2021-2022 school year, 48% of students in Vancouver received free and reduced lunch (Design Workshop, 2024). If food costs increase due to the impacts of climate change on agriculture, many households will struggle to keep up with the rising prices. The Clark County Food Bank has recently completed a new facility, which could allow them to expand their programs.

The City's community gardening program and other programs that support hyperlocal food production and distribution could make communities more resilient to supply chain shocks, and resulting cost increases, from regional, national, and international climate impacts. Slow Food Southwest Washington has an Urban Abundance program, which supports Vancouver and nearby communities in creating publicly-accessible food-scapes and gleaning and donating food that would otherwise go to waste (Urban Abundance, 2024).

Climate events that impact transportation, such as by making it unsafe to walk or wait at a bus stop, would be harder to adapt to for parts of the city that do not have access to grocery stores within one mile. See Exhibit 31.

Food production in Vancouver may have more flexibility to adapt to drought conditions, by increasing watering, than extreme heat, smoke, and extreme precipitation.

Vulnerability Summary

Hazards affecting the citywide food system include extreme heat, drought, flooding and extreme precipitation, and wildfire smoke. While the whole city is exposed to these hazards, urban agriculture is generally more sensitive to climate events than assets such as grocery stores. See Exhibit 33 for a summary of vulnerability to agriculture and community gardens.

Area 1 has urban agriculture and a community garden (Fruit Valley) and is exposed to a higher risk of extreme heat and flooding. Area 4 has a community garden (Campus) but no known commercial agriculture; it has a medium-high risk of exposure. Other areas with the presence of community gardens include Areas 2 (Marshall), 5 (Fort Vancouver) and 7 (LeRoy Haagen). Areas 3b and 7 also have limited agriculture. However, the Census tracts in areas 3b, 5, and 7 have less exposure to hazards.

Exhibit 34: Vulnerability by Census Tracts – Agriculture and Community Gardens

Census Tracts	Area	Heat	Flooding/ Precipitation	Smoke/ Air Quality	Overall Exposure	Health Conditions	Equity Index	Agriculture, Community Garden
53011041005	1	Higher	Higher	Lower	Higher	Higher	Higher	Ag, Gar
53011041800	2	Medium-low	Medium-low	Medium-low	Medium-low	Higher	Higher	Gar
53011041107	3b	Medium	Lower	Medium-low	Medium-low	Lower	Medium-low	Ag, Gar
53011041600	4	Medium	Medium-high	Medium-high	Medium-high	Higher	Higher	Gar
53011042602	5	Medium	Medium	Medium	Medium	Medium	Medium-low	Gar
53011041207	6	Medium	Medium	Medium	Medium	Medium	Higher	Gar
53011041326	7	Lower	Medium	Medium	Medium-low	Medium-low	Medium	Ag
53011041337	7	Medium-low	Lower	Medium-low	Medium-low	Medium-high	Medium-high	Gar

Legend: Ag = Agriculture, Gar = Garden
Source: See Chapter 2 for indicators and methods. BERK, 2025.

In summary, the area most affected with agricultural assets and heat and flooding exposure is Area 1 as described above. Area 1 contains some vulnerable communities and abuts other

vulnerable communities in Area 2. Area 3b has exposed agricultural and garden assets but medium low or lower populations with health sensitivity or equity disparities; thus, Area 3b is not highlighted in the summary of risk.

Exhibit 35: Risk Summary – Agriculture Sector



Source: BERK, 2025.

Gaps and Opportunities

Strategies to Improve Adaptive Capacity

Based on the Asset Mapping Assessment and climate planning engagement, following are some strategies to address agriculture and food systems:

- Pilot edible rain gardens or de-paving projects near NE Fourth Plain to support food access and manage stormwater runoff (City of Vancouver, 2025)
- Provide food forests or edible landscapes in heat-impacted neighborhoods. (City of Vancouver, 2025)
- 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. (Hatch Planning and City of Vancouver, 2022)

Discussion: City staff who maintain fruit and nut trees on public property could be a source of information on the City's current inventory of food-producing trees, how the food is harvested and used, and resilience considerations for these assets. The school district could also be a connection point as many children in Vancouver qualify for free and reduced school lunches, making school a key food source.

Policies

A policy audit of City plans to support the **OUR VANCOUVER 2045** periodic update showed limited policies addressed agriculture and food systems in the context of climate hazards. The audit suggested policy revisions such as:

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- Address affordability of healthy food and support of healthy food in schools or other programs.
- Add more specific policy language about actions to support food security.
- Address resilience of plants and trees that support local fruit and nut production on public property.

The **OUR VANCOUVER 2045** effort is developing policies incorporating these concepts to address these findings in the Climate Vulnerability Assessment and the related Health Impact Assessment:

- Expanding access to community gardens and incentivizing urban agriculture to improve food security and increase healthy food options. (Draft Policy 80)
- Incentivizing and removing regulatory barriers to locating grocery stores and neighborhood markets near housing and in underserved neighborhoods. (Draft Policy 80)

Another policy that supports stormwater management and de-paving, which is also an opportunity for the co-benefit of food security with edible raingardens, includes:

- Focus on improving water quality and prevent flooding through managing stormwater flows, encouraging natural filtration of precipitation to ground water, reducing runoff, mitigating flood risks by advancing systems that manage stormwater effectively, and enhancing local water quality in the watershed. (Draft Policy 10)

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Buildings & Energy

This section addresses energy generation, transmission, and consumption in buildings with a focus on resilience. This section used information from the City of Vancouver Community Profile, Community Atlas, Climate Action Framework, and Climate Adaptation Strategy Policy as well as the County Assessor building data.

Sector Overview and Assets

Buildings

Based on 2024 County assessor data, Vancouver has 57,119 total buildings. Out of that, 93.4% are residential buildings, 4.7% are commercial, and 1.9% are industrial (Exhibit 35). However, 62.3% of total square footage of all Vancouver buildings are residential, while commercial and industrial buildings make up a greater percentage of total square footage than percentage of buildings, at 24.7% and 13.0% respectively (Clark County, 2024). In 2021, there were 83,868 housing units in Vancouver, a 32% increase from 63,620 in 2010 (City of Vancouver, 2022). Out of these housing units, 51.1% are single-family units, 46.8% are multifamily units, and 2.1% are mobile homes (Exhibit 36).

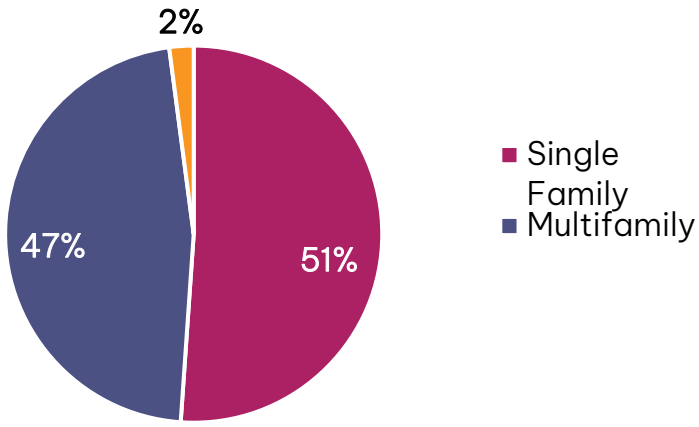
Exhibit 36: Number of Buildings and Square Footage by Residential, Commercial, and Industrial, 2024

	Buildings		Square Footage	
	Number	Percent	Square Footage	Percent
Residential	53,354	93.4%	111,889,986	62.3%
Commercial	2,690	4.7%	44,366,622	24.7%
Industrial	1,075	1.9%	23,259,751	13.0%
Total	57,119		179,516,359	

Source: Clark County Housing Assessor Data, 2024

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Exhibit 37: Housing Units by Type, 2024

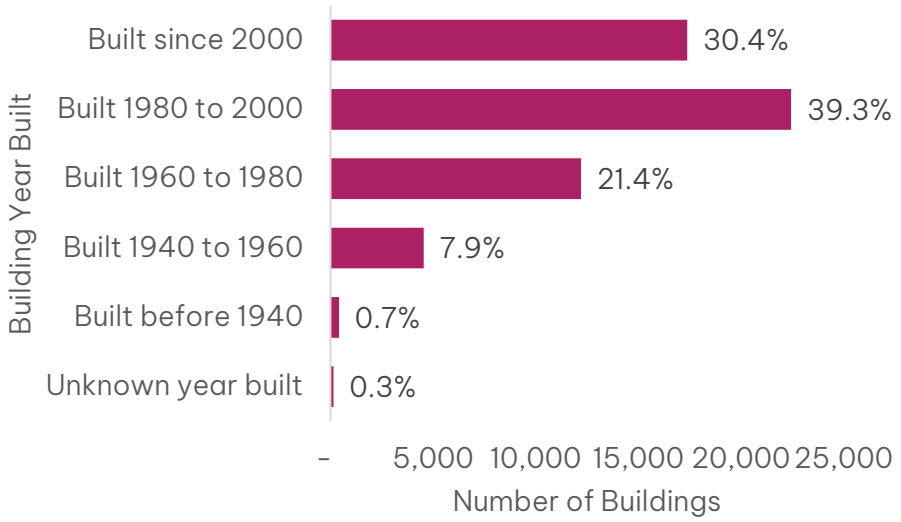


Sources: Postcensal Estimates of Housing Units, Washington State Office of Financial Management, 2024; BERK, 2024.

Vancouver's housing stock is fairly young, as shown in Exhibit 37. The largest percentage of buildings were constructed between 1990 and 1999, and the median year of construction is 1985 (Design Workshop, 2024). 39.3% of all buildings were built between 1980 and 2000, 30.4% were built after 2000, and 21.4% were built between 1960 and 1980. The remaining 8.9% of buildings were built before 1960 or have an unknown age (Clark County, 2024). A share of the housing stock built prior to 1980, about 30% of Vancouver's housing stock, is likely in need of energy efficiency updates as the State Energy Code was adopted in 1985 (Design Workshop, 2024).

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Exhibit 38: Building Age, Residential and Non-Residential, 2024

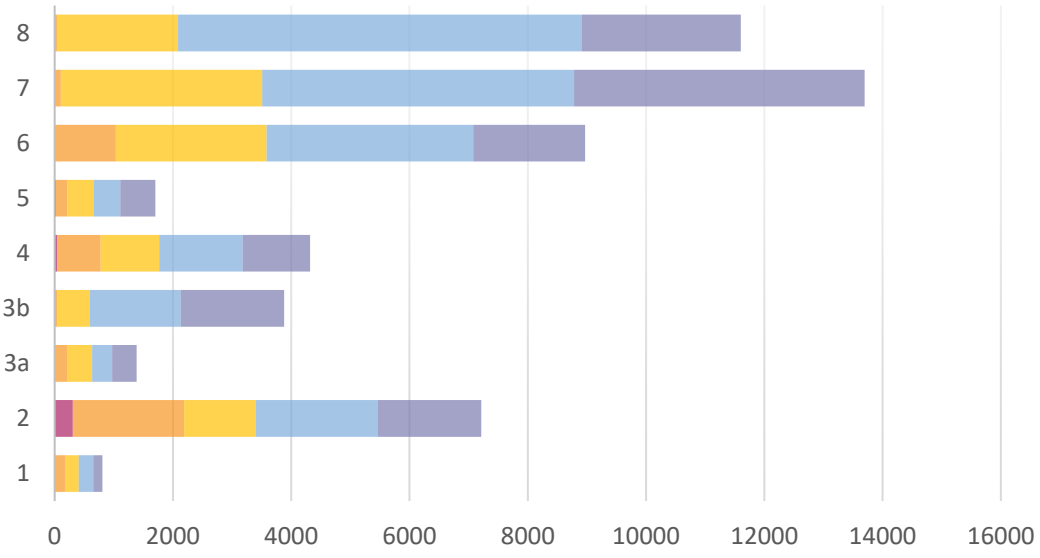


Sources: Clark County Housing Assessor Data, 2024; BERK, 2024.

Older housing stock is found primarily in 2 and 6, but all areas have housing built prior to 1980. Generally, newer housing has been developed on the east side of the city. Older structures may not be weatherized to address cooling and ventilation. See Exhibit 38.

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Exhibit 39: Relative Age of Residential and Non-Residential Buildings by Area in Vancouver

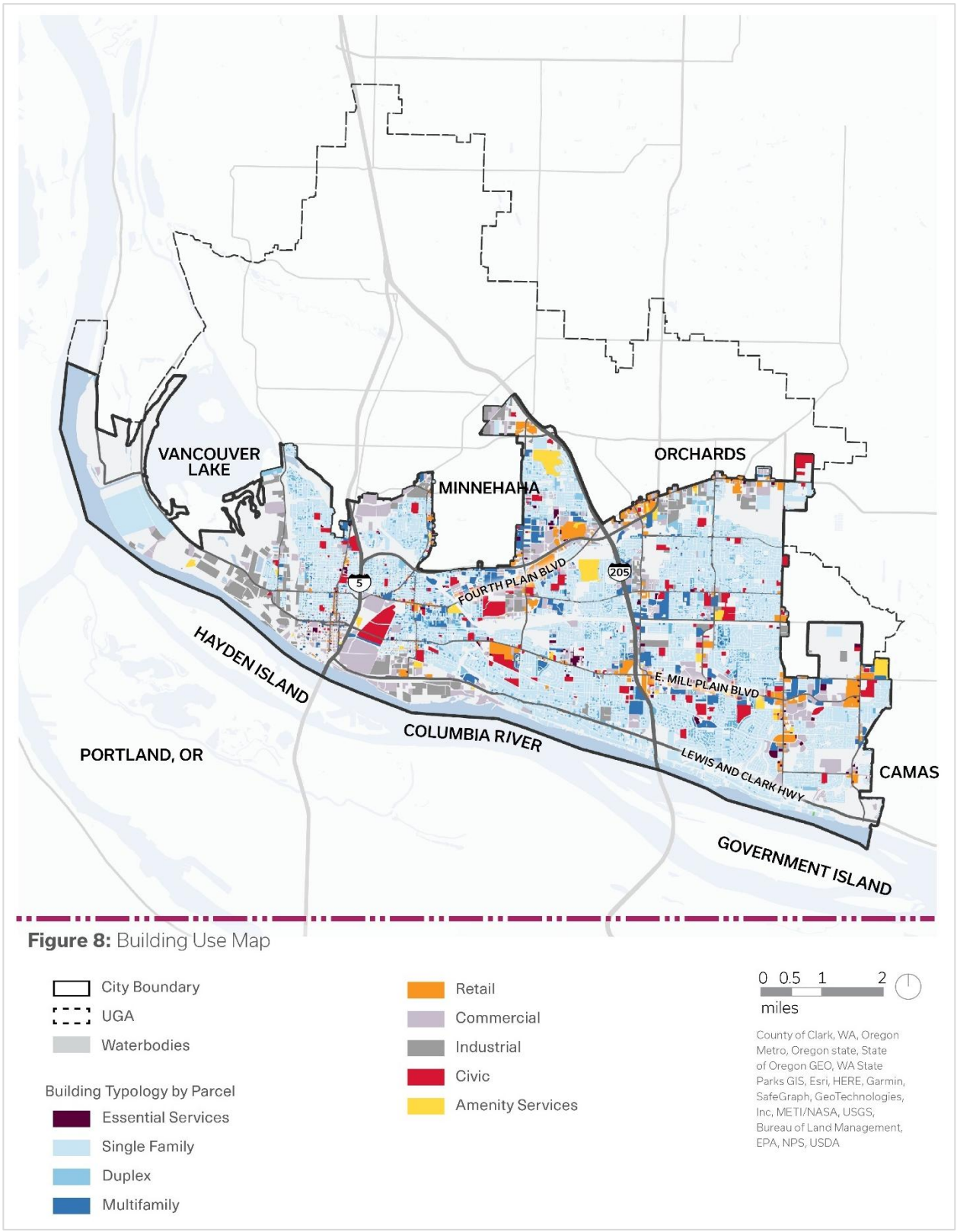


	1	2	3a	3b	4	5	6	7	8
Before 1940	3	307	6	2	43	23	7	6	2
Built 1940-1960	171	1882	204	42	735	193	1028	98	37
Built 1960-1980	233	1213	423	551	991	447	2548	3405	2048
Built 1980-2000	246	2065	338	1538	1411	447	3496	5274	6830
Built since 2000	155	1748	414	1748	1139	593	1891	4914	2685

Sources: Clark County Housing Assessor Data, 2024; BERK, 2025.

Buildings in Vancouver include residential uses (single-family, duplex, multi-family), essential services, retail, commercial, industrial, civic, amenity services, and parks and recreation. As indicated in the building use map, the predominant portion of parcels are residential uses, either single-family or duplex residences. However, there are concentrations of multi-family units along the Fourth Plain corridor and to the north and south of the Mill Plain corridor (Design Workshop, 2024). See Exhibit 39.

Exhibit 40: Building Use Land Map, 2024



Source: (Design Workshop, 2024)

Centers and corridors that have a high-level of essential service provision include Fourth Plain, Vancouver City Center, Central Park and Columbia Tech Center. Areas that are otherwise identified as areas for concentrated growth on the City's 2011 Comprehensive Plan and are still in progress include 112th Avenue Corridor, Fruit Valley, Evergreen and Grand Commercial Corridors, the Heights District, Riverview Gateway, Lower Grand Employment Area, and Section 30.

Energy

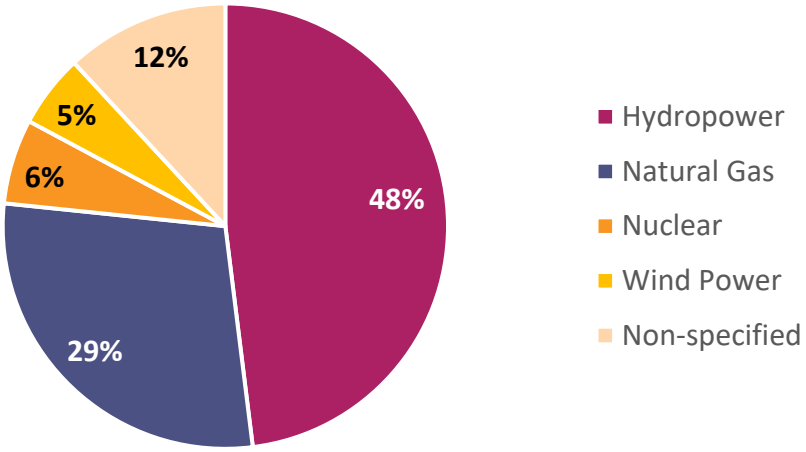
Energy sources for Vancouver are hydropower, natural gas, nuclear, and some renewable energy. Bonneville Power Administration and Clark Public Utilities serve the city. Clark Public Utilities specifically sources energy from the following:

- 48.03% is hydropower purchased from the Bonneville Power Administration (BPA).
- 28.61% is natural gas produced at Clark Public Utilities River Road natural gas-fired generating plant. This facility is located in Vancouver.
- 6.17% is produced by nuclear electricity (BPA purchases the output of the Columbia Generating Station located in Richland, Washington).
- 5.30% is wind power generated at the Combine Hills II wind farm near Milton Freewater, OR.
- 11.89% is market-purchased power from non-specified sources.

As of January 2020, Clark Public Utilities reported facilitating 1,489 individual privately-owned generating systems, primarily rooftop solar, totaling 10.414 megawatts of installed distributed generation capacity (Clark Public Utilities, 2020). Clark Public Utilities also have constructed two Community Solar projects that offer "virtual net metering" for participants benefiting from the two large solar arrays constructed (Clark Public Utilities, 2024). These projects include a total of 1,118 kilowatts of solar capacity. The projects are both fully utilized, and 199 kilowatts were reserved for low-income customers. See Exhibit 40.

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Exhibit 41: Clark County Energy Sources, 2022.



Source: Clark Public Utilities Integrated Resource Plan, 2022; BERK, 2024.
Vancouver's nearly 30 electrical substations are distributed evenly across the City (Clark County, 2024).

In 2023, the buildings and energy sector made up 37% of Vancouver community-wide emissions, second to transport and travel. Out of that 37%, 15% was residential energy, 13% was commercial energy, and 9% was industrial energy (City of Vancouver, 2024). This was an increase in energy use for the community from 2019. However, GHG emissions decreased, likely due to the increased clean energy within the Clark Public Utilities resource mix. The buildings and facilities sector made up 23% of Vancouver government operations emissions, a 9% decrease from 2019. (City of Vancouver, 2024).

Potential Impacts

Vancouver's buildings and energy are expected to be mainly impacted by extreme heat, wildfires, and wildfire smoke. The potential impacts could involve increased energy demands, urban heat island effects, extreme heat exposure health risks, shuttered energy systems, and damage or loss of both energy infrastructure and buildings.

- Energy demand is expected to increase for air conditioning and industrial cooling systems in summer when regional hydropower supply is expected to decrease.
- Demand for air conditioning and infrastructure with cooling systems is expected to increase where it does not exist. Older buildings are less equipped with air conditioning systems or are less efficient, and the residents of these buildings will be more at risk to extreme heat. Lower income communities of color tend to live in these older buildings. The cost of using cooling systems during peak demand could also not be affordable for lower income households (Duque, 2023).

- Power cables have been known melt during extreme heat, such as during a heat wave in 2021 in Portland, OR (Fischels, 2021).
- There may be shuttered power generating stations or transmission corridors to reduce wildfire risk.
- Greater potential to affect energy transmission by extreme weather damaging infrastructure and interrupting transmission and distribution. The Natural Hazards Management Plan identifies extreme weather as a risk.
- Expected building and infrastructure damage and loss.
- Poor air quality due to wildfire smoke could increase demand for air filtration systems in buildings. A recent example took place in August 2023, when the Air Quality Index measured at "unhealthy" ranges in Vancouver (Ellenbecker, 2023).

Exposure of buildings to increases in extreme heat, urban heat island impacts, and energy demand for cooling system can depend on tree canopy level. Vancouver has a current tree canopy cover of 19% with a goal of reaching 28% by 2030 (City of Vancouver, 2024). However, tree canopy coverage is higher in the east and west areas of Vancouver, than central Vancouver. Central Vancouver therefore has a higher risk of potential impacts. These central neighborhoods are prioritized for tree canopy improvements (City of Vancouver, 2024).

Adaptive Capacity

Clark Public Utilities offers many rebates and programs to incentivize energy efficiency. They offer rebates for the installation of heat pumps and ductless heat pumps. They also offer a home weatherization program, a heat pump water heater program, a solar energy program, multi-family property programs, new construction programs, electric vehicle programs, and an electric vehicle managed charging program.

The City of Vancouver's initial efforts in this sector have focused on transitioning to renewable energy, reducing government building emissions, reducing community-wide energy consumption, and decarbonization. In September 2023, the City purchased a 10-kW share (the maximum amount allowed) of Clark's PUD's Community Solar East project. In October 2023, the City also started to identify energy efficiency improvement projects and opportunities to swap gas-powered systems for lower-emission electric systems in City facilities. City facilities were also being reviewed for compliance with WA Clean Building Standards.

The City of Vancouver is in the process of developing Vancouver's first Green Building Policy. The policy and associated building code updates were discussed with the City Council at the end of 2024. Work is expected to continue to 2026 to account for voter initiatives in 2024.

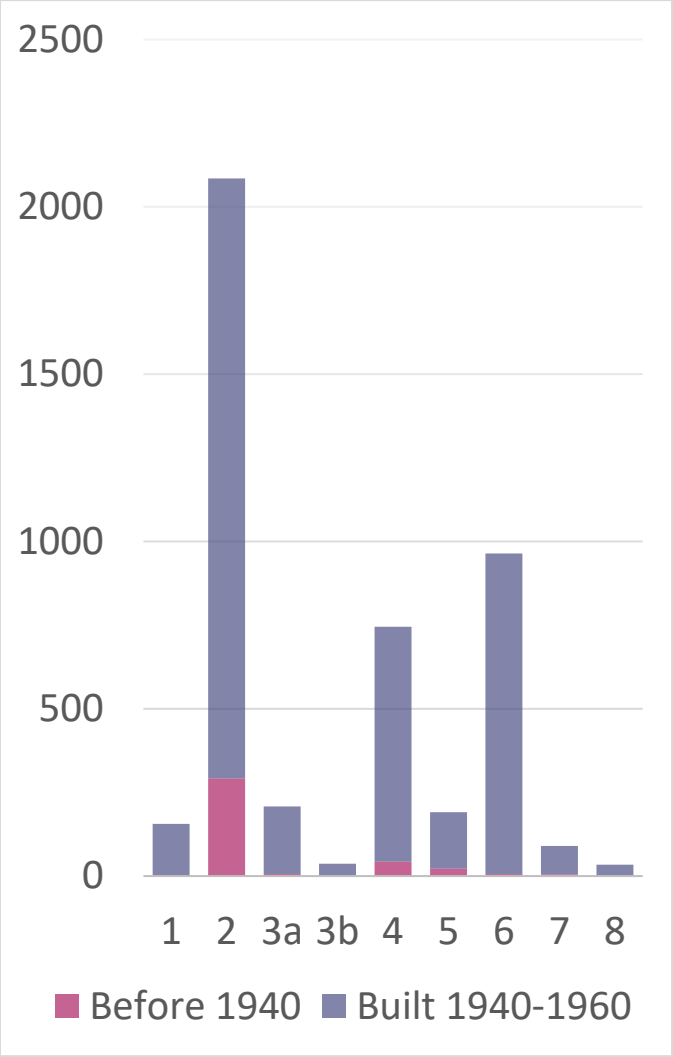
Vulnerability Summary

Most structures in Vancouver are residential, which are sensitive uses for air quality and heat. Based on age of housing stock, Areas 2 and 6 have older buildings built before 1960, which are less likely to have cooling or air filtration, and these areas have higher or medium-high levels of exposure to heat or smoke. Area 4 has the third highest number of older homes, and a medium-high exposure to heat. See Exhibit 41 and heat and smoke/air quality maps in Chapter 2. Other areas have more homes built later which may have cooling systems but may not have air filtration systems.

These findings align with the Adaptive Capacity Assessment, which also emphasizes the importance of modern HVAC systems, backup power, and clean air shelters—especially in socially vulnerable neighborhoods—to ensure residential resilience under worsening climate conditions.

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Exhibit 42: Vulnerability by Area: Residential Structures Built before 1960



Sources: Clark County Housing Assessor Data, 2024; BERK, 2025.

The probability of extreme heat and smoke in the planning period, and the need to retrofit older homes are drivers of vulnerability and risk. See Exhibit 42.

Exhibit 43: Risk Summary – Building Sector

Likely Climate Impacts in next 10+ years				Magnitude of Loss			City Responsibility			Vulnerable Communities			Areas Most Affected							
Heat	*Fire*	*Precip*	*Drought*	*Less*	*More*	*Most*	*Less*	*More*	*Most*	*Less*	*More*	*Most*	1	2	3A	3B	4	5	6	7	8

Source: BERK, 2025.

Gaps and Opportunities

Strategies to Improve Adaptive Capacity

Climate adaptation and engagement results highlighted a number of strategies to improve the community's adaptive capacity associated with buildings and energy, both public and private:

- Increase the adaptability of public buildings. (Hatch Planning and City of Vancouver, 2022)
- Update building and development codes to increase adaptability of non-public buildings. (Hatch Planning and City of Vancouver, 2022)
- Promote renewable energy within the built environment. (Hatch Planning and City of Vancouver, 2022)
- Implement an uninterruptible power supply and backup generator for critical facilities (e.g. wastewater treatment plant). (City of Vancouver, 2025)
- Pilot hybrid energy systems and microgrid readiness at critical facilities to ensure service continuity. (City of Vancouver, 2025)

Policies

The current Comprehensive Plan, last updated in 2011, has limited policies on energy, focused on conservation. Amendments could be made to catch the Comprehensive Plan up to the extensive work the City has done regarding climate action and energy.

Vancouver plans to transition to 100% clean energy with Clark Public Utilities ahead of the state's Clean Energy Transformation Act (CETA) requirements, and before 2045. There are opportunities for Vancouver to develop concrete policies to work with businesses, property owners, and nongovernmental partners and prevent displacement of low-income residents and ensure the costs and benefits of energy efficiency upgrades are shared equitably. This is promoted in the Climate Action Framework Action #1: Community energy efficiency incentives.

The Vancouver Urban Forestry Management Plan offers opportunities to bolster green infrastructure, reducing the urban heat island effect, and increasing the resiliency of structures. See Ecosystems and Zoning & Development for more discussion.

The City could also lead with the Green Building Policy that is currently being developed and adopt it for all municipal buildings. The Climate Action Framework actions 7 and 8 address green building policies for public and private development.

The Climate Adaptation Strategy also recommends energy efficiency measures such as retrofitting buildings with passive and active cooling, promoting renewable energy

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production and storage projects in the case of power outages, and researching built environment climate resilient materials. Many of these considerations are part of the Climate Action Framework. The City could model by retrofitting older city-owned buildings with cooling systems. The City or Clark Public Utilities could also implement programs and incentives for renewable energy production and storage projects, and fund or partner with organizations researching climate-resilient alternative materials.

The Vancouver Climate Action Framework also highlights key actions that would improve climate adaptability, such as promoting solar incentives and to reduce dependency on the energy grid and enhance resilience during disruptions, increasing energy efficiency through electrification and retrofits to reduce overall energy demand.

Battery energy storage systems (BESS) are used to store renewable energy from solar or wind power to ensure more reliability and match it to customer demands. BESS can be of any size and are modular and may only require "a concrete pad to sit on and a connection to the electric grid." As a result, the BESS can be built anywhere including near existing commercial and residential uses and present concerns regarding safety, aesthetics, noise, odor, and environment impacts. Cities and counties are beginning to address such uses in zoning codes. Vancouver may wish to develop a policy and development regulations addressing these uses as well. (Twitchell, 2023)

Policies developed for **OUR VANCOUVER 2045** address energy resilience and reduction of greenhouse gas emissions, such as:

- Ensure that buildings contribute to the City's greenhouse gas reduction goals, protect occupants from climate hazards and extreme weather, and minimize harm to wildlife and natural ecosystems. (Draft Policy 6)
- Expand community solar access for low income homeowners and renters. (Draft Policy 7)
- Encourage new renewable energy infrastructure, promote development of storage systems, and work with Clark Public Utilities to promote demand-response strategies and programs to ensure a stable, resilient, and sustainable energy grid. (Draft Policy 16)
- Support on site decentralized systems that reduce reliance on centralized infrastructure. Support local energy and water solutions while strengthening community adaptability to environmental, social, and economic changes. (Draft Policy 24)

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Cultural Resources & Practices

Sector Overview and Assets

Originally inhabited by peoples of the Chinook and Cowlitz tribes for thousands of years, Vancouver was established as a trading post for the British Hudson's Bay Company and military fort in the 1800s. (Design Workshop, 2024) See Exhibit 43. A non-native community was founded in 1825 and the city incorporated in 1857. From an 1890 census population of 3,545 (OFM) Vancouver is home to 202,600 persons as of 2024.

Exhibit 44: Fort Vancouver Garden – In use historically and today



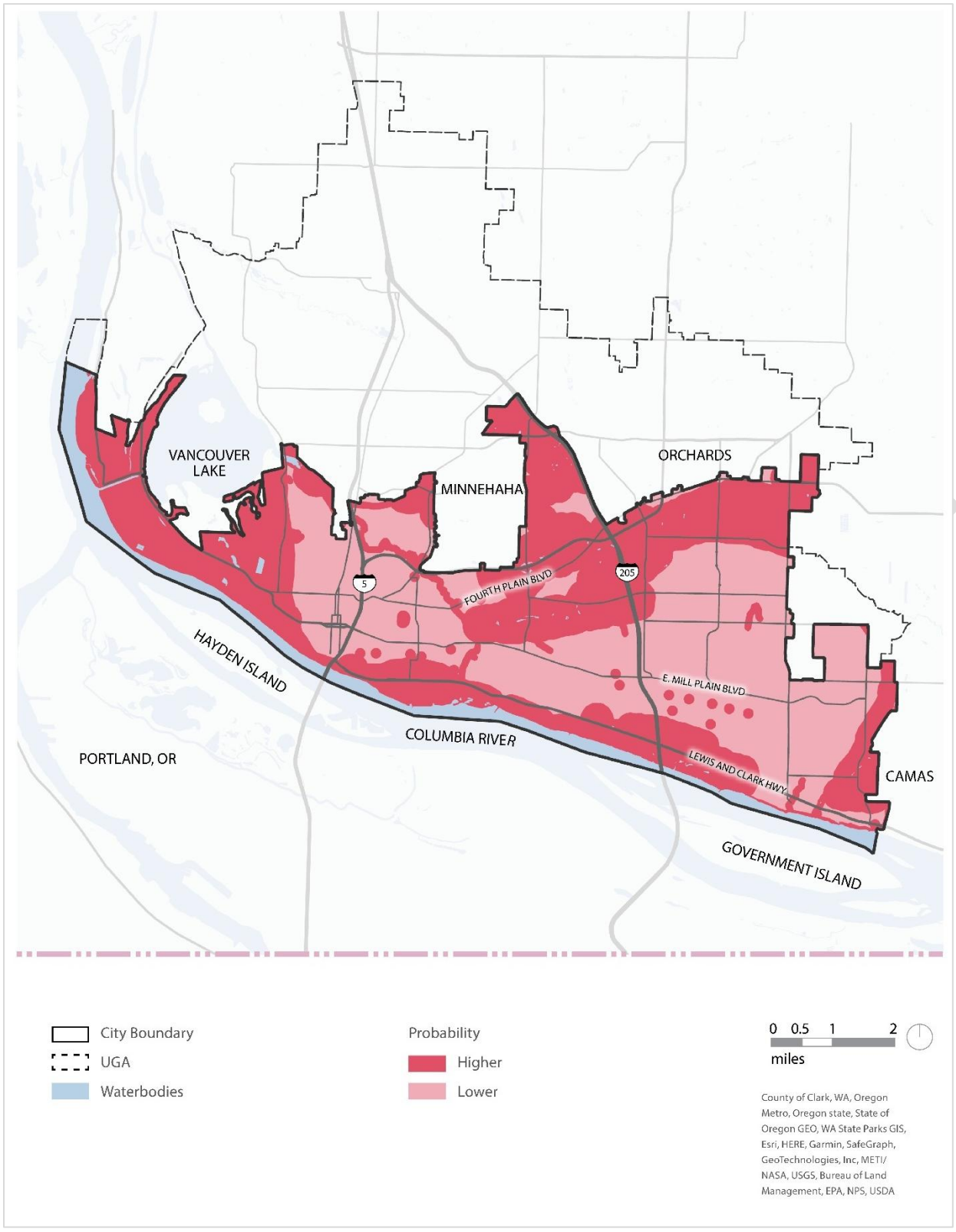
Historically, the Fort Vancouver Garden was a place of rest for the fort's officers and visitors, and provided food for the Chief Factor's House table. Today's reconstruction at Fort Vancouver National Historic Site is tended by volunteer gardeners.

Source: (National Park Service, 2022)

The original historic and walkable downtown is connected to residential areas by an arterial system and is more suburban in character as it expanded to the east. Maps of archaeological resources and historic resources are shared in Exhibit 44 and Exhibit 45. There is a higher probability of archaeological resources along the Columbia River, Vancouver Lake, and Burnt Bridge Creek.

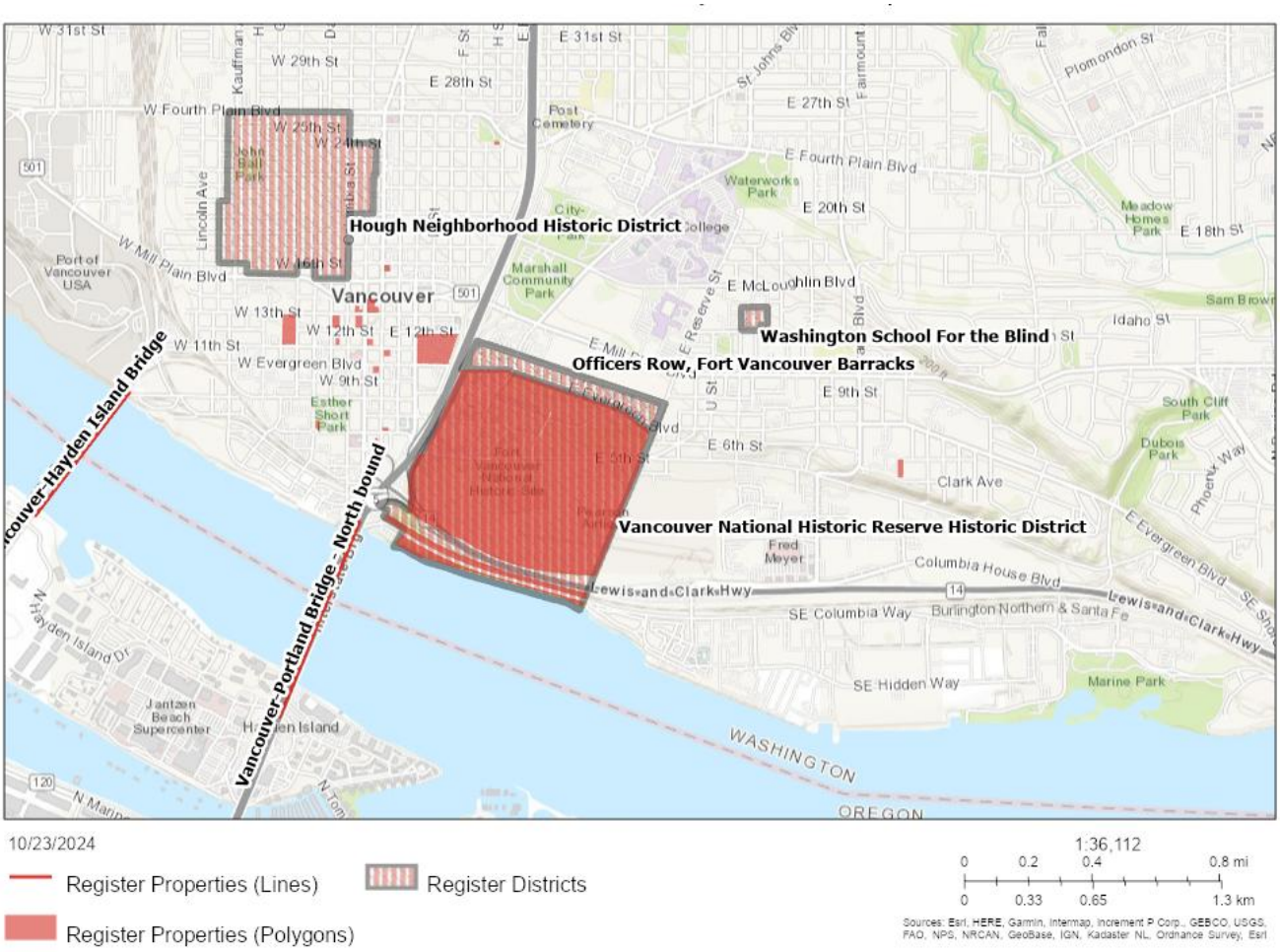
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Exhibit 45: Archaeological Probability Map



Source: (Design Workshop, 2024)

Exhibit 46: Historic Resources Map



Source: DAHP, 2024.

Potential Impacts

Vancouver's Hazard Mitigation Plan identified concerns with extreme weather and urban flooding, but less so flooding in the 100-year floodplain. However, Clark County notes flood stage measured at the Port of Vancouver is at 16 feet, and there have been 25 historic crests, most recently in 2011 and 2017. Extreme heat is a likely occurrence in the **VANCOUVER 2045** planning period.

Climate change could impact archaeological, historic, and other cultural resources.

- Loss of cultural sites due to more frequent and intense severe weather events. The location of cultural archaeological sites along rivers and streams and the expected increase in extreme precipitation and flooding could put assets at risk. Adapting

cultural resources to climate change impacts can be challenging because many are unique, irreplaceable, and location based.

- Due to their historic nature and the associated limitations on structural adaptation some historic structures have very constrained adaptative capacity. However, while there are some historic sites along water bodies like the Columbia River, most historic properties such as in downtown are at low risk of flooding due to building locations and existing flood control structures. An exception could be the Vancouver National Historic Reserve Historic District that fronts the river in part. The site also contains priority habitats.
- Loss of locally grown, temperature-sensitive foods that are culturally important (berries, salmon, etc.). Hot dry summers are projected to reduce stream flow volumes and increase instream temperatures. This stressor is compounded by extreme precipitation events, flooding, and erosion. Watershed plans and evaluations for the City's critical areas ordinance highlight declining water quality and fish habitat and a need to improve riparian areas along streams and shorelines.

Adaptive Capacity

Priority habitats like prairies and Oregon white oaks are found in some parts of the city such as the Fort Vancouver National Historic Site and along stream corridors and greenways. (Sound Oaks Initiative, 2024) Remnant wetlands, riparian and non-riparian habitat areas continue to be found along streams and lakes, parks, and transportation rights of way. (WSP USA, 2023) These habitats can support, or be restored or enhanced to support, plants and fish species important for tribal customs, medicines, and foods.

The Cowlitz Indian Tribe members have indicated an interest in Food Sovereignty. (Cowlitz Indian Tribe, 2022) Protecting and restoring habitats and adapting to climate stressors can help sustain culturally important habitats, foods, and practices.

The City is supporting updated riparian buffers based on site potential tree height which could improve shading, stream temperature, and other functions of buffers. In addition, the City has an Urban Forestry Management Plan that is meant to improve management of existing canopy and expand it inside and outside of critical areas.

Vulnerability Summary

A summary of vulnerability for cultural resources is provided in Exhibit 46 below. Habitat is found along lakes and streams throughout the city. Extreme heat, drought, and flooding are anticipated to affect culturally important plants and wildlife and require adaptation measures (enhancement, restoration) along streams, lakes, and other sites. Throughout but

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particularly areas 1, 2, and 5, archaeological and historic sites could require adaptation (flood management measures, retrofits for energy and air filtration).

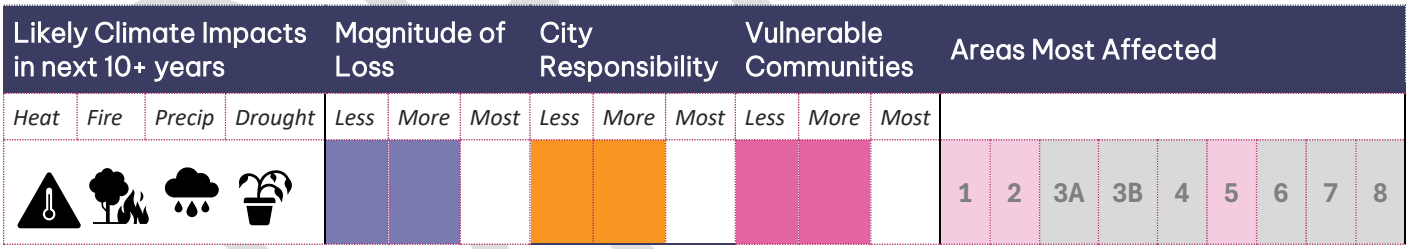
Exhibit 47: Vulnerability by Census Tracts – Cultural Resources

Census Block	Area	Heat Exposure	Flooding/ Precipitation Exposure	Smoke/Air Quality Exposure	Overall Exposure	Health Conditions	Equity Index	River, Lake, or Creek	Register Properties
53011041005	1	Medium-high	Higher	Lower	Higher	Higher	Higher	X	X
53011042400	2	Higher	Higher	Medium	Higher	Higher	Higher	X	X
53011041105	3b	Medium-high	Higher	Medium-low	Higher	Medium-low	Medium	X	
53011041600	4	Medium-high	Higher	Medium	Higher	Higher	Higher	X	
53011042700	4	Medium-high	Higher	Medium	Higher	Higher	Higher	X	
53011042601	5	Medium-high	Higher	Medium-high	Higher	Medium	Medium	X	X
53011041205	6	Medium-high	Higher	Medium-high	Higher	Medium-high	Higher	X	
53011041312	7	Higher	Higher	Medium-low	Higher	Medium-high	Higher	X	

Source: See Chapter 2 for indicators and methods. BERK, 2025.

Based on the evaluation, cultural resources risks and vulnerabilities are noted below.

Exhibit 48: Risk Summary – Cultural Resources



Source: BERK, 2025.

Gaps and Opportunities

Engagement and Strategies to Improve Adaptive Capacity

As part of social vulnerability and asset mapping efforts, engaged community members about their important places. Strategies identified through climate engagement includes:

- Food: Expand culturally relevant gardens as a way to increase food access and resilience. (City of Vancouver, 2025)

The City could similarly engage Tribes about ecosystems, habitats, and foods/plants that should be considered when planning for climate resilience. Direct engagement can help ensure that culturally significant landscapes, species, and materials are not overlooked in technical assessments of risk and adaptation.

One parks and habitat strategy relevant to Tribes identified through the Adaptive Capacity Assessment includes:

- Park Resilience: Incorporate traditional ecological knowledge if working with local Indigenous groups for habitat restoration in parks to handle climate changes. (City of Vancouver, 2025)

Additional strategies can be elicited through consultation and collaboration with Tribes.

Policies

Vancouver's cultural resources policies are primarily found in the Shoreline Master Program,. Current policies address general protection of archaeological and historic resources. Some address engagement with tribes in restoration of habitat.

The City could add policies covering cultural resources adaptation to extreme heat and flooding and Tribal consultation, similar to examples in the Washington Department of Commerce's Climate Policy Explorer. Accordingly, the **OUR VANCOUVER 2045** plan includes the following:

- Foster meaningful partnerships with tribal communities and land stewards, integrating their knowledge, priorities, and cultural perspectives into local decision-making processes. (Draft Policy 101)
- Protect and preserve significant cultural, historic, archeologic, and ecologic community resources. Promote preservation, restoration, and rehabilitation of historic and architecturally significant structures. (Draft Policy 107)

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Economic Development

Sector Overview and Assets

Vancouver has approximately 99,057 jobs as of 2021. (US Census Bureau, 2021) There are approximately 7,840 businesses in Vancouver. In certain neighborhoods, including Fourth Plain, at least one-third of businesses are minority owned or cater to communities of color. (Design Workshop, 2024)

Approximately 27% of all parcels in the City are zoned for commercial uses. Another 17% of all parcels in the City are zoned for industrial uses. (Design Workshop, 2024) The City is planning for growth of at least 38,000 new housing units and 43,100 new jobs by 2045.

Potential Impacts

Job Sectors in Vancouver

While flooding, wildfire, and drought are relatively lower risk in Vancouver (Clark Regional Emergency Services Agency, 2023), severe weather including extreme heat and extreme precipitation could impact businesses and employees. Wildfire smoke in the region could also affect businesses and employees for those who work outdoors.

Exhibit 49: Clark County, Washington, Top Employers

Company	Clark County Employees
1 Peace Health	4,908
2 Vancouver Public Schools	3,300
3 Evergreen Public Schools	2,599
4 Vancouver Clinic	2,305
5 Legacy Health	1,800
6 Clark County	1,570
7 Ilani	1,500
8 City of Vancouver	1,480
9 Clark College	1,417
10 Zoom Info	1,374
11 Bonneville Power Administration	1,367
12 Battle Ground School District	1,313
13 HP	1,000
14 Kaiser Permanente	1,000
15 SEH America	950

Source: CREDC Research (Accessed September 2024)

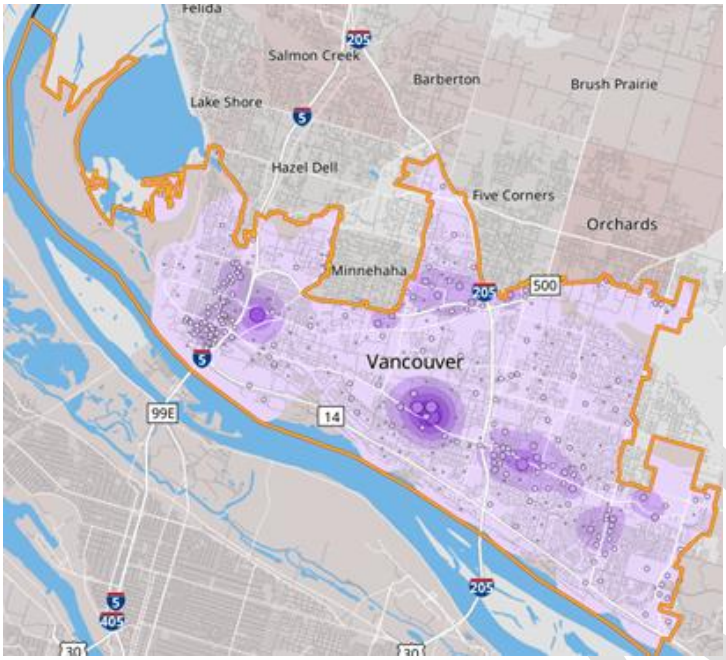
Health care (19%), retail and wholesale trade (15.3%), and manufacturing/transportation/utilities (12.2%) are notable sectors in Vancouver's local economy. (US Census Bureau, 2021) Top employers in the county are often based in Vancouver including health care – Peace Health, Vancouver Clinic, Legacy Health, Kaiser Permanente – and education or government – Vancouver Public Schools, Evergreen Public Schools, as well as the City and County employees. See Exhibit 48.

Sectors under stress during extreme climate related hazards include health care (e.g., adverse health with extreme heat or wildfire smoke) or utilities (BPA, Clark Public Utilities) with potential power demand spikes (extreme heat) or outages (extreme storms). Exposure

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of health care facilities to poor air quality or power disruption could reduce continuity of operations during critical events. Healthcare employment density is highlighted in Exhibit 49.

Exhibit 50: Location of Health Care Employment, 2022

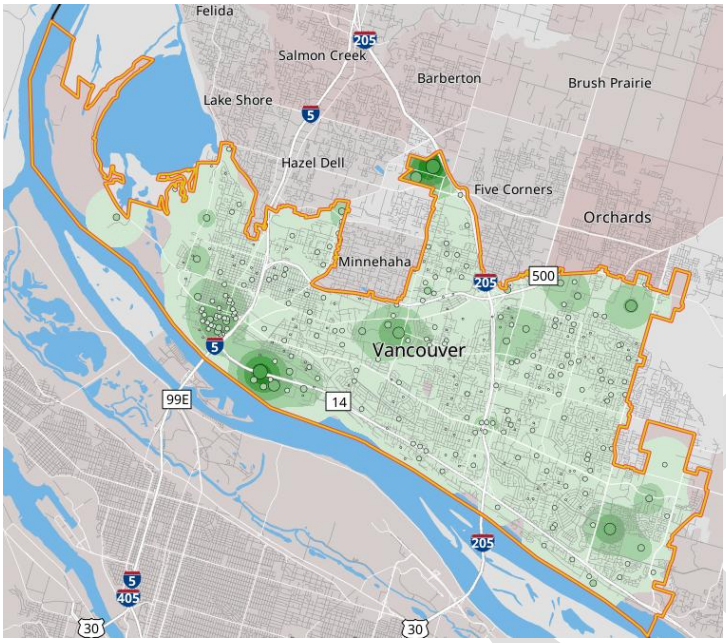


Source: Census on the Map, 2022

About 6.2% of Vancouver's jobs relate to construction, likely outdoors and potentially exposed to extreme heat and wildfire smoke. (US Census Bureau, 2021) The concentration of construction jobs is illustrated in Exhibit 50 below. These workers face increased health and productivity risks during climate extremes, particularly in areas lacking tree canopy or shade infrastructure.

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Exhibit 51: Location of Construction Jobs, 2022

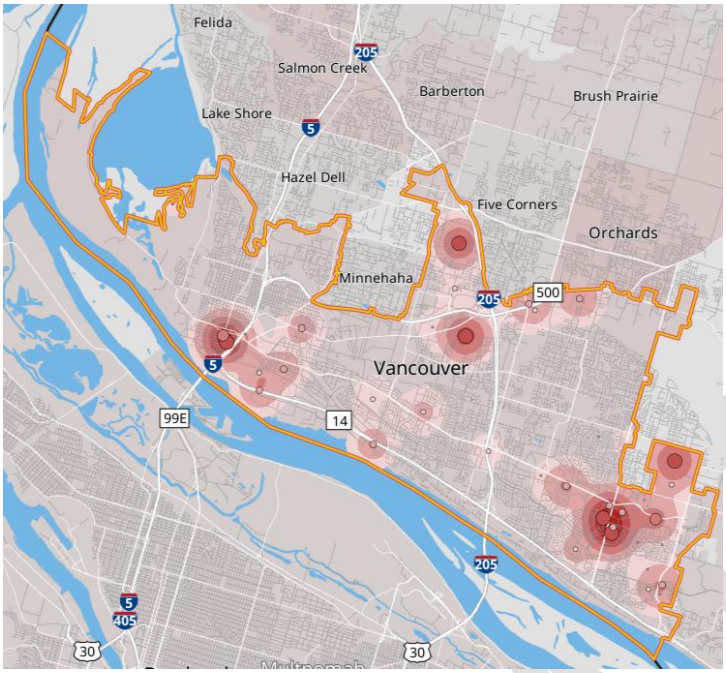


Source: Census on the Map, 2022

Arts and entertainment venues that are outdoor, such as Esther Short Park and the Farmers Market or Vancouver Volcanos Home Games, could be more vulnerable and lose revenue during heat or smoke events and indoor facilities such as museums and performing arts or movie theaters with cooling and filtration such as could see greater demand for services. Investment in HVAC upgrades and air filtration systems in indoor venues could support both public health and local economic resilience. Concentrations of arts and entertainment jobs are shown in Exhibit 51.

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Exhibit 52: Arts & Entertainment Jobs, 2022



Source: Census on the Map, 2022

Commuters

Almost two-thirds of residents work outside of Vancouver though most work within 10 miles of home. See Exhibit 52 and Exhibit 53. Employers and commuters in and out of Vancouver could be impacted by climate related events such as extreme precipitation and flooding affecting roads or extreme heat affecting transit.

> *In Washington, the heat caused sections of Interstate-5 and State Route 162 to buckle, causing some lanes to be closed. In Portland, the heat exceeded the design limits of the TriMet MAX system, melting train power lines and shutting down trains for a day. (USDA Northwest Climate Hub, 2024)*

Exhibit 53: Commute Flow

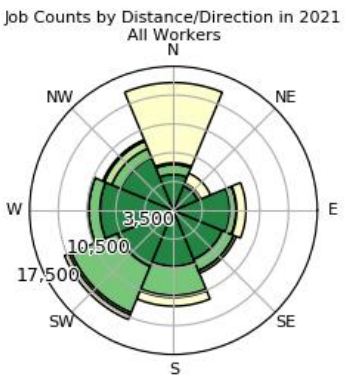
	Count	Share
Living in the Selection Area (Vancouver)	83,157	100.0%
Living and Employed in the Selection Area (Vancouver)	28,447	34.2%
Living in the Selection Area (Vancouver) but Employed Outside	54,710	65.8%

Source: (US Census Bureau, 2021)

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Exhibit 54: Home to Work Distance/Direction (2021)

	Count	Share
Total All Jobs	83,157	100.0%
Less than 10 miles	50,945	61.3%
10 to 24 miles	15,942	19.2%
25 to 50 miles	1,860	2.2%
Greater than 50 miles	14,410	17.3%



Source: (US Census Bureau, 2021)

Adaptive Capacity

Vancouver has an Emergency Operations Plan that considers severe weather, forest/wildland fire, flooding, and energy shortages. (City of Vancouver, 2018) The City also coordinates with Clark County and cities through the Clark Regional Emergency Services Agency (CRESA) on emergency planning, such as the 2023 *Natural Hazard Mitigation Plan*. (Clark Regional Emergency Services Agency, 2023)

During severe weather such as extreme heat, Vancouver advertises places to cool off including Community Centers and Libraries serving in effect as cooling centers and quasi-resilience hubs. (City of Vancouver, 2024) Regarding transit access, during extreme heat, C-TRAN will take anyone riding to a cooling center.

A regional initiative is defining emergency transportation routes and updating a 2006 plan between Clackamas, Columbia, Multnomah and Washington counties in Oregon and Clark County in Washington. The effort is addressing wildfires, landslides, floods, extreme weather events, and impacts of climate change as well as earthquakes and volcanic eruptions. In addition to state routes, a number of arterials in the city limits and port vicinity are defined as regional emergency transportation routes. Some are at risk of floods and other hazards. Ensuring access along these routes during emergencies is critical for maintaining economic function, particularly for industrial areas and essential service workers. A current phase (2024-2026) is prioritizing an updated network. (RDPO, 2024)

Vulnerability Summary

Based on the locations of workers and venues described in Job Sectors in Vancouver above and Climate Exposure, Equity, and Health in Chapter 2, the areas with greatest exposure are shared in Exhibit 54.

Exhibit 55: Vulnerability by Area – Economic Development

Area	Outdoor Workers	Health Care	Arts & Entertainment
Type of Impact	Exposure & Risk of Lost Business or Wages	Increased Demand	Exposure & Risk of Lost Business or Increased Demand
1			
2		X	X
3A			
3B	X		X
4			X
5		X	X
6		X	
7	X		
8	X		X

Source: BERK, 2025.

Outdoor workers, health care providers serving those with health sensitivities, and outdoor recreation and events workers would be vulnerable to extreme heat and smoke events that are more probable in the planning period and more widespread in their effect. Flooding from extreme precipitation could be more focused in its location but impact many commuters. In neighborhoods with higher social and health vulnerability, these disruptions may be compounded by limited access to protective infrastructure or recovery support. The potential magnitude of loss to the economy from one or more events could be more than moderate and require City investment in recovery. See Exhibit 55.

Exhibit 56: Risk Summary – Economic Development

Likely Climate Impacts in next 10+ years	Magnitude of Loss	City Responsibility	Vulnerable Communities	Areas Most Affected
				1 2 3A 3B 4 5 6 7 8

Source: BERK, 2025.

Gaps and Opportunities

Engagement and Strategies to Improve Adaptive Capacity

Resilience Rising results identified some adaptive strategies especially related to emergency hubs and information:

- Potential of existing neighborhood institutions—including gyms or grocery stores—to serve as hubs during emergencies. (City of Vancouver, 2025)
- Leveraging local businesses to help spread emergency information. (City of Vancouver, 2025)

The Adaptive Capacity Assessment identified examples of collaborative programs including with businesses, noting that in some cities, local businesses have sponsored bus shelters with cooling features, in exchange for modest advertising. (City of Vancouver, 2025)

The City could also continue to work through regional bodies to understand commute patterns and risks as well as learn about concerns from residents commuting across lifeline networks. Additional engagement could focus on minority- and immigrant-owned businesses, who may face barriers to accessing recovery resources following climate disruptions.

Policies

A policy evaluation, available under separate cover, identified topics that could be integrated into the updated plan to further address economic development such as:

- Address green technology/jobs opportunities.
- Bring in strategies from Climate Action Framework such as building a more community-driven, circular economy.
- Promote business continuity planning in climate-sensitive sectors such as construction, transportation, healthcare, and logistics.
- Prioritize infrastructure upgrades in areas where economic activity overlaps with high exposure and vulnerability.

Example policy concepts in the Our Vancouver 2045 plan include:

- Build a resilient economy: Encourage business growth, retention, and expansion, with an emphasis on family-wage jobs and foster resilience within Vancouver's economy. (Draft Policy 113)

See also Emergency Management.

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Emergency Management

Climate change presents a threat to the City's emergency response due to increased frequency and severity of extreme weather events. The City has updated its emergency management plan to reflect the hazards posed by climate change, but this increase could strain capacity and challenge current approaches to mitigation, preparedness, response, and recovery.

Local resources reviewed for this section include the following:

- Chapter 2.12 VMC, Emergency Management
- City of Vancouver Emergency Operations Plan, 2018
- City of Vancouver Climate Adaptation Strategy, 2022
- Clark Regional Emergency Services Agency (CRESA), 2023 Clark County Natural Hazard Mitigation Plan, Volume 2 Planning Partner Annexes, March 31, 2024
- State of Washington Comprehensive Emergency Management Plan and Program – Updated, 2019
- Vancouver Police Department Policy Manual Policy 206

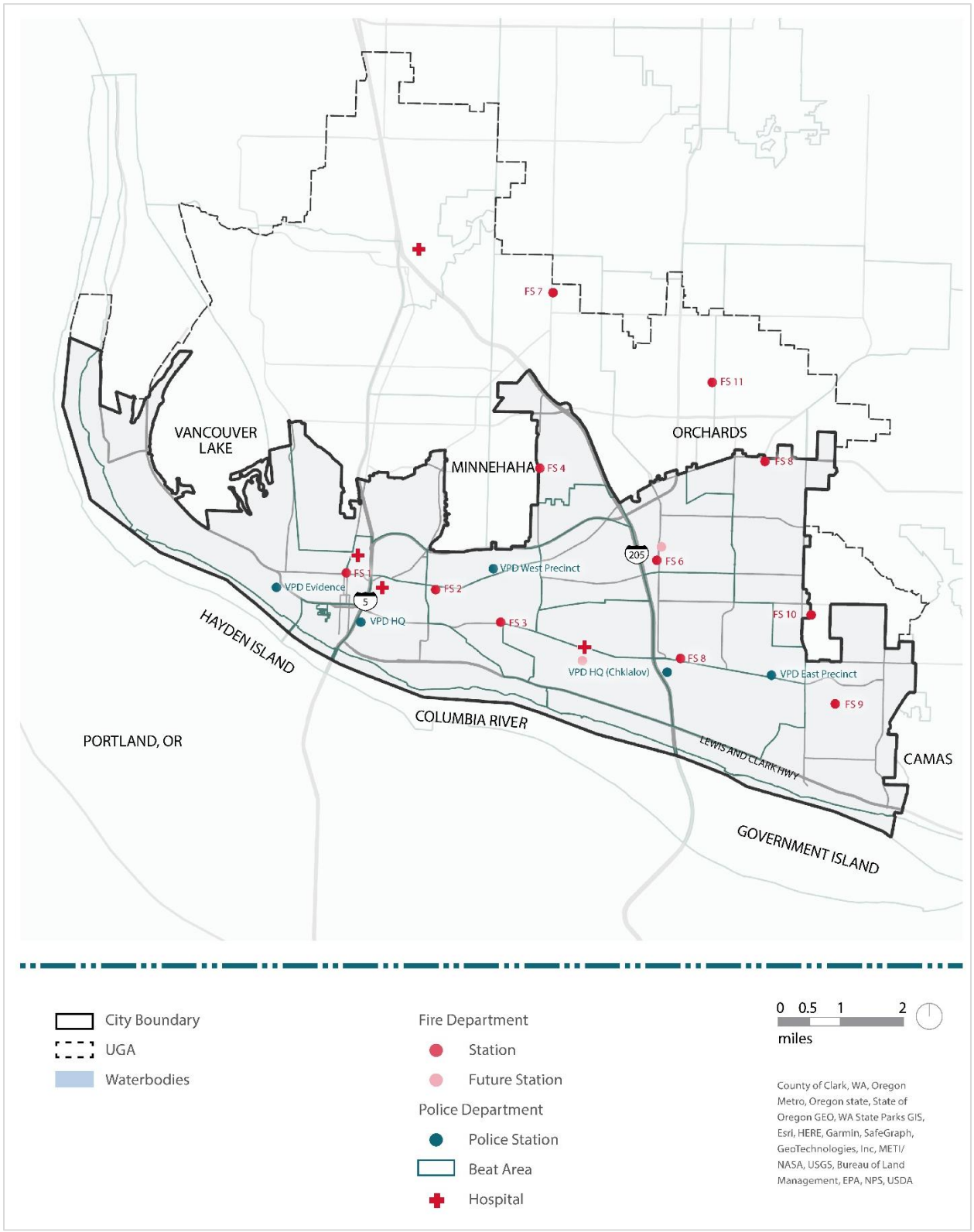
Sector Overview and Assets

Vancouver's emergency management priorities are to eliminate major threats to life and safety, stabilize the incident situation, provide basic human needs, maintain/restore essential services, and protect critical infrastructure and the environment. (City of Vancouver, 2018) Many departments respond to and work to mitigate potential hazards and emergencies through planning, regulation, and capital improvements. The departments that manage day-to-day emergency response are Fire, Police, and EMS, while larger emergencies can require disseminating information, coordinating resources, and activation of an interdepartmental Emergency Operations Center (EOC) as well as the Clark Regional Emergency Services Agency (CRESA) that provides 911 dispatch, technology services and emergency management. Recovery involves damage assessment, conducting repairs to capital facilities, and aiding impacted people and organizations.

Emergency facilities in Vancouver include about eight fire stations, two police precincts, three major hospitals, three community centers, and several mobile EMS units provided through a contract with American Medical Response. Hospitals are located predominantly in the western and central parts of the city. See Exhibit 56. Additional emergency facilities are evenly distributed throughout the city to meet the needs of residents. Emergency facilities are unevenly distributed with greater concentrations of hospitals and EMS resources in the central and western parts of Vancouver. In contrast, eastern neighborhoods may face slower response times, particularly if transportation networks are disrupted by heat or flooding.

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Exhibit 57: Emergency Services Locations in Vancouver



Source: (Design Workshop, 2024)

Potential Impacts

Vancouver's emergency management system would likely be affected by heat and wildfire smoke events. Extreme heat events would lead to acute heat related illness and hospitalizations and put severe strain on emergency medical service personnel within the Vancouver Fire Department and the paramedics from American Medical Response (AMR). (City of Vancouver, 2018) (Hayden, 2023) Areas of the city with more tree canopy cover are likely to experience lower, safer temperatures during extreme heat events and reduce damage to roadways. Vancouver has a current tree canopy cover of 19% with a goal of reaching 28% by 2030 (TreeCAP, 2024). However, canopy cover varies greatly across the city. See Zoning & Development for more information.

Wildfire smoke can lead to both chronic and acute pulmonary health impacts that can also strain emergency management resources (Ecology W. S., 2023). In the event of both extreme heat events and wildfire smoke events, community spaces may be strained for capacity as they serve as either explicit or de facto clean air and cooling shelters. According to regional assessments, many existing facilities do not meet the ventilation or filtration standards necessary for sustained clean air shelter function. (City of Vancouver, 2025) Groups especially vulnerable to both of these hazards are older adults, individuals experiencing homelessness, undocumented immigrants, low-income individuals, and individuals with limited English proficiency as these group may be socially isolated and therefore less likely to seek emergency services or community shelter (City of Vancouver, 2022). Based on demographic analysis of the city, these vulnerable populations are more prevalent in the west and central portions of the city and less so in the east area of the city; see Exhibit 20. The potential health impacts of these specific climate hazards are also detailed in the Health & Well-being section of this document.

Additionally, extreme precipitation, roadside brush fires, and extreme heat may impact the transportation infrastructure that is necessary for emergency response for all departments. The 2025 Adaptive Capacity Assessment suggests the fire department collaborate with transportation departments to identify and fortify the critical routes used by fire engines and ambulances. (City of Vancouver, 2025) Extreme heat events can lead to cracking and buckling of roads or damage to transit infrastructure (Fischels, 2021). Roadside brush fires can damage roads and make them temporarily impassable until the fire is adequately suppressed especially in the west and the northeast/east portions of the city which have been identified as part of the Wildland Urban Interface (WUI, 2024). Emergency vehicle access in these areas may also be impaired by narrow roadways or lack of redundancy in evacuation routes.

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The Vancouver Fire Department serves residential, commercial, and industrial uses, and protects 22 miles of shoreline. (City of Vancouver, 2025) Urban flooding may simultaneously increase demand for emergency services to manage impacts including but not limited to hazardous materials contamination and potential structural collapse while also makes it very challenging to reach individuals facing these emergencies due to roadway flooding (FEMA, 2021). Even moderate localized flooding can trigger cascading service impacts, including delays to emergency response, reduced access to healthcare, and temporary power outages that affect communication and traffic control systems.

While flood events have been experienced in Vancouver, the risk is considered low, except for urban flooding with extreme weather. (Clark Regional Emergency Services Agency, 2023) In the event of urban flooding from extreme precipitation, the same vulnerable populations mentioned in the previous section may be unable to effectively navigate the city and reach medical care or social services. Examples of urban flooding have been identified in climate planning efforts including:

- On the Fourth Plain BRT line, which runs through some older, low-lying neighborhoods, chronic street flooding has already been noted at certain intersections – these incidents are likely to worsen with climate change. (City of Vancouver, 2025)
- Fruit Valley residents described frequent flooding and clogged storm drains. (City of Vancouver, 2025)

Both the Transportation and Health & Well-being sections of this document also address these concerns.

Adaptive Capacity

Aspects of the emergency management system with adaptive capacity include:

- The City of Vancouver in coordination with Clark Regional Emergency Services Agency (CRESA) has identified and advertised several cooling shelters such as Vancouver community library, Vancouver Mall Library, Firstenburg Community Center, Marshall/Luepke Community Center, Water Resources Education Center and provides no cost C-TRAN bus service to and from cooling centers in the event of extreme heat. (City of Vancouver, 2024)
- The City is also able to open temporary cooling centers during extreme events, in collaboration with area churches and other organizations. Additional coordination with culturally specific organizations could increase participation from immigrant and refugee communities that face heightened barriers to accessing city resources.

- CRESA, in coordination with the City of Vancouver, provides recommendations for actions to take during smoke events but does not have specific facilities or strategies to combat poor air quality caused by wildfires.
- Facilities necessary for citywide emergency response are typically equipped with emergency generators to ensure continuity of services during power disruptions. However, greater frequency of power outages due to increased energy use during heat events could lead to increased cost and dependency on these generators during emergencies. Backup power remains uneven across critical facilities. Clean energy resilience strategies—such as solar+storage—may offer co-benefits in energy savings and emissions reduction.
- The Vancouver emergency operations plan identifies localized flooding from extreme precipitation as a "Major Emergency" and specifies effective response to all major emergencies including this specific hazard. (City of Vancouver, 2018) (Clark Regional Emergency Services Agency, 2023) The 2025 Adaptive Capacity Assessment has recommended that Vancouver's ongoing regional planning for an emergency transportation network (2024–2026) should explicitly incorporate flood, landslide, and wildfire scenarios. (City of Vancouver, 2025)

Vulnerability Summary

The City of Vancouver Emergency Management Program and the associated service providers are particularly vulnerable to the impacts of extreme heat and wildfire smoke as those are the types of hazards that are more likely to impact service provision as climate conditions worsen. These hazards require the most emergency services and facilities to help alleviate potential human health impacts. Extreme precipitation could interfere with infrastructure, power, and emergency responses, but would be more likely along water bodies or areas with poor drainage.

Census tracts in almost every area have more than one higher climate exposure and either higher health sensitivity or higher equity disparity, which could require a greater emergency response. Areas with a combined higher exposure and higher health sensitivity or higher equity disparity include Areas 1, 2, 4, 6, 7, and 8. Area 3b has higher heat but exposure to other climate impacts is less than "higher." See Exhibit 57.

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Exhibit 58: Vulnerability by Census Tracts – Emergency Management

Census Tract	Area	Heat Exposure	Flooding/ Precipitation Exposure	Smoke/Air Quality Exposure	Overall Exposure	Health Conditions	Equity Index
53011041005	1	Medium-high	Higher	Lower	Higher	Higher	Higher
53011042300	2	Medium	Medium-high	Higher	Medium-high	Higher	Medium-high
53011042400	2	Higher	Higher	Medium	Higher	Higher	Higher
53011041113	3b	Higher	Medium-high	Medium-low	Medium-high	Higher	Higher
53011041114	3b	Higher	Medium	Medium-low	Medium-high	Higher	Higher
53011041600	4	Medium-high	Higher	Medium	Higher	Higher	Higher
53011041700	4	Medium	Higher	Medium	Medium-high	Higher	Medium-high
53011042700	4	Medium-high	Higher	Medium	Higher	Higher	Higher
53011041205	6	Medium-high	Higher	Medium-high	Higher	Medium-high	Higher
53011041206	6	Higher	Medium-low	Medium-high	Medium-high	Higher	Medium-high
53011041207	6	Medium	Medium-low	Higher	Medium	Medium	Higher
53011041312	7	Higher	Higher	Medium-low	Higher	Medium-high	Higher
53011041322	8	Higher	Medium	Medium-high	Higher	Medium-high	Higher
53011041323	8	Higher	Medium	Medium-high	Higher	Medium-high	Higher

Source: See Chapter 2 for indicators and methods. BERK, 2025.

A summary of risks is shared below in Exhibit 58.

Exhibit 59: Risk Summary – Emergency Management

Likely Climate Impacts in next 10+ years				Magnitude of Loss			City Responsibility			Vulnerable Communities			Areas Most Affected								
Heat	*Fire*	*Precip*	*Drought*	*Less*	*More*	*Most*	*Less*	*More*	*Most*	*Less*	*More*	*Most*	1	2	3A	3B	4	5	6	7	8
																					

Source: BERK, 2025.

Certain actions can be taken to mitigate the risks of these hazards and the overall adaptive capacity to manage these hazards is high due to the clear instructions, strategies, and chain of command laid out in the Emergency Management Plan. Hazards may put stress on personnel and facilities and increase the need for resources; the City can build upon its current emergency services as a foundation and increase services as climate related hazards worsen and increase in frequency.

Gaps and Opportunities

Engagement and Strategies to Improve Adaptive Capacity

Currently, the City of Vancouver provides several online materials for emergency preparedness and resiliency. About 1 in 5 households speak a language other than English at home such as Spanish, Indo-European, and Asian and Pacific Island languages. Understanding the best formats and venues to receive and share information in appropriate languages could be helpful in engagement around community assets and needs There are physical and procedural gaps that hinder preparedness and resilience: limited cooling centers with adequate space and signage, public transit challenges during storm events, lack of emergency information in multiple languages, and difficulty navigating scattered resources. (City of Vancouver, 2025)

Resilience Rising engagement (pages 6 and 7) identified the following strategies that could be implemented to improve information, communication, and facilities:

- Build formal partnerships with community-based organizations that already serve vulnerable populations during emergencies. Fund their preparedness outreach, include them in emergency planning and drills, and ensure they have access to real-time updates and supplies.
- Develop neighborhood-scale pilot projects such as mobile clean air/cooling units in areas lacking brick-and-mortar shelters.
- Provide resilient public assets in East Vancouver since there are currently long travel distances to cooling centers and limited transit options.
- Incorporate accessibility and equity into facility design, such as signage and wayfinding in multiple languages, and proximity to public transit and walking paths.

In addition, the Asset Capacity Assessment identified improvement strategies such as:

- Provide backup power and HVAC resilience audits for all essential service facilities and shelters.
- Ensure that future planning efforts address WUI-specific fire risk, especially in relation to mobility constraints and critical facility access.

Other Climate Adaptation Strategy recommendations were to:

- Improve and increase access to cooling centers, clean air quality centers, and other resource centers during extreme climate events.
- Coordinate with the County to incorporate projected climate risks into future hazard plans.

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- Support safe environments at home and work during extreme climate events. (Hatch Planning and City of Vancouver, 2022)

Policies

A policy audit suggested Comprehensive Plan policy revisions and additions similar to those identified in the strategies above, as well as:

- Adopting additional policies to the Public Facilities and Services Element that include emergency operations.
- Incorporating strategies from the Natural Hazard Mitigation Plan into the Comprehensive Plan, such as determining critical government functions and establishing redundancy for these functions.
- Integrating the Vancouver 2018 Emergency Operations Plan strategies such as EMS, Fire, Police, and Debris Removal.

The **OUR VANCOUVER 2045** plan includes the following policy ideas:

- Develop plans and resources to ensure effective emergency response and equal access to emergency services and recovery resources mitigating risks from extreme weather, climate-related hazards, and social hazards. (Draft Policy 3)
- Support public safety through investment in emergency services, facilities, and coordinated preparedness efforts that strengthen community resilience and response. (Draft Policy 116)
- Coordinate with the Vancouver Fire Department and Vancouver Police Department to plan for expected growth, provide adequate facilities to equitably serve the community, and maintain the established levels of service. Communicate with service providers when planning transportation projects that may affect emergency vehicle access. (Draft Policy 130)

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Health & Well-being

Sector Overview and Assets

There are various factors in the built environment, natural environment, and public services that affect public health, many of which are likely to be impacted by climate change to some extent. Cross connections to other sectors reviewed in this assessment include Agriculture & Food Systems (food access), Buildings & Energy (safe and healthy housing), Economic Development (financial stability), Water Resources (water quality), Transportation (active transportation and air quality), and Zoning & Development (tree canopy and parks access). The Human Health sector itself is focused on healthcare services as well as the general health and wellbeing of residents.

Population health statistics for adults in Vancouver are similar to that of Clark County as a whole, with slightly higher rates of poor mental health and asthma and slightly lower rates of hypertension and diabetes than the county population. See Exhibit 59. With hypertension affecting almost a third of adults in Vancouver, poor mental health affecting almost a fifth, and asthma affecting more than a tenth, many individuals may be particularly sensitive to the health impacts of climate change, particularly extreme heat and extreme precipitation. (Hayden, 2023) (EPA, 2021)

Exhibit 60: 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, 2024)

Individuals living with disabilities may also be more sensitive in a climate event due to health and medication needs, mobility challenges, and information accessibility. (Hayden, 2023) Approximately 9.7% of Vancouver residents are living with a disability (Design Workshop, 2024).

Children and older adults also tend to have more medical needs and be more sensitive to air quality, heat, and other climate impacts. 22% of the population is children and youth under age 18, including 6% of the population under age 5, and 16% of the population is over age 65 (Design Workshop, 2024).

Another key factor in human health is access to health insurance. The CDC estimates that 9% of adults aged 18-64 in Vancouver do not have health insurance, which is slightly lower than the national estimate of 11% (CDC, 2024).

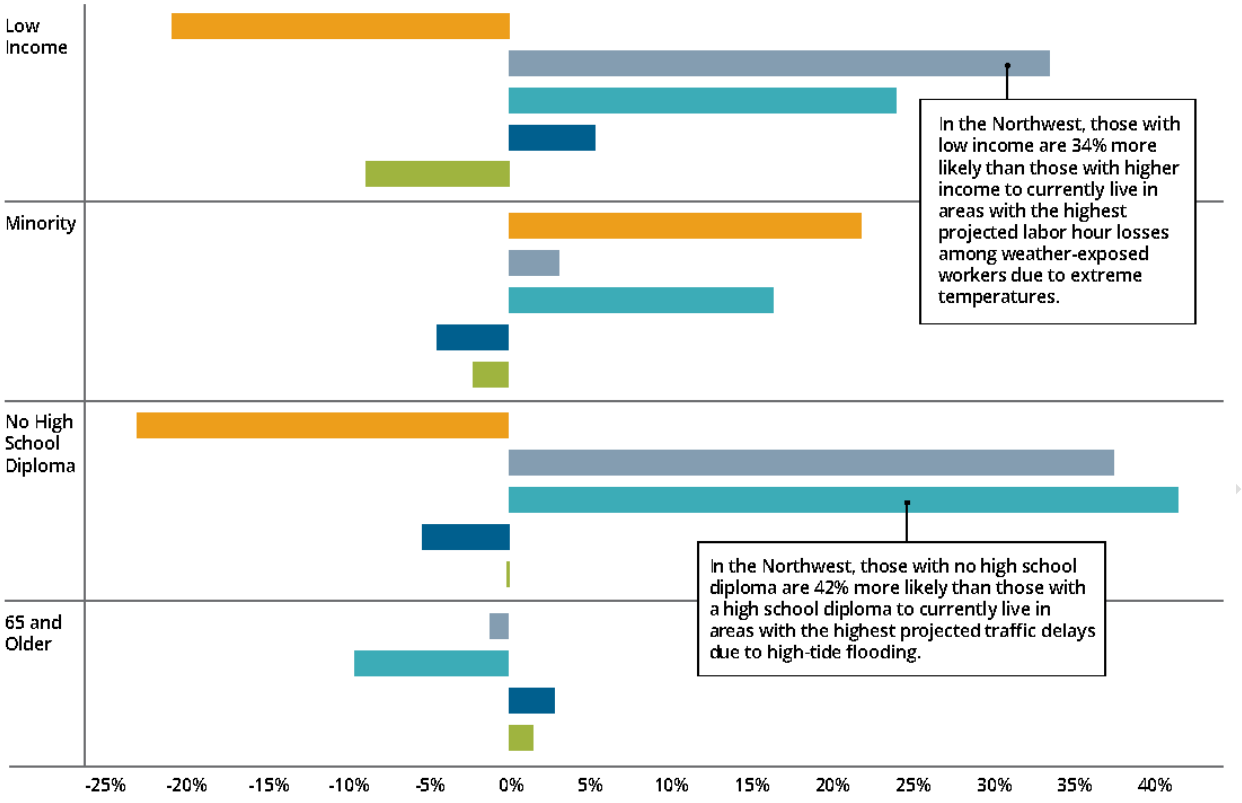
Different parts of the Vancouver population are likely to experience varying health impacts due to climate change, based on existing health concerns and sensitivities, as shown in Exhibit 23.

Low income and non-White residents and residents with less than a high-school diploma are more likely to experience greater impacts due to climate change. This includes labor hour losses to extreme heat, traffic delays due to flooding, and new asthma diagnoses especially in children due to exacerbated air pollution. (EPA, 2021) See Exhibit 60 illustrating these conditions with a focus on Northwest populations.

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Exhibit 61: Differences in Risks to Socially Vulnerable Groups in the Northwest Relative to Reference Populations with 2°C of Global Warming

The estimated risks for each socially vulnerable group are relative to each group's "reference" population, defined as all individuals other than those in the group being analyzed. The estimated risks presented in the chart are for scenarios with 2°C of global warming (relative to the 1986-2005 average) or 50 cm of global sea level rise (relative to 2000). For the inland flooding analysis, the baseline is 2001-2020. Results for additional scenarios are provided in the respective chapters and appendices.



AIR QUALITY AND HEALTH*
New asthma diagnoses in children due to particulate air pollution.

EXTREME TEMPERATURE AND LABOR
Lost labor hours for weather-exposed workers.

COASTAL FLOODING AND TRAFFIC
Traffic delays from high-tide flooding.

COASTAL FLOODING AND PROPERTY
Property inundation due to sea level rise.

INLAND FLOODING AND PROPERTY
Property damage or loss due to inland flooding.

*Impacts not estimated for 65 and Older.

Source: (EPA, 2021)

Air quality is a health issue of particular concern in Vancouver. The Washington State Department of Ecology has identified Vancouver as an overburdened community due to elevated levels of $PM_{2.5}$ compared to the rest of the state, as well as rates of poverty, linguistic isolation, and unaffordable housing. (Washington Department of Ecology, 2023) Poor air quality has been linked to negative health outcomes in overburdened communities, including heart and lung disease, lower life expectancy, and older adult mortality.

The healthcare system in Vancouver includes two hospitals in Area 2 (PeaceHealth and Vancouver VA Medical Center), and one in Area 6 (PeaceHealth Southwest Medical Center) as well as clinics across the city. Pharmacies and health-related human services are also located throughout Vancouver.

Assets for human health in Vancouver include:

- Community wellbeing
- Healthcare system
- Hospital
- Pharmacies
- Clinics
- Health-related human services

Source: (Design Workshop, 2024)

Potential Impacts

Heat, wildfire, and smoke are the climate impacts most relevant to human health, per the UW Climate Impacts Group (UW Climate Impacts Group, 2024). Certain groups are more sensitive to these impacts than others. Healthcare infrastructure is also likely to be affected due to demands on the power grid and increases in medical needs, putting pressure on existing resources.

- The Health Sensitivity to Climate Index (see Exhibit 23) suggests the west and central areas are more sensitive than the east area.
- Equity scores (see Exhibit 20) vary across the city, with somewhat lower equity scores generally in the West area (with the exception of the Fruit Valley neighborhood, which has high equity scores or greater equity concerns). Equity scores are mixed throughout the rest of the city. High equity scores may indicate greater sensitivity to health impacts of climate change.
- Warmer summers are expected to increase concentrations of air pollutants, such as ozone and some vector-borne illnesses. This could amplify existing air quality concerns in Vancouver.

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- An increase in the number of days with a maximum humidex above 90°F and increase in the number of nights with minimum humidex above 65°F are expected to increase heat-related deaths, illness, and hospitalizations. This directly affects public health as well as healthcare systems.
- More frequent wildfires in the region could reduce human health through loss of life, injury and reduced mental health associated with displacement. Poor air quality due to more wildfire smoke can cause adverse respiratory health effects. Increased healthcare needs during such events could put pressure on medical facilities and staff.
- Individuals with existing health conditions, children, and older adults are likely to be more sensitive to heat and smoke events.
- Renters may be more susceptible to heat and smoke risks given less control over making improvements to their homes, such as insulation and air conditioning systems.
- People living in lower-quality housing with minimal insulation will be less able to cool their homes during heat events and may be more susceptible to smoke exposure. Households with lower incomes are likely to be affected more by the cost of increased energy needs for cooling. Adaptive strategies such as air conditioners and air filtration systems may also not be affordable to them.
- Regional assessments have found that many existing community facilities do not meet the filtration or ventilation standards necessary to serve effectively as clean air shelters (Adaptive Capacity Assessment, 2025).
- Individuals experiencing homelessness are especially vulnerable to heat and smoke as they have limited access to safe shelter.
- Individuals with disabilities and mobility challenges may experience barriers to accessing cooling centers or other refuges during heat and smoke events.
- Workers in outdoor professions, such as construction, agriculture, and outdoor recreation, are likely to be more exposed to heat and smoke and have little flexibility in addressing those conditions (see Economic Development).
- High energy demand for cooling could strain the power grid and contribute to outages, which would directly expose more people to heat as their cooling systems go unpowered.
- Households with limited English proficiency may not receive important information about heat and smoke events and available resources if messages are not translated into their primary language.

Adaptive Capacity

Existing programs and conditions in Vancouver can support adaptive capacity to heat, wildfire, and smoke events in the context of human health.

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As energy demands go up to cool homes and preserve indoor air quality, home energy efficiency will be increasingly important to the physical and financial health of Vancouver households. Clark Public Utilities offers various rebate and incentive programs for energy efficiency improvements. The Weatherization Assistance Program (WAP) is also a resource available to low-income families to reduce energy costs through improved efficiency.

Several resources already exist to meet immediate needs during heat and smoke events, including community centers and libraries, which can serve as unofficial cooling centers and hubs during heat and smoke events, and temporary cooling centers in collaboration with area churches and other organizations. C-TRAN does not turn anyone away riding to a cooling center. If passengers tell the driver they are going to a cooling center, fares are not enforced. Buses also have air conditioning.

Southwest Clean Air Agency monitors air quality and issues advisories when air quality is poor during smoke events. This connects communities with information they can use to better protect themselves.

Areas of the city with more tree canopy cover are likely to experience lower, safer temperatures during extreme heat events. According to Tree Equity Score, canopy cover varies greatly across the city, with some areas having as low as 8% cover while others have almost 50% cover (Tree Equity Score, 2024). The City's urban forest strategy proposes to increase tree canopy citywide and in equity priority areas. (City of Vancouver, 2023) The City's Treefund and the nonprofit Friends of Trees both provide low-cost trees for planting on private property. (City of Vancouver, 2024)

Hospitals are typically equipped with emergency generators to ensure continuity of services during power disruptions. However, greater frequency of power outages due to increased energy use during heat events could lead to greater emergency energy needs at medical facilities.

Vulnerability Summary

Communities with higher health conditions are expected to have higher vulnerability to extreme heat as well as smoke. Blocks with the combined higher heat and higher health conditions are a greater priority and are found in Areas 2, 3b, 4, and 6. The east side has greater tree canopy cover, which may provide some relief in extreme heat. See Exhibit 61.

Exhibit 62: Vulnerability by Census Tracts – Health & Well-being

Census Tract	Area	Heat Exposure	Flooding/ Precipitation Exposure	Smoke/Air Quality Exposure	Overall Exposure	Health Conditions	Equity Index
53011041005	1	Medium-high	Higher	Lower	Higher	Higher	Higher
53011042400	2	Higher	Higher	Medium	Higher	Higher	Higher
53011041111	3b	Medium-high	Medium	Medium	Medium-high	Higher	Higher
53011041113	3b	Higher	Medium-high	Medium-low	Medium-high	Higher	Higher
53011041114	3b	Higher	Medium	Medium-low	Medium-high	Higher	Higher
53011041600	4	Medium-high	Higher	Medium	Higher	Higher	Higher
53011042700	4	Medium-high	Higher	Medium	Higher	Higher	Higher
53011041206	6	Higher	Medium-low	Medium-high	Medium-high	Higher	Medium-high

Source: See Chapter 2 for indicators and methods. BERK, 2025.

Areas 5 and 6 also have hospitals that would feel the effects of greater demand for services; see Economic Development.

Exhibit 63: Risk Summary – Health & Well-being

Likely Climate Impacts in next 10+ years				Magnitude Of Loss			City Responsibility			Vulnerable Communities			Areas Most Affected							
Heat	*Fire*	*Precip*	*Drought*	*Less*	*More*	*Most*	*Less*	*More*	*Most*	*Less*	*More*	*Most*	1	2	3A	3B	4	5	6	7	8

Source: BERK, 2025.

Gaps and Opportunities

Engagement and Strategies to Improve Adaptive Capacity

A previous survey as part of the Clark County Community Needs Assessment found that getting to services, including physical health services, was among the top barriers to social services access (Clark County Public Health, 2024). Climate planning engagement found similar concerns about access to facilities during emergencies due to infrastructure challenges, lack of information or neighborhood connection, and identified improved strategies:

- Increase public awareness of health and safety precautions in the event of extreme climate events. (Hatch Planning and City of Vancouver, 2022)
- Coordinate with local health departments to address impacts of poor air quality on frontline communities. (Hatch Planning and City of Vancouver, 2022)

- Work with community-based organizations and local leaders to organize neighborhood specific community preparedness, through providing meeting spaces, direct funding, information sharing or other mechanisms. (City of Vancouver, 2025)
- Residents suggested spaces (schools, churches, vacant commercial buildings) that would function best as resilience hubs based on community trust and accessibility. (City of Vancouver, 2025)
- In high-risk neighborhoods (e.g. Fruit Valley in the west, the Fourth Plain corridor in the central city, and parts of east Vancouver), the City's Homeless Assistance and Resources Team (HART) team can partner with public health and community organizations to conduct wellness checks on at-risk residents during heat waves or smoky wildfire days. They should also assist with disseminating climate emergency alerts – heat warnings, evacuation orders, air quality advisories – making sure these reach non-English-speaking populations and those with limited access to media. (City of Vancouver, 2025)

See also Emergency Management and Transportation for additional strategies to support and connect communities to essential services.

Policies

A policy audit of the Comprehensive Plan and other City plans showed some policies addressed human health in the context of climate hazards. The audit suggested policy revisions such as:

- Add more language around climate justice and equitable distribution of cooling centers, clean air quality centers, and other resources.
- Explicitly address climate resiliency of assets such as trails and green infrastructure.

Policies developed for the Our Vancouver 2045 plan recognize the underlying health disparities that can make communities more vulnerable to ongoing stressors as well as climate impact events such as extreme heat or adverse air pollution:

- Mitigate the impacts of air, water, heat, noise, and light pollution, with a focus on areas with high environmental health disparities. (Draft Policy 22)
- Broaden access to essential healthcare and services in underserved populations and address built environment causes of health disparities. (Draft Policy 49)

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Ecosystems

Sector Overview and Assets

Extreme heat, drought, flooding, and wildfire could harm ecosystems in Vancouver and the services that nature provides such as food, water filtration, shade, recreation, and more. Ecosystems in Vancouver including the landscape, habitats, and other critical areas are described below and mapped in Exhibit 63.

> An ecosystem is a geographic area where plants, animals, and other organisms, as well as weather and landscapes, work together to form a bubble of life. (National Geographic, 2024)

Geologic Hazards

Vancouver is located within a geologic province called the Portland Basin, in the northern terminus of the Willamette Lowland in Oregon. The city largely has a flat terrain due to ancestral flooding along the Columbia River, although there are areas of steep slopes, landslides, erosion, and liquefaction hazard areas along portions of the Columbia River, Burnt Bridge Creek, and Vancouver Lake. (Washington Department of Natural Resources , 2024) (WSP USA, 2023)

Water Resources

Vancouver is located in the Salmon-Washougal Watershed known as Water Resource Inventory Area (WRIA) 28. Most of Vancouver is contained in the Burnt Bridge sub-basin and to a lesser degree in the Salmon and LaCamas subbasins on the north and east respectively. Within the basin, growth, agriculture, and other consumption have resulted in lower stream flows and groundwater impacting fisheries. The Department of Ecology notes: *The impacts of climate change in WRIA 28 are also yet to be fully realized. However, it is apparent that water availability is limited throughout the Salmon-Washougal Watershed.* (Ecology W. D., WRIA 28 Salmon-Washougal Watershed Water Availability, 2023)

Major surface waters in Vancouver include the Columbia River, Vancouver Lake, and Burnt Bridge Creek. Frequently flooded areas in the City are found along these major surface waters, and areas between Vancouver Lake and the Columbia River. Other streams include Salmon Creek, Love Creek, Curtin Creek, Fisher Creek, and others. (WSP USA, 2023) The Columbia River, Burnt Bridge Creek, Salmon Creek, Curtin Creek and Vancouver Lake are on the 303d list for water quality impairments such as temperature, sediment, and more.

Vancouver Lake is about 2,600 acres in size and is relatively shallow and is used for recreation. Following flood control structures being placed on the Columbia River, the lake was cut off from the river. A river connection was restored to promote flushing to improve

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water quality. Despite dredging and the addition of the flushing channel in the early 1980s, water quality issues remain with algae blooms. A 2014 study helped develop water and nutrient budgets for the lake. (Foreman, 2014) An economic impact study has identified a desire for increasing algae control and flushing, allowing for watercraft passage from the Columbia River, and adding l recreation facilities. (Friends of Vancouver Lake, 2020) Legislative appropriations have supported a phase 1 long-range plan ($150,000) and a phase 2 one-time implementation effort ($330,000). (Clark County Public Works, 2024)

Wetlands and Riparian Areas

Significant wetlands include the Water Resources Education Center Wetlands along the Columbia River, the restored wetlands in the Burnt Bridge Creek Greenway, and those near Vancouver Lake. The Port of Vancouver has established a 154-acre wetland mitigation bank.

Although there has been riparian enhancement along Burnt Bridge Creek, there are stretches that lack sufficient vegetation and shading, which can lead to increased water temperatures and reduced water quality. (City of Vancouver, 2021) (Port of Vancouver, 2024)

Habitats

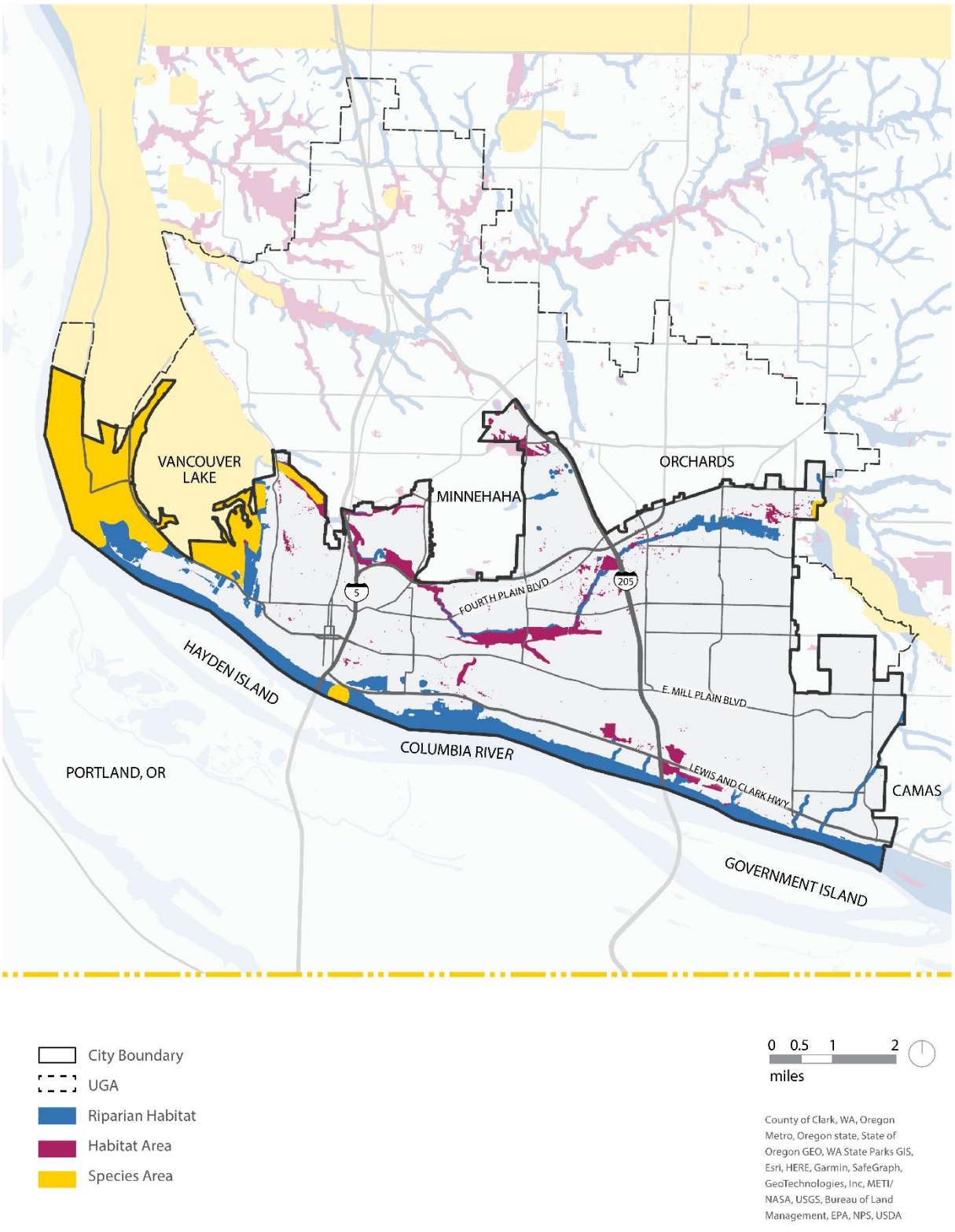
Priority habitats in Vancouver include riparian areas, freshwater wetlands, Oregon white oak woodlands, and other biodiversity areas (primarily along Burnt Bridge Creek). (WSP USA, 2023) In or near Vancouver, the Washington Department of Fish and Wildlife has identified priority species including bald eagles, western grey squirrel, chum salmon, chinook salmon, coho salmon, steelhead, great blue heron, peregrine falcon, purple martin, and leopard dace. Bull Trout, along with chum and coho salmon and steelhead, are also listed under the federal Endangered Species Act (ESA). The Columbia River, Lake Vancouver, Burnt Bridge Creek and their shorelines are the primary habitat for most listed species. (City of Vancouver, 2021)

Tree Canopy

Trees are an important part of Vancouver's natural and urban setting. As of 2021, tree canopy currently covers 18.9% of Vancouver' land area. There is a possible planting area of 31.8%. While most neighborhoods have between 16 and 20% tree canopy, about 13 neighborhoods have between 5 and 15% canopy. The citywide goal is 28%. (City of Vancouver, 2023) While more designated habitat is located in the west and south along Lake Vancouver, Burnt Bridge Creek, and the Columbia River, tree canopy is more present in eastern Vancouver. See Zoning & Development for additional information on tree canopy.

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Exhibit 64: Critical Areas in Vancouver



Source: WSP, 2025.

Potential Impacts

A best available science technical report (WSP USA, 2023) identified potential impacts of climate change to the City's critical areas including extreme precipitation and flooding in existing and future floodplains: As the impacts of climate change become more prevalent, floods are expected to become more frequent. The study recommended that Vancouver consider the future flow floodplain at buildout, the potential effects of climate change, and the effects of increasing impervious surfaces when designating frequently flooded areas (WAC 365-190-110). The study also suggested the City consider regulating severe risk channel migration zones as floodways, where new development is generally not allowed.

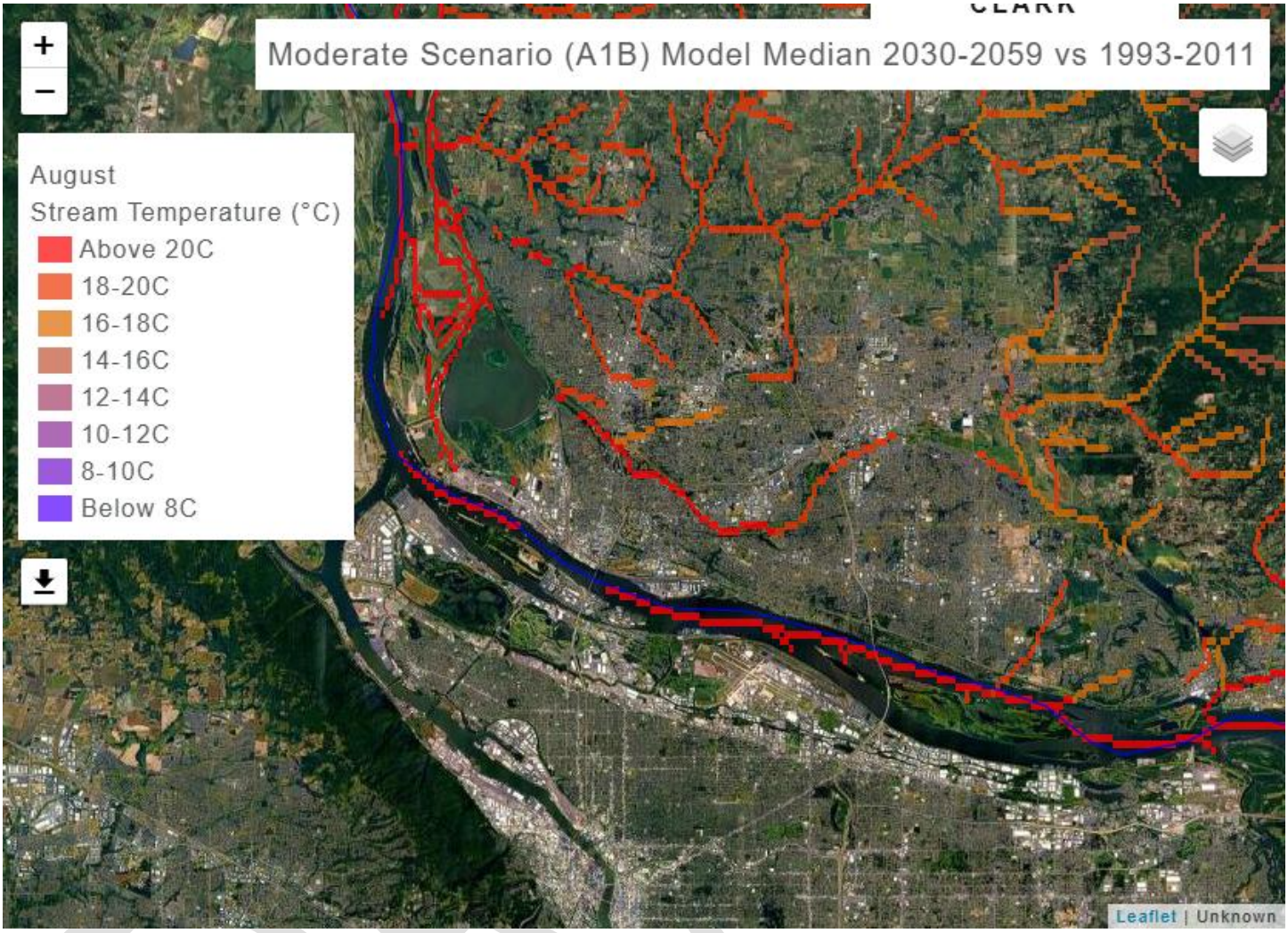
Increased stream flows can scour streams, increase sedimentation, and damage riparian areas. Wider culverts may be needed to support fish passage. Lower summer stream flows can reduce fish habitat quality. Some of the present water quality impairments could worsen, increase pathogens, and harm native cold-water fish. Algal blooms could increase in Lake Vancouver or other freshwater bodies. (Raymond, 2022) (Shirk, 2021) (Rentz, 2020)

Due to reduced summer precipitation, average August stream temperature is anticipated to increase in some Vancouver streams by 2040:

- 20.9 °C Burnt Bridge Creek
- 18.4 °C Fisher Creek
- 23.1 to 23.6 °C Columbia River

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Exhibit 65: August Stream Temperature – 2030-2059



Source: (Raymond, Climate Mapping for a Resilient Washington, 2022)

Wetlands could be harmed by changes in the amount and timing of precipitation, or changes in peak flows where associated with floodplains. (Shirk, 2021)

Increased heat and drought can impact tree canopy that may not be acclimated to changing conditions. This could exacerbate the heat island effect.

> *Urban trees already have an uphill struggle to reach their maximum size and function due to the competition for space, elements of an urban environment, vandalism, pests and diseases, among other factors and stressors. Abnormally high temperatures and prolonged heat can have a negative impact on established trees especially those not acclimated or unable to adjust to these changes. (City of Vancouver, 2023)*

Shifts in seasonal temperature and precipitation could alter the range of Oregon white oak, Douglas-fir and other species and lead to pest and disease outbreaks. (Mauger, et al., 2015) Oregon white oaks are tolerant to drought and periodic wildfire may facilitate sprouting of oak, but frequent fire could damage soil and allow for invasive species. (Hudec, Halofsky, Peterson, & Ho, 2019) (WSP USA, 2023)

Adaptive Capacity

Ecosystem policies can support both adaptation and climate mitigation per Exhibit 65.

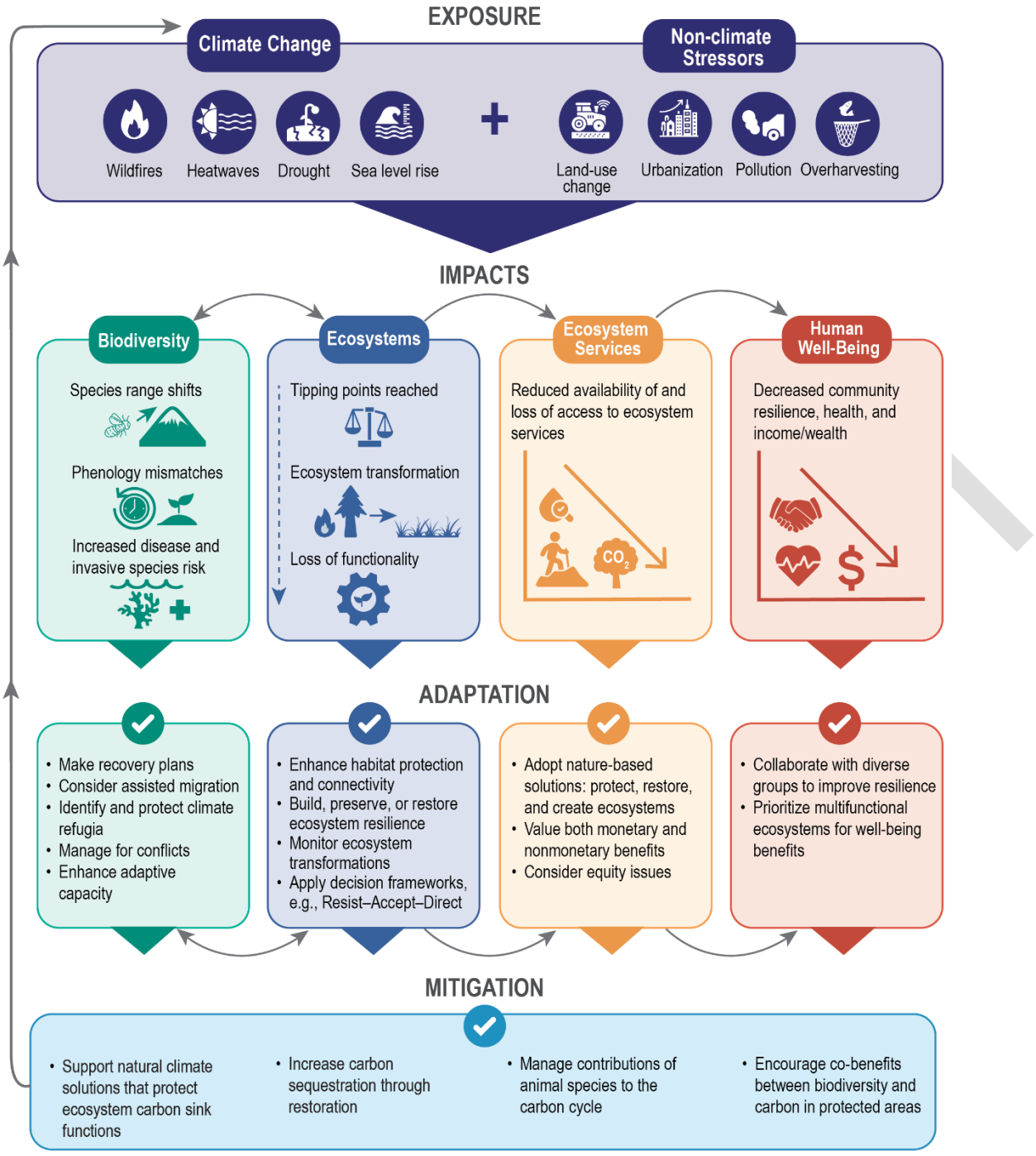
Similar to adaptation measures in the graphic, the City's provides robust regulations to protect ecosystems:

- The City regulates the protection of critical areas and shorelines. Vancouver is proposing to increase required stream buffers to match state recommendations regarding site potential tree height. (City of Vancouver, 2024)
- The City is proposing updated standards for wetland buffers and associated habitat corridors. (City of Vancouver, 2024) Less disturbed wetlands can support carbon sequestration to help reduce GHG emissions. (WSP USA, 2023)

The City recently updated its Urban Forestry Management Plan and last amended its tree protection regulations in 2023 (VMC 20.770). (City of Vancouver, 2023)

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Exhibit 66: Climate Change and Ecosystems, Biodiversity, and Ecosystem Services



CAPTION: Species and ecosystems respond to pressures in different ways, such as shifting their locations or transforming into new, often degraded systems less able to provide ecosystem services.(Weiskopf et al. 2020) Adaptation measures can help species and ecosystems cope with some climate impacts but are not always going to be effective or feasible, requiring increasingly difficult decisions on what resources to prioritize and what changes to accept.(Prober et al. 2019) Adapted from Lipton et al. 2018.(Lipton et al. 2018) (McElwee, 2023)

Vulnerability Summary

A tract-level matrix of vulnerability for ecosystems is provided in Exhibit 66. Sensitive ecosystems with exposure to extreme heat, drought, or extreme precipitation include Vancouver Lake in Area 1, Burnt Bridge Creek in areas 2, 4, 6, and 7, and the Columbia River in Areas 1, 2,5, 6, and 8. For these waterbodies and shorelines, there has been progress towards enhancement and restoration but there are still water quality concerns. Vulnerability to climate change is high and the cost to improve water resource functions is also high to fulfill lake management plans, watershed plans, and stormwater plans.

In Area 3A, the exposure is considered Medium-Low and none of the individual exposures are "higher."

Oak Tree habitat is found in Area 5 at Fort Vancouver as well as scattered in other areas. Tree canopy and wildland urban interface is anticipated to be at greater risk in Areas 7 and 8. Providing for wildland urban interface policies and regulations could improve adaptive capacity.

> Climate change is having variable and increasing impacts on ecosystem services and benefits, from food production to clean water to carbon sequestration, with consequences for human well-being (very likely, high confidence). Changes in availability and quality of ecosystem services, combined with existing social inequities, have disproportionate impacts on certain communities (very likely, high confidence). Equity-driven nature-based solutions, designed to protect, manage, and restore ecosystems for human well-being, can provide climate adaptation and mitigation benefits (likely, medium confidence). (McElwee, 2023)

Exhibit 67: Vulnerability by Census Tracts – Ecosystems

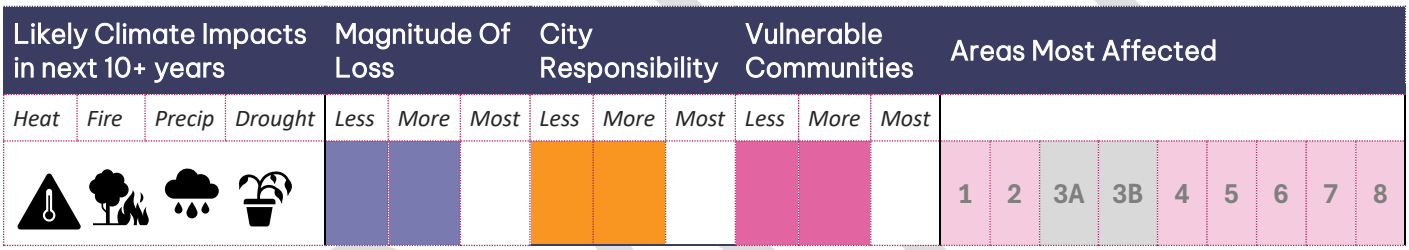
Census Tracts	Subarea	Heat Exposure	Flooding/Precipitation Exposure	Smoke/Air Quality Exposure	Overall Exposure	Health Conditions	Equity Index	Riparian	Habitat	Species
53011041005	1	Medium-high	Higher	Lower	Higher	Higher	Higher	X		X
53011042400	2	Higher	Higher	Medium	Higher	Higher	Higher	X		
53011041003	2	Lower	Medium-high	Higher	Medium-low	Medium-low	Lower		X	X
53011041011	3a	Medium-low	Medium-high	Medium-low	Medium-low	Medium-low	Medium	X	X	
53011041107	3b	Medium-low	Higher	Medium-low	Medium	Medium	Lower	X	X	
53011041203	4	Medium-high	Medium-high	Medium	Medium-high	Medium-high	Medium-high	X	X	
53011041600	4	Medium-high	Higher	Medium	Higher	Higher	Higher	X	X	
53011042601	5	Medium-high	Higher	Medium-high	Higher	Medium	Medium	X		X
53011042602	5	Medium-high	Medium-low	Medium-high	Medium	Medium	Medium-low	X	X	
53011041205	6	Medium-high	Higher	Medium-high	Higher	Medium-high	Higher	X	X	
53011041208	6	Lower	Medium	Higher	Medium-low	Medium	Lower	X	X	
53011042800	6	Lower	Lower	Medium-high	Lower	Medium-low	Lower		X	
53011041312	7	Higher	Higher	Medium-low	Higher	Medium-high	Higher	X	X	

Census Tracts	Subarea	Heat Exposure	Flooding/Precipitation Exposure	Smoke/Air Quality Exposure	Overall Exposure	Health Conditions	Equity Index	Riparian	Habitat	Species
53011041313	7	Medium-high	Medium-high	Medium	Medium-high	Medium-high	Higher	X	X	
53011041334	7	Lower	Higher	Higher	Medium	Lower	Lower	X	X	X
53011041326	7	Medium-low	Higher	Higher	Medium	Medium-low	Medium	X	X	
53011041309	8	Medium-low	Medium	Higher	Medium-low	Medium-high	Medium-high	X	X	

Source: See Chapter 2 for indicators and methods. BERK, 2025.

Based on the evaluation above, the risk of climate impacts to ecosystems is shared in Exhibit 67.

Exhibit 68: Risk Summary – Ecosystems



Source: BERK, 2025.

Gaps and Opportunities

Engagement and Strategies to Improve Adaptive Capacity

Some strategies that could improve ecosystem resilience were identified through climate planning efforts with the community and an interdepartmental team:

- Implement land use planning policies for flood mitigation. This included actions to review regulations such as stormwater and critical areas, and potentially addressing a flood protection overlay zone. (Hatch Planning and City of Vancouver, 2022)
- Consider controlled burns or mechanical thinning in larger natural parks to reduce accumulated fuel (in coordination with fire authorities and when weather permits safe burning) – this can actually improve ecosystem health while lowering wildfire risk. (City of Vancouver, 2025)
- Use parks as venues for climate education: interpretive signs about drought-resistant gardens, or a pilot plot showing a native meadow vs. conventional lawn and explaining water savings. (City of Vancouver, 2025)

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Future engagement regarding ecosystem assets could include:

- Watershed sub-basin conditions and identifying priorities by engaging with watershed planning units.
- Prioritizing fish passage barrier removal, enhancing biodiversity corridors, and adding green infrastructure.
- Collaborating with overburdened communities to identify their priority environmental improvements. For example, Vancouver's Resilience Rising and Adaptive Capacity Assessment identified some potential pilot projects for stormwater projects with urban greening and rain gardens (City of Vancouver, 2025) and food forests or edible landscapes in heat-impacted areas (City of Vancouver, 2025)

Policies

A number of Comprehensive Plan policies or Climate Action Framework strategies address ecosystem protection and enhancement. Amended policies could further address:

- Habitat protection for salmonids and listed species by addressing potential impacts to salmon species due to climate change.
- GHG reduction, climate-exacerbated impacts to a policy addressing air quality protection and enhancement.
- Increased frequency/risk of hazards due to climate change (e.g., extreme precipitation) to a policy addressing geologic hazards.
- Issues of insects, invasive species, and increased ecosystem impacts due to climate change related stresses.
- Risk of water quality degradation due to climate change impacts.
- Flood management with green infrastructure and setbacks and protection where necessary.

The **OUR VANCOUVER 2045** plan addresses many of these concepts:

- Ensure that buildings contribute to the City's greenhouse gas reduction goals, protect occupants from climate hazards and extreme weather, and minimize harm to wildlife and natural ecosystems. (Draft Policy 6)
- Focus on improving water quality and prevent flooding through managing stormwater flows, encouraging natural filtration of precipitation to ground water, reducing runoff, mitigating flood risks by advancing systems that manage stormwater effectively, and enhancing local water quality in the watershed. (Draft Policy 10)

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- Take inventory of and protect climate refugia, and fish and wildlife habitat needs for species under stress from climate change. (Draft Policy 15)
- Protect and preserve significant cultural, historic, archeologic, and ecologic community resources. Promote preservation, restoration, and rehabilitation of historic and architecturally significant structures. (Draft Policy 107)
- Support a healthy urban ecosystem by embedding pollinator habitat into public and private development, prioritizing pesticide-free landscaping, enhancing biodiversity, and connecting natural spaces across the city through pollinator-friendly plantings. (Draft Policy 107)

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Transportation

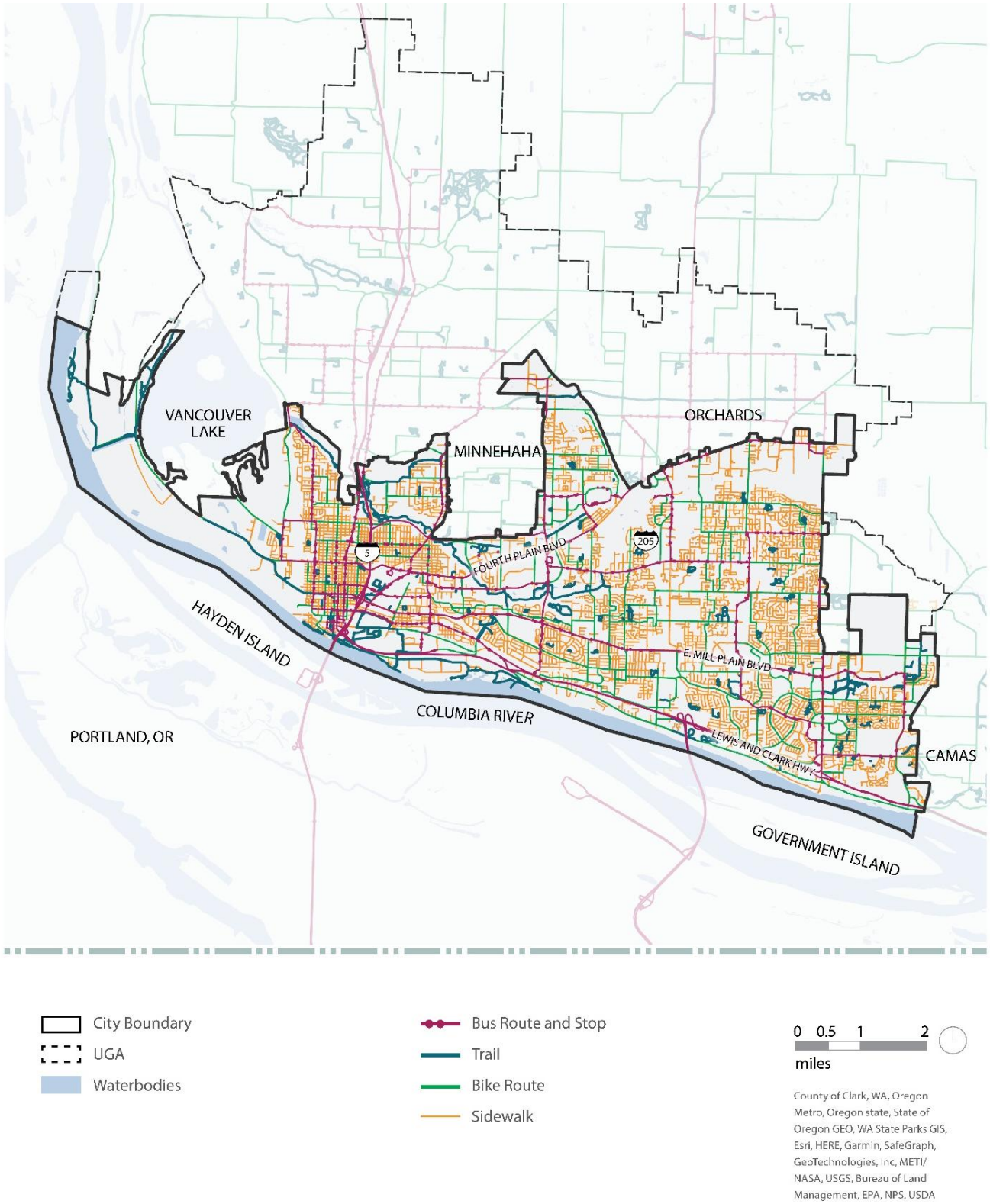
Climate related hazards have the potential to negatively impact transportation services necessary for other sectors like Zoning and Development, Economic Development, Emergency Services, and more. Roads, sidewalks, bridges, and transit facilities are vital to maintain access and connectivity for a resilient transportation system.

Sector Overview and Assets

Transportation assets include three major highways such as Interstates 5 and 205 as well as Washington State Routes 14 and 500, transit centers that connect large swaths of the city with services via bus include the VA, 99th street, Fisher's Landing, Mill Plain, and Vancouver Mall Transit Centers. See Exhibit 68. Major roads that are considered part of the regional emergency transportation routes are shown in Exhibit 69 with several locations in floodplains such as Areas 1, 5, 6, and 7.

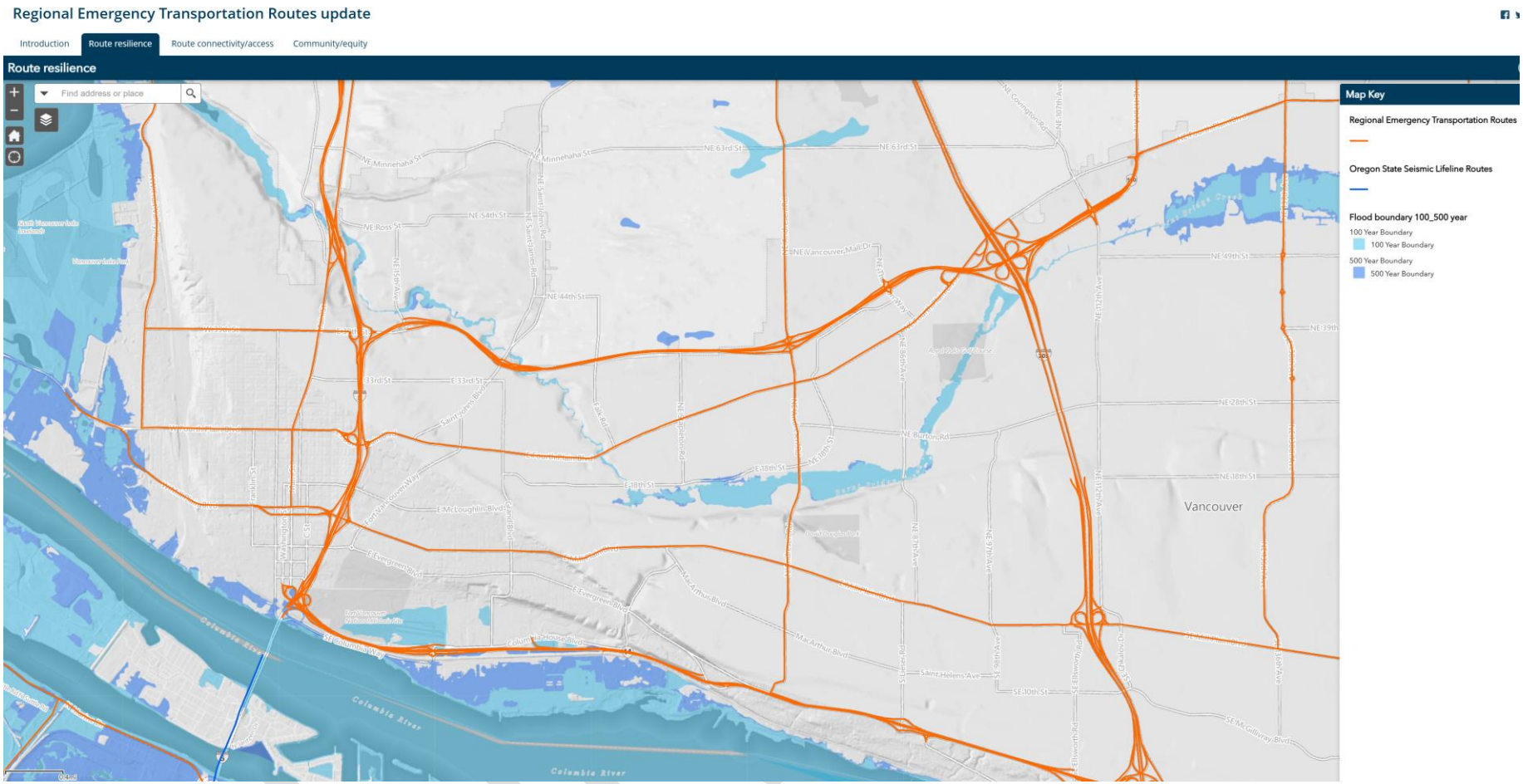
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Exhibit 69: Multimodal Transportation Assets in Vancouver



Source: (Design Workshop, 2024)

Exhibit 70: Regional Emergency Transportation Routes in Vancouver Area and Floodplains

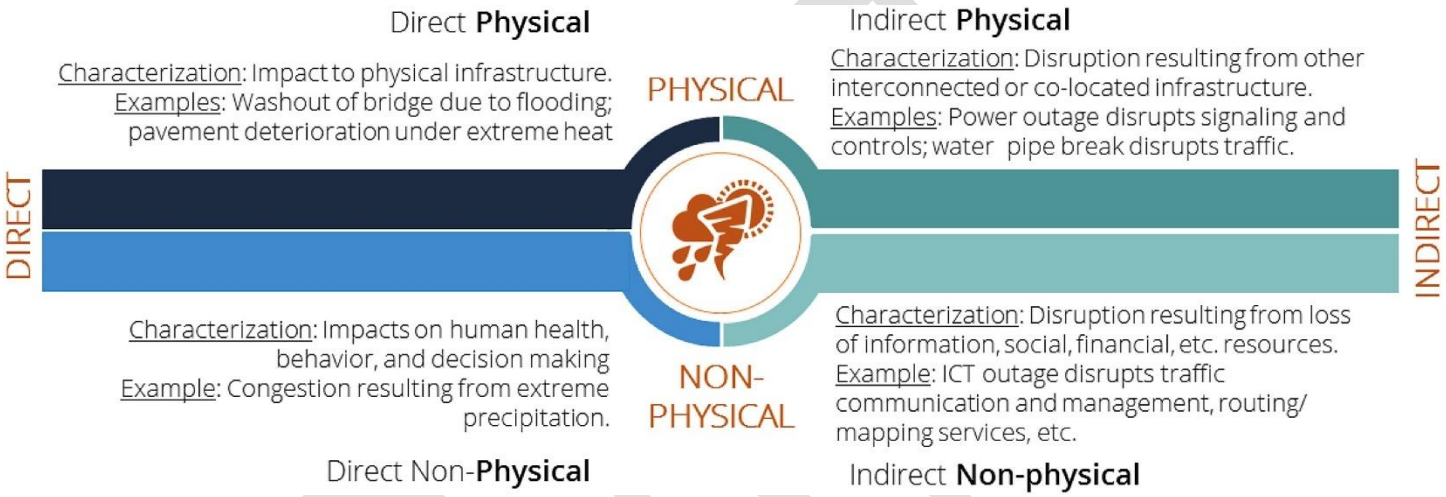


Source: (RDPO, 2024)

Potential Impacts

Bike, pedestrian, and vehicular infrastructures are susceptible to roadway flooding and damage from extreme heat and precipitation that can impact the ability of residents to reach grocery stores, hospitals, and several other vital resources during climate related events. Examples of physical and non-physical transportation system impacts are described in Exhibit 70.

Exhibit 71: Direct and Indirect Climate Change Impacts to Transportation Infrastructure



Source: (Samuel A. Markolf, 2019)

Extreme precipitation can create roadway flooding hazards that have major impacts on transportation routes, damage infrastructure and increase maintenance and repair costs. These specific impacts are limited in exposure for a majority of the city per FEMA flood risk mapping (FEMA, 2021) and Vancouver's Annex to the 2023 Clark Natural Hazard Mitigation Plan (Clark Regional Emergency Services Agency, 2023), but can more severely impact the east and central areas as shown in Exhibit 17. Wildfire related hazards such as smoke and roadside brush fires could increase in likelihood and severity. These specific hazards can disrupt travel by increasing road closures from roadside brush fires near the wildland urban interface (Washington State Department of Natural Resources, 2024), and delaying time sensitive roadway maintenance for the sake of protection of outdoor workers (L & I, 2022).

Wildfire smoke events can create additional health impacts for vulnerable populations that may be dependent on transit and non-motorized transportation. In cases such as this, seeking medical attention can create additional exposures and worsen existing conditions. Additional information on wildfire smoke related health hazards can be found in the Health & Well-being section of this document. While exposure to wildfire smoke and extreme heat impact largely the same vulnerable segments of the population, there may be fewer

transportation resources and services available for vulnerable communities seeking refuge from poor air quality.

Extreme heat events may lead to roadway and sidewalk damage as a result of prolonged exposure of asphalt and concrete to extreme heat. The risk of this potential impact is low but the impact is quite high as it will increase maintenance requirements and costs while preventing effective transportation for emergency personnel or those needing to access their services (Fischels, 2021). Extreme heat can also put strain on public transportation assets during acute heat events both in infrastructure assets and in demand since public transportation is a common refuge for some low-income individuals as well as those needing to access emergency cooling shelters (City of Vancouver, 2024).

Adaptive Capacity

Vancouver's transportation network is not particularly vulnerable to climate change related hazards when compared with other sectors.

However, the transit network does have a proportionally high number of capital facilities that are vital to the connectivity, health, and safety of the City that, if damaged, could result in severe disruptions to service provision and human health.

The City is at a low risk of erosion and severe riverine flooding impacting roadways, transportation facilities, and bike lanes per the City's 2023 *Natural Hazard Mitigation Plan*. Other hazards such as extreme heat, wildfire smoke, and extreme precipitation leading to acute stormwater flooding could inequitably limit transportation to areas of the city that already have transportation challenges. One example of this is the high potential for active trips (any travel that is not a single occupancy private vehicle) in areas at the highest risk for urban heat island effects. This could damage the potential for non-drivers to reach necessary services and also limit the impact of GHG reduction goals and policies that seek to reduce the overall VMT in personal vehicles and encourage active transportation.

Commuters could be impacted by urban flooding with extreme precipitation, or a lack of power due to energy demand exceeding network capacity during extreme weather (e.g., heat dome). Emergency evacuations could disrupt both workers and residents. Regional emergency plans addressing cross county and cross state road networks are under update as described under Economic Development.

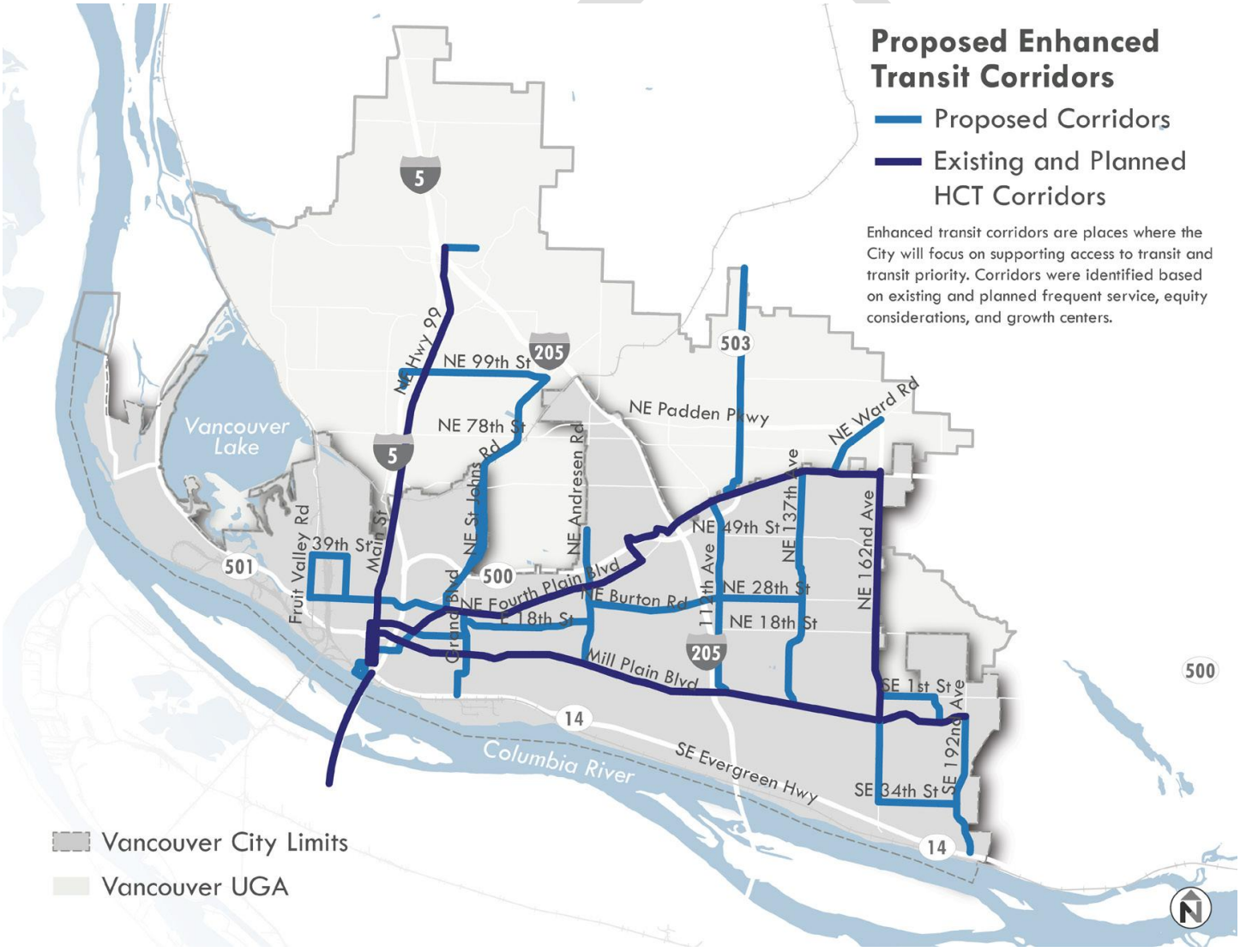
A summary of adaptive capacity (high and low) conditions are noted below:

- Transportation system access could be limited for several groups:
  - ➡ Non-drivers may be unable to access transportation infrastructure without risking exposure to climate hazards. For example, there may be public transit challenges during storm events. In addition, in East Vancouver, there are limited transit options. (City of Vancouver, 2025)Individuals with disabilities and mobility challenges may experience barriers to accessing cooling centers or other refuges during heat and smoke events without risking prolonged exposure. These challenges were reinforced through the Resilience Rising engagement in 2025, which identified inequitable access to resources like air conditioning, clean air shelters, and public cooling infrastructure in part due to transportation limitations for seniors, youth, and people with disabilities. (City of Vancouver, 2025)
  - ➡ Outdoor laborers working on transportation construction projects may have negative health impacts associated with prolonged exposure to wildfire smoke or extreme heat. As climate conditions worsen it is possible that fewer individuals are willing to work in the field of transportation construction which could increase overall costs and delay construction projects significantly without proper protections put in place.
- Plans, programs, and policies that can address climate impacts and improve resilience include:
  - ➡ Pedestrians and Bicyclists including access to transit:
    - Areas of the city such as in the east with more tree canopy cover are likely to experience lower, safer temperatures during extreme heat events. See Zoning & Development for more information by neighborhood.
    - Specific reference to “comfortable” last mile transportation to connect pedestrian and bike infrastructure with C-TRAN network to serve all communities’ transportation needs at each step of their journey even during adverse weather conditions.
    - Vancouver’s Climate Action Framework specifically seeks to mitigate inequity in C-TRAN network by shifting trips to active modes of transportation through network improvements targeted at transit dependent and historically poorly served communities in Vancouver.
    - C-TRAN has a policy of not turning anyone away riding to a cooling center.

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- Transit System Sustainability and Resilience:
  - C-TRAN has a Sustainability Policy, and a transition plan to have zero-GHG emissions by 2043 by adding more electric buses. (C-TRAN, 2022)
  - Clark Regional Emergency Services Agency (CRESA) plans to partner with C-TRAN to identify climate-vulnerable infrastructure and retrofit it to ensure longevity of service and to reduce capital project needs.
  - Vancouver's Transportation System Plan identifies existing and planned transit routes. See Exhibit 71.

Exhibit 72: Transit Corridors, Existing and Proposed

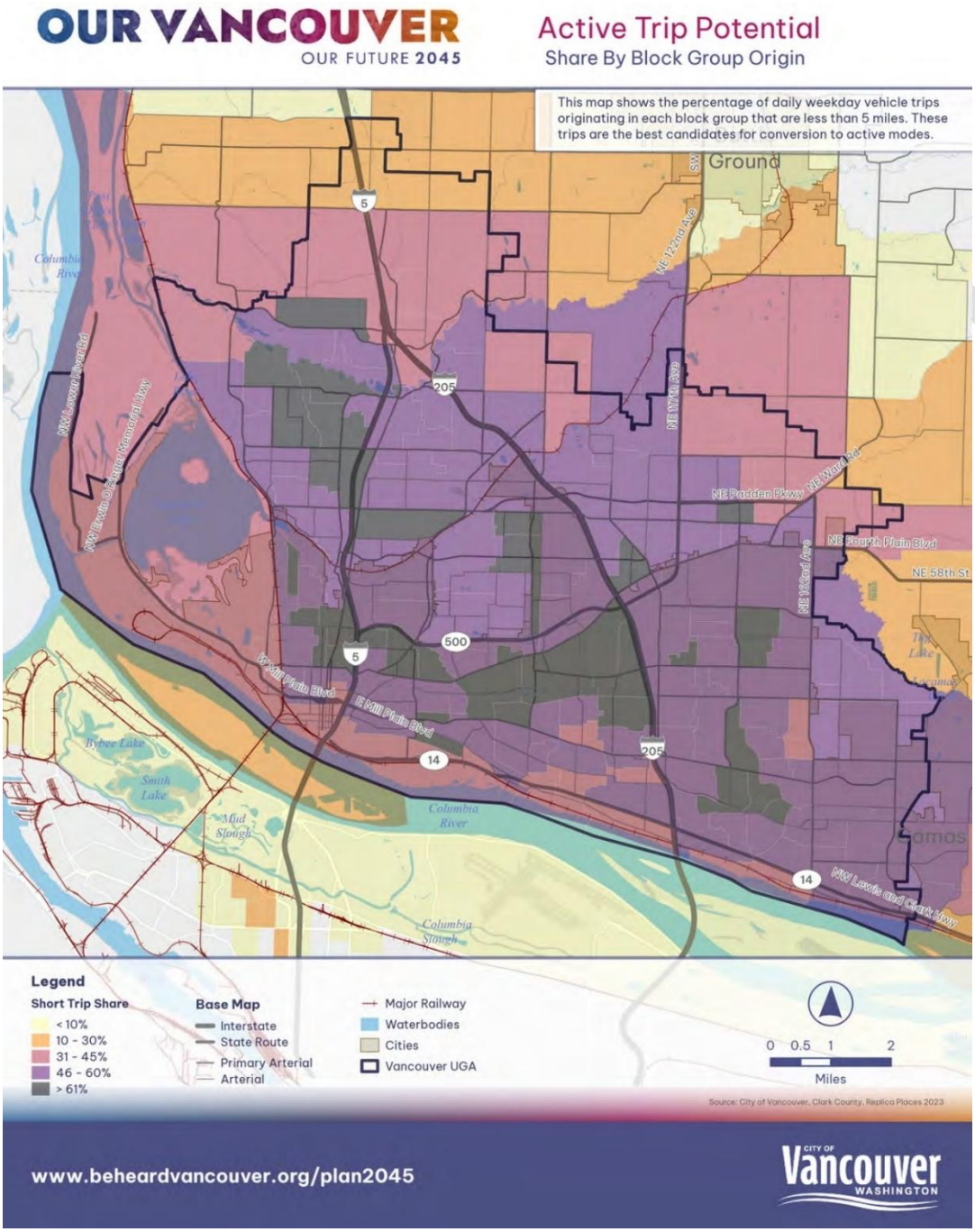


Source:

Source: (City of Vancouver, 2023)

The City has planned for improvements to its bicycle and pedestrian system in the 2023 Transportation System Plan, but more connections could be made to increase active trips. See Exhibit 72,

Exhibit 73: Active Trip Potential as a Share of All Vehicle Trips



Source: Alta, 2024

The City's overall goals and strategies laid out in the Climate Action Framework (City of Vancouver, 2022) and the associated transportation sections of the Emergency Management Plan, coupled with implementation, would be adequate in alleviating the disconnect between areas with low overall access, areas with high active trip potential and areas that are more acutely impacted by climate hazards than elsewhere in the city. This contributes to high overall adaptive capacity to climate hazards both through proposed capital investments and through climate hazard risk reduction strategies.

Vulnerability Summary

A summary of vulnerability for transportation is provided in Exhibit 73 below. Major regional transportation routes that are part of emergency evacuation routes are located in the Areas 2-8. Transit routes are more exposed to heat and smoke in Areas 2, 3b, and 6-8. Lake and river flooding is less likely to impact transportation facilities but urban flooding with extreme events could affect roadways and the residents, businesses, and commuters that rely on them in Areas 1, 2, 4, 5, 6, and 7. Newer street standards have been applied in more recently developed areas in areas 7 and 8.

All communities and businesses rely on different transportation modes and freight. Those with the most vulnerable populations due to disability or exposure to high-volume roads are highlighted below:

- Considering Census tracts with higher shares of people with disabilities who may be more dependent on transit or vehicular transportation and are in areas with higher exposure are in Areas 2, 4, and 8.
- Census tracts with higher climate exposure and proximate to high-volume roads are in Areas 5 and 8. Areas with Medium-High Exposure (including Higher Heat) along with Higher Health or Equity Disparities are in Areas 3b and 6.
- Census tracts with higher flooding potential and vulnerable populations are found in Areas 2, 4, and 8.

All Census tracts included on Exhibit 73 have at least one emergency route, and also have potential for active trips with improved connections for walking, biking, e-bikes, that can help provide redundancy in transportation modes to improve resilience.

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Exhibit 74: Vulnerability by Census Tracts – Transportation

Census Tract	Area	Heat Exposure	Flooding/ Precipitation Exposure	Smoke/Air Quality Exposure	Overall Exposure	Health Conditions	Equity Index	Persons with disabilities > 20%	Potential Active Trips	Traffic Proximity Greater than Average	Regional Transportation Routes
53011041800	2	Medium	Medium-low	Medium-high	Medium	Higher	Higher		61% +	X	X
53011041900	2	Medium-low	Medium	Medium-high	Medium-low	Medium	Medium-low		61% +	X	X
53011042400	2	Higher	Higher	Higher	Higher	Higher	Higher	X	31-45%		X
53011041011	3a	Medium-low	Medium-high	Medium-low	Medium-low	Medium-low	Medium		46-60%	X	X
53011041107	3b	Medium-low	Higher	Medium-low	Medium	Medium	Lower		46-60%	X	X
53011041113	3b	Higher	Medium-high	Medium-low	Medium-high	Higher	Higher		46-60%	X	X
53011041114	3b	Higher	Medium	Medium-low	Medium-high	Higher	Higher	X	46-60%		X
53011042700	4	Medium-high	Higher	Medium-high	Higher	Higher	Higher	X	46-60%		X
53011042601	5	Medium-high	Higher	Medium-high	Higher	Medium	Medium		31-45%	X	X
53011041206	6	Higher	Medium-low	Medium-high	Medium-high	Higher	Medium-high		61% +	X	X
53011041207	6	Medium	Medium-low	Higher	Medium	Medium	Higher		31-45%	X	X
53011043100	6	Medium	Medium-high	Medium-high	Medium-high	Medium	Medium	X	46-60%		X
53011041313	7	Medium-high	Medium-high	Medium	Medium-high	Medium-high	Higher		46-60%	X	X
53011041317	7	Higher	Lower	Medium-high	Medium-high	Medium-low	Medium-low		46-60%	X	X
53011041326	7	Medium-low	Higher	Medium-low	Medium-low	Medium-low	Medium		46-60%	X	X
53011041334	7	Lower	Higher	Medium-low	Medium-low	Lower	Lower		46-60%	X	X
53011041310	8	Medium	Medium-high	Higher	Higher	Medium-high	Medium-low	X	61% +		X
53011041320	8	Higher	Medium	Medium-high	Medium-high	Medium-high	Medium-high		46-60%	X	X
53011041329	8	Higher	Medium	Higher	Higher	Lower	Medium-high		46-60%	X	X

Source: See **Chapter 2** for indicators and methods. BERK, 2025.

Higher Exposure & Higher Health or Equity Disparities | Medium-High Exposure & Higher Health or Equity Disparities

A summary of risk is provided below based on the evaluation above.

Exhibit 75: Risk Summary – Transportation



Source: BERK, 2025.

Gaps and Opportunities

Engagement and Strategies to Improve Adaptive Capacity

The Clark County *Community Needs Assessment* found that transportation barriers to social services, health services, and employment was a significant concern in climate vulnerable population throughout Clark County (Clark County Public Health, 2024).

Based on engagement for Resilience Rising and interdepartmental efforts for the Adaptive Capacity Assessment in 2025, many transportation-related strategies were identified to address climate impacts and transportation barriers:

- When implementing public facility retrofits (e.g., HVAC upgrades, power redundancy), also consider proximity to public transit and walking paths. (City of Vancouver, 2025)
- Provide amenities like water fountains or misting stations at key transit centers during extreme heat events so riders can stay hydrated and cool. (City of Vancouver, 2025)
- Making [BRT] making stations into small oases – cooler, with seating, shade, and information – will improve safety and ridership during extreme weather. Prioritize upgrades at stations in heat-prone and socially vulnerable areas (for instance, stations along E. Fourth Plain in central Vancouver, which serves lower- income communities and sees high foot traffic). (City of Vancouver, 2025)
- Identify the chronic flood spots along each BRT route and invest in stormwater infrastructure to mitigate them. This could mean enlarging street culverts, adding extra storm drains, or regrading road surfaces so water doesn't pool in the bus lanes. (City of Vancouver, 2025)
- Integrate climate resilience into all future transit planning and investments. Pursue funding for more covered stations and cooling features as standard design

elements for new projects. The City and C-TRAN can also explore micro- transit or on-demand shuttles for extreme events. (City of Vancouver, 2025)

- Increase sheltered bus stops. By 2045, the aim is that no frequently used stop in a Category A or B tract (see Exhibit 4) is just a bare bench – all have some form of cover or tree shade. (City of Vancouver, 2025)
- At major transfer points or transit centers (like Vancouver Mall, downtown, or 99th Street Transit Center), provide cooling and air quality amenities. (City of Vancouver, 2025)
- Incorporate green stormwater infrastructure around bus stops to handle runoff and reduce flooding. (City of Vancouver, 2025)

Policies

Vancouver's transportation policies are explicit about reducing VMT and would also help reduce GHG emissions and poor air quality. Some policies address the climate resiliency of transportation infrastructure in the event of climate emergencies.

Integrating the TSP policies and the Climate Action Framework objectives and strategies into the Comprehensive Plan would benefit climate mitigation, resilience, and equity as these policies were crafted with climate change in mind.

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Waste Management

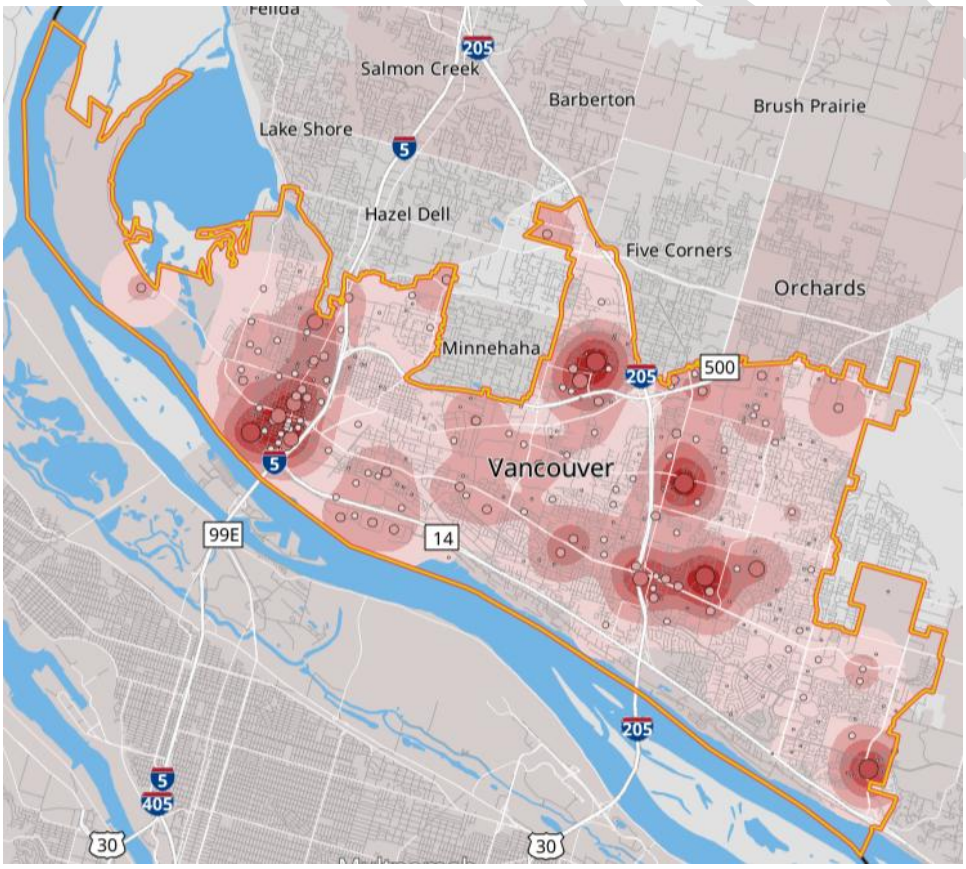
Sector Overview and Assets

The City of Vancouver waste management system is necessary for daily commercial and residential refuse collection and sorting as well as debris clearing during and after extreme weather events. Assets include waste hauling personnel, transfer stations, and heavy rail infrastructure for export from transfer stations to long term waste storage.

The City's solid waste services are contracted to Waste Connections and requires service in all residential areas. Waste hauling requires reliable and safe transportation infrastructure to reach all solid waste customers.

Waste management-related jobs are shown in Exhibit 76, and are primarily found in Areas 2, 3b, and 7. The West Vancouver transfer station is located in Area 1. The Central Transfer and Recycling station is located in the UGA north of Area 7, and a third Washougal Transfer Station is found east of Vancouver.

Exhibit 76: Waste Management and Remediation Services Jobs in Vancouver, 2022



Source: Census on the Map, 2022.

Potential Impacts

Waste management providers in the city do have a low overall risk to service provision due to climate related hazards but are impacted by climate adaptation in other sectors. Transportation network interruptions from roadway damage, flooding, and debris can hinder services and create significant workload increases following climate hazard events. The threat of extreme heat can also increase instances of roadway debris that need to be cleared as part of emergency response.

A summary of potential impacts is shared below:

- Extreme Precipitation
    - Extreme precipitation can impact roadways and other physical waste management assets throughout the city such as transfer stations and hazardous waste storage that has not yet been safely transported to a transfer station.
    - Impacts to waste collection and increases in debris clearing on roadways and on private property.
- Extreme heat
    - Though extreme heat is not directly identified as a threat to waste management assets in the city (UW Climate Impacts Group, 2024), waste haulers are predominantly outdoor laborers and extreme heat can significantly impact their ability safely and effectively service their waste collection routes
- Wildfires and wildfire smoke
    - Waste haulers are predominantly outdoor laborers and wildfire smoke can significantly impact their ability safely and effectively service their waste collection routes.
    - Related to transportation infrastructure, roadside brushfires can impact roadways and delay clearing certain debris for the safety of solid waste staff.

Adaptive Capacity

Programs that address the resilience of the waste management system include debris management elements of the City's Emergency Operations Plan.

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- Debris management is included in Vancouver's Emergency Operations Plan (City of Vancouver, 2018) and the Regional Disaster Debris Management Plan and regional Natural Hazard Mitigation Plan.

The City of Vancouver Annex outlines a strategy for managing disaster debris operations and assigns critical response roles and responsibilities. It also provides a timeline of activities based on normal, pre-event, response, and recovery time periods; and includes extensive pre-event messaging and implementing documents. Potential Debris Collection Sites have been identified and surveyed. (Clark Regional Emergency Services Agency, 2023)

- Extreme heat and wildfire smoke protections for outdoor workers provided by Washington State Department of Labor and Industries (L & I, 2022) would apply to waste management employees.
- Increases in tree canopy cover could improve outdoor worker resilience to extreme heat but could also increase roadway debris and strain existing staff and equipment resources.

Capital assets such as the transfer stations and roadway infrastructure to transport sorted solid waste to landfills and recycling plants are resilient to worsening climate hazards as they provide redundant services. This means that if one transfer station is damaged or is out of commission for a climate related hazard the other two have the capacity to service waste haulers, residential customers, and special item drop offs. There are also a large number of sorting facilities and transfer stations outside of city limits that can effectively service these customers but are not technically a part of the City of Vancouver waste system.

Vulnerability Summary

Waste facilities, including a Transfer Station, are located in Area 1 with medium-high heat exposure and higher flooding/precipitation exposure. Waste-related jobs are focused in Areas 2, 3b, and 7 with areas of medium-high and higher heat exposure. See Exhibit 16 and Exhibit 76. Heat in particular would affect outdoor facilities and workers. Facility vulnerability is less than for outdoor workers associated with waste management.

Exhibit 77: Risk Summary – Waste Management

Likely Climate Impacts in next 10+ years	Magnitude of Loss	City Responsibility	Vulnerable Communities	Areas Most Affected
				1, 2, 3A, 3B, 4, 5, 6, 7, 8

Sources: BERK, 2025.

Gaps and Opportunities

Engagement

Engagement with communities in Vancouver is ongoing in the form of waste reduction strategies and proper waste sorting. Materials on proper waste disposal and hazardous waste are available to all residents online and several free classes exist. Engagement activities could reinforce existing programs as well as offer additional engagement helping property owners and homeowner associations understand the importance of clearing stormwater infrastructure of debris.

Policies and Strategies to Improve Adaptive Capacity

A policy audit of city and regional plans contained several explicit policies related to Waste Management. A majority of the policies address the holistic cycle of consumption and production as well as providing opportunities to reduce emissions at the consumer level from landfilled waste.

Additional waste management policies should address weather related debris management, continued service delivery, and ensured system redundancy during a climate emergency.

A broad policy could address emergency responses and services:

- Disaster Recovery and Emergency Response: Develop plans and resources to ensure effective emergency response and equal access to emergency services and recovery resources mitigating risks from extreme weather, climate-related hazards, and social hazards. (Draft Policy 3)

A recommendation of the Adaptive Capacity Assessment called for this implementation action for Policy 3:

- Institutionalize climate vulnerability data into emergency response planning—including evacuation, debris management, and contingency protocols for essential services. (City of Vancouver, 2025)

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Water Resources

Sector Overview and Assets

This section addresses Vancouver's water, wastewater, and stormwater systems relying on the City's system plans.

Water System

Vancouver provides water protection, treatment and management serving more than 270,000 people within the City and a portion of the urban unincorporated area, covering a 72-square-mile service area. See Exhibit 78. The system includes 9 water production stations, 40 wells, 52 booster pumps, more than 1,100 miles of pipes, and more than 77,000 service connections (water meters). (City of Vancouver, 2024)

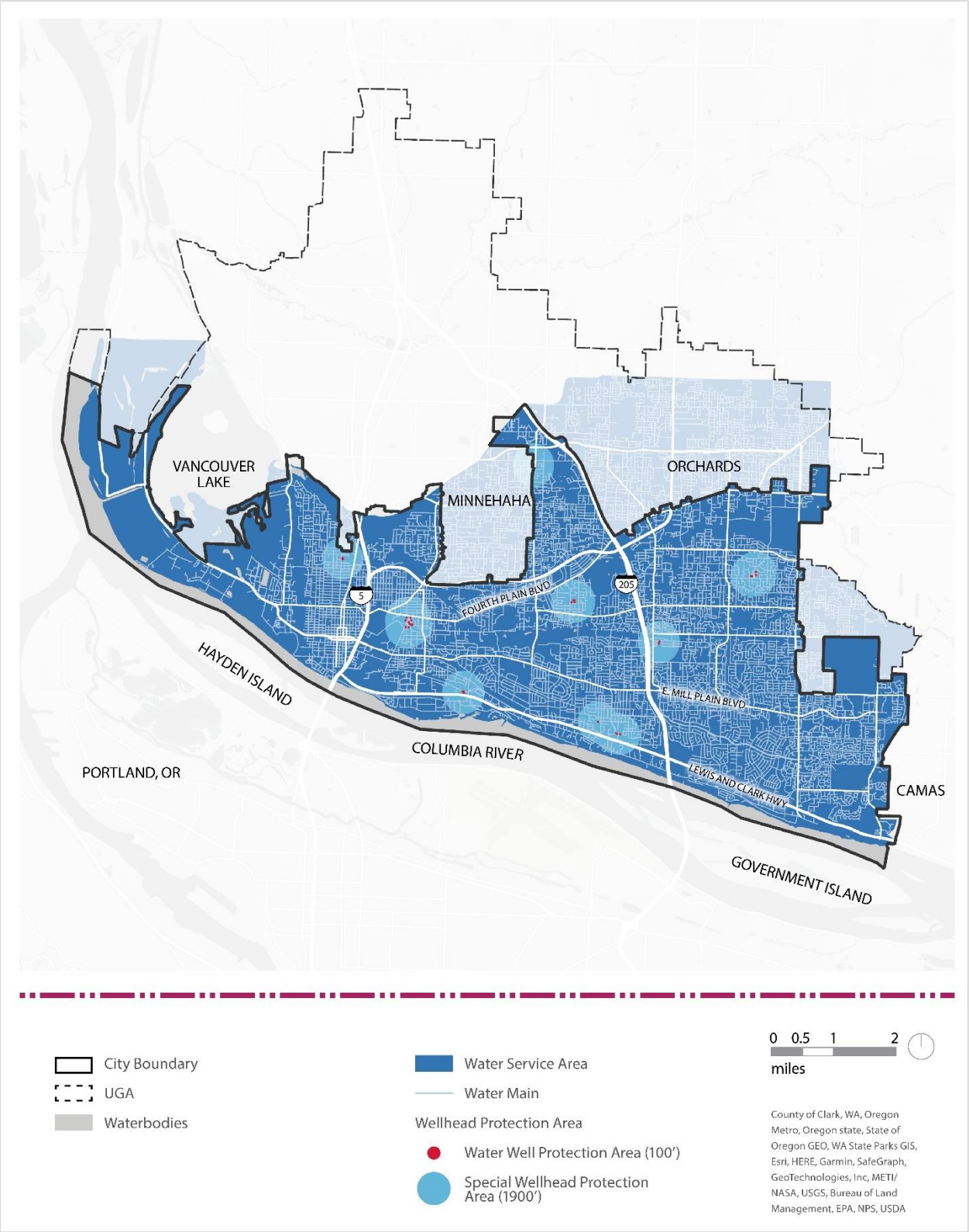
Vancouver's water supply comes from underground aquifers under the city and county. It is a sole source aquifer called the Troutdale Aquifer System Area. (US EPA, 2024) Treated groundwater is stored in reservoirs and elevated tanks. Stored water is gravity fed or pumped to pressurize the distribution system. (City of Vancouver, 2015) The City protects groundwater through a wellhead protection program and limits activities that could contaminate critical aquifer recharge areas.

While groundwater is the primary source of water, watershed plans have recommended sourcing water from the Columbia River:

> *Vancouver has been active in the WRIAs 27 and 28 planning effort. The Salmon-Washougal and Lewis Watershed Management Plan (WRIA Plan) was adopted in 2006. The WRIA Plan addresses a range of issues related to water resources, including water supply, stream flow management, water quality, and fish habitat. It reviews alternative approaches for managing water resources in the area and recommends select strategies for implementation. The WRIA Plan discusses Vancouver's sources of supply and projected needs and identifies groundwater in the Vancouver Lake lowlands as a major new source of regional supply. Given this regional source of supply, the WRIA Plan recognizes that Vancouver's regional supply may play a role in assisting other communities within Clark County to meet future demand. The WRIA Plan also encourages new developments and industrial facilities to rely on the City's existing public water system. (City of Vancouver, 2015)*

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Exhibit 78: Vancouver Water System



Source: (Design Workshop, 2024)

Vancouver's Water System Plan also considers watershed plan recommendations and state rules that identify subbasin closures to additional ground or surface water withdrawals:

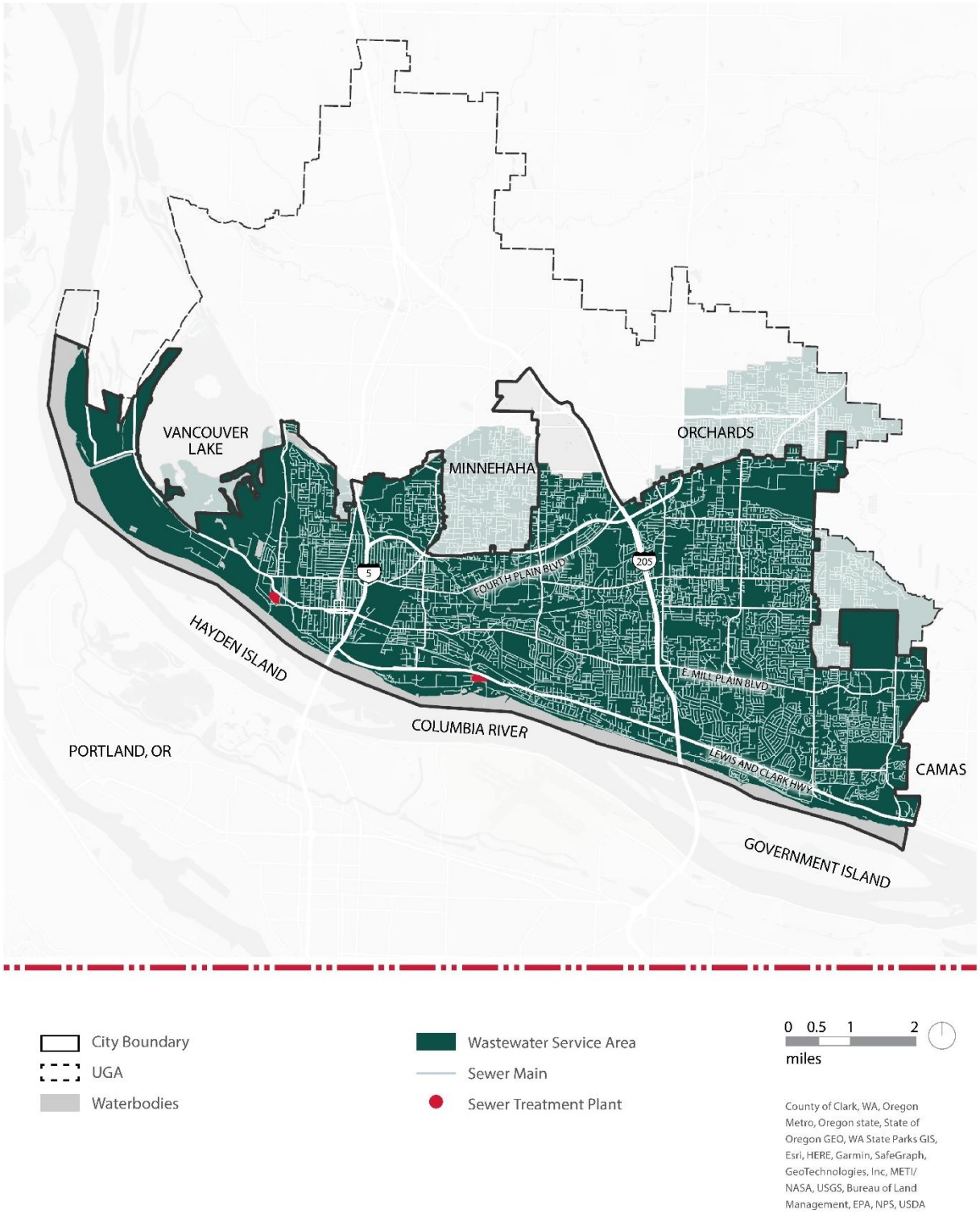
> *The City is located in the Burnt Bridge Creek subbasin. Portions of the service area and UGA are located in the Salmon Creek and Lacamas Creek subbasins. Instream flows have been set in each of the City's three subbasins. The subbasins have been closed to further surface water and groundwater withdrawals, except limited situations provided in WAC 173-528-080 and the designated "regional supply areas." The Vancouver Lake Lowlands Area has been designated a "regional supply area." The City has a small (0.2 cfs) reservation of water in Burnt Bridge creek for future use. (City of Vancouver, 2015)*

Wastewater System

Vancouver provides a wastewater collection system serving 244,000 residents in a 58.6 square mile area, with 791 miles of sewer lines and 48 pump stations. See Exhibit 79. The City also has two wastewater treatment facilities. The City has partnered with the Clark Regional Wastewater District. Even with an extensive system some properties are still using septic systems and the City offers incentives to hook up to sewers with affordable financing, which can help improve water quality. (City of Vancouver, 2024) The Climate Action Framework calls for reducing per capita water usage and operate the wastewater treatment system more efficiently. (City of Vancouver, 2022)

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Exhibit 79: Vancouver Wastewater System



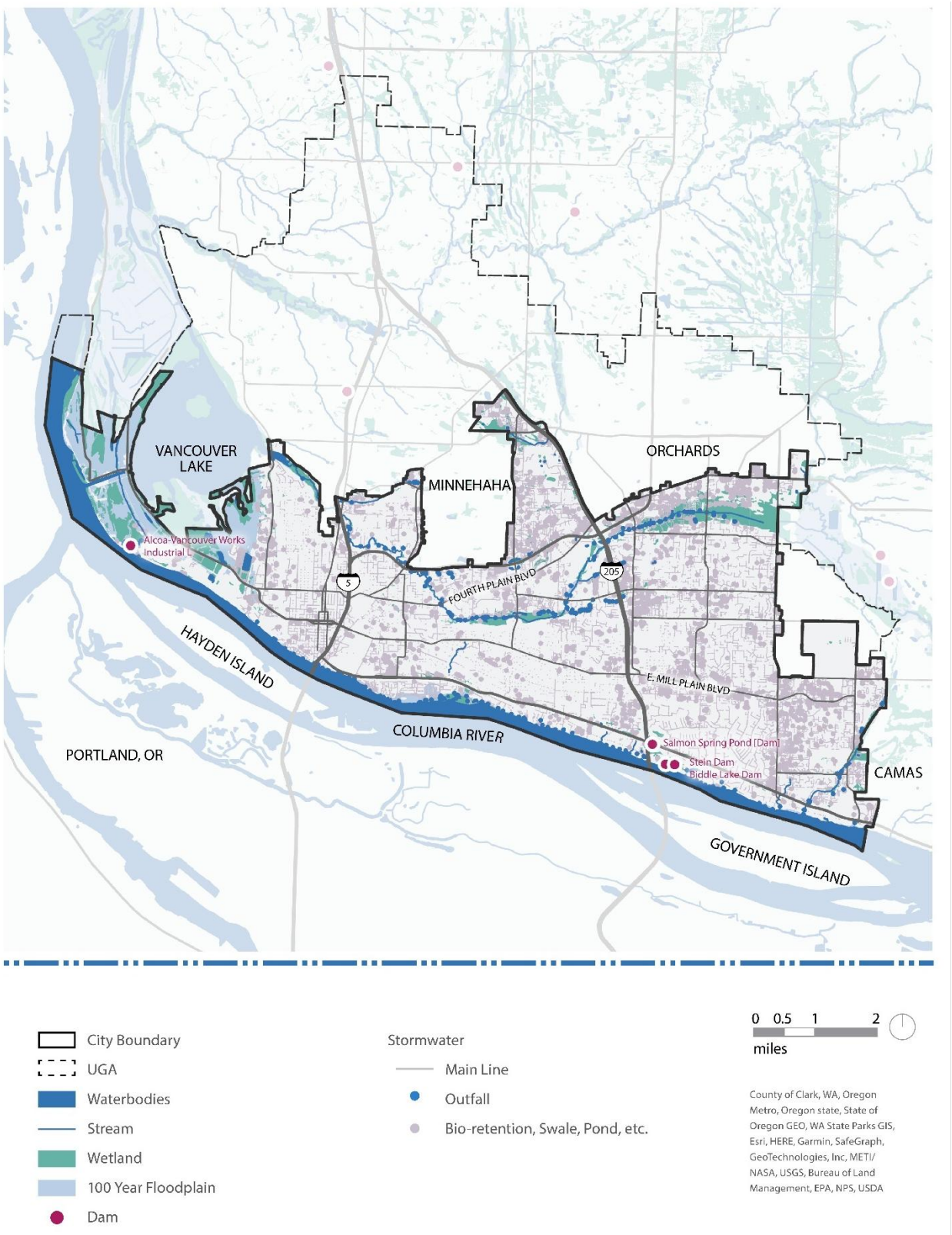
Source: (Design Workshop, 2024)

Stormwater System

The City has a Stormwater, Surface Water and Groundwater Utility. Vancouver has 400 miles of stormwater pipelines and 16,000 catch stormwater drains. See Exhibit 80. The City manages both natural and built stormwater systems to manage water quantity and quality and avoid non-point pollution and unmanaged runoff. (City of Vancouver, 2024) The City applies stormwater rules to new development and prioritizes low impact development best management practices. The City has identified some priorities in a Stormwater Management Action Plan in 2023 for Middle Burnt Bridge Creek, with a goal of lower stream temperature, increase dissolved oxygen and reduce bacteria. (City of Vancouver, 2024) (City of Vancouver, 2023) The Climate Action Framework promotes stormwater infiltration and rainwater reuse. (City of Vancouver, 2022)

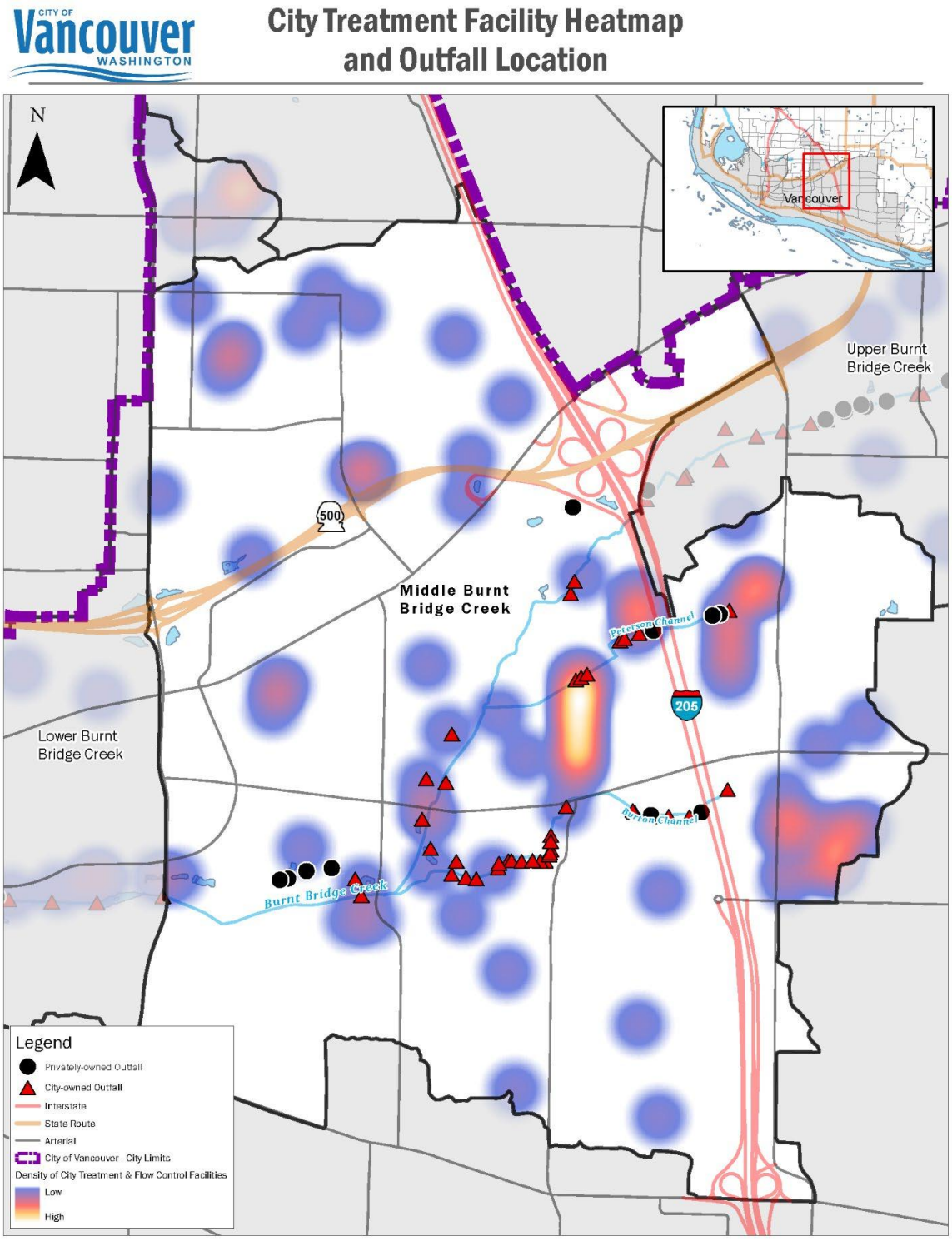
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Exhibit 80: Stormwater System



Source: (Design Workshop, 2024)

Exhibit 81: Priority Stormwater Management Action Plan Sub-basin



Source: (City of Vancouver, 2023)

Potential Impacts

Drought

There has been a persistent drought since 2019, easing in 2023, but in 2024 a statewide drought was declared. (Bumbaco, 2024) This drought applies in Clark County and nearly the entire state except for parts of King, Pierce, and Snohomish County. (Washington Department of Ecology, 2024)

The University of Washington Climate Impacts Group has summarized potential impacts due to changes in annual and late summer precipitation associated with extreme precipitation and drought:

- Changes in the timing and intensity of precipitation and increases in water demand and evaporation could offset increases in groundwater recharge due to more annual precipitation.
- Less summer precipitation is expected to contribute to summer water shortages for commercial and residential uses. Water quality may also decrease with less summer input and associated warmer water temperatures.
- More frequent and severe droughts due to low summer precipitation have the potential to increase voluntary or mandatory conservation requirements and water use restrictions.
- Less streamflow in the warm season is expected to increase dependence on stored water and reduce water available for residential and commercial uses.
- Warmer temperatures are expected to increase water demand and energy demand for cooling. (Raymond, 2022)

Wildfire

Wildfire risk is relatively limited in Vancouver per the *Hazard Mitigation Plan*. (Clark Regional Emergency Services Agency, 2023) Climate change mapping shows a relatively greater probability in western and central Vancouver and less in the east or north. A potential impact of increased wildfire likelihood could affect water resources such as:

- More frequent wildfires have the potential to damage water distribution infrastructure and reduce water quality in reservoirs due to more runoff, erosion, and turbidity. Changes in water quality could increase the need for water treatment and filtration. (Raymond, 2022)

Extreme Precipitation and Flooding

There would be increased demand on stormwater management systems. The *Natural Hazard Mitigation Plan* indicates that there are several areas in Vancouver already experiencing

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shallow flooding. Areas already experiencing urban flooding could have more frequent or severe flooding with extreme precipitation events.

> *There are a number of areas in the community that experience seasonal, shallow urban flooding during prolonged periods of high precipitation. This can impact mobility as well as threaten life and property. Drainage and/or infiltration structures and pipes may become blocked by excess water, debris, sediment, landslides, or volcanic ash. Hazardous material spills may move off-site and contaminate downstream locations if not property managed. (Clark Regional Emergency Services Agency, 2023)*

Locations identified as having riverine and urban flooding concerns were identified in the 2025 Adaptive Capacity Assessment and 2025 Resilience Rising engagement.

Exhibit 82: Flooding and Drainage Concern Areas

Location	Description of Urban Flooding
Wastewater Treatment Plant	Potentially vulnerable to riverine flooding from the Columbia River (ACA p. 31).
Fruit Valley and Fourth Plain	Locations facing barriers to climate-adaptive transportation and cooling access (ACA p. 39). Fruit Valley residents described frequent flooding and clogged storm drains (Resilience Rising, p. 5)
Fourth Plain BRT Line	On the Fourth Plain BRT line, which runs through some older, low-lying neighborhoods, chronic street flooding has already been noted at certain intersections – these incidents are likely to worsen with climate change. (ACA, p. 8)
Burnt Bridge Creek Watershed and Locations along Fourth Plain and Hwy 99	Flood-prone areas in Vancouver include low-lying neighborhoods along creeks (like parts of the Burnt Bridge Creek watershed), areas with high groundwater, and pockets with poor drainage (such as some intersections along Fourth Plain or Hwy 99 that flood in big storms). (ACA, p. 22) Also cited as an area of water quality concern and potential risk for library branches located near it (pp. 12, 15, 30). City has developed a Stormwater Management Action Plan (SMAP) for Burnt Bridge Creek. (ACA, p. 22)
Areas with High Groundwater	A contributing factor to stormwater challenges, though not tied to a specific location (ACA, p. 31).

Sources: Adaptive Capacity Assessment (ACA), Resilience Rising, City of Vancouver 2025

Adaptive Capacity

The City has a 2016 water system plan amended in 2022, and the City anticipates updating it by 2026. The current water system plan does not address climate change projections and anticipates it would occur in the next update. HB 1181 requires water system plans to address climate resilience in updates after 2025.

> *No changes to demand projections were made for the 20-year planning period to account for potential climate change due to the uncertain magnitude and timing of local effects, and the difficulty in correlating historical climate and demand data. It is recognized that demands have the potential to increase in the future given anticipated climate changes. The City may want to develop a model to better track demands with temperature and rainfall for future demand planning. Additionally, it may be beneficial for the City to participate in regional climactic studies to qualify and quantify potential local climate impacts. (City of Vancouver, 2015)*

Increased stormwater and precipitation events could adversely affect septic systems not yet connected to the sewer system and impact water quality. Extreme precipitation could also impact wastewater treatment facilities (overflow).

The City has stormwater plans and regulations in place and regularly updates them to meet federal requirements (NPDES). Standards for new stormwater facilities sized to address extreme precipitation have not been developed. The 2025 Adaptive Capacity Assessment has proposed a strategy to expand the capacity of stormwater systems including updated rainfall intensity forecasts and to design for projected storms rather than historic storms. (City of Vancouver, 2025)

Vulnerability Summary

A summary of vulnerability for water resources is provided in Exhibit 82 and Exhibit 83 below. It is largely driven by flooding exposure and stormwater quality affecting vulnerable communities.

Exhibit 83: Vulnerability by Census Tracts – Water Resources

Census Tracts	Area	Heat Exposure	Flooding/ Precipitation Exposure	Smoke/Air Quality Exposure	Overall Exposure	Health Conditions	Equity Index	SMAP
53011042300	2	Medium-high	Medium-high	Medium-high	Higher	Higher	Medium-high	

Census Tracts	Area	Heat Exposure	Flooding/ Precipitation Exposure	Smoke/Air Quality Exposure	Overall Exposure	Health Conditions	Equity Index	SMAP
53011042400	2	Higher	Higher	Higher	Higher	Higher	Higher	
53011041111	3b	Medium	Medium-high	Medium-high	Medium-high	Higher	Higher	
53011041113	3b	Higher	Medium-high	Medium-low	Medium-high	Higher	Higher	X
53011041114	3b	Medium	Medium-high	Lower	Medium-high	Higher	Higher	X
53011041600	4	Medium-high	Higher	Medium	Higher	Higher	Higher	
53011041700	4	Medium	Medium-high	Medium-high	Medium	Higher	Medium-high	
53011042700	4	Medium-high	Higher	Medium-high	Higher	Higher	Higher	
53011041205	6	Medium-high	Higher	Medium-high	Higher	Medium-high	Higher	X
53011041312	7	Higher	Higher	Medium	Higher	Medium-high	Higher	
53011041313	7	Medium-high	Medium-high	Medium	Medium-high	Medium-high	Higher	X
53011041320	8	Medium-high	Medium-high	Medium-high	Higher	Medium-high	Medium-high	
53011041322	8	Higher	Higher	Higher	Higher	Medium-high	Higher	
53011041323	8	Higher	Higher	Higher	Higher	Medium-high	Higher	
53011041329	8	Medium-high	Higher	Higher	Higher	Lower	Medium-high	

Source: See Chapter 2 for indicators and methods. BERK, 2025.

Higher Exposure + Higher Health & Equity Disparities | Stormwater Management Action Plan (SMAP) Priority Area

Exhibit 84: Risk Summary – Water Resources



Sources: BERK, 2025.

Gaps and Opportunities

Engagement and Strategies to Improve Adaptive Capacity

Through an interdepartmental engagement effort in an Adaptive Capacity Assessment and a community engagement process through Resilience Rising, a number of adaptive capacity strategies were developed:

- Fortify the wastewater treatment plant against flooding from both river rises and surface runoff. Enhance the wastewater treatment plant's (WWTP's) capacity and

flexibility to handle more variable flows and conditions. Guarantee an uninterruptible power supply for the WWTP. (City of Vancouver, 2025)

- Mitigate the risk of heavy rain overwhelming the WWTP by reducing how much stormwater gets into the sanitary sewers in the first place. This means continuing programs to detect and fix sewer leaks (lining or replacing old sewer pipes that crack and let groundwater in) and disconnect improper storm drain connections. (City of Vancouver, 2025)
- Have robust alert systems for neighborhoods around the WWTP and downstream along the river – if there's an unplanned discharge or issue. (City of Vancouver, 2025)
- Expand Capacity of Stormwater Systems: Upgrade the stormwater mains, culverts, and channels to accommodate larger storm events. This involves identifying the key bottlenecks in the system – e.g., a culvert under a road that frequently overtops, or a stretch of pipe that causes backups – and upsizing them. Use updated rainfall intensity forecasts (taking into account climate change) to set new design standards. (City of Vancouver, 2025)
- Green Infrastructure and Infiltration: Reduce the burden on piped systems by capturing runoff naturally at the source. Expand use of green infrastructure such as bioswales, rain gardens, permeable pavements, and green roofs across the city. (City of Vancouver, 2025)
- Increase inspection and maintenance of the stormwater system to ensure it functions at peak capacity when storms hit. (City of Vancouver, 2025)
- Use land use planning to improve stormwater outcomes. Preserve and restore natural floodplains and wetlands that can act as safety valves for floodwaters. (City of Vancouver, 2025)
- Explore advanced solutions like smart stormwater management technologies. (City of Vancouver, 2025)

The pending water system plan update due in 2026 will be an opportunity to engage residents and business owners in the integration of climate resilience into the plan. Ongoing watershed planning unit participation will dovetail water supply needs with watershed protection.

Interdepartmental and public engagement to further identify areas currently experiencing or at risk of urban flooding could help stormwater adaptation efforts.

A relatively large number of septic systems continue to be mapped by Clark County GIS in Vancouver's city limits. Integrating Clark County Public Health into engagement efforts could help support clean water and septic system decommissioning and link Vancouver's wastewater system implementation efforts with public health.

Policies

Based on a policy evaluation, , some areas identified to improve policies include:

- Amending existing water quality policies or add a new one to address climate related impacts to water quality and adaptation.
- Amending stormwater system policies to add need to address climate change impacts, e.g., vegetation type, facility sizing, etc.
- Addressing how improvements to utilities to address climate change (e.g., enhanced energy efficiencies with wastewater treatment, use of renewable fuels) will be addressed in rates considering overburdened communities.

The **OUR VANCOUVER 2045** plan addresses water quality, stormwater systems, and renewable energy:

- Stormwater Management: Focus on improving water quality and prevent flooding through managing stormwater flows, encouraging natural filtration of precipitation to ground water, reducing runoff, mitigating flood risks by advancing systems that manage stormwater effectively, and enhancing local water quality in the watershed. (Draft Policy 10)
- Support the Use of Renewable Energy: Encourage new renewable energy infrastructure, promote development of storage systems, and work with Clark Public Utilities to promote demand-response strategies and programs to ensure a stable, resilient, and sustainable energy grid. (Draft Policy 19)

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Zoning & Development

The Zoning & Development sector addresses Vancouver's urban design including land use and design. This section reviews Vancouver's:

- Land Use Plan & Zoning
- Shoreline Master Program
- Transportation system plan
- Urban forestry program
- Draft Green Building Strategy

Sector Overview and Assets

Site Use and Zoning

Downtown is the central hub of Vancouver with a walkable historic core, hospitality, offices, and civic and institutional uses. Commercial corridors include Fourth Plain Blvd and East Mill Plain Blvd. The remainder of the community is largely zoned for single family development. Vancouver has a public waterfront designed for commercial and recreational purposes. Other shorelines host industrial businesses. See Exhibit 84 and Exhibit 85.

Exhibit 85: Example Development Character and Neighborhoods


Downtown


Uptown Village


Waterfront



East Vancouver

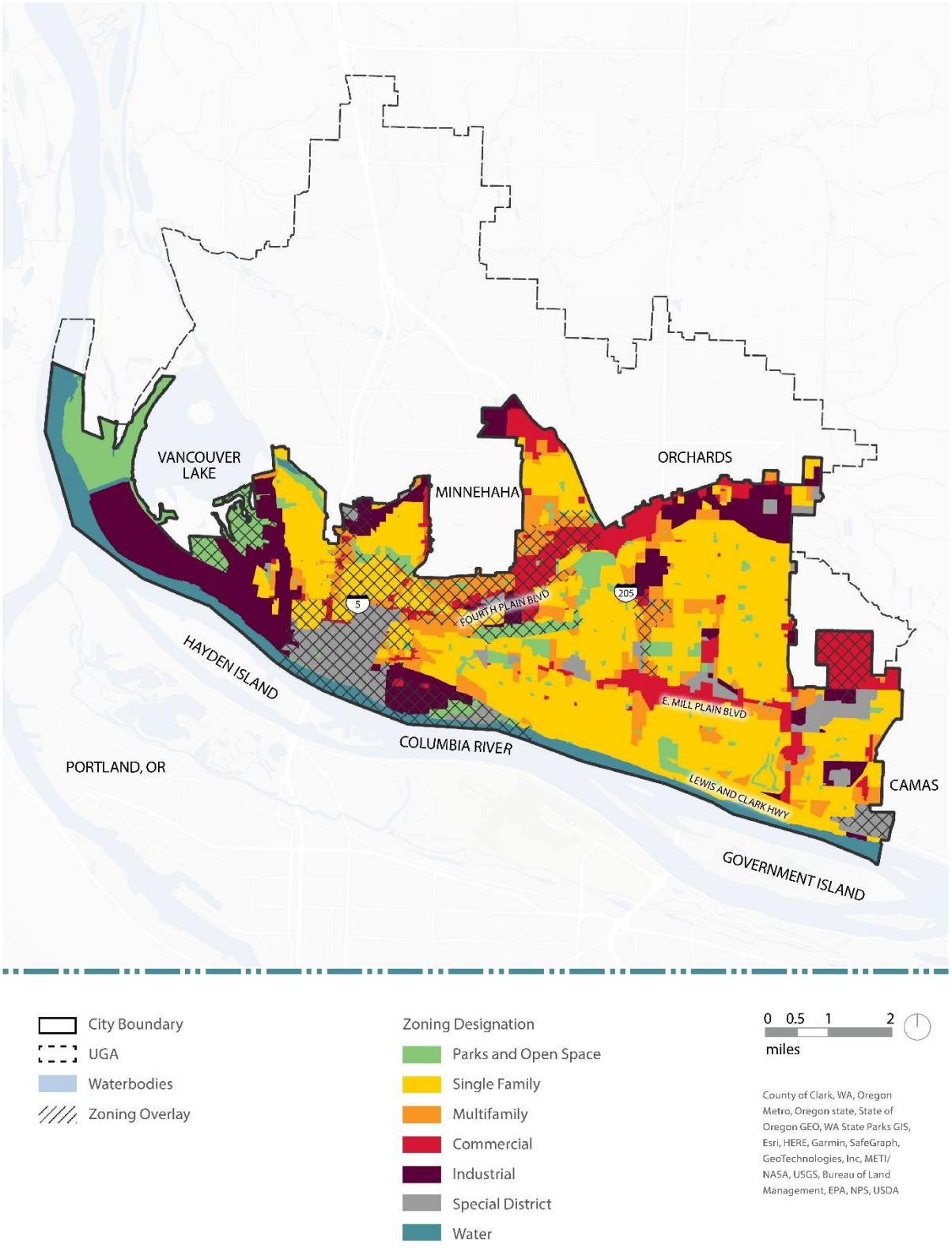


Fourth Plain


The Heights

Source; Visit Vancouver Washington, City of Vancouver, 2025.

Exhibit 86: Vancouver Zoning (2024)



Source: Design Workshop, 2024.

Vancouver has identified important centers and corridors in its Comprehensive Plan to provide for connected neighborhoods and accessible services. See Exhibit 86. The City is planning for more connected neighborhoods in its Comprehensive Plan Periodic Update.

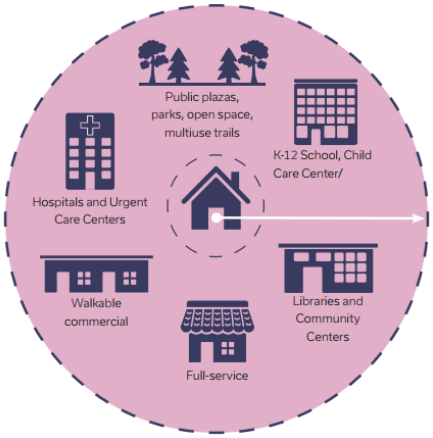
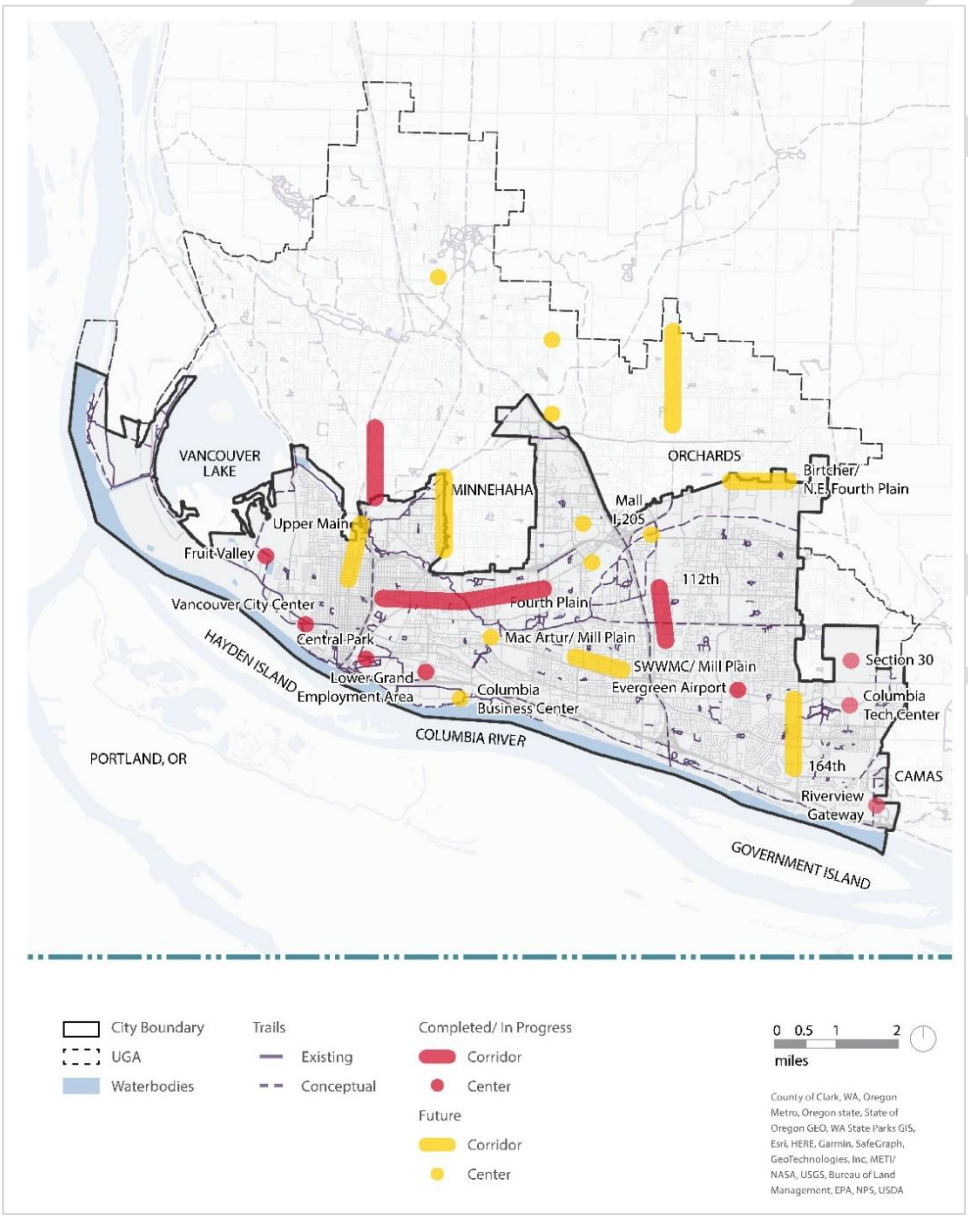


Exhibit 87: Centers & Corridors



(Design Workshop, 2024)

Public Realm

The public realm includes public streets, parks, and civic spaces where the public has access or can gather.

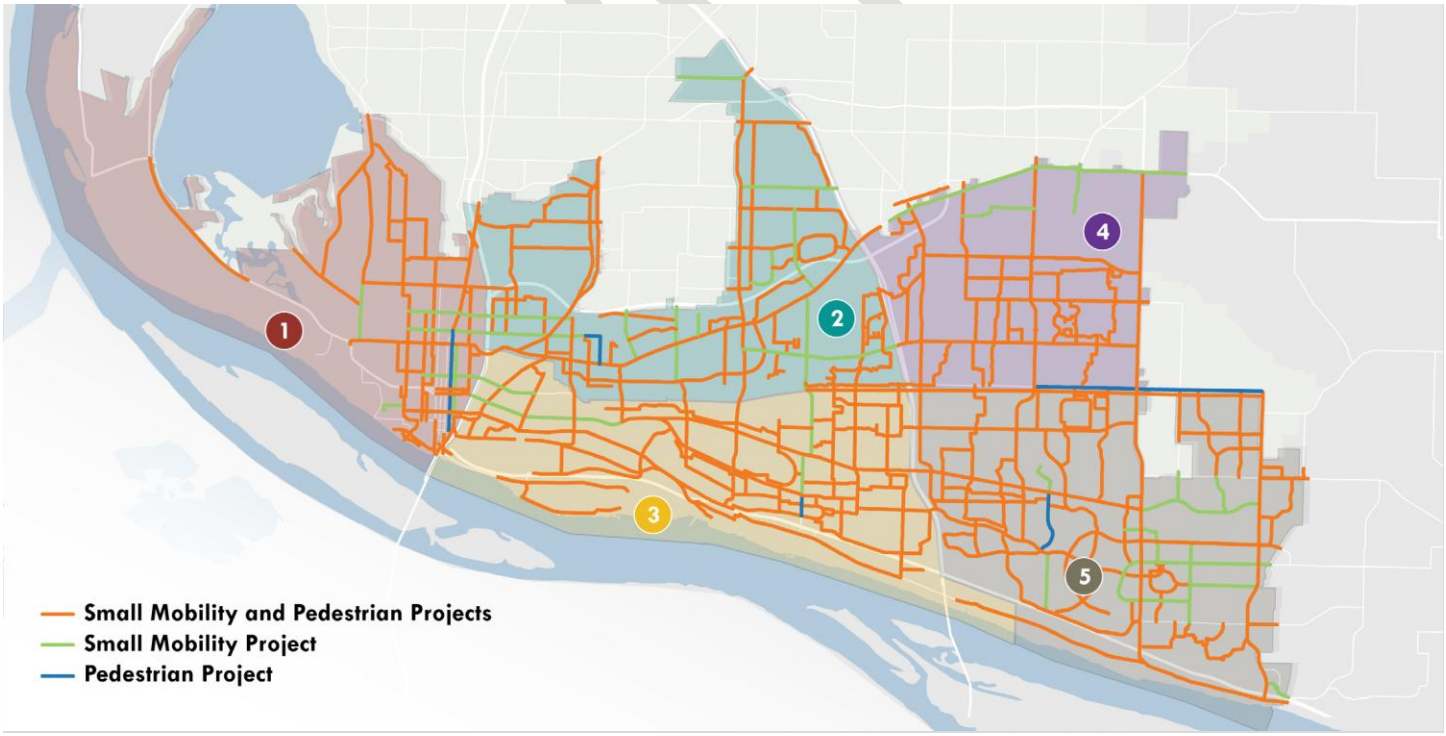
Parks

Vancouver contains parks and natural areas largely around waterbodies and shorelines. The City's Parks, Recreation, and Cultural Services plan (City of Vancouver, 2022) identifies a need for 1,200 acres of park land with over 800 acres developed to serve the population through the year 2031. Service standards also consider a ½-mile park service area of all neighborhood and community parks. Parts of Areas 1, 2, 3B, and 8 are identified as having a gap in community or neighborhood parks.

Transportation

The City developed a Transportation System Plan in 2023 that includes a number of mobility improvements including infill pedestrian projects, which would improve the public realm and make for a more walkable city. Each area is identified with priority projects.

Exhibit 88: Mobility and Pedestrian Improvements

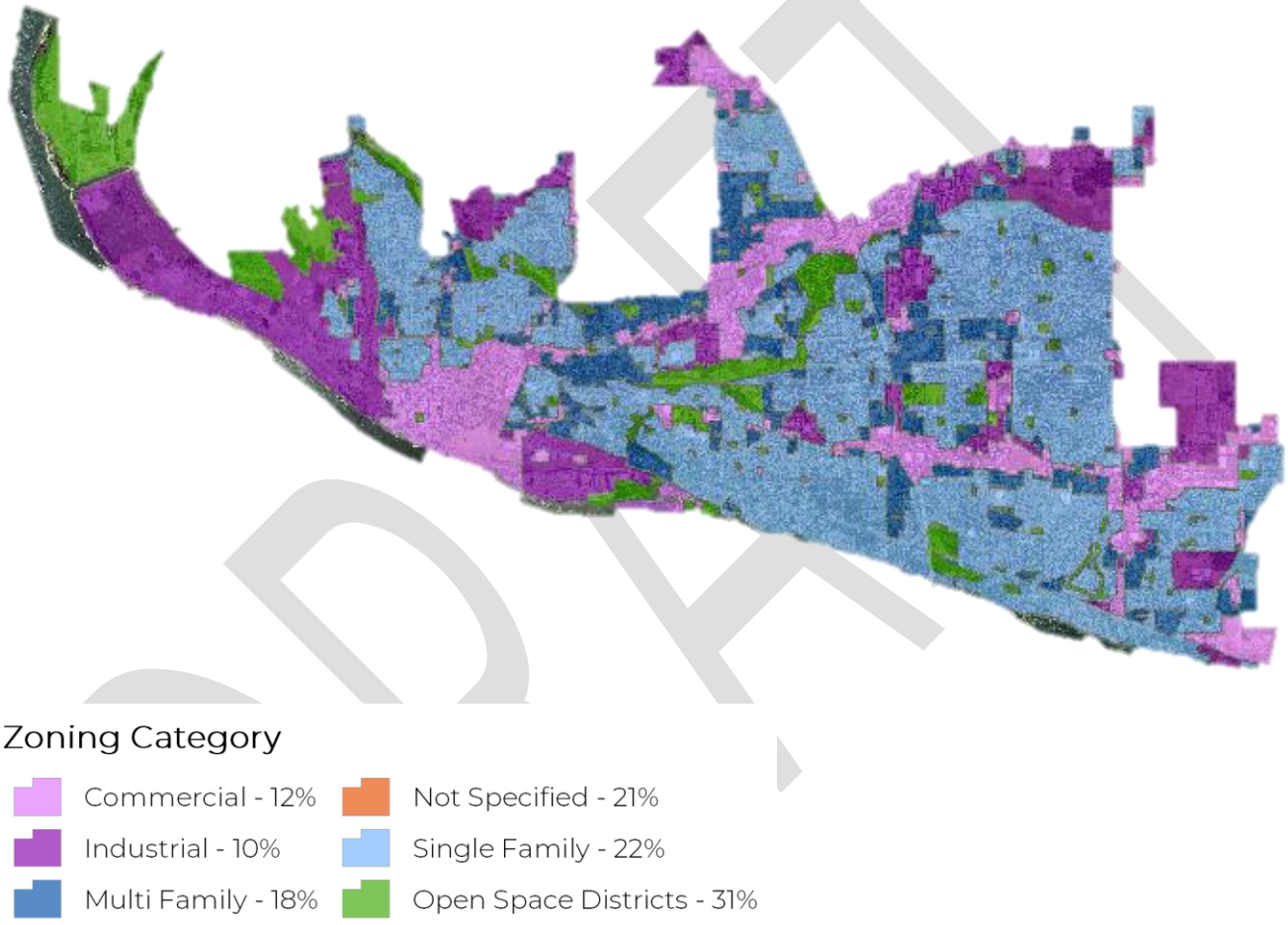


Source: (City of Vancouver, 2023)

Urban Forest

To maintain and enhance the urban environment, the City has an Urban Forest Management Plan that seeks to achieve a 28% citywide canopy goal. To achieve it the City would need to plant 3,000 acres of new canopy cover by 2047. That is an increase from today's canopy of about 18.9%.

Exhibit 89: Urban tree canopy in Vancouver by zoning (2021)

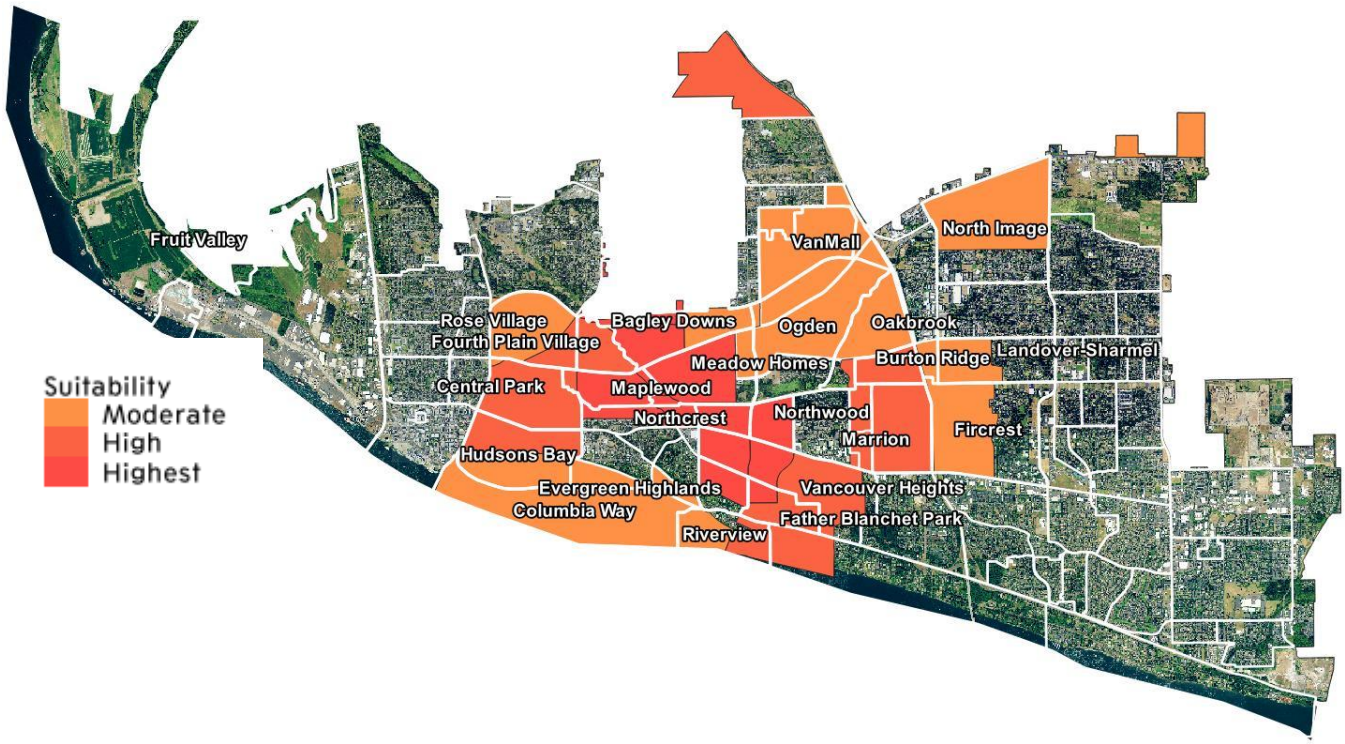


Vancouver's canopy goals for zoning: Industrial properties= 9%, Commercial properties=15%; Residential properties = 33%.

Source: (PlanIT Geo, LLC, 2021)

Priority tree planning areas are proposed in areas 2, 3b, 4, 6, and 7. See Exhibit 89.

Exhibit 90: Composite Map of Priority Planting Areas to Achieve Canopy Goals and Tree Equity



Source: (City of Vancouver, 2023)

Shoreline Master Program and Critical Areas

Vancouver has adopted a Shoreline Master Program (SMP) which promotes water oriented uses like ports, shoreline public access and enjoyment, and ecological protection and restoration. The SMP provides for shoreline uses, and buffers to protect sensitive environments and promotes soft shoreline alterations rather than hard structures. See Exhibit 90.

Vancouver also protects critical areas across the city such as wetlands, fish and wildlife habitat conservation areas, critical aquifer protection areas, flood hazard areas, and geologic hazard areas.

Exhibit 91: Shoreline Master Program, Shoreline Environments



Source: (City of Vancouver, 2021), WSP 2024.

Potential Impacts

Urban places can exacerbate climate impacts because they tend to have greater impervious areas with taller buildings and pavement, less trees, and altered natural systems. Greater buildings and pavement can exacerbate flooding, magnify urban temperatures, compromise indoor air quality, increase exposure to allergens, and increase energy demand. (See sidebar and Exhibit 91.)

Vacant and redevelopable lands (5,583 acres) will add capacity for housing and jobs in the next 20+ years. Larger areas of development include the port, Section 30, and a number of commercial mixed-use areas. This could add imperious areas, but there are also opportunities to add green and blue infrastructure. (Design Workshop, 2024)

Black and Hispanic/Latino residents are less likely to be homeowners in Vancouver. (ECOnorthwest , 2024) Single-family zones have a greater percentage of tree canopy than in multifamily or commercial zones. (PlanIT Geo, LLC, 2021) Those with lower incomes tend to live in areas with less tree canopy and more pavement, near high traffic volume roadways, and in housing that may be older and with less modern HVAC and filtration systems.

Air pollution already generated by transportation and industry could be exacerbated by extreme heat such as ozone and by drought and wildfire smoke (PM 2.5). (US EPA, 2024) (West, Ch. 14. Air quality. In: Fifth National Climate Assessment. Crimmins, A.R.,, 2023)

Climate Change: Built Environment, Urban Systems and Cities

Urban development patterns significantly influence local and regional environments, and these patterns can exacerbate the local effects of climate change. Depending on the type of built environment, both urban growth and land-use change have impacted and will continue to impact surface and ambient air temperature, local and regional humidity, wind patterns, precipitation, flooding, and dispersion of air pollutants...

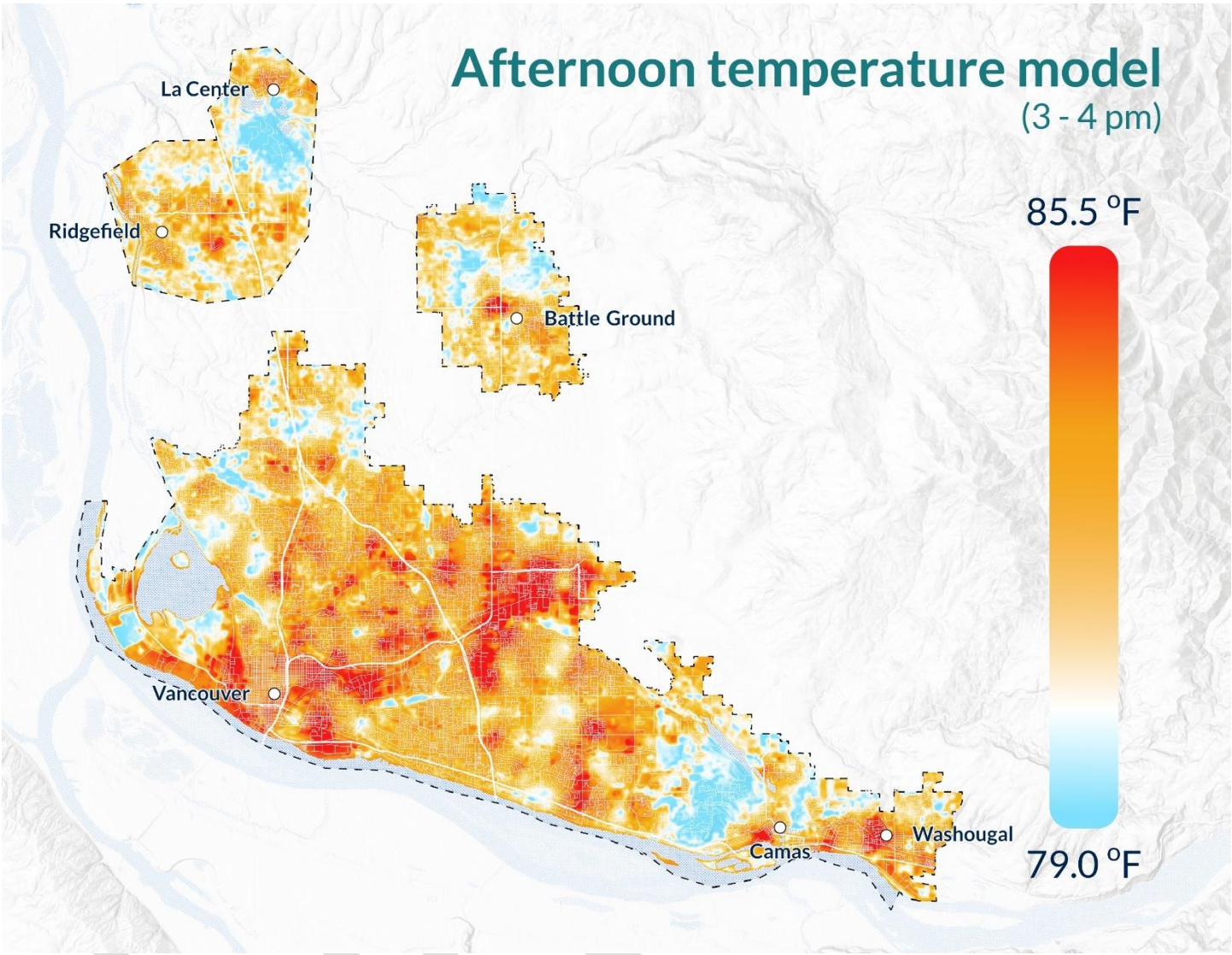
Changes in design, form, and mass of buildings and configurations of streets, open green spaces, and water features—as well as their interactions—have direct effects on urban temperature and energy demand... Nighttime air temperatures, in particular, are expected to be higher across many urban areas due to radiant heat and heat conductance from buildings...

Exclusionary housing practices—which persist today—leave overburdened communities with lower access to heat-reduction strategies such as urban trees and green space, as well as to broader economic and social resources...

Another example of the uneven impact of climate change on the built environment is the deteriorating indoor air quality experienced by people living in neighborhoods with substandard housing. This includes exposure to allergens such as mold and dust and pollutants such as carbon dioxide and nitrogen dioxide. In wildfire-prone regions, indoor air quality is additionally compromised by smoke. There are also potential negative mental health outcomes from decreases in social interaction and physical activity when people are confined indoors to avoid temperature extremes. ... (Chu, 2023)

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Exhibit 92: Urban Heat Islands – Clark County Public Health Heat Watch



Heat Watch data was collected on July 12, 2024, during a one-day event organized by Clark County Public Health with the support of more than 50 volunteers, local government partners and technical assistance from CAPA Strategies.

Source: (Clark County Public Health, 2024)

Vancouver's public parks, trails, and open spaces provide trees and green spaces that help cool the city, but extreme heat can make parks uncomfortable or even unsafe during heatwaves, especially those parks with large open turf or concrete and minimal shade. Wildfire smoke can interfere with outdoor activities. Many parks are intentionally located in low-lying areas to recognize floodplain and wetland functions and values, but then the parks would flood more frequently and severely as precipitation extremes intensify. (City of Vancouver, 2025)

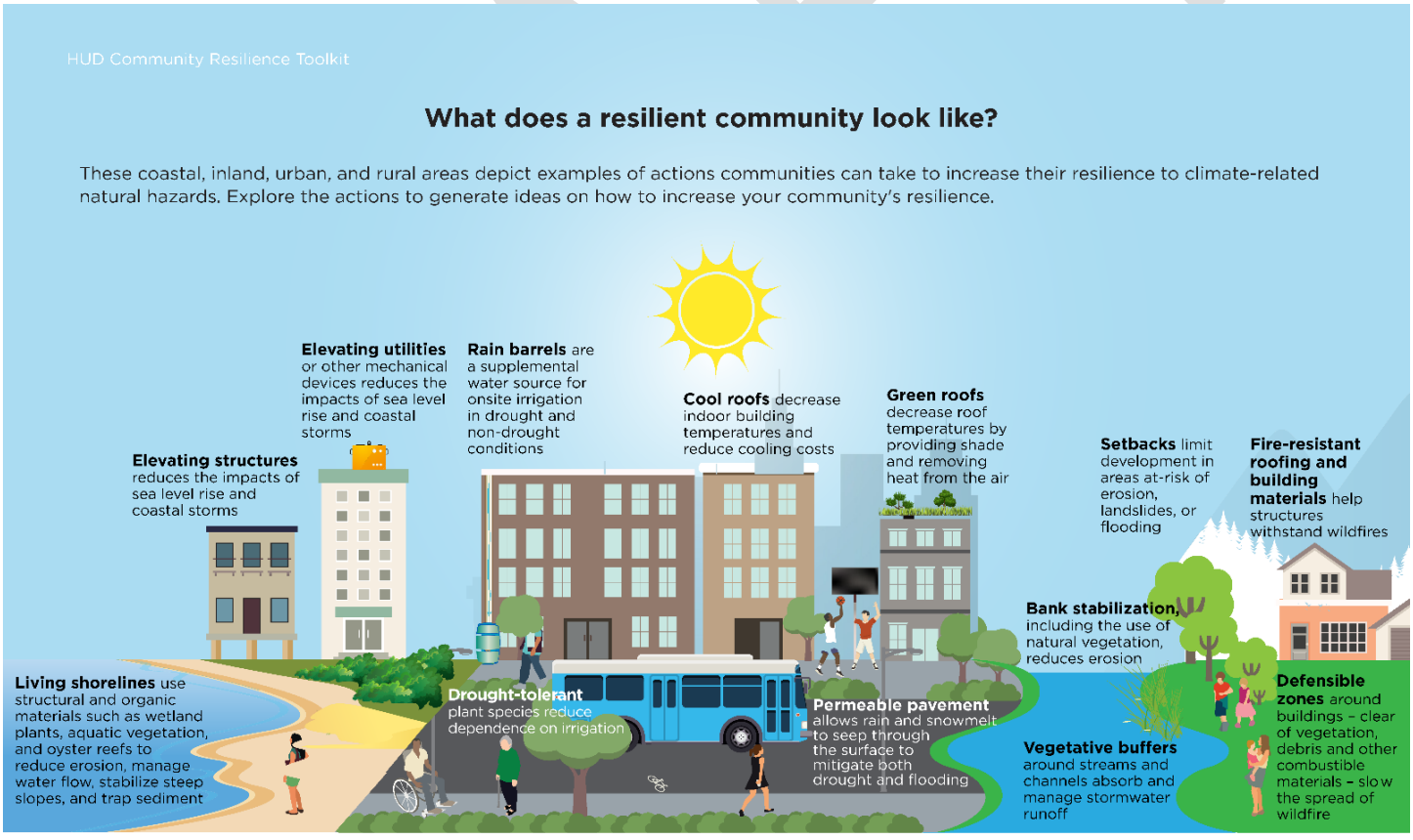
Adaptive Capacity

The creation of a resilient community is holistic. Important urban design elements include:

- Environmental conservation and protection like living shorelines and vegetative buffers.
- Protecting existing infrastructure in floodplains such as elevating structures and utilities.
- Green and blue infrastructure like rain barrels, cool roofs, green roofs, and permeable pavement.
- Greenspace with drought-tolerant species and tree canopy.
- Defensible zones and fire-resistant construction.
- Encouraging mobility that reduces greenhouse gas emissions but also provides redundant access to homes, services, and employment.
- Increasing the supply of affordable energy-efficient housing.

See Exhibit 92 for a diagram of many of these resilient community elements.

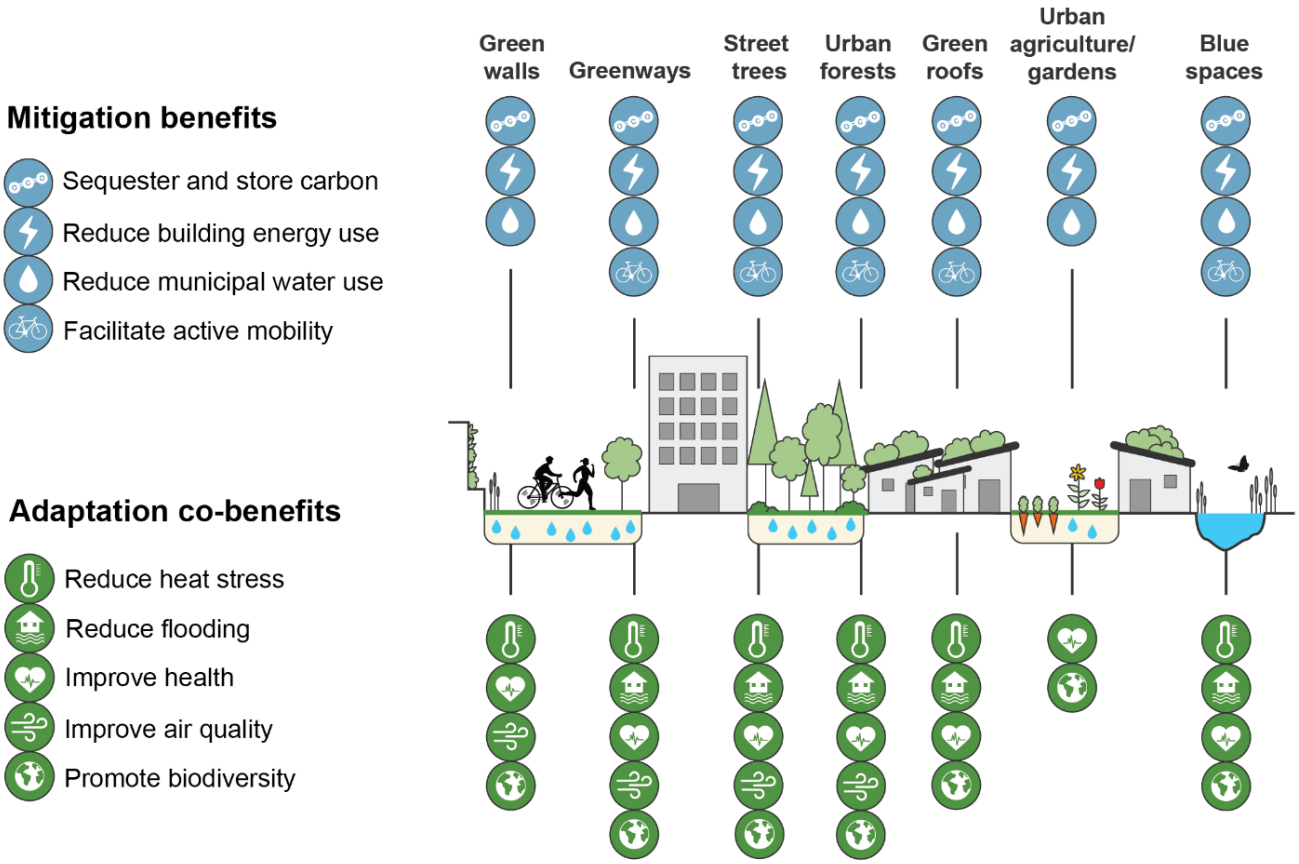
Exhibit 93: What does a resilient community look like?



Source: (U.S. Department of Housing and Urban Development, 2017)

Natural infrastructure – including green and blue elements applied to buildings and landscapes – has both mitigation and adaptation benefits. See Exhibit 93.

Exhibit 94: Natural infrastructure in cities provides climate mitigation and adaptation benefits



CAPTION: The figure illustrates the potential benefits (in no particular order) of integrating natural infrastructure strategies—also termed green, blue, or nature-based solutions—within the built environment. Nature-based, green, and blue infrastructure options are strategically planned interconnected sets of natural and constructed ecosystems, spaces with vegetation or waterscapes, and other landscape features that provide important GHG mitigation and climate adaptation functions, as well as improve human well-being, biodiversity, and ecosystem health. This figure shows examples of how urban forests and street trees can sequester and store carbon while simultaneously reducing building energy demand. Reducing municipal water use can provide a mitigation benefit by decreasing energy use in wastewater treatment plants. Lwasa et al. 2022) (Chu, 2023)

The City has programs underway that support many of these community resiliency measures:

- The City adopted a Stormwater Management Action Plan (City of Vancouver, 2023) to prioritize water quality treatments in the Middle Burnt Bridge Creek basin with impaired ecological conditions and with underserved and overburdened communities. There may be lessons learned with these basin improvement efforts that could apply to other locations in the city.
- Vancouver has an Urban Forest Management Plan to increase canopy to 28% by 2047. (City of Vancouver, 2023) Priority blocks are noted in Exhibit 89 to address tree equity.
- The City is implementing Middle Housing zoning to provide more homeownership opportunities for all incomes. This could increase opportunities for physical activity,

reduce greenhouse gases, and improve community connections through mixed use neighborhoods.

- The City's Transportation System Plan implementation would increase mobility and transit-oriented development connecting residents with amenities and employment.
- The City is developing a Draft Green Building Strategy which would ensure buildings have good indoor air quality and use better heating and cooling systems. The strategy would promote building designs that are safer for birds, using plants that need less water, and saving trees. The strategies would promote buildings that handle extreme weather by adding better insulation, keeping buildings cooler with shading or reflective materials, controlling energy use during busy times, and providing backup power for outages. (City of Vancouver, 2024)

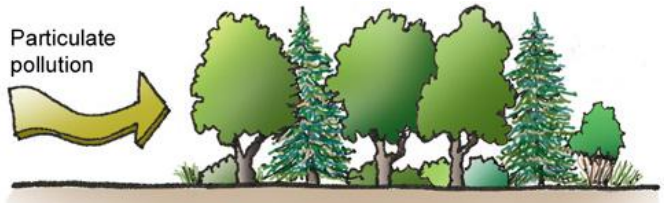
In the future the City could consider adopting wildland urban interface codes to ensure human and property safety. The State Building Code Council developed rules, but they are not in effect while the mapping and rules are under review for applicability and effectiveness. (Demkovich, 2024)

The City is completing a health impact assessment along with the Comprehensive Plan Update that could help address wildfire smoke exposure, as well as ongoing exposure from transportation sources. Addressing right of way treatments and abutting site and building design to reduce exposure to air pollution and noise due to high volume roadways could improve adaptive capacity both for day-to-day pollution exposures and increasing risks of climate change.

Example Studies and Approaches to Mitigating Air Pollution

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



A 65 to 600 ft wide buffer may reduce particulate pollution by 40 to 75 percent although many factors will affect pollutant removal

Vulnerability Summary

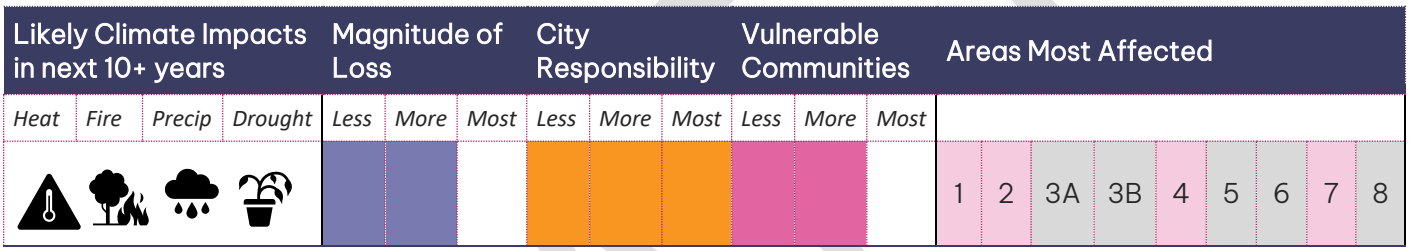
Vancouver is likely to be exposed to extreme heat in the planning period and has wide swaths of lands that have relatively lower tree canopy or implementation of adaptive building features (e.g., cool roofs, etc.) that can mitigate these risks. The City has a relatively small area subject to flooding often flanked by greenways (Burnt Bridge Creek) or with extensive flood control structures and with population densities relatively lower (Columbia River) but is subject to urban flooding that could experience extreme precipitation during the planning

period. The City has plans and priorities regarding where to address lacking tree canopy, as well as improving stormwater management, largely in central Vancouver.

Areas most vulnerable due to higher exposures and higher shares of communities with health sensitivities or equity disparities are identified in the Executive Summary in Exhibit 4 and Exhibit 5 and include Areas 1, 2, 4 and 7.

The widespread location of areas most vulnerable and the responsibility of the city to promote resilient urban design make zoning and development a higher risk and priority to address. See Exhibit 94.

Exhibit 95: Risk Summary – Zoning & Development



Source: BERK, 2025.

Gaps and Opportunities

Equitable Engagement and Strategies to Improve Adaptive Capacity

The City has engaged its interdepartmental team and community members to identify solutions addressing improved connectivity and parks in the public realm.

Example strategies include:

- Residents have identified community spaces they currently rely on or trust during extreme events (e.g., churches, schools, parks). (City of Vancouver, 2025)
- 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. (City of Vancouver, 2025)
- Implement land use planning policies for flood mitigation. (City of Vancouver, 2025)
- Increase Shade and Tree Canopy at park by planting more trees and preserving mature ones to create extensive shade. (City of Vancouver, 2025)
- Add Water Features and Cooling Elements. Incorporate cooling water features in park design to help people cool off. Splash pads, interactive fountains, or misting stations. (City of Vancouver, 2025)

- Heat-Resilient Landscaping: Adapt park landscaping and maintenance practices to withstand hotter, drier summers with less water. (City of Vancouver, 2025)
- Leverage parks as part of overall community stormwater management. (City of Vancouver, 2025)
- For parks at the wildland-urban interface or with significant natural wooded areas, implement fire management strategies. (City of Vancouver, 2025)
- Involve the community in making parks climate resilient and prioritize improvements in the parks that serve the most vulnerable populations. (City of Vancouver, 2025)
- Make physical upgrades to trails to better withstand heavy rain, flooding, and erosion. (City of Vancouver, 2025)
- Increase shade cover along popular walking and cycling routes to protect users during heat and also to extend the life of trail materials. (City of Vancouver, 2025)
- Implement practices to reduce wildfire risk in trail corridors and prepare for smoke events. (City of Vancouver, 2025)

Policies

A policy evaluation found strength in Comprehensive Plan land use policies promoting resilience but opportunities to address a number of topics to address climate resilience and health. Exhibit 95 below shares example climate mitigation and adaptation options noted in the *Fifth National Climate Assessment Ch. 12. Built environment, urban systems, and cities*. (Chu, 2023) It also provides examples from the Commerce *Climate Planning Guidance* (Commerce, 2023), and the Vancouver Climate Action Framework. (City of Vancouver, 2022) The City could update its Comprehensive Plan policies to catch the plan up to the City's ambitious Climate Action Framework, as well as efforts under the **OUR VANCOUVER 2045** plan such as the Health Impact Assessment.

Exhibit 96: Examples of Land- Mitigation and Adaptation Options in Cities and Built Environments

Options	NCA Examples of Mitigation and Adaptation Options	Commerce Climate Policy Explorer Examples	Vancouver Climate Action Framework
Natural, green, and blue infra structure	Urban ecosystems and biodiversity, street trees, greenery, coastal wetlands and dune systems	High Priority Increase tree canopy cover to boost carbon sequestration, reduce heat islands, and improve air quality, prioritizing overburdened communities.	Strategy NS-1. Increase carbon storage in trees, vegetation, and soil Strategy NS-2. Improve ecosystem resilience

Options	NCA Examples of Mitigation and Adaptation Options	Commerce Climate Policy Explorer Examples	Vancouver Climate Action Framework
			Action #10: Community gardens and local markets
Gray infrastructure	High albedo/reflective pavements, coastal protection (such as seawalls), dams, flood controls, drainage	High Priority Consider climate change, including sea-level rise, extreme precipitation, increased winter streamflow, and other impacts, in floodplain management planning.	Indirectly; see above (NS-2)
Land management	Zoning to reduce impact exposure and support GHG emissions mitigation, co-location of development with low-GHG transportation and technologies, reduced encroachment on natural lands, fire management, land restoration	High Priority Prioritize and promote public transit expansion and use through coordination of land use and transportation planning. Establish development regulations that incorporate best practices for reducing the risk of wildfire, extreme heat, flooding, and other climate-exacerbated hazards.	Strategy TLU-1. Create neighborhoods that support clean modes of transportation
Resource use	Improved water supply, reduced emissions from waste and wastewater	High Priority Manage water resources sustainably in the face of climate change through smart irrigation, stormwater management, preventative maintenance, water conservation and wastewater reuse, plant selection, and landscape management.	Strategy NS-3. Conserve water resources
Migration and relocation	Managed retreat	In areas with significant vulnerability to climate hazards, facilitate and support long-term community visioning including consideration of managed retreat.	Not addressed

Source: (Chu, 2023), (City of Vancouver, 2022), BERK 2024.

The City's **OUR VANCOUVER 2045** plan incorporates many policies addressing a resilient built environment such as:

- Incorporate Green Infrastructure into Development: Prioritize integrating green infrastructure into new development, redevelopment, replacement of existing infrastructure, and development of public spaces within the City to improve stormwater quality and reduce urban heat island effect. (Draft Policy 5)

- Stormwater Management: Focus on improving water quality and prevent flooding through managing stormwater flows, encouraging natural filtration of precipitation to ground water, reducing runoff, mitigating flood risks by advancing systems that manage stormwater effectively, and enhancing local water quality in the watershed. (Draft Policy 10)
- Adapt Infrastructure to Climate Change: Retrofit existing infrastructure, parks and natural spaces, and construct new facilities to adapt to the localized impacts that will occur in the community due to climate change. (Draft Policy 11)
- Protect Critical Areas and Shorelines: Protect existing Critical Areas within the City, and Shorelines of Statewide Significance, and ensure no net loss of ecological functions through avoidance of impacts, conservation design principles, and compensatory mitigation when loss of ecological function cannot be avoided. (Draft Policy 12)
- Equitable Distribution of Tree Canopy: Meet tree canopy coverage goal of 28%, using the City's Equity Index to target investment in underserved neighborhoods lacking coverage. (Draft Policy 14)
- Support Transit with Resilient Infrastructure Improvements: Invest in transit-supportive infrastructure that responds to localized impacts of a changing climate to ensure reliable, frequent, and accessible future transit service, prioritizing underserved areas and those with high climate vulnerability. (Draft Policy 27)
- Improve Connectivity Between Parks and Open Spaces: Create an expansive network of linear parks that encourage active transportation, improve community health and wellbeing, enhance tree canopy and stormwater management, and link parks and open space with housing. (Draft Policy 79)

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OUR VANCOUVER

OUR FUTURE 2045

Health Impact Assessment

Draft: August 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).

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

Theme	Key Findings	Where/Who Impacted	Potential Strategies	Cobenefits of Implementation
 Physical Activity	**Existing:** • Many existing vehicle trips are under 5 miles • There are some gap areas in parks access **No Action:** • More demand for parks due to growth • Most growth in areas without high density of intersections **Action Alternatives:** • Higher growth and higher demand for parks • More opportunity for new parks via impact fees and policy changes • Most growth in areas without high density of intersections • More opportunity for walkability improvements	**Where:** 2, 3A, 3B, 4, 5, 6, 7, 8 (see Exhibit 0-2). **Who:** People with health conditions that could be improved by physical activity	**City:** • Non-motorized infrastructure and safety • Pedestrian scale design • Strategic parks acquisitions **Partner:** • Community-led park and street improvements • School and other partnerships for recreation	Emissions reduction from reduced VMT Equitable access to parks

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Theme	Key Findings	Where/Who Impacted	Potential Strategies	Cobenefits of Implementation
Food Access	**Existing:** • Much of the current population has food access challenges **No Action:** • Some growth in areas with low supermarket access **Action Alternatives:** • More growth in areas with low supermarket access, but more opportunity for new stores via density and mixed uses	**Where:** 2, 3a, 5, 6, 7, 8 (see Exhibit 0-2). **Who:** Households with lower incomes are most affected	**City:** • Community gardening and urban agriculture support • Incentives for supermarkets **Partner:** • Food banks, farmers markets • Community and faith organizations	Walkability to supermarkets = lower VMT and emissions Equitable access to food

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Theme	Key Findings	Where/Who Impacted	Potential Strategies	Cobenefits of Implementation
Community Connections	**Existing:** • Access to amenities varies • Challenges with childcare and access to social services **No Action:** • Less opportunity for better access to services • Some commercial displacement • Less density and mixed uses **Action Alternatives:** • More opportunity for better access to services • More commercial displacement but better mitigation • More density and mixed uses (especially Alternative 2)	**Where:** Citywide **Who:** Car-dependent households, older adults	**City:** • Incentives for small commercial spaces and lowered parking requirements • Social programs and events **Partner:** • Pop-ups • Regional childcare access	Better walkability to services = lower VMT Equitable access to daily needs

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Theme	Key Findings	Where/Who Impacted	Potential Strategies	Cobenefits of Implementation
Exposure to Health Hazards	**Existing:** • Air quality is a challenge that is hard to mitigate • Heat islands also present but growth is an opportunity to address them • Other hazards include climate change, water quality, and noise **No Action:** • Some air and water quality impacts • Some growth in areas with noise • Some growth in heat islands • Some growth in climate hazard areas **Action Alternatives:** • Some air and water quality impacts but better mitigation • Some growth in areas with noise but better mitigation • More growth in heat islands and more opportunity to add vegetation • Some growth in climate hazard areas and new policies for resiliency	**Where:** Citywide but especially 2,5, 6, 7, 8 (see Exhibit 0-2) **Who:** People with existing health conditions, older adults, children	**City:** • Electric vehicle support • Vegetation requirements • Urban forestry • Shade in parks and rights of way • Design standards for resilience • Education on disposal of chemicals **Partner:** • C-Tran transit investments • Community-led action planning • Water and air quality monitoring • Emergency hubs	Adding tree canopy cover = reduced emissions Environmental justice

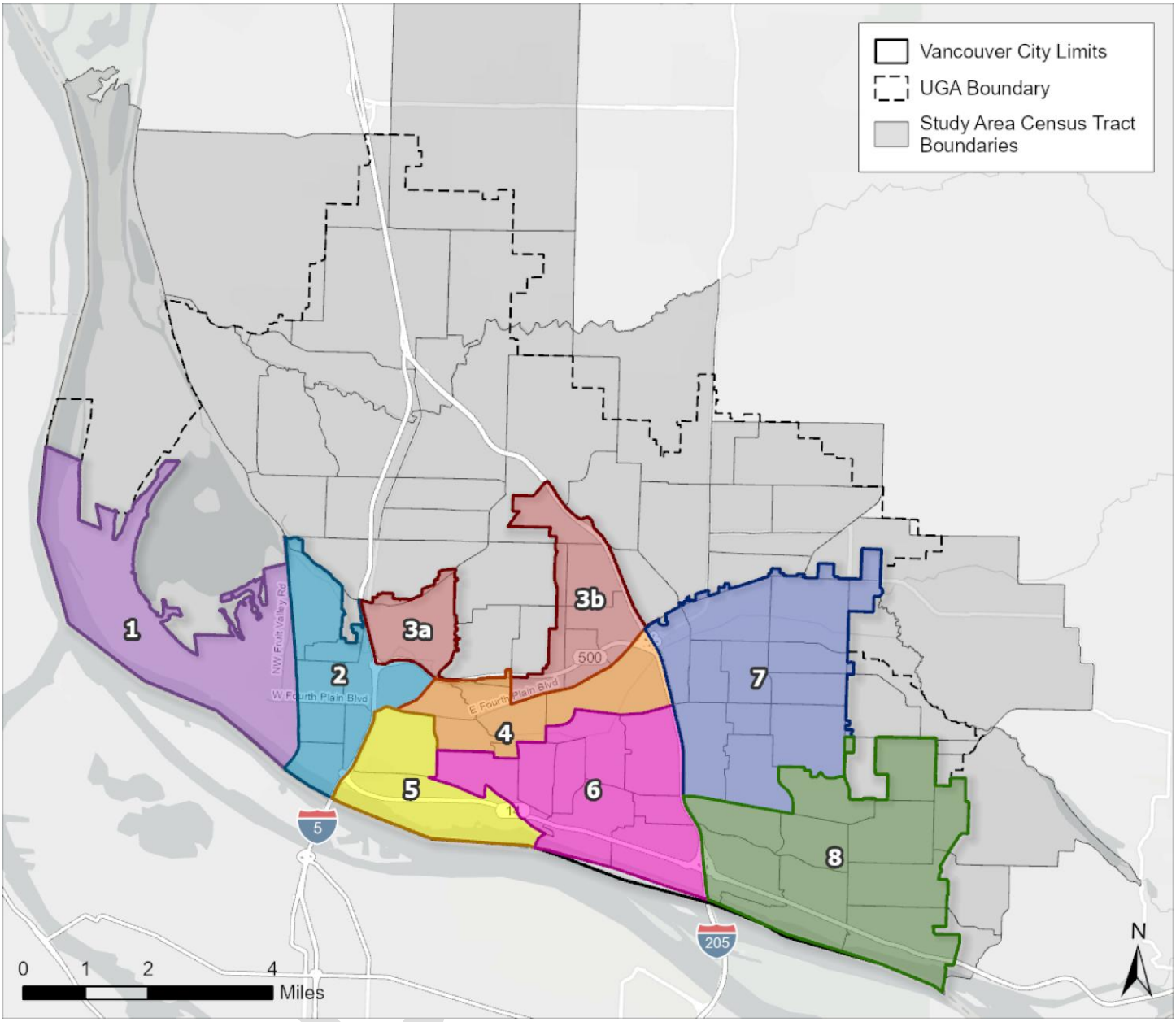
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Theme	Key Findings	Where/Who Impacted	Potential Strategies	Cobenefits of Implementation
Housing and Financial Security	**Existing:** • Many residents are cost burdened • Displacement is an ongoing concern with growth **No Action:** • Some new housing but less variety and affordability • Less radon mitigation • Some displacement risk • Some new jobs **Action Alternatives:** • More new housing and better affordability • More radon mitigation • Some displacement risk but new policies to mitigate • More new jobs and opportunities to shape industries	**Where:** Citywide **Who:** Households with lower incomes, single-parent households	**City:** • Communicating home rehabilitation opportunities and radon testing • Removing housing barriers • Anti-displacement policies • Workforce development and industry support **Partner:** • Regional collaboration on housing and economic development	Energy efficiency of newer buildings Less displacement, more financial stability, housing for all incomes

Notes: *Emissions Reduction Cobenefit,* *Equity Cobenefit*

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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.

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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)*

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- 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



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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.

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Exhibit 2-1: Themes

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

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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
Race and Ethnicity	
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%
Income and Poverty	
Median Household Income	$80,618
Household income below the poverty level	11%
Household income at or above the poverty level	89%
Housing Tenure	
Renter households	50%
Owner households	50%
Renter households spending 30%+ of income on rent	53%

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Demographic	Percentage
Education	
High School Diploma or Higher	92%
Bachelor's Degree or Higher	32%
Language Spoken at Home by Limited English Speaking Households	
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%
Disability	
Population with One or More Disabilities	9.7%
Age	
Median Age	38
19 and Younger	24%
Over 65	16%
Health Insurance Access	
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

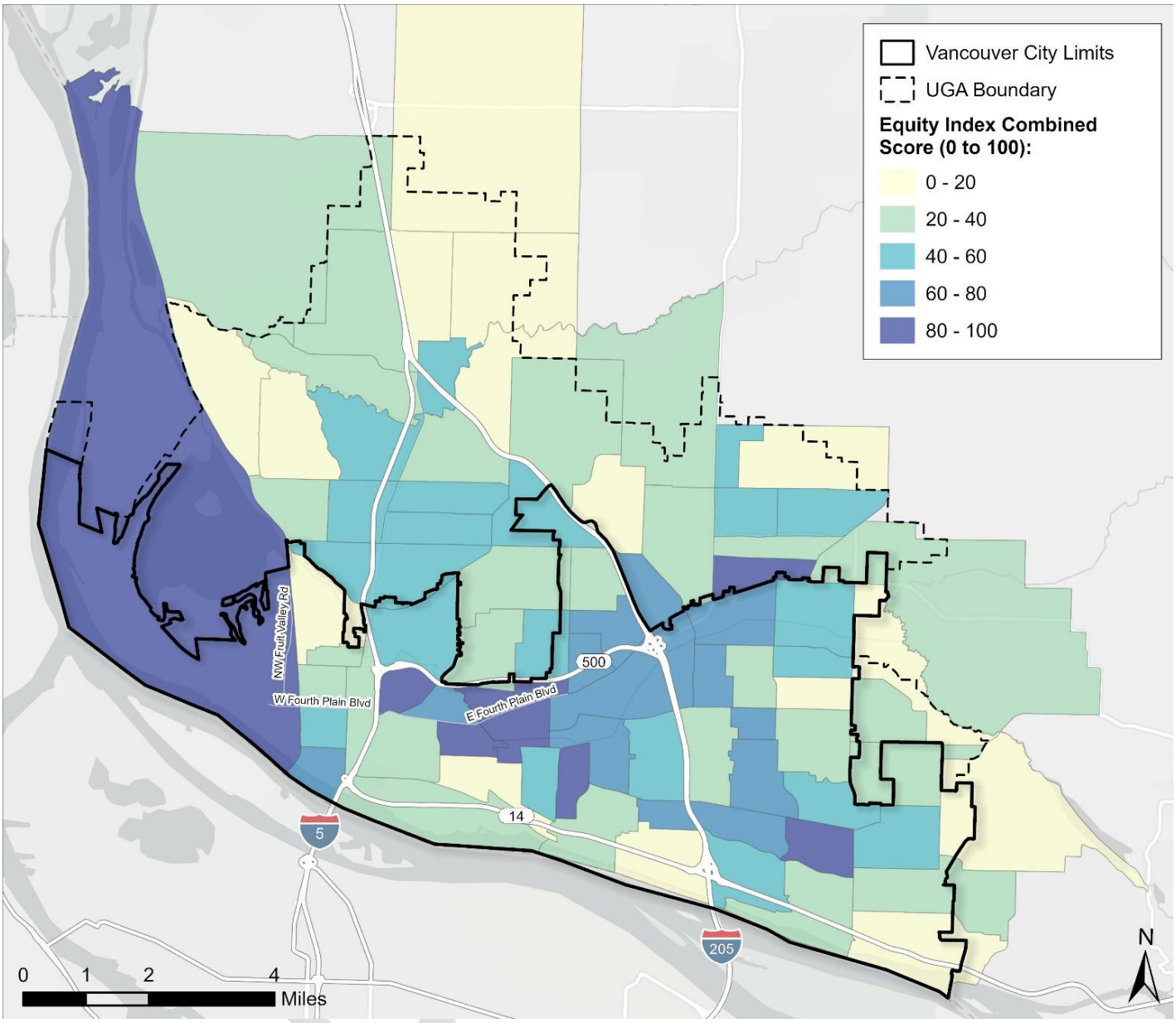
The Centers for Disease Control (CDC) estimates that 9% of adults aged 18-64 in Vancouver do not have health insurance. This is slightly lower than the national estimate of 11% (CDC, 2022).

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).

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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.

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Physical Activity

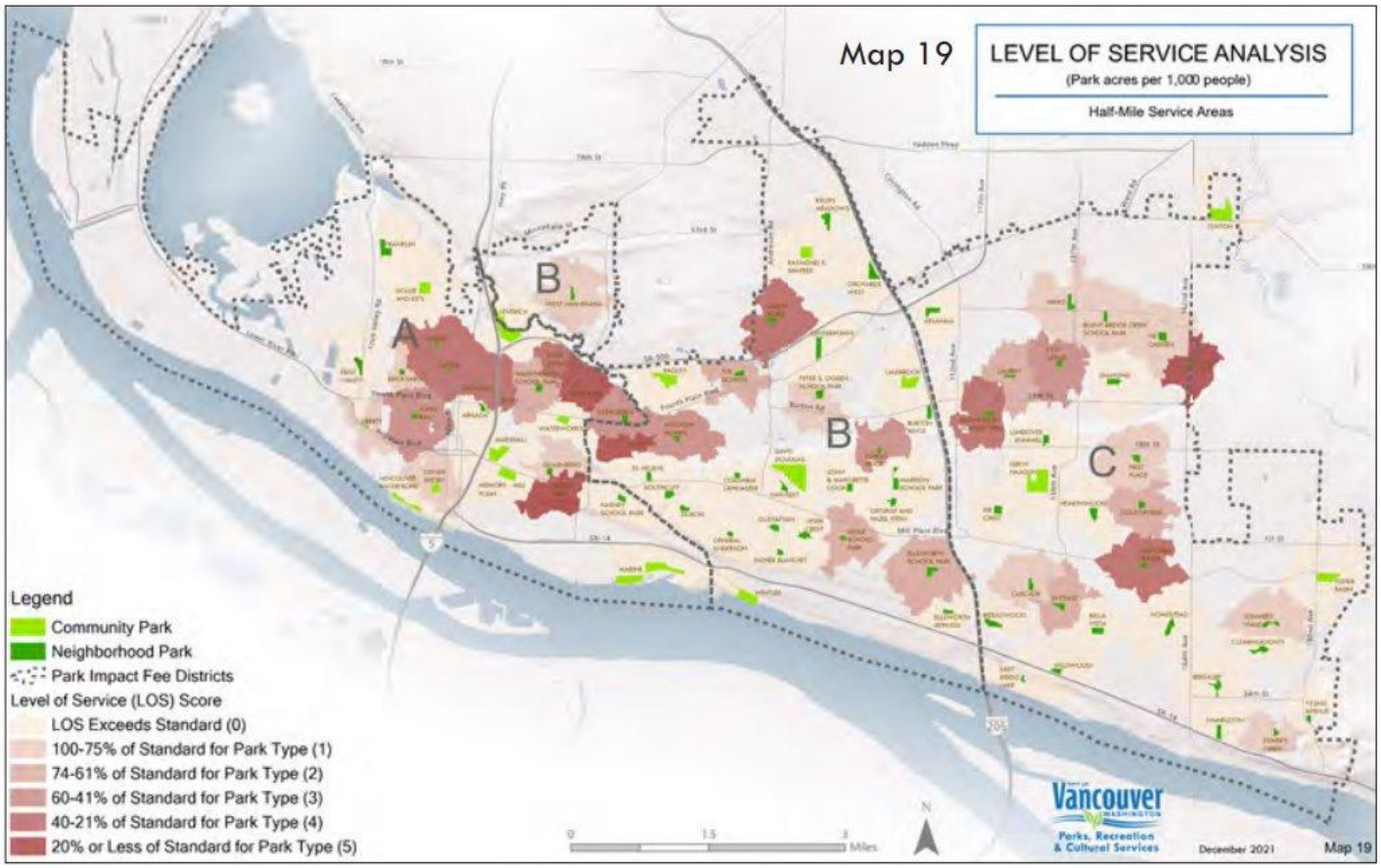
- **Physical Activity Summary:** Investments are needed in park and active transportation gap areas to support active living throughout Vancouver.

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



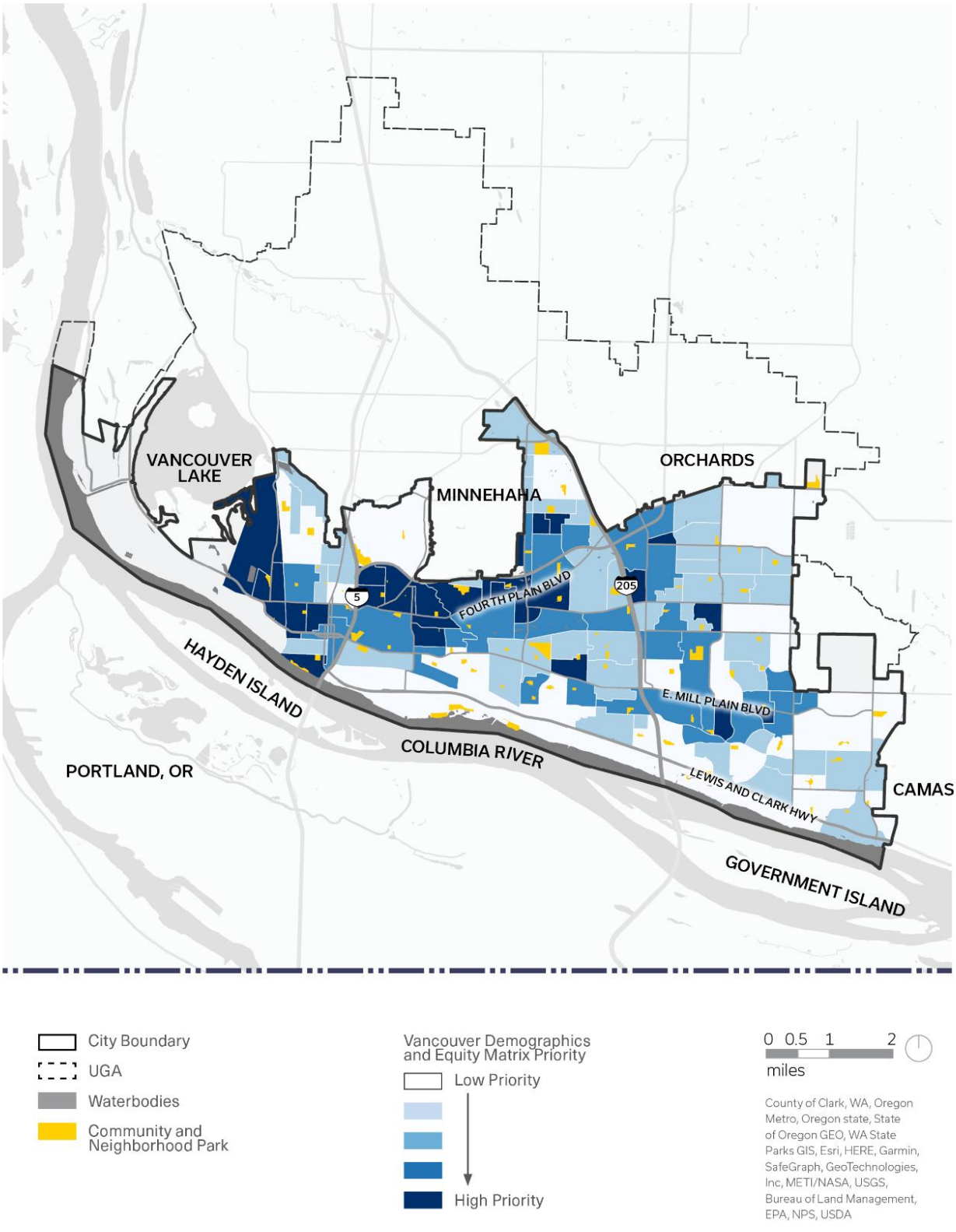
Source: City of Vancouver, 2022.

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.

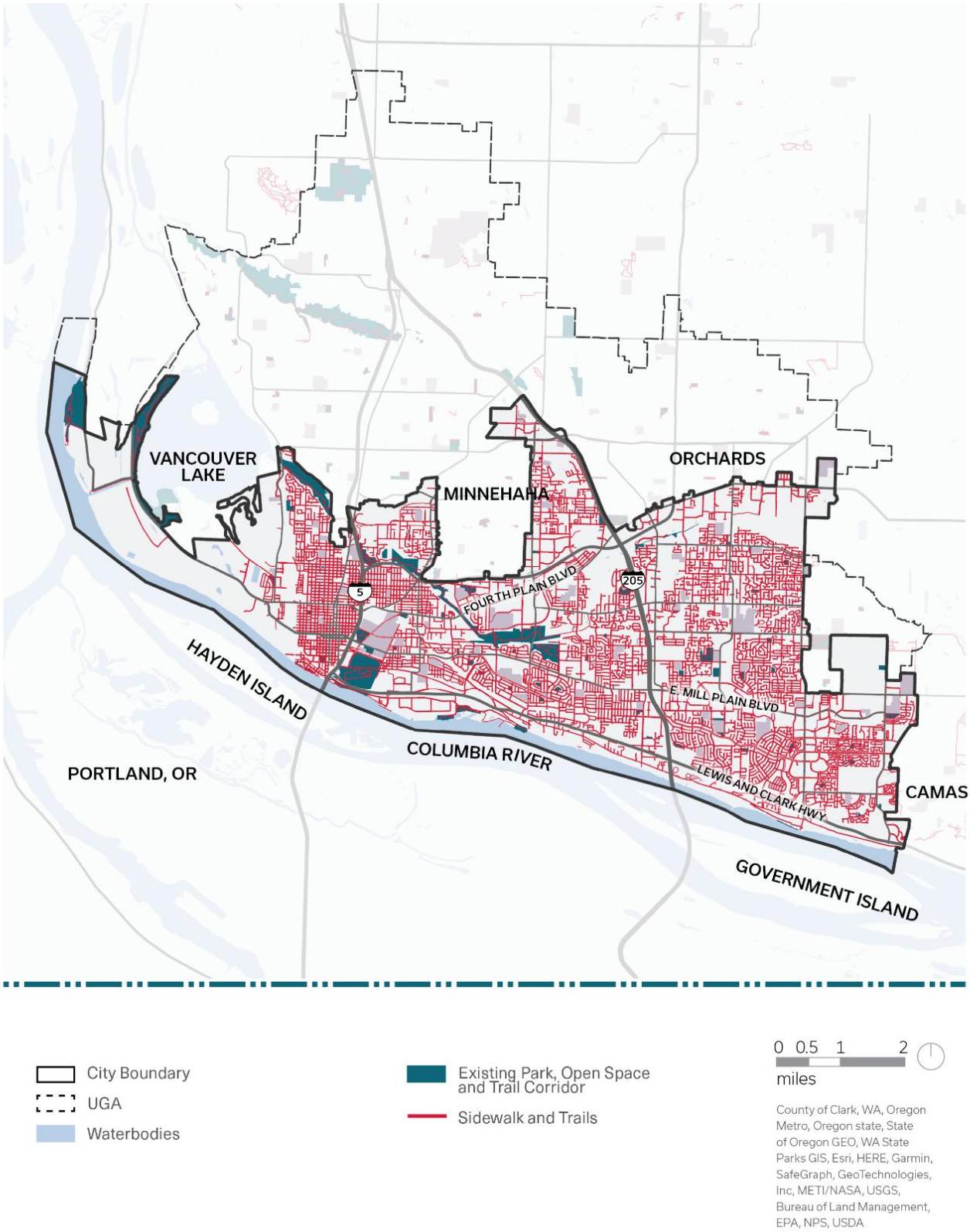
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Exhibit 3-5: Park Equity



Source: Design Workshop, 2024.

Exhibit 3-6: Park/Sidewalk Interface



Source: Design Workshop, 2024.

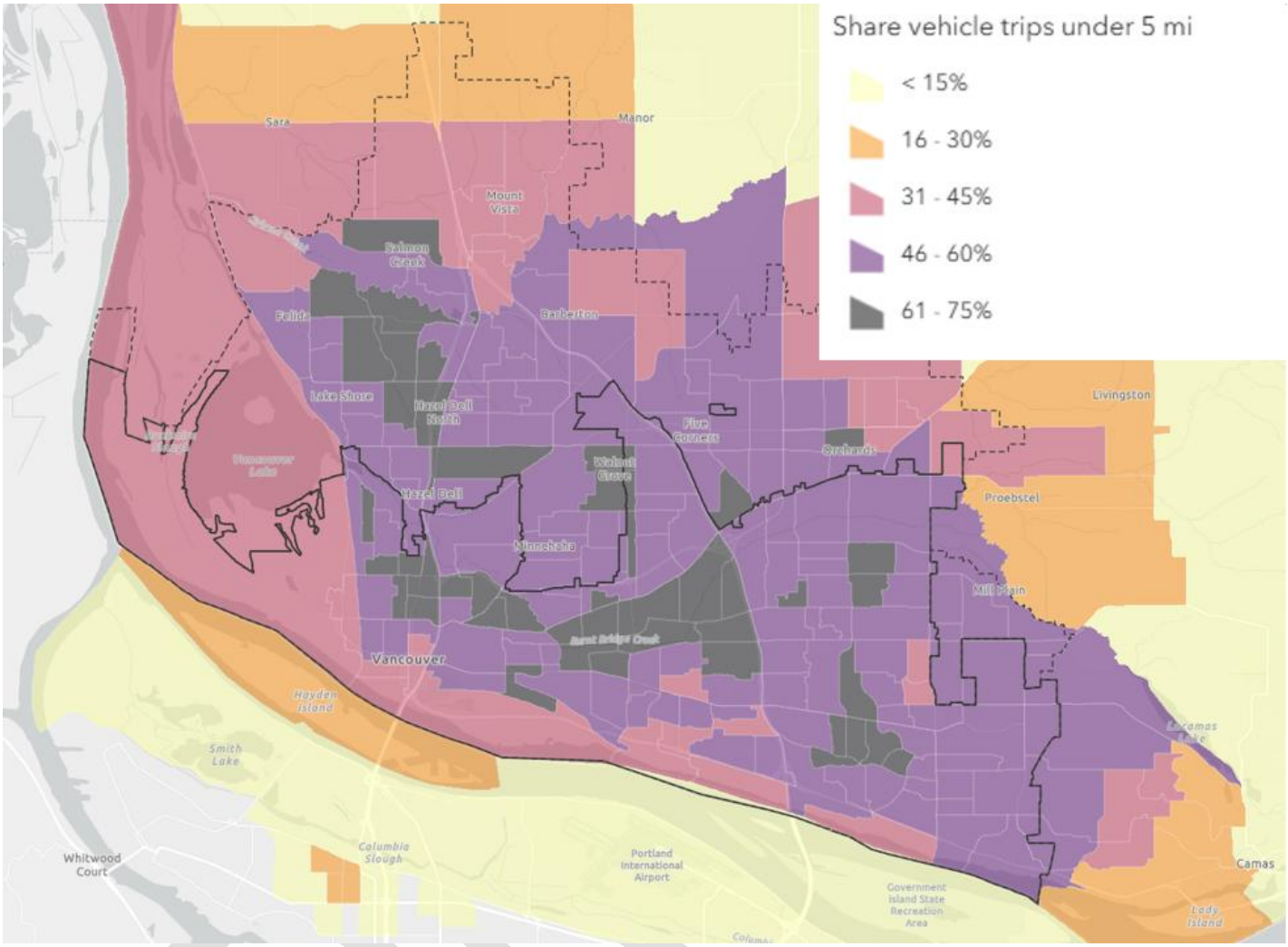
Active Transportation

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.

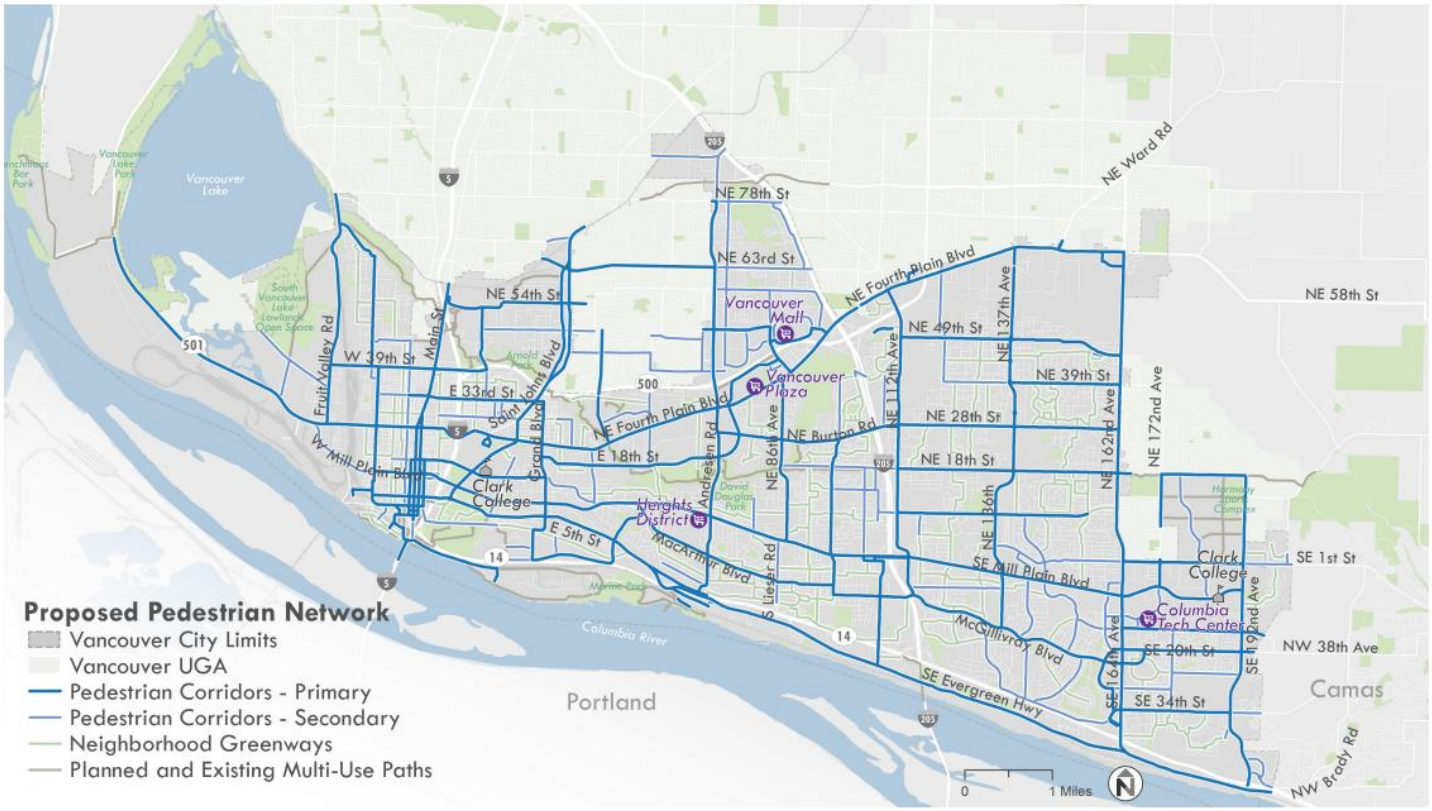
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Exhibit 3-7: Trips Under 5 Miles



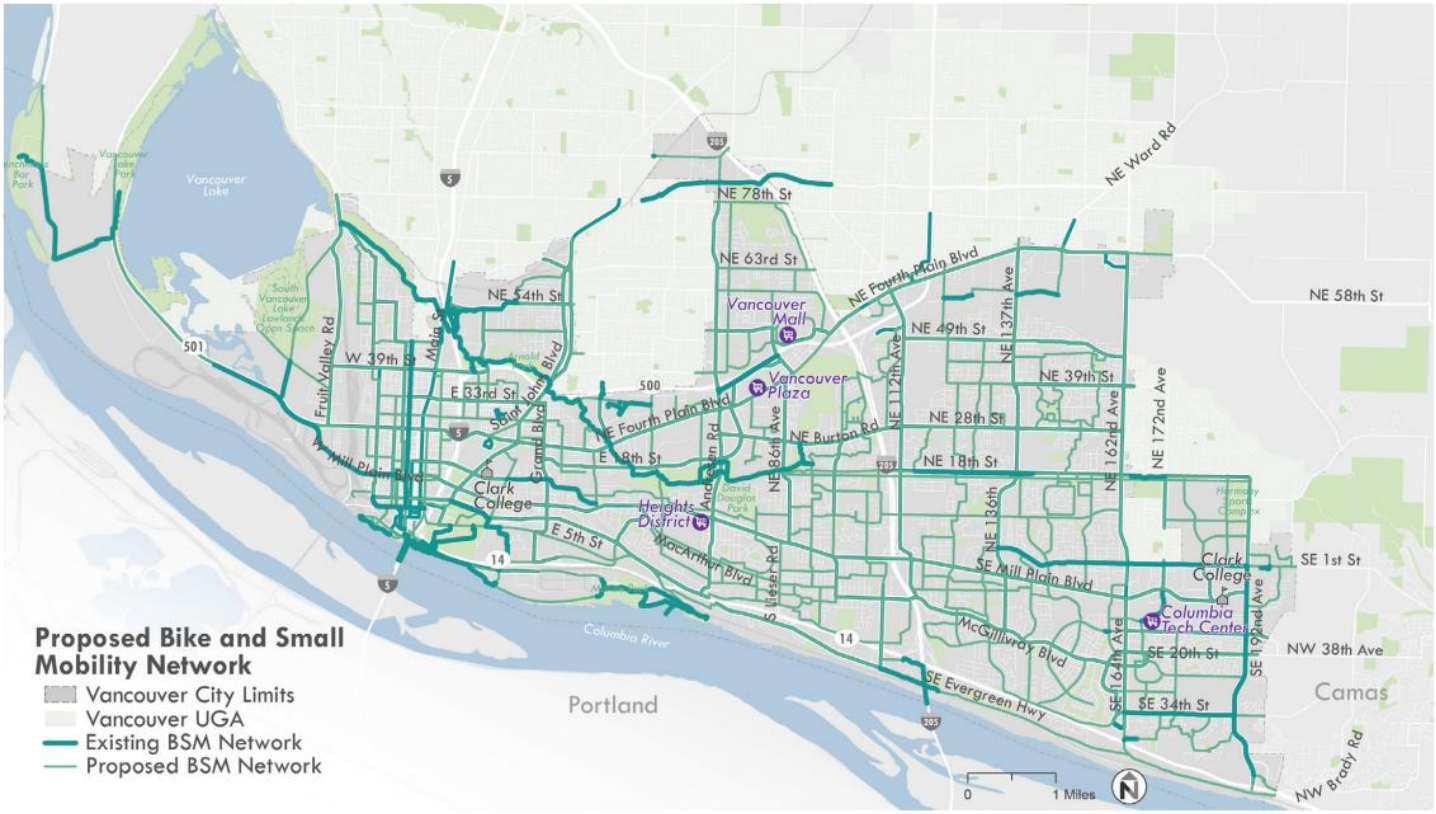
Source: City of Vancouver, 2024; Alta Planning + Design, 2023; BERK, 2024.

Exhibit 3-8: Walking and Rolling Network



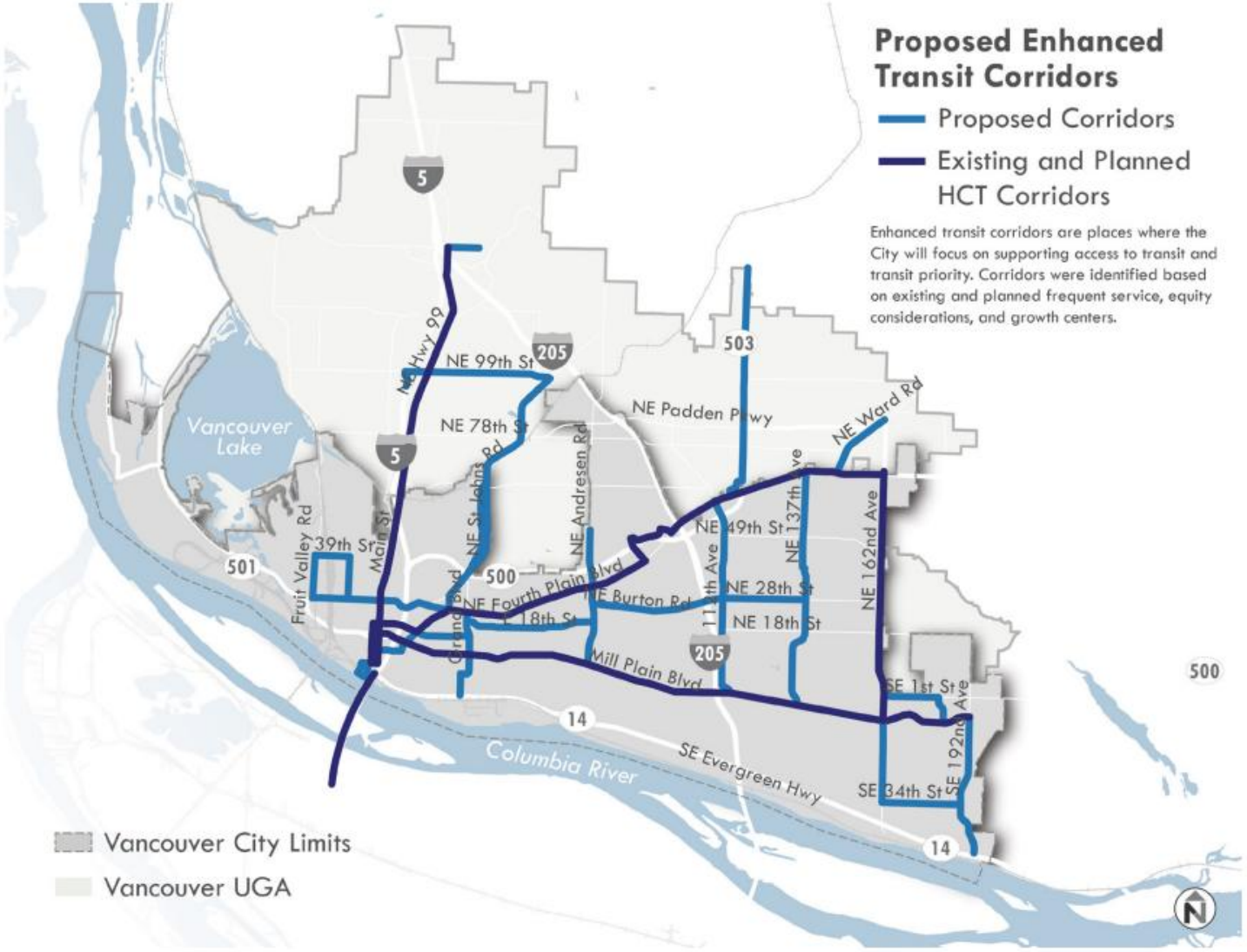
Source: City of Vancouver, 2024.

Exhibit 3-9: Bicycling and Small Mobility Network



Source: City of Vancouver, 2024.

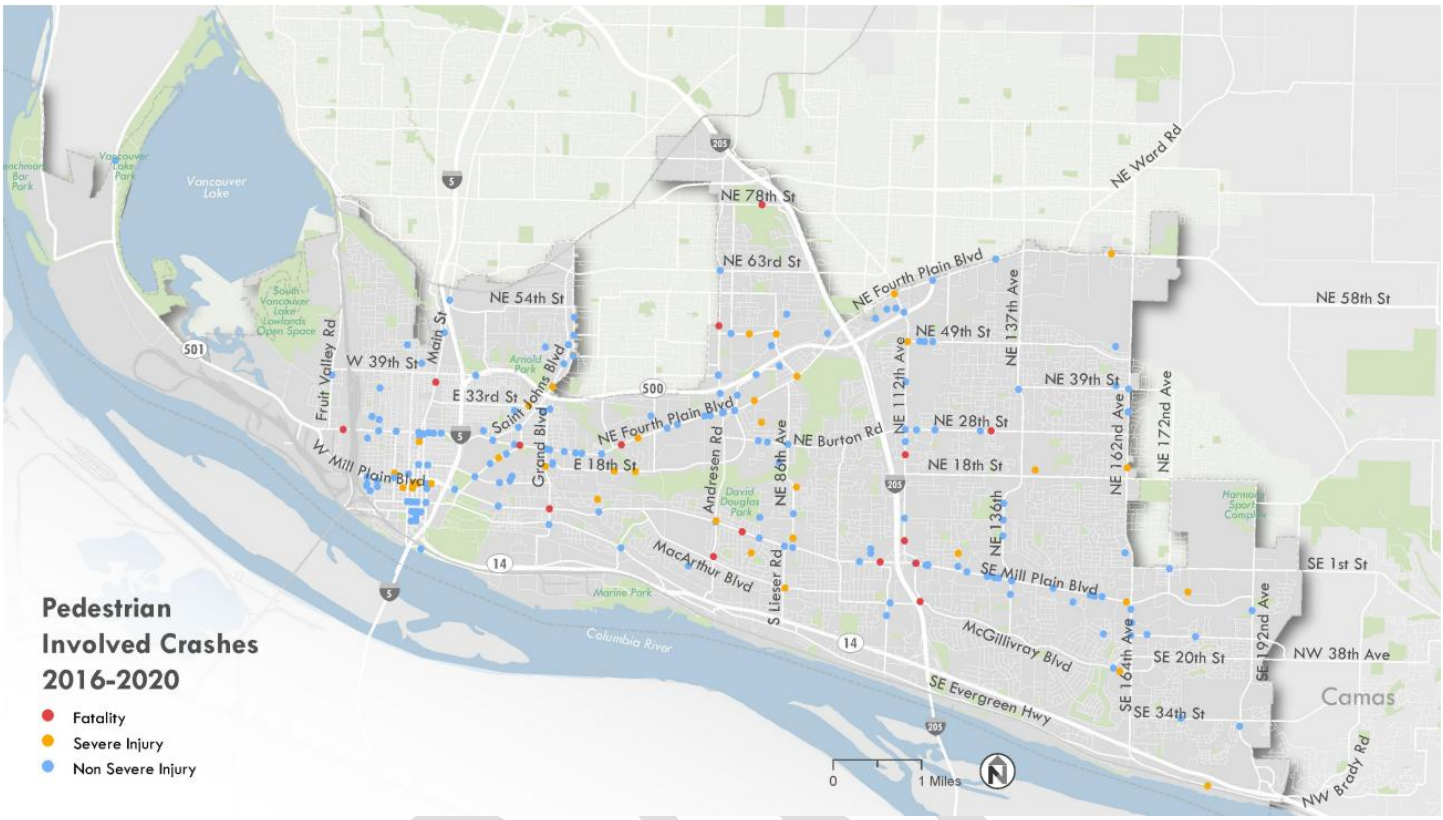
Exhibit 3-10: Proposed Enhanced Transit Corridors



Source: City of Vancouver, 2024.

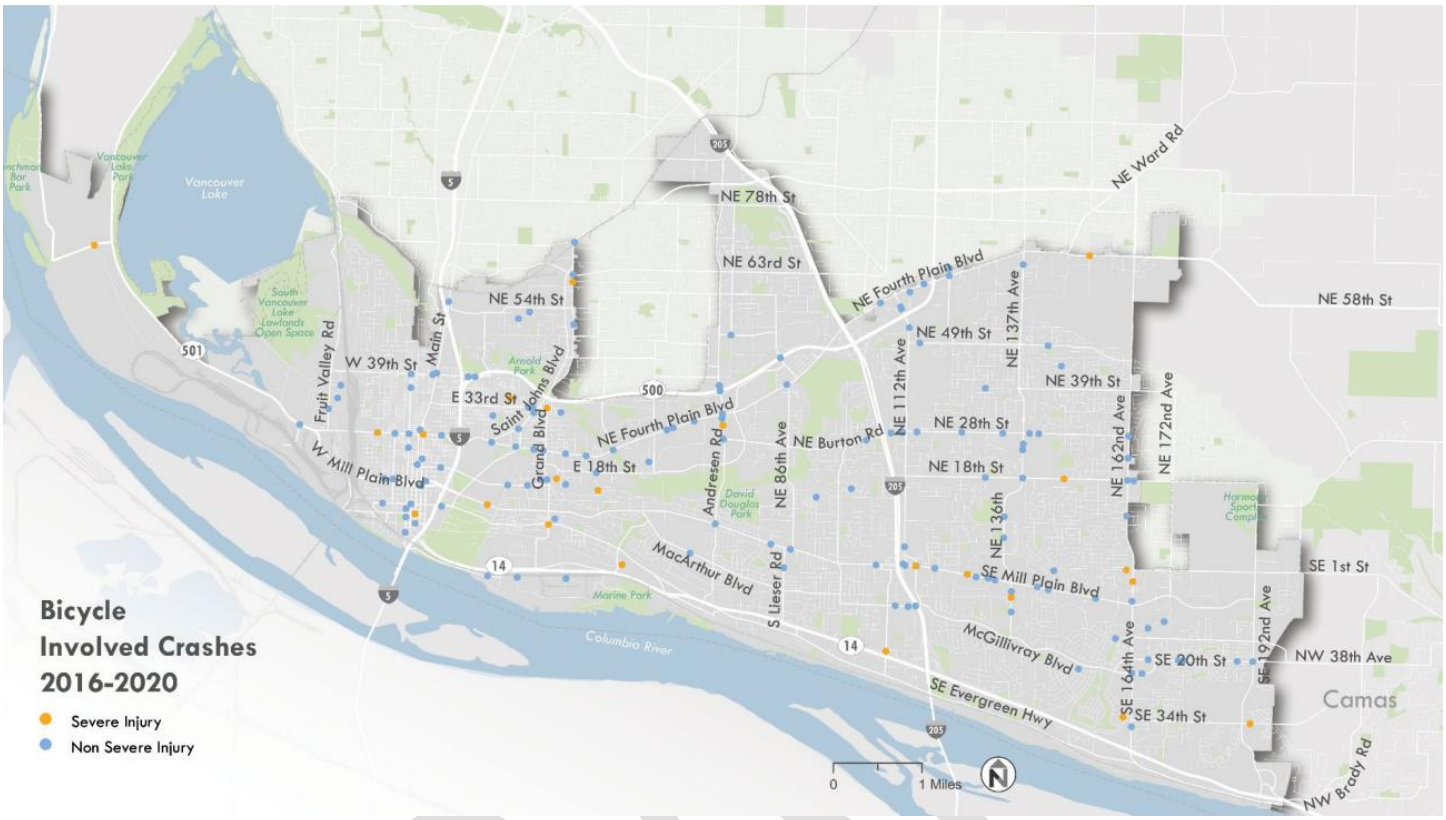
Safety is a key concern for active transportation modes. Between 2016 and 2020, there were 76 fatal and severe-injury crashes involving a pedestrian or bicyclist, per the City's 2022-2026 Local Road Safety Plan (City of Vancouver, 2022). These crashes most commonly involved pedestrians crossing at non-intersection 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.

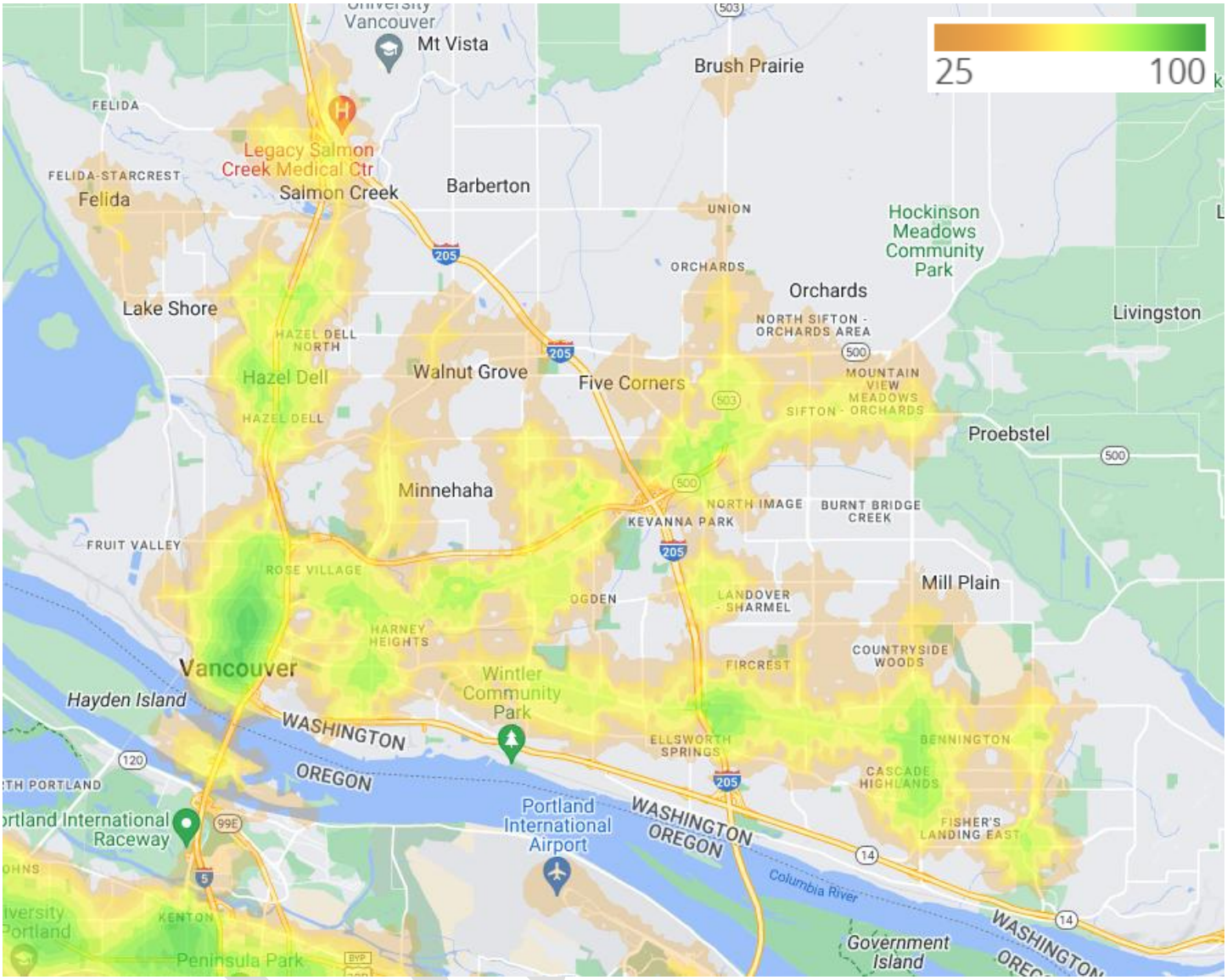
Exhibit 3-12: Crashes Involving Bicyclists 2016-2020



Source: City of Vancouver, 2022.

Walk Score is one way of measuring the walkability of a place (Walk Score, 2024). It provides a number between 0 and 100 based on the amenities available nearby, population density, and road metrics. In Vancouver, scores vary significantly, with some areas, such as the Esther Short, Hough, and Arnada neighborhoods in the downtown core, reaching scores near 100, while other areas score at the lower end of the range (Exhibit 3-13). Intersection density, as one metric of walkability, is highest in Esther Short, Hough, Arnada, Carter Park, Shumway, Lincoln, Rose Village, Fircrest, and around Clark College.

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).

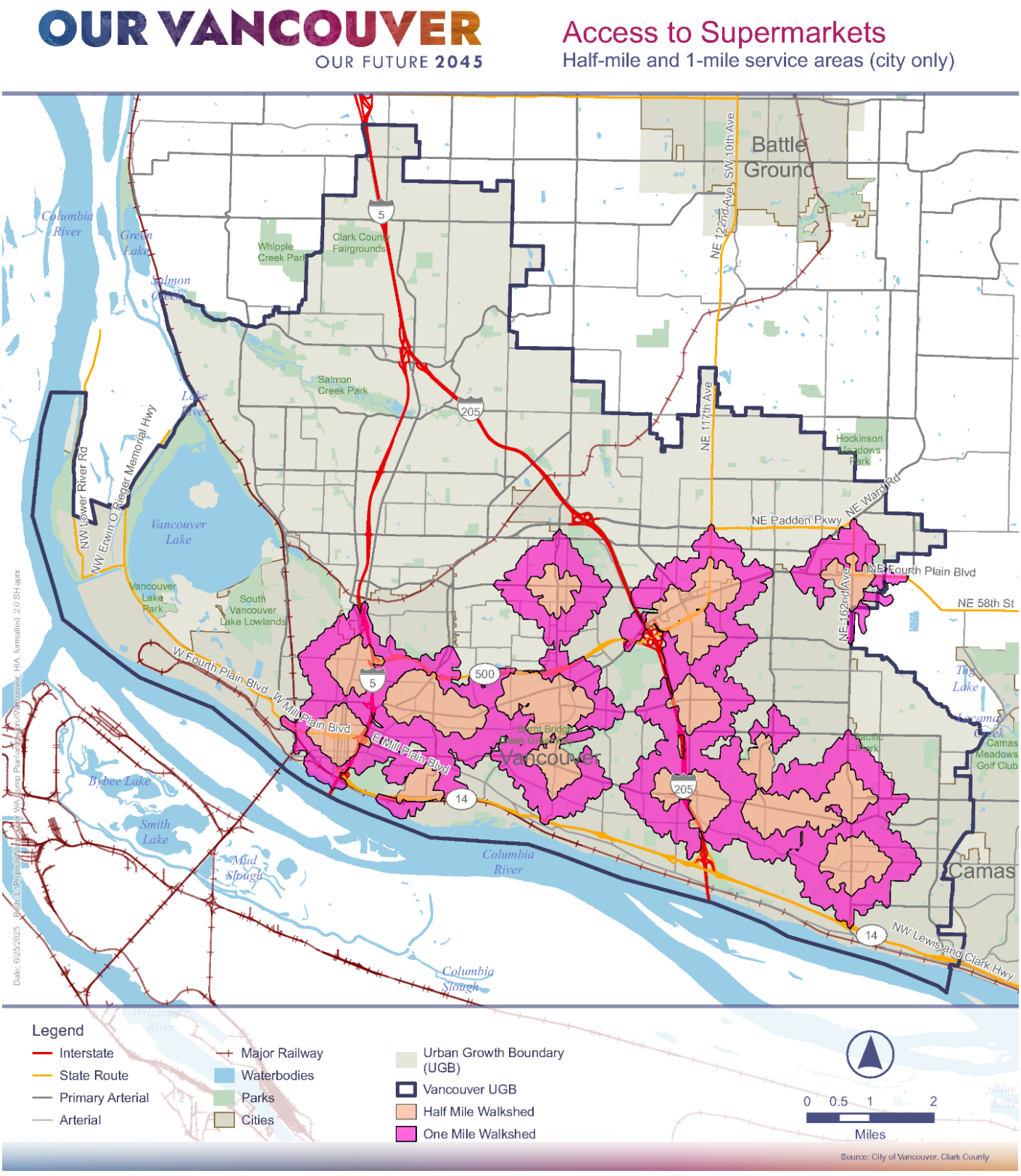
The City of Vancouver also has five established community gardens where people can grow food in designated areas of some public parks. Gardens operated by the City include Campus Garden, Ellsworth Road Garden, Fruit Valley Park Garden, Leroy Haagen Memorial Community Park Garden, and Marshall Community 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).

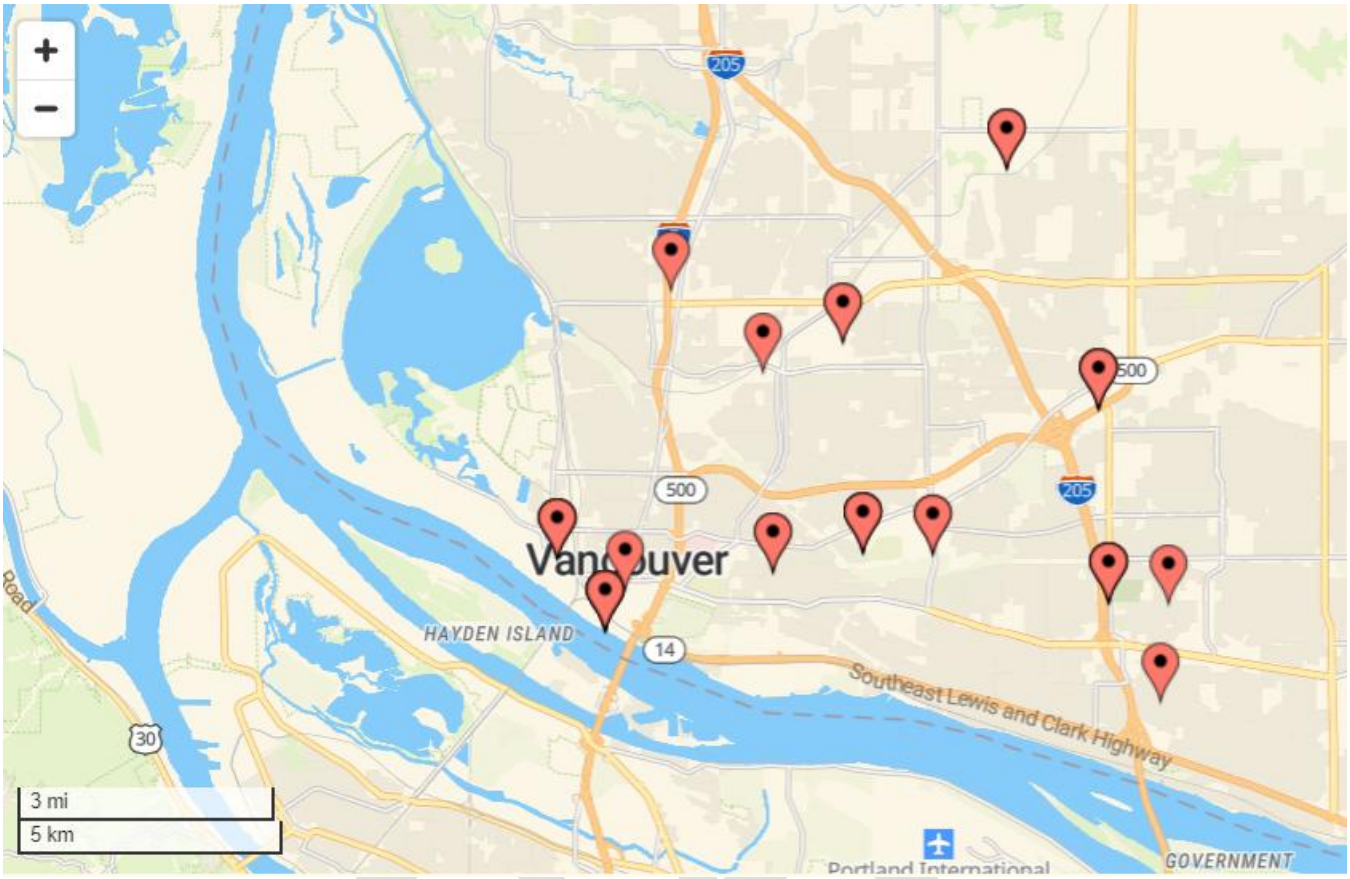
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Exhibit 3-14: Supermarket Access – 1-mile Radius



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

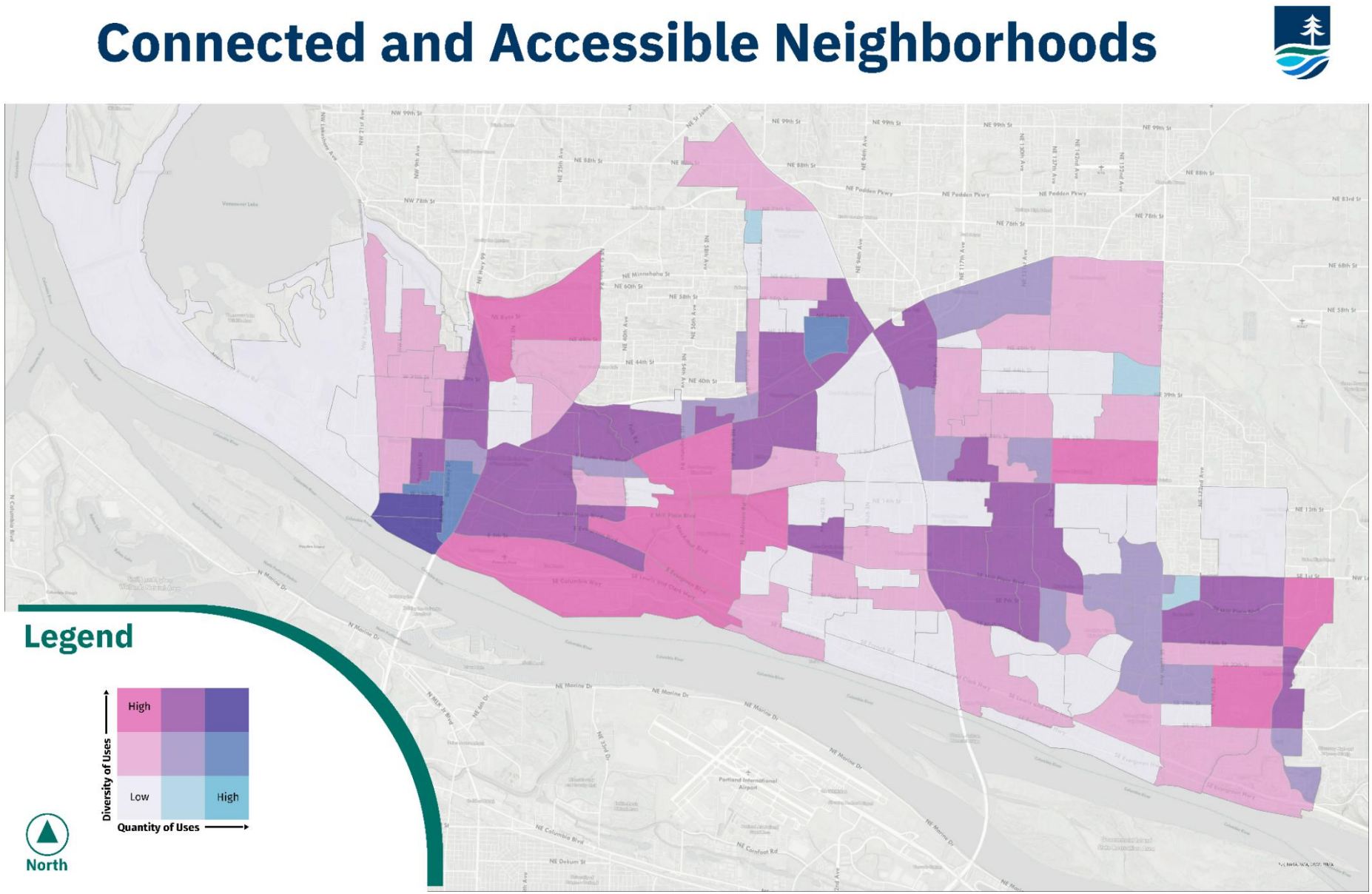
Neighborhoods with a density of essential places, such as schools, childcare, healthcare, social services, and gathering spaces, may be better for health due to improved walkability and easier access to services that support well-being. The concept of a connected and accessible neighborhood aligns with 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).

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



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.

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Exposure to Health Hazards

- **Exposure to Health Summary:** Air quality is a key issue in Vancouver, especially $PM_{2.5}$ 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 ($PM_{2.5}$)
  - Inhalable particulate matter (PM_{10})
- Ozone (0_3)
- Nitrogen dioxide (NO_2)
- Sulfur dioxide (SO_2)
- 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 $PM_{2.5}$ 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) $PM_{2.5}$ and cumulative criteria air pollution, which is mostly driven by $PM_{2.5}$, 0_3, and NO_2 (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 $PM_{2.5}$ and O_3 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 $PM_{2.5}$ in Vancouver, with the largest impact on older adults.

Current air quality monitoring in Vancouver includes $PM_{2.5}$ and 0_3. 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 $PM_{2.5}$ during severe wildfire events. Even during years with less severe

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wildfire events, $PM_{2.5}$ concentrations approach or surpass the Department of Ecology's healthy air goals of 20 µg/m3. During summers when wildfires are not prevalent, O_3 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 0_3.

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:

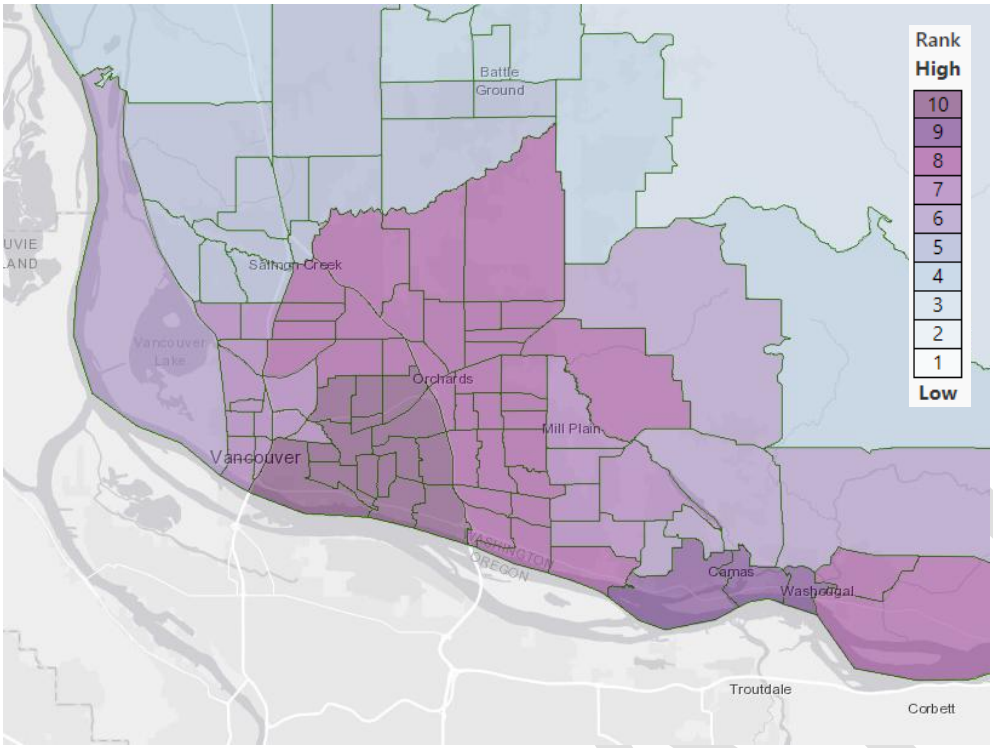
- Heart and lung disease at higher rates than state average
- Lower life expectancy than state average
- Older adults in overburdened communities highly impacted by air pollution were twice as likely to die from illnesses linked to breathing fine particles ($PM_{2.5}$) from human-caused sources than the statewide average. Older adult people of color have a higher risk of death from breathing fine particles ($PM_{2.5}$) 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.

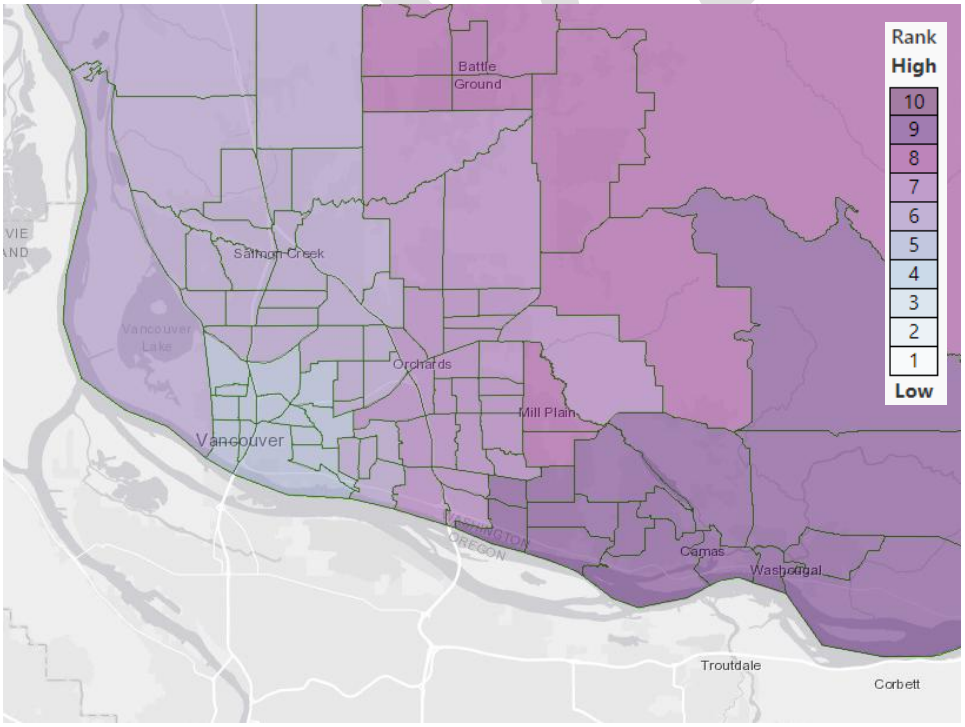
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Exhibit 3-17: $PM_{2.5}$ Exposure - Compared to Other Census Tracts in Washington



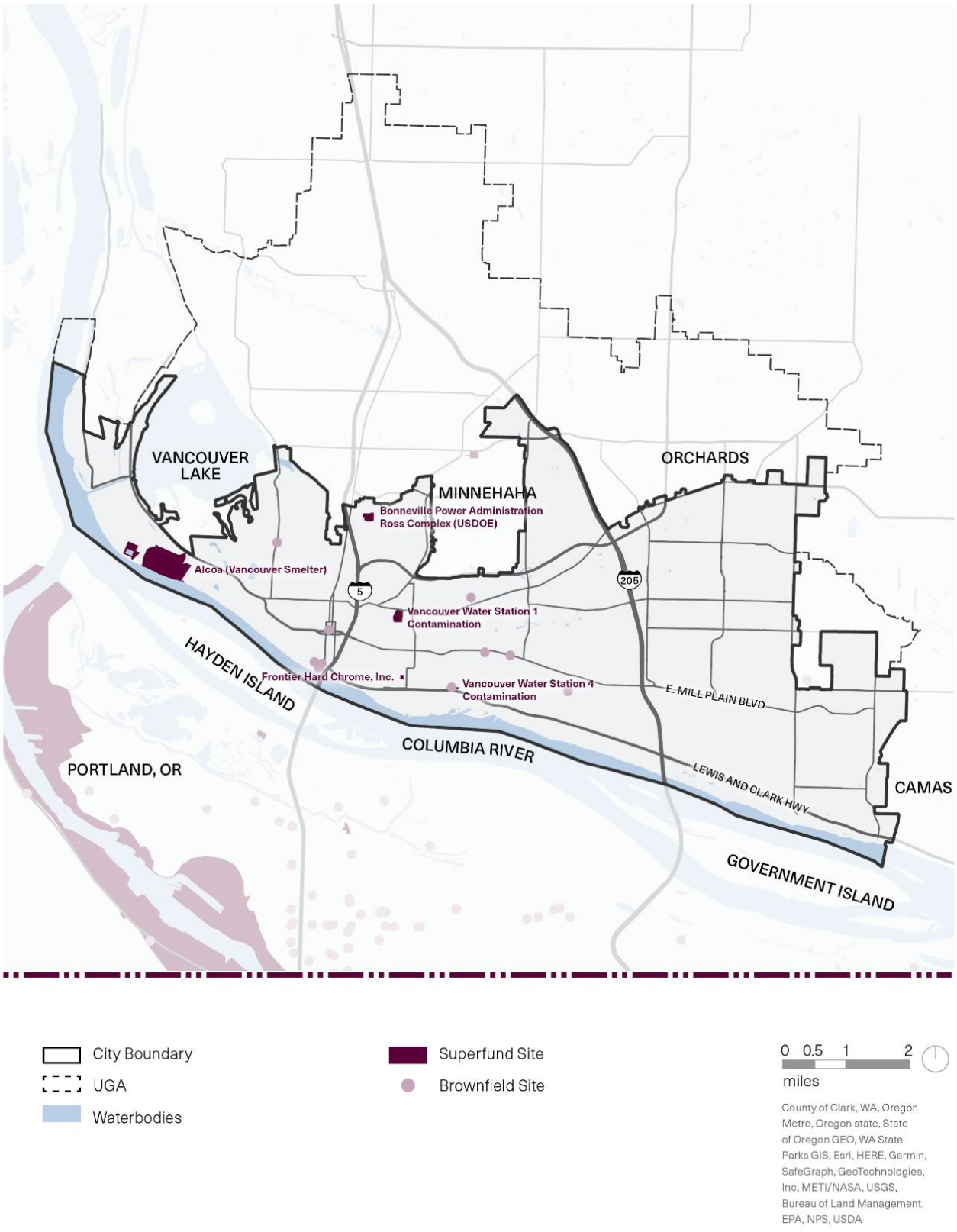
Source: Washington State Environmental Health Disparities Map, 2022.

Exhibit 3-18: O_3 Exposure - Compared to Other Census Tracts in Washington



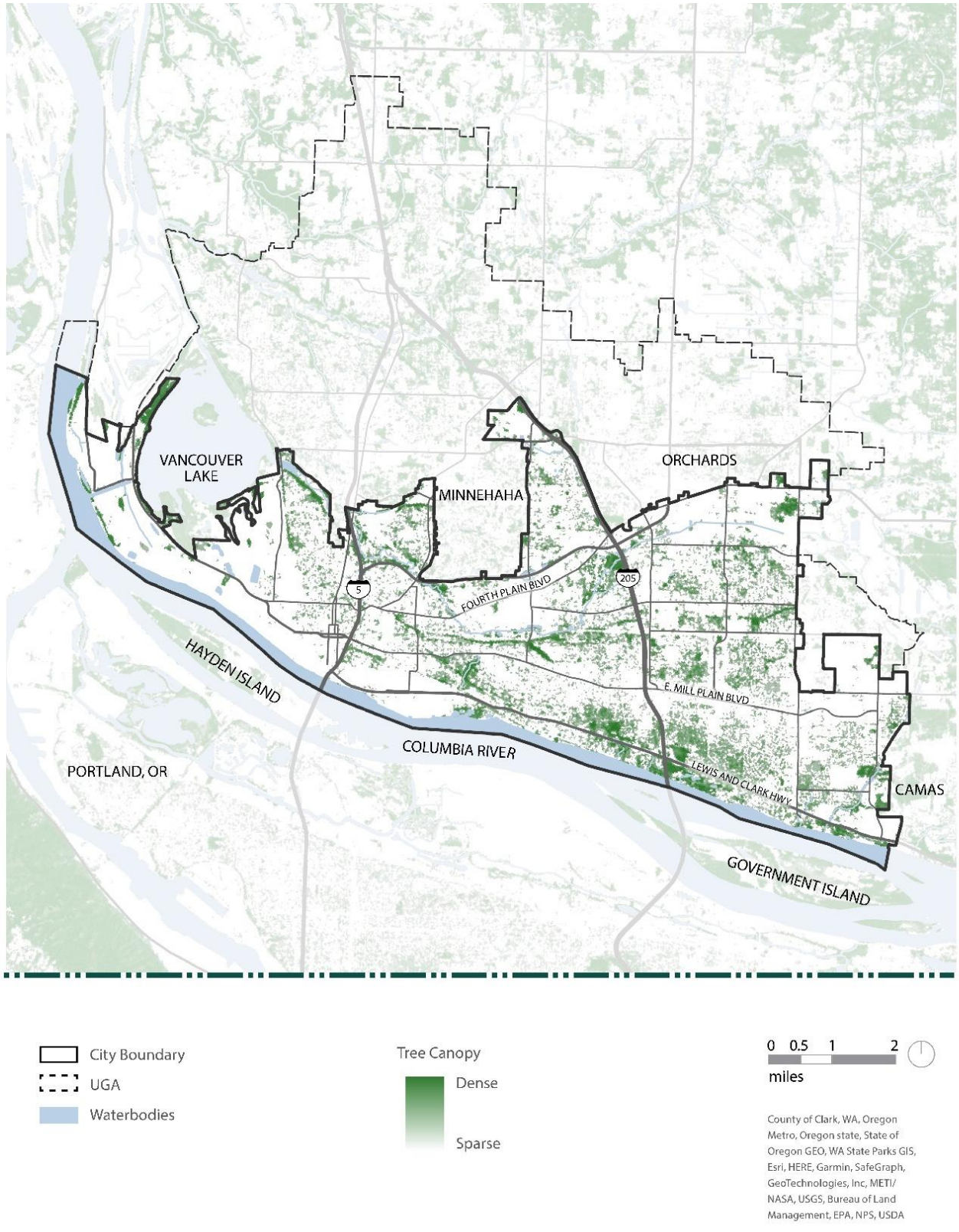
Source: Washington State Environmental Health Disparities Map, 2022.

Exhibit 3-19: Superfund and Brownfield Sites



Source: City of Vancouver Community Atlas, 2024.

Exhibit 3-20: Vegetation



Source: City of Vancouver Community Atlas, 2024.

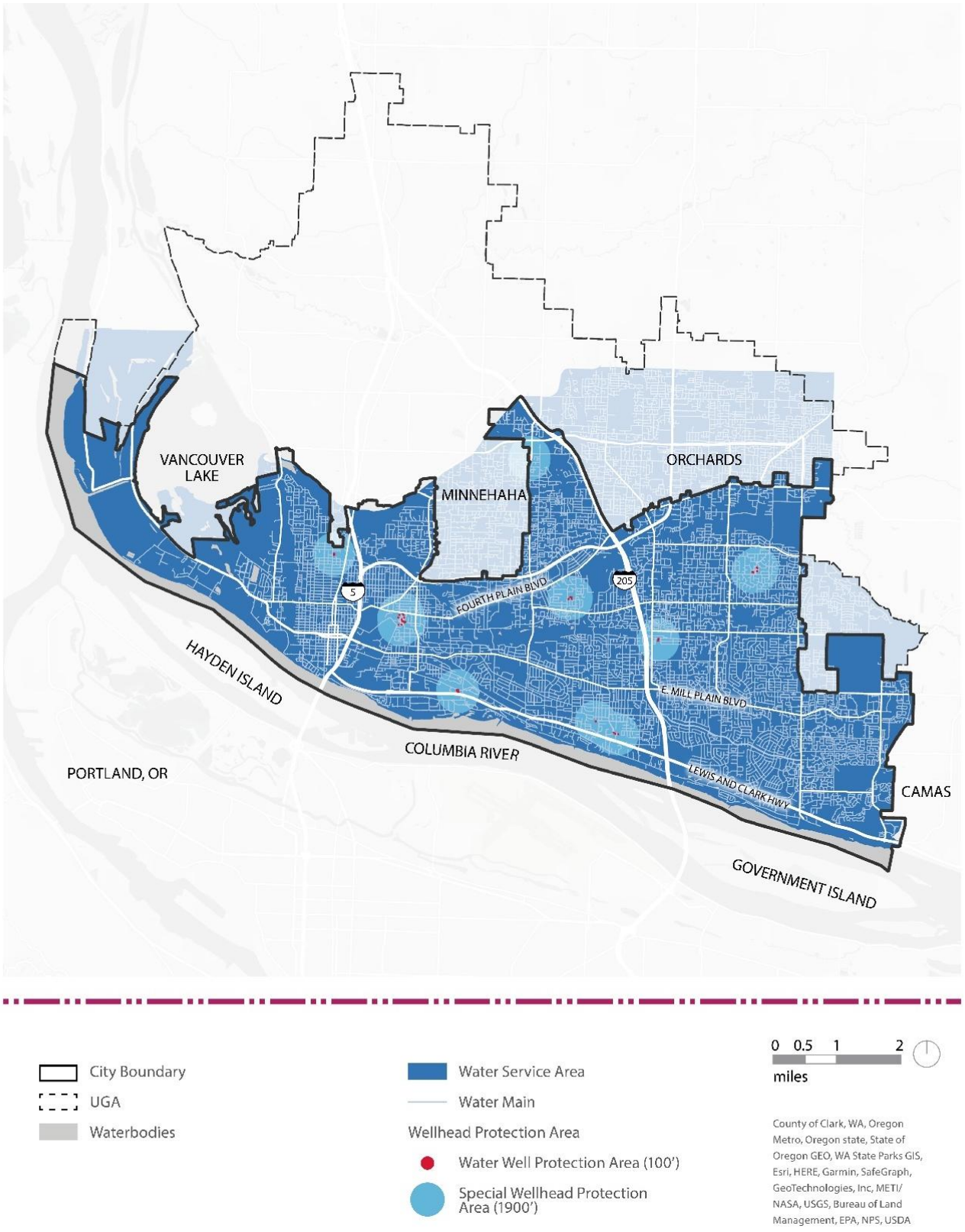
Water Quality

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.

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Exhibit 3-21: Potable Water



Source: City of Vancouver Community Atlas, 2024.

Ambient Noise

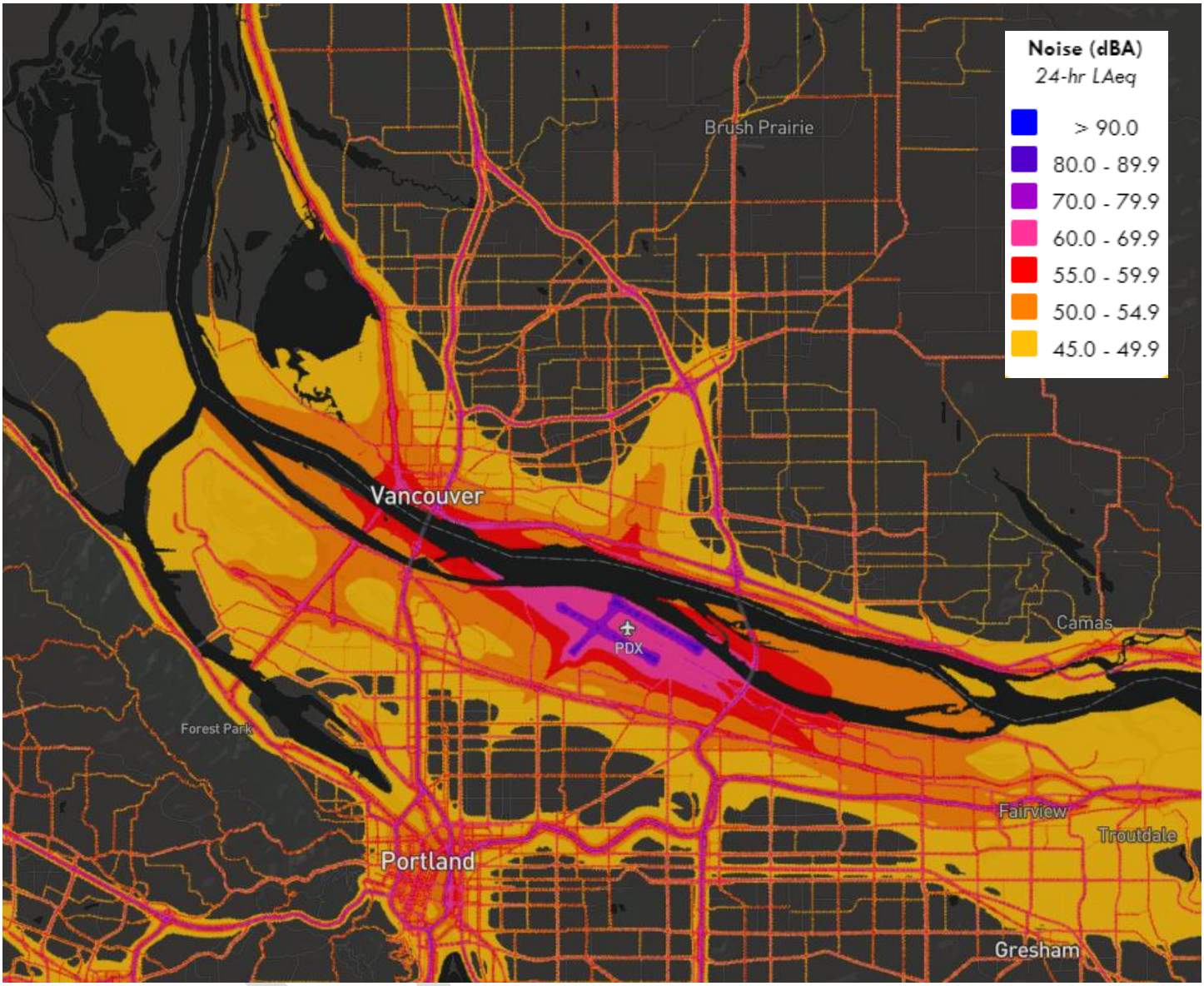
According to the American Public Health Association, chronic noise can have a range of impacts on sleep and stress levels that can contribute to cardiovascular disease, psychological disorders, and other health conditions (American Public Health Association, 2021). In an urban environment, noise can 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).

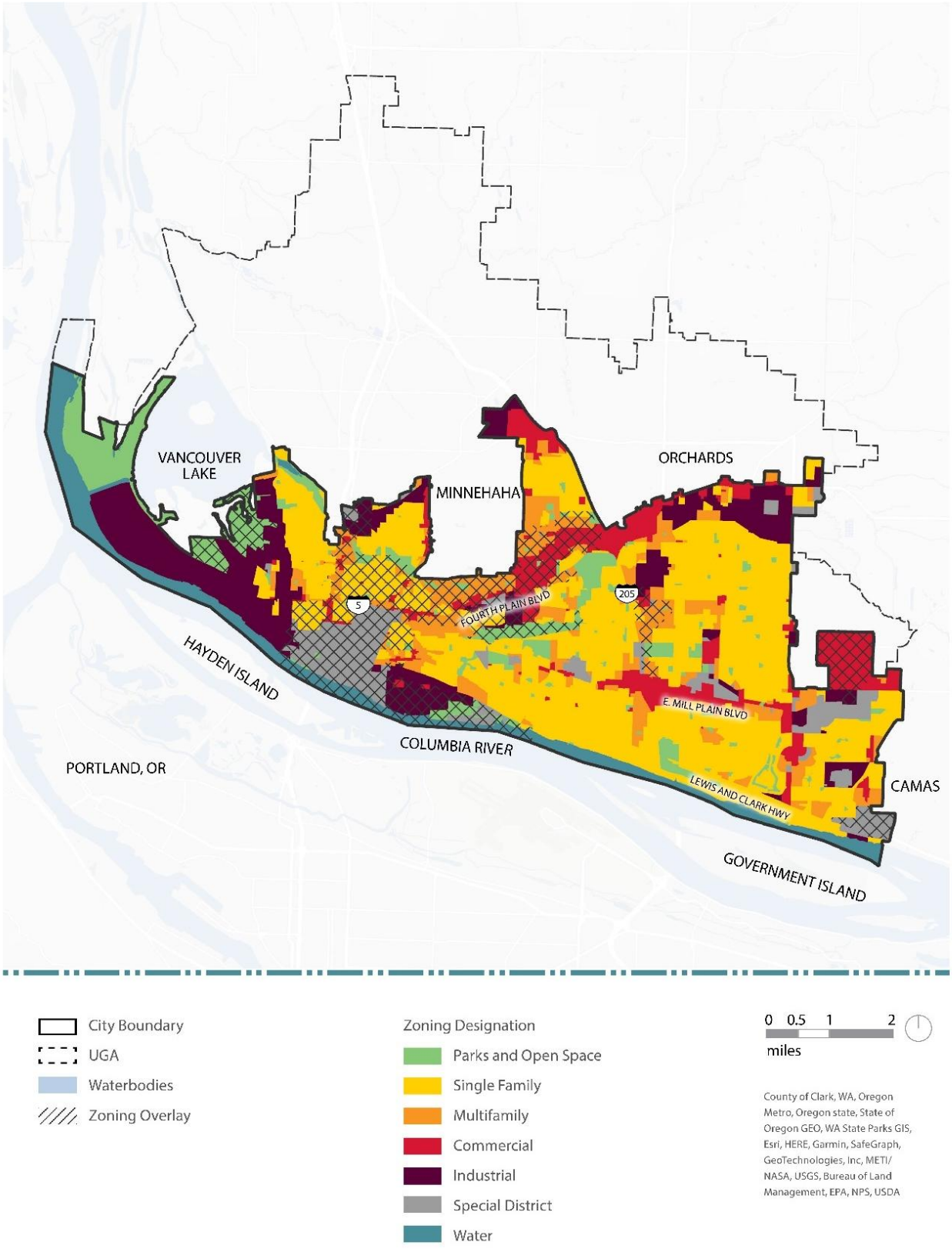
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Exhibit 3-22: Transportation Noise



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

Exhibit 3-23: Zoning



Source: City of Vancouver Community Atlas, 2024.

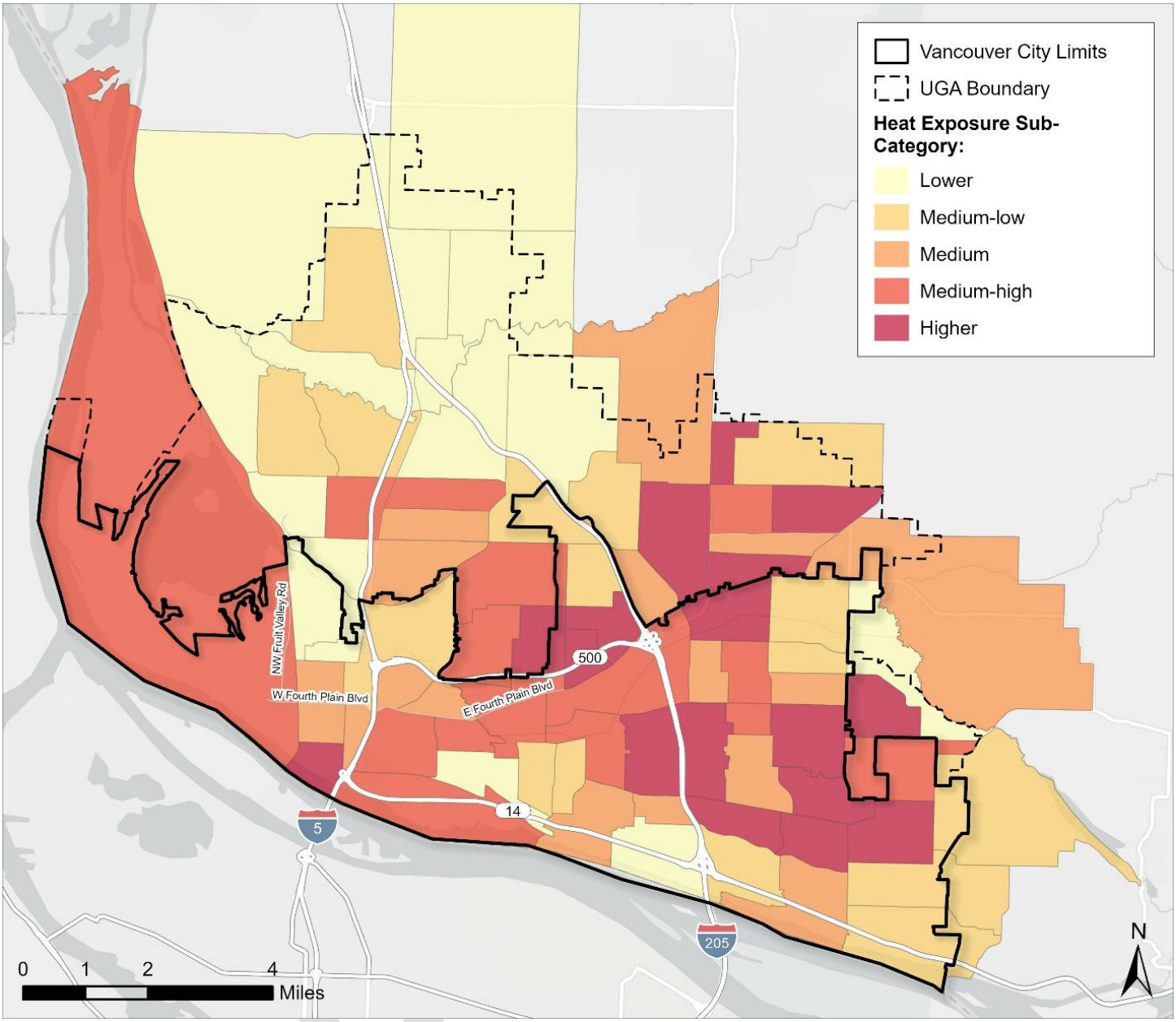
Urban Heat

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.

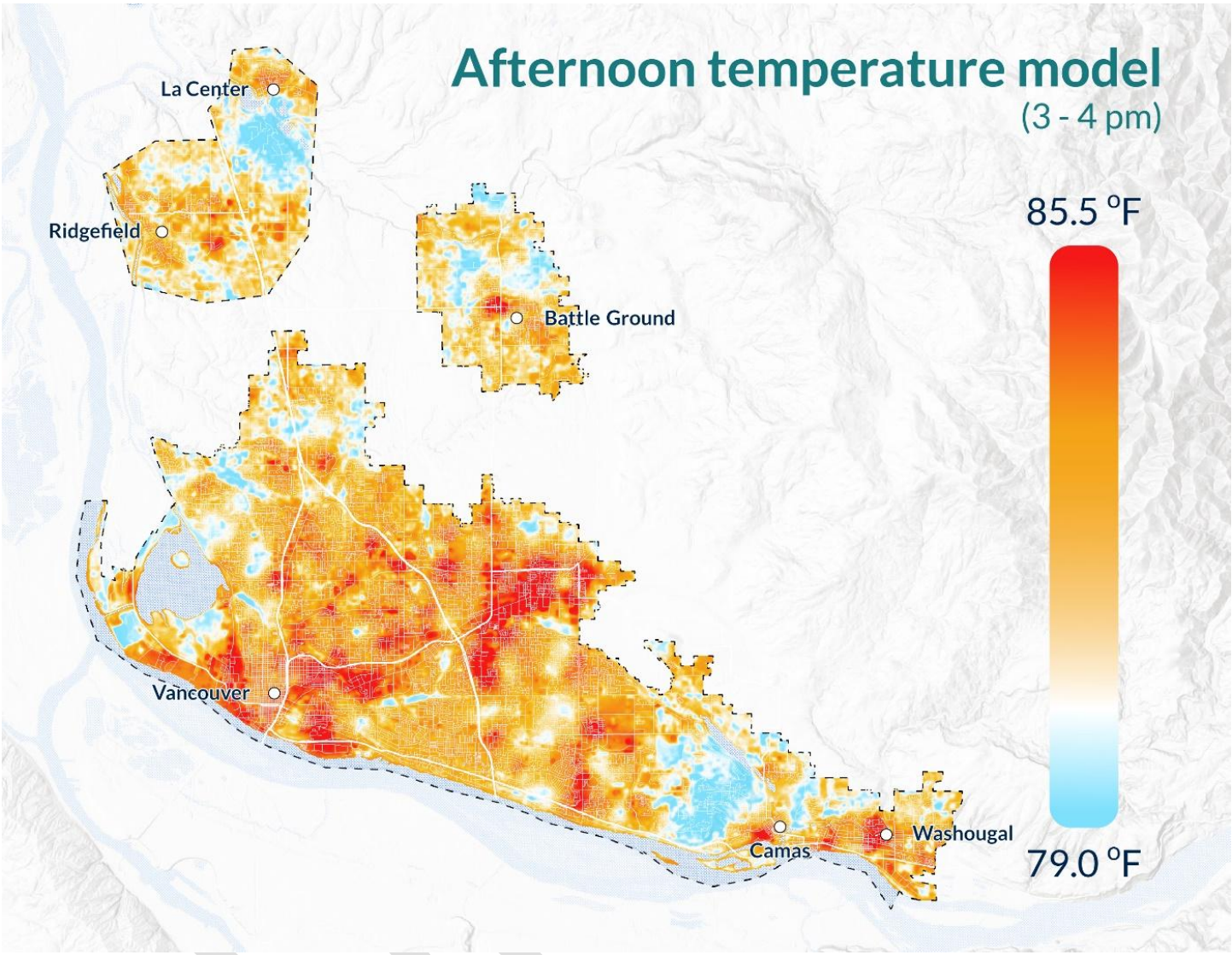
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Exhibit 3-24: Heat Exposure Index



Source: BERK, 2024.

Exhibit 3-25: Clark County Heat Watch Map

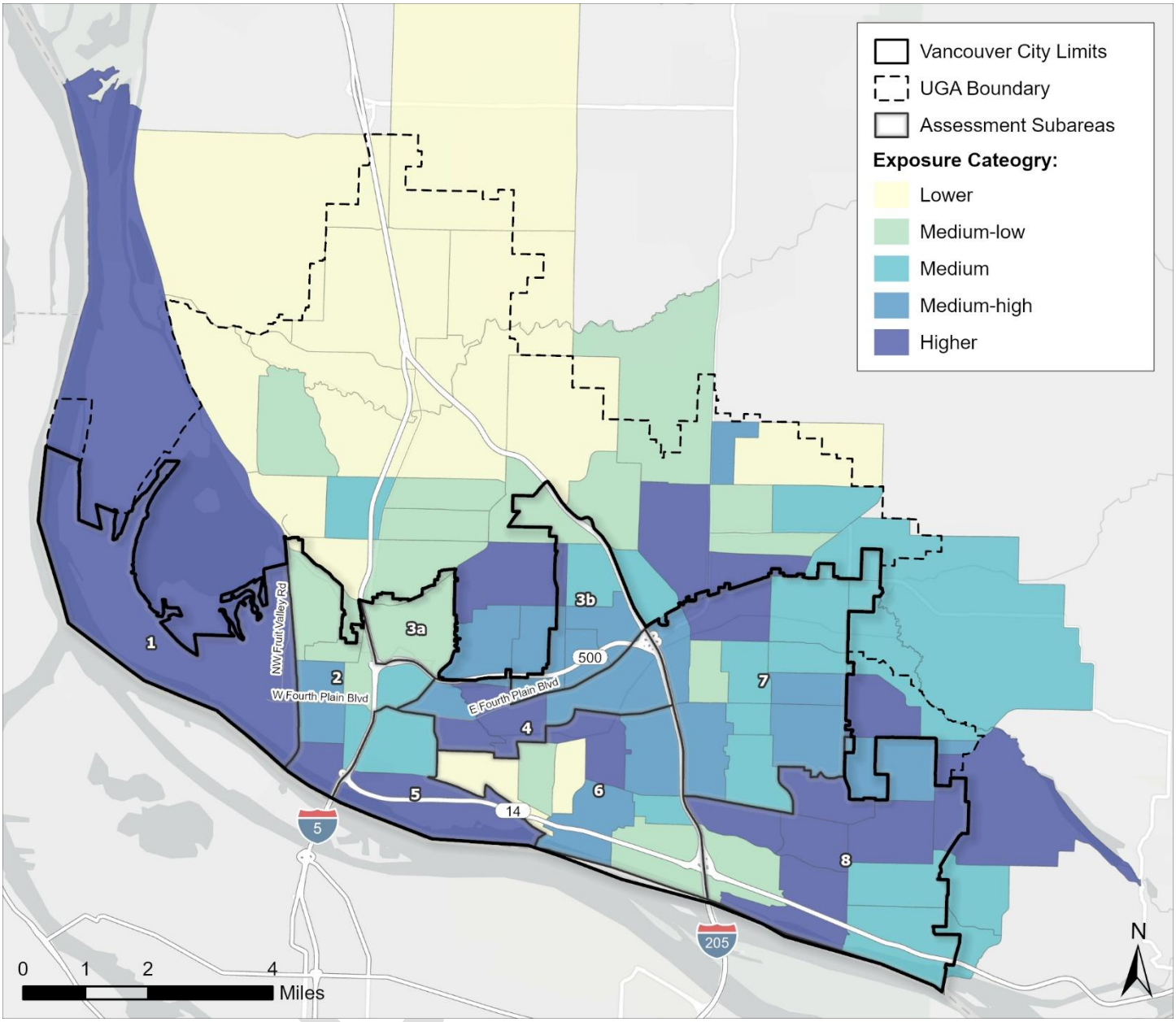


Source: Clark County, 2024.

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).

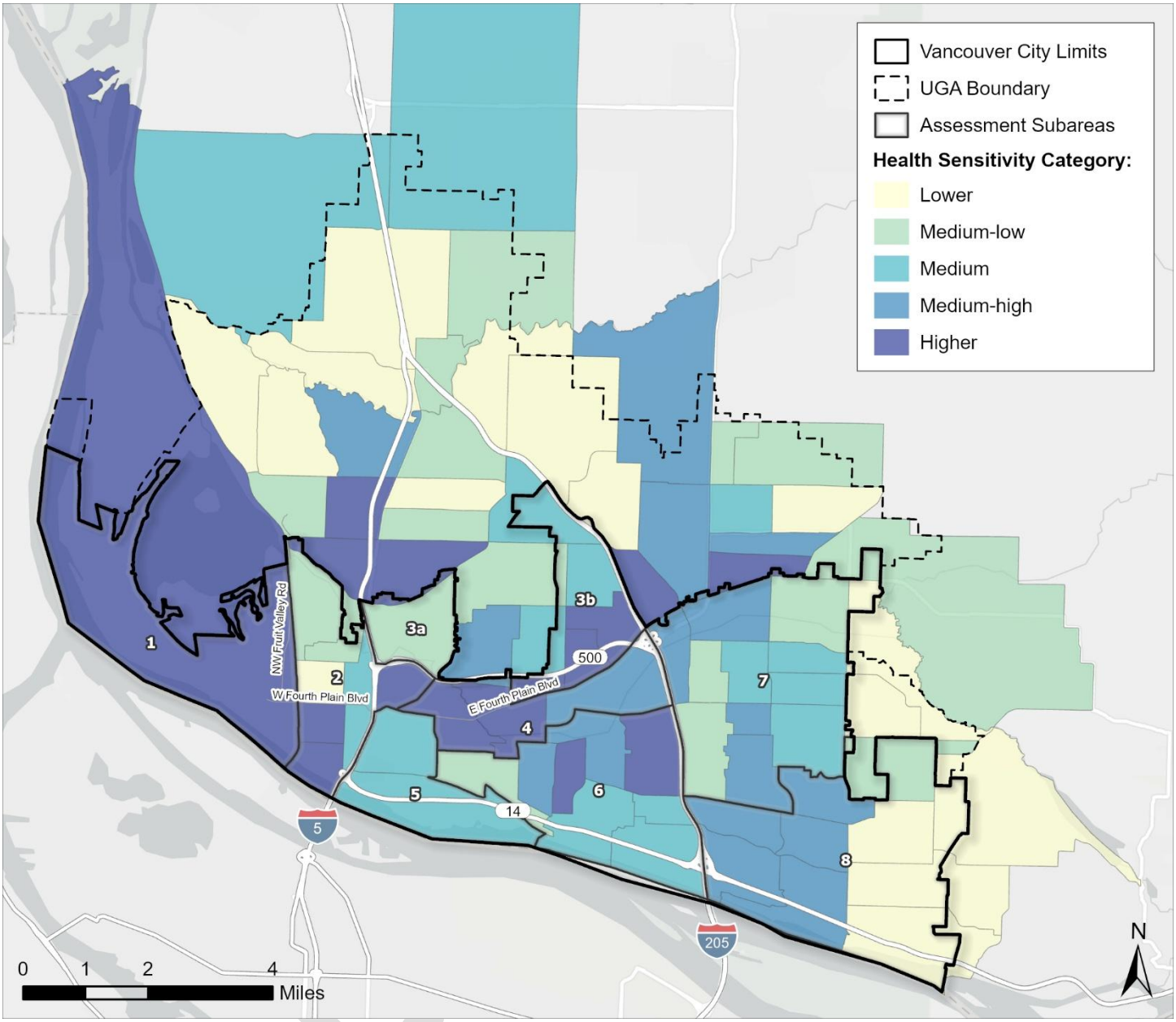
Exhibit 3-26: Climate Exposure Index



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

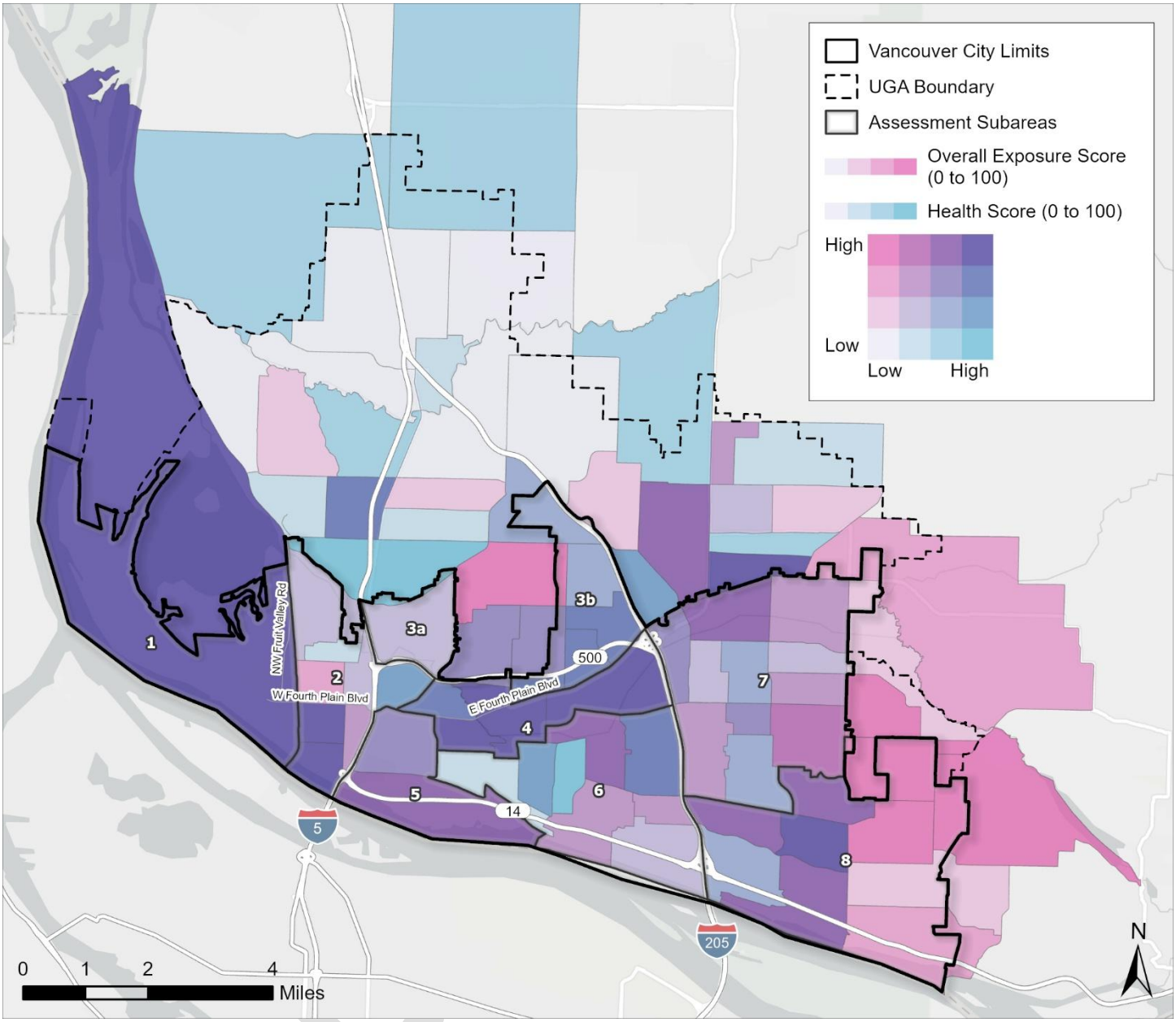


Source: BERK, 2024.

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

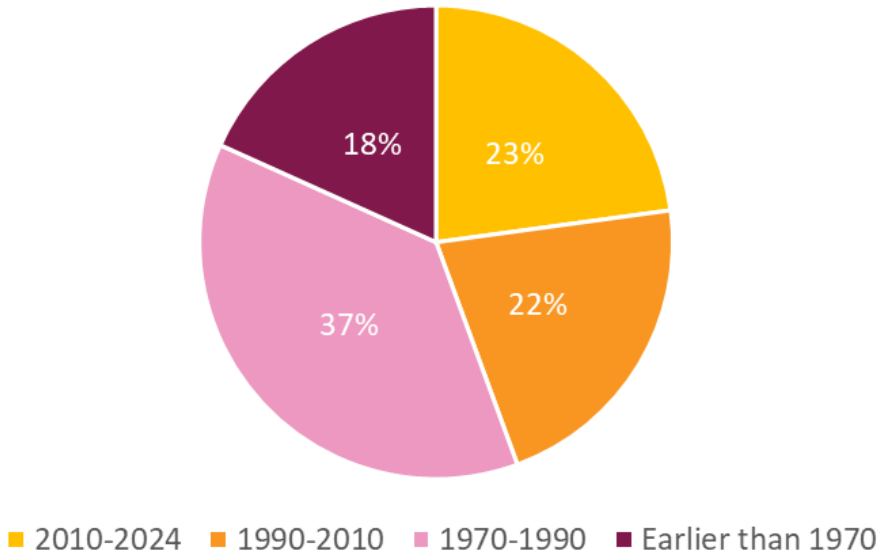
There are many factors that may contribute to the safety and health of a housing unit. Two measures include the age of the building and radon exposure risk.

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).

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Exhibit 3-29: Housing - Year Built



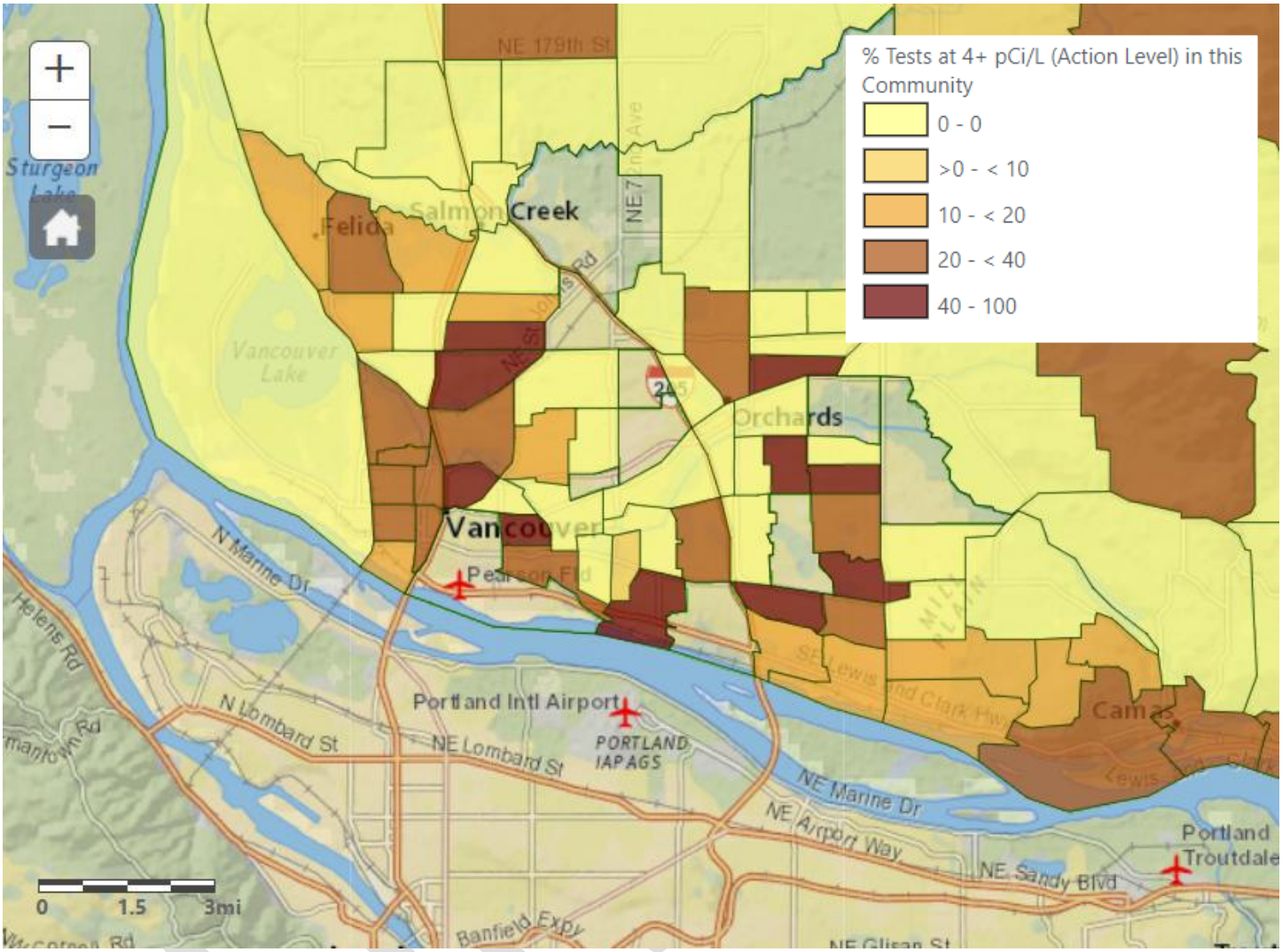
Source: Clark County, 2024; BERK, 2024.
Note: Based on "effective year built," which is adjusted for major renovations.

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 Helath, 2019).

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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.

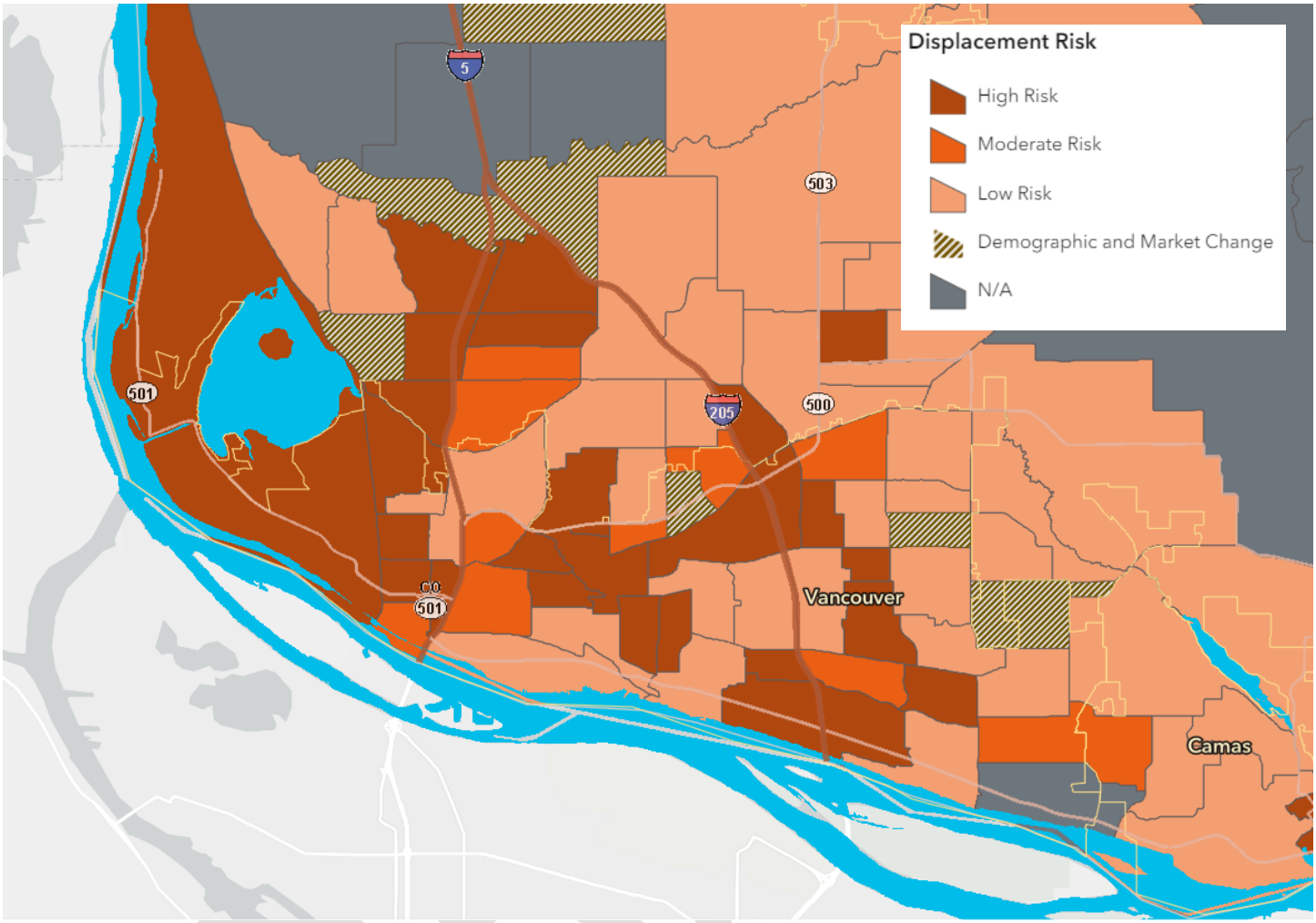
Exhibit 3-31: Housing Unit Targets by Income Band (2023-2045)

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).

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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

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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
TOTAL	Total	184,038	$1,375	$71,500

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.

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Exposure to Health Hazards

Air quality is a hazard of particular concern in Vancouver due to elevated levels of $PM_{2.5}$ 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.

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    - (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, though 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.

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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:

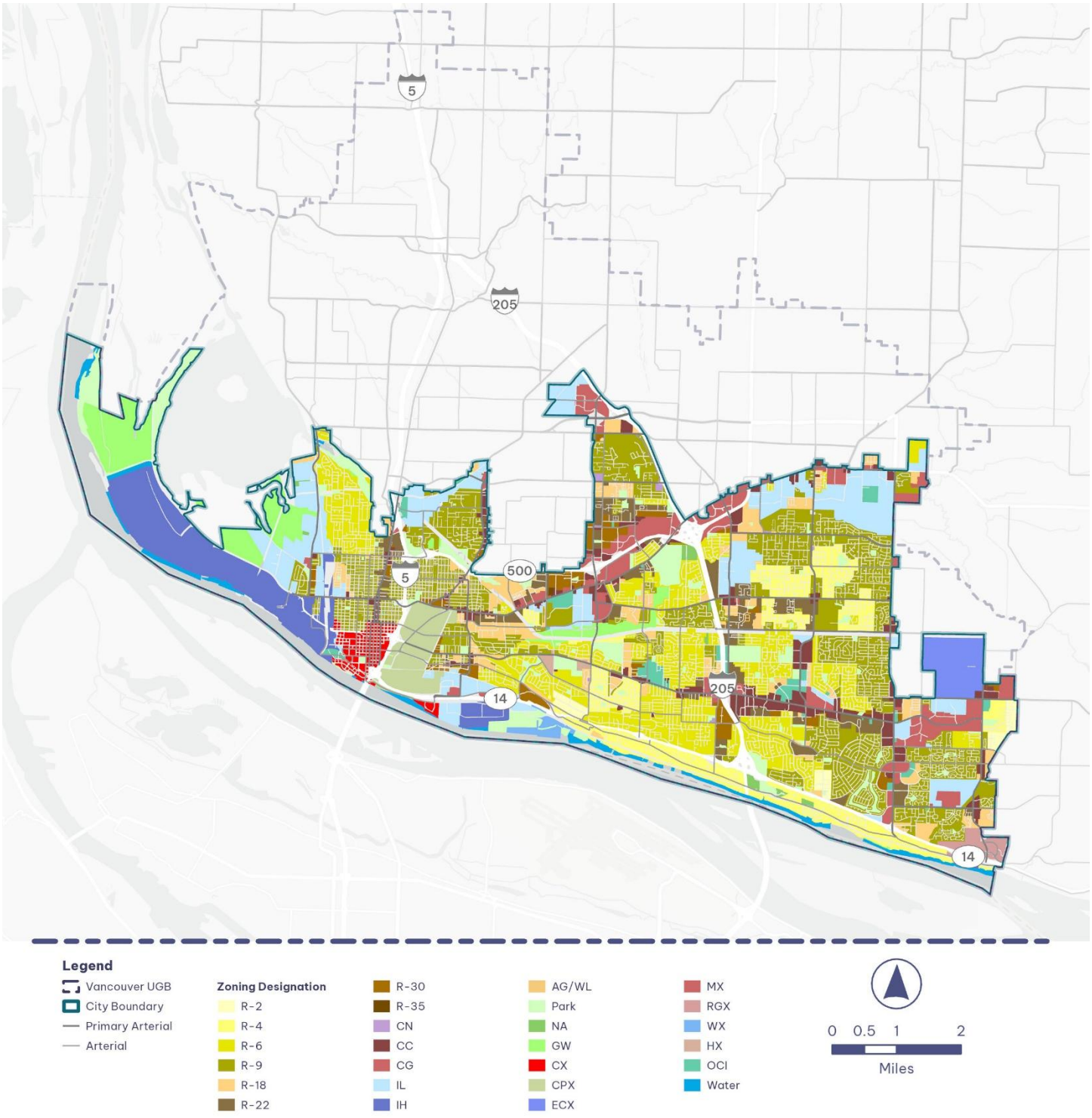
- **Low-Scale Neighborhood:** Focuses on low-scale housing choices, typically with up to 6 units per parcel and building heights of up to 3 stories (maximum of 45 feet). Any lot would be allowed to have at least four units. Housing types include single-family homes, accessory dwelling buildings, and 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.

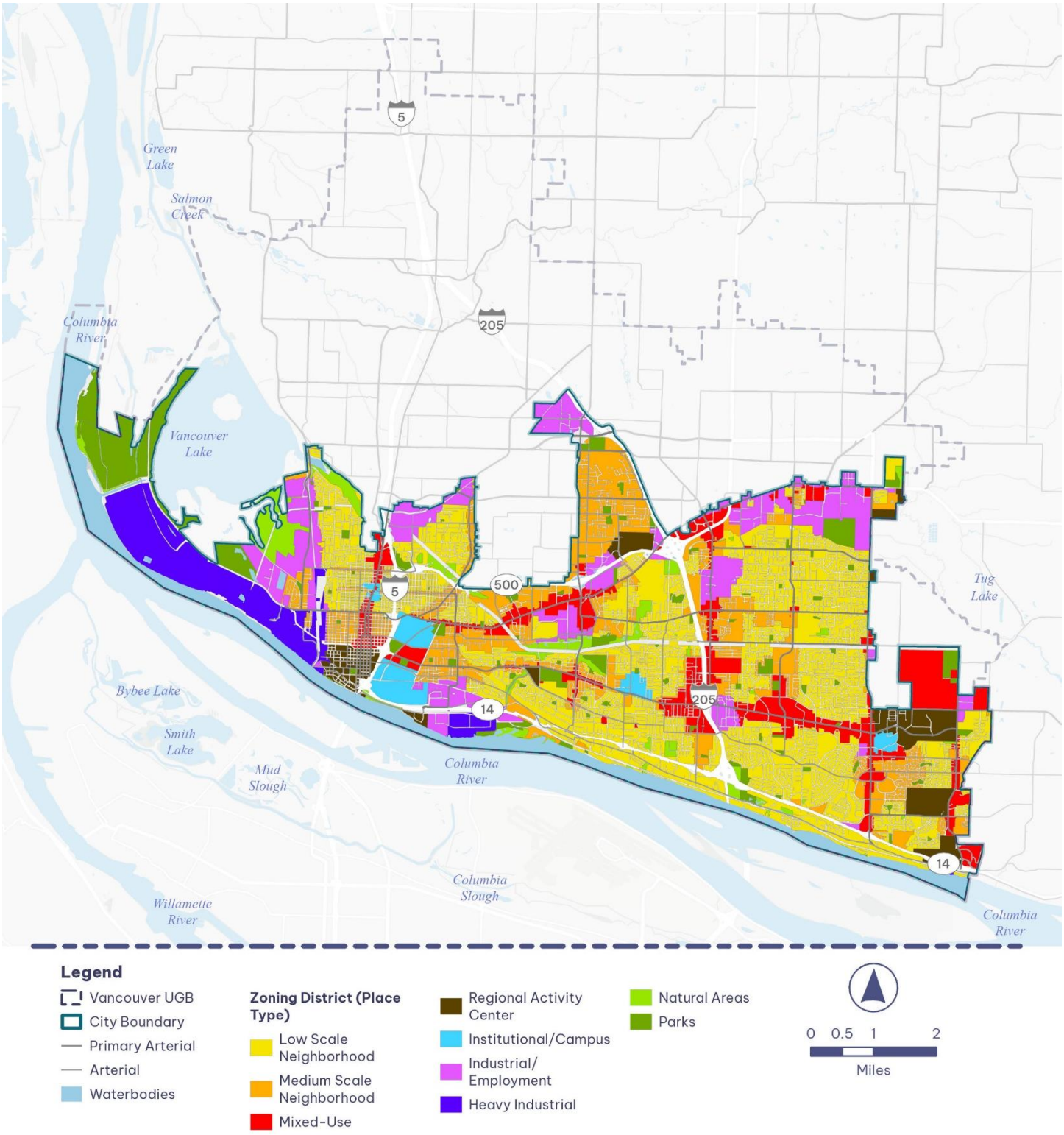
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Exhibit 4-1: No Action Alternative Zoning Map



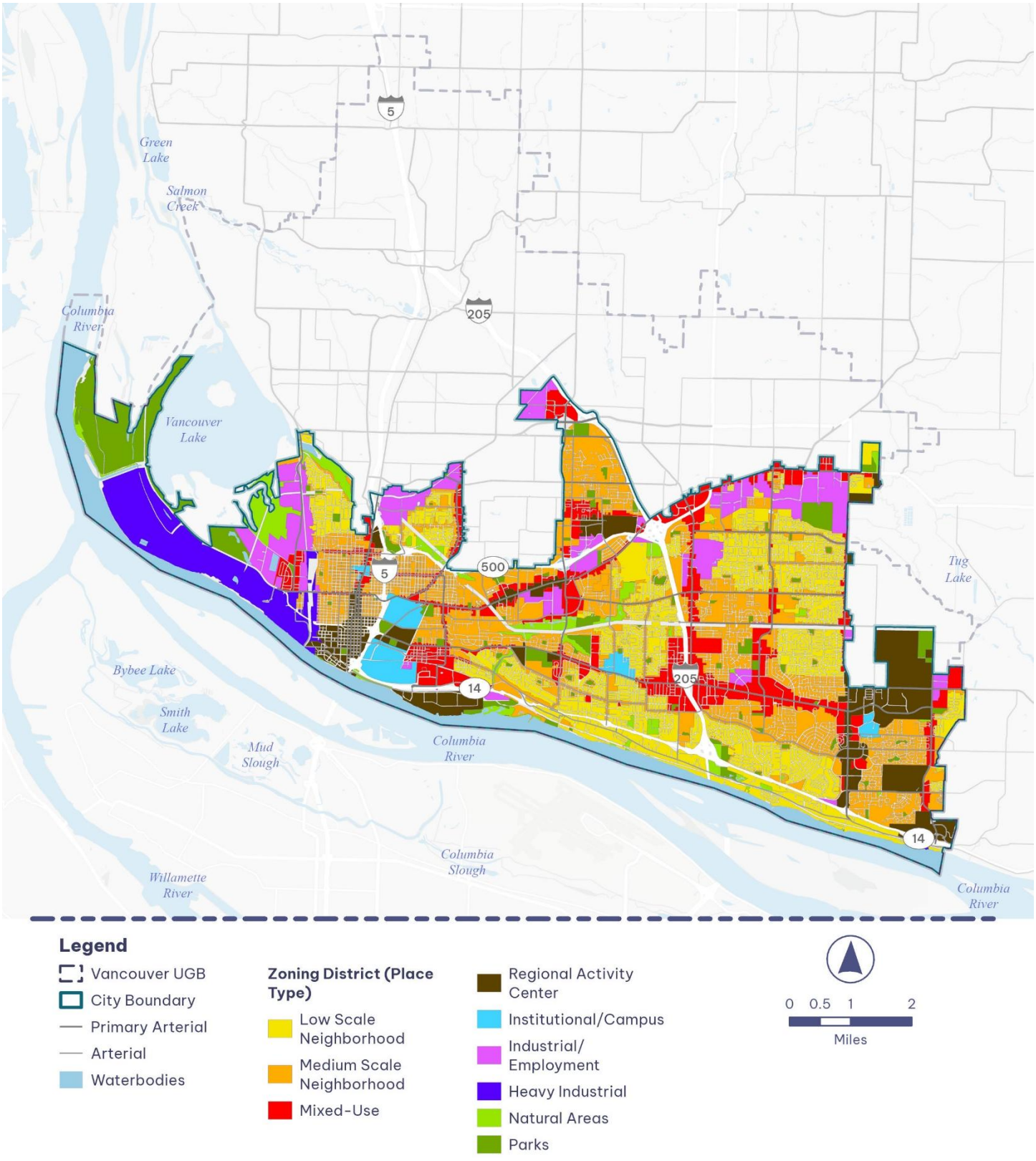
Source: City of Vancouver, 2025.

Exhibit 4-2: Alternative 1 Proposed Zoning Districts Map



Source: City of Vancouver, 2025.

Exhibit 4-3: Alternative 2 Proposed Zoning Districts Map



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

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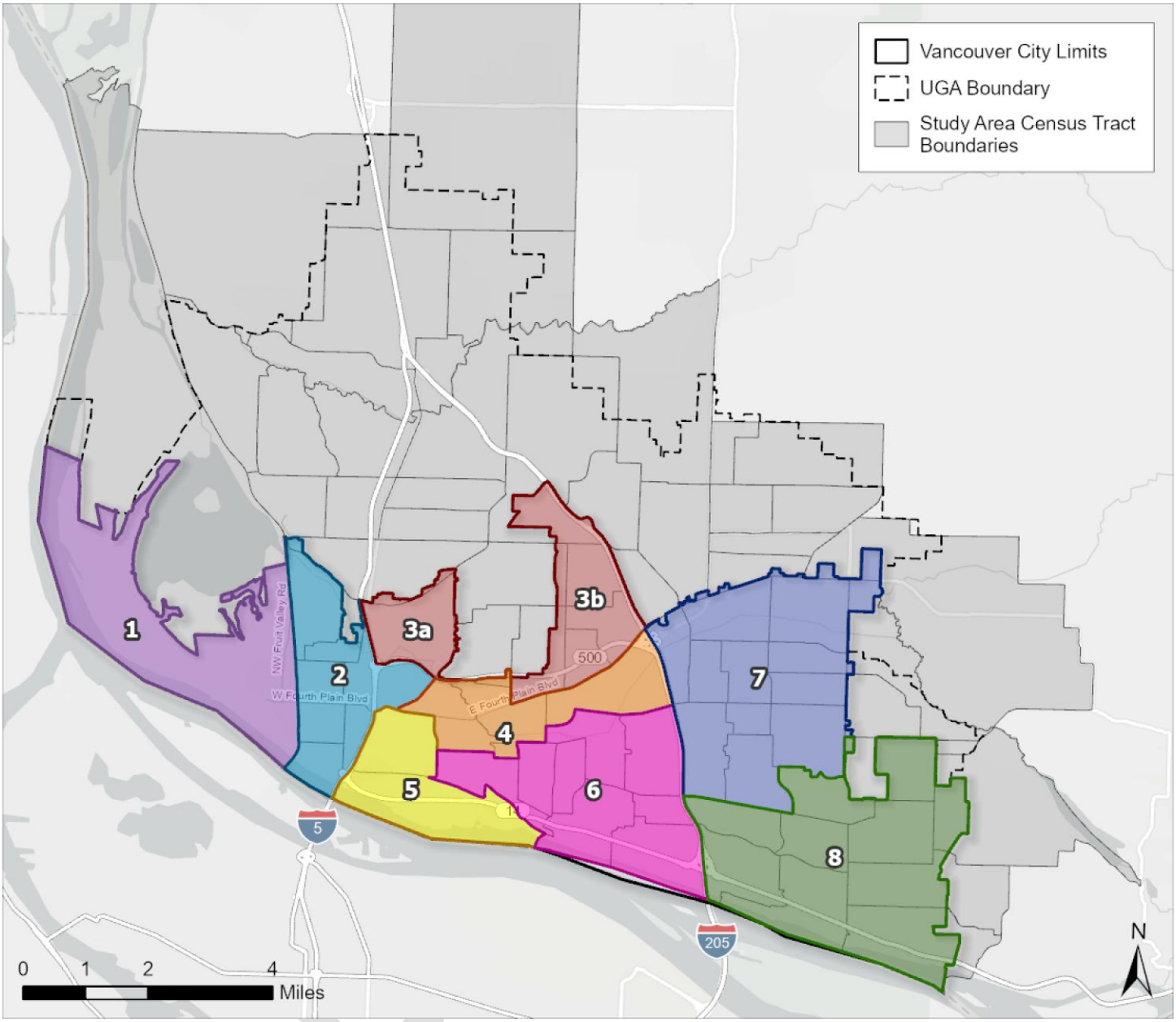
Theme	Topic	Metric	Type
	Proximity to Transit	Housing and job growth in areas not accessible by transit, and potential for new transit	Impacts
	*Vehicle Miles Traveled (Water Quality)**	Overall projected vehicle miles traveled per capita	Impacts
	Climate Exposure	Housing and job growth in areas exposed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

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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.

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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	7	8
Parks Access	◐		•	•	•	•	•	•	•	•	● +		•					•	•	•	● +		•	•				•	•	•
Active Transportation	●		•	•	•	•	•	•	•	•	● +		•	•	•	•		•	•	•	● +		•	•	•	•		•	•	•
Access to Supermarkets	◐		•	•				•	•	•	● +		•					•	•	•	● +		•	•	•			•	•	•
Commercial Displacement	◐	•	•	•	•	•	•	•	•	•	● +		•	•	•	•	•	•	•	•	● +		•	•	•	•	•	•	•	•
High $PM_{2.5}$ 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).

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

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

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,

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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)*.

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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).

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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).*

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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.

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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.

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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)*.

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Exposure to Health Hazards

Metrics

- New housing units in areas with high $PM_{2.5}$ 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 $PM_{2.5}$ 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, $PM_{2.5}$ 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 $PM_{2.5}$ 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 $PM_{2.5}$ and area 7 for ozone. In the Action Alternatives, areas 5 and 6 have the highest growth and exposure to $PM_{2.5}$ 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
High $PM_{2.5}$ concentration			
Units	10,100*	8,000	9,700
Percent of Units	34%*	18%	19%
High Ozone Concentration			
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.

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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.

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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.

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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
Total	**4,315,718**	**5,327,928***	**5,885,872**	**6,006,556**
VMT Per Household (average miles per day)[1]	**45.6**	**44.9***	**42.5**	**41.9**

**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.*

[1] 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*

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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)*.

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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.

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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.

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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)*.

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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

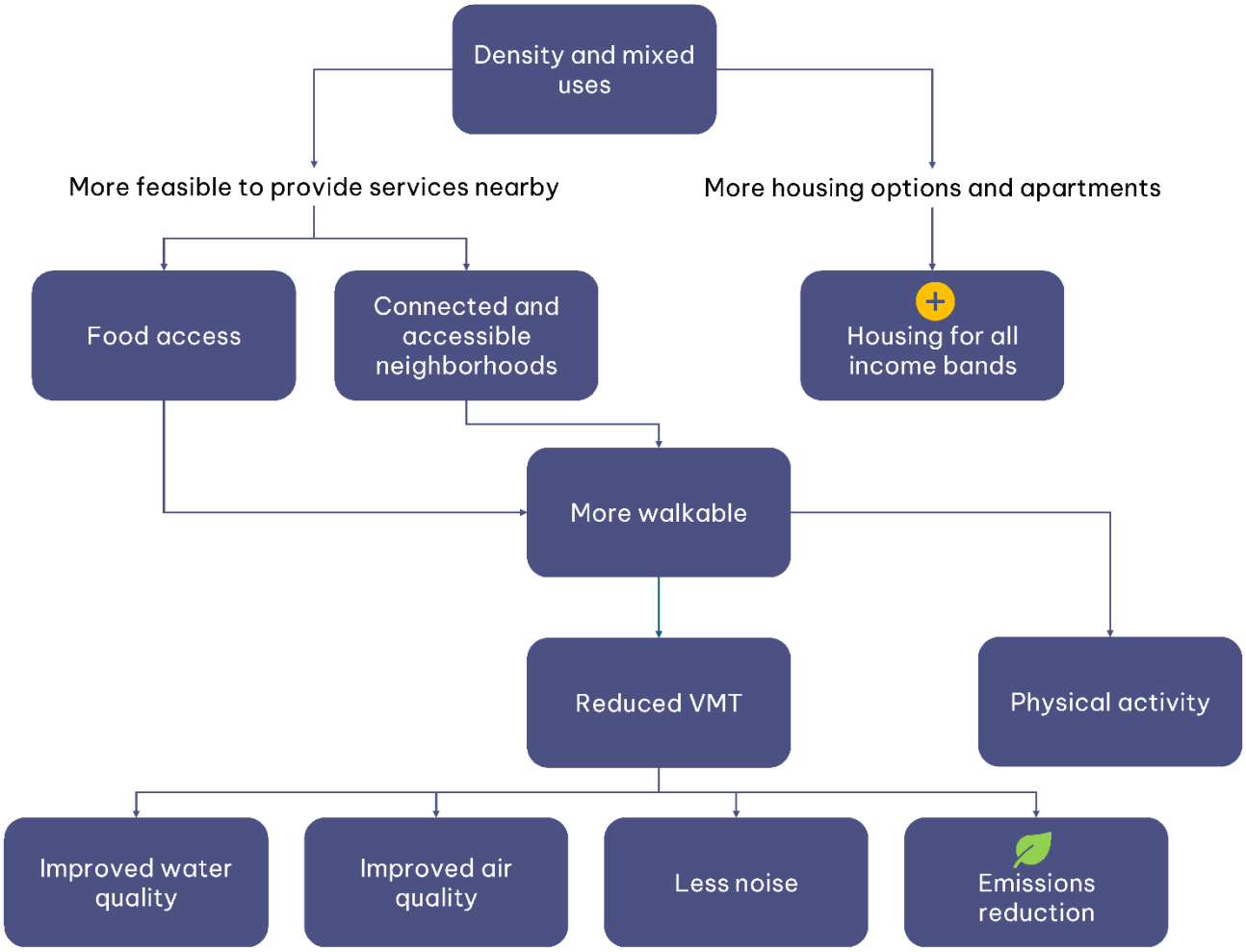
Density and mixed uses have connections to a range of other health topics (Exhibit 5-19). More density and opportunities for mixed use development make it more feasible for businesses to open new locations, creating more connected and accessible neighborhoods and better food access. These in turn create 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.

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



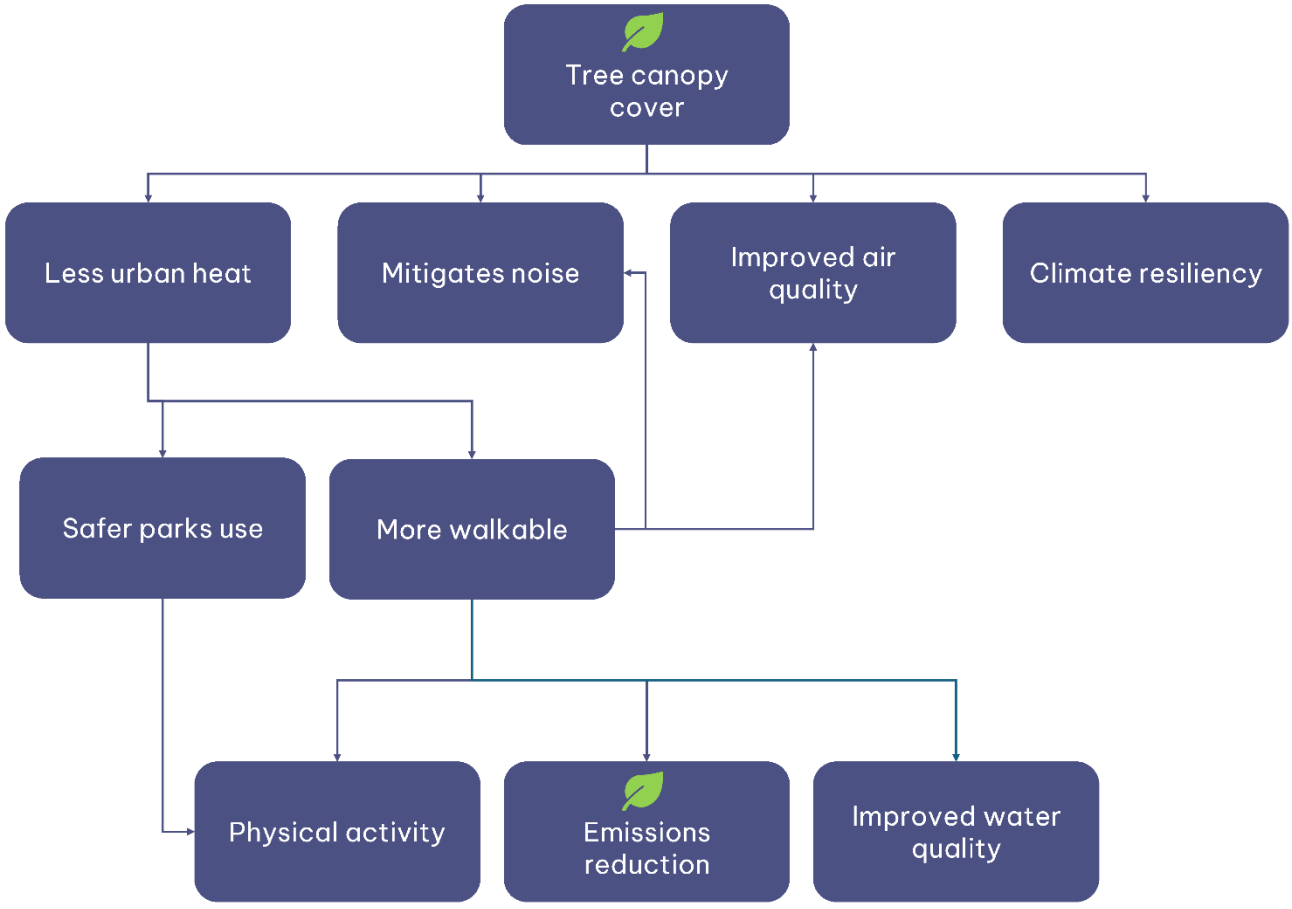
Source: BERK, 2025.

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



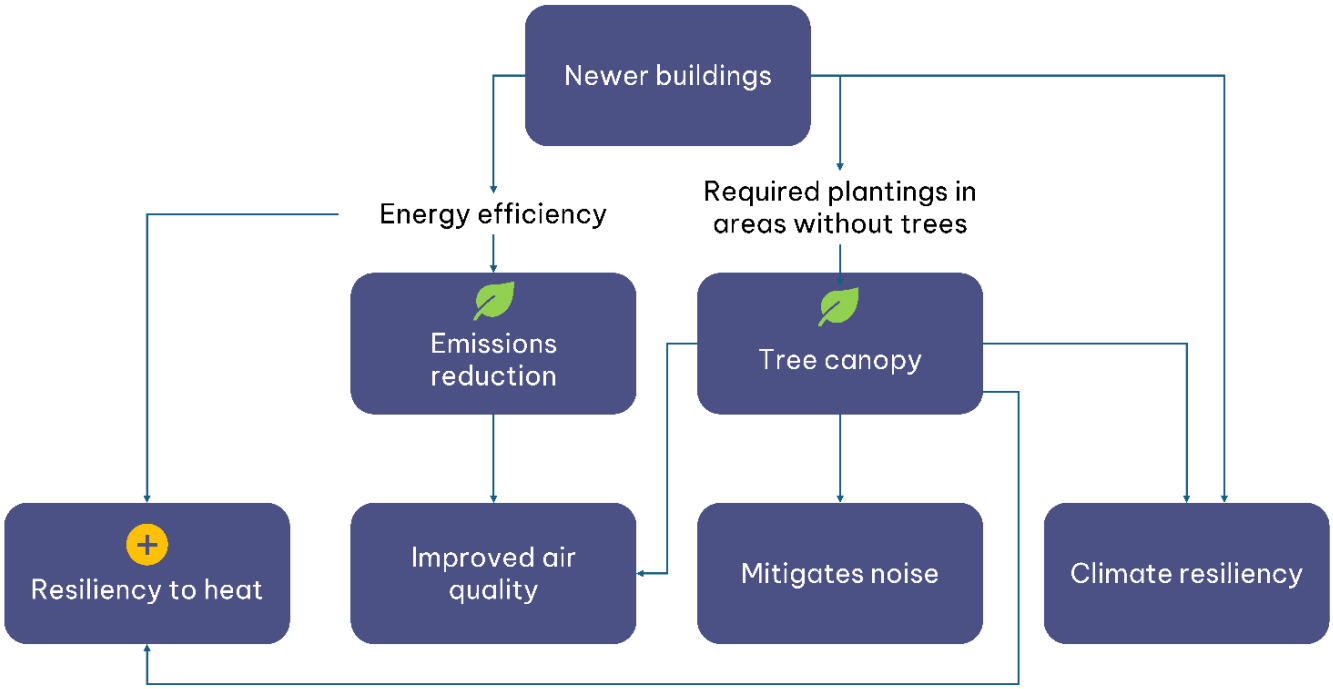
Source: BERK, 2025.

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



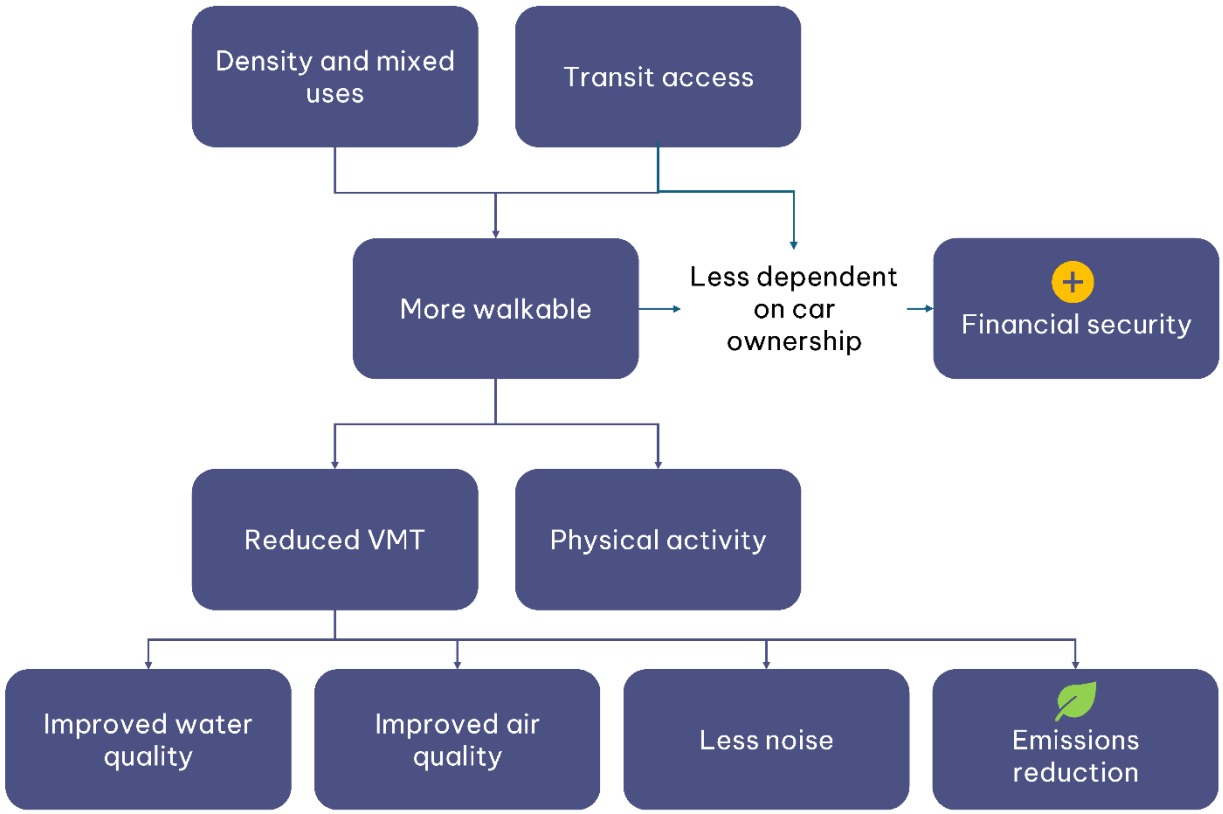
Source: BERK, 2025.

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



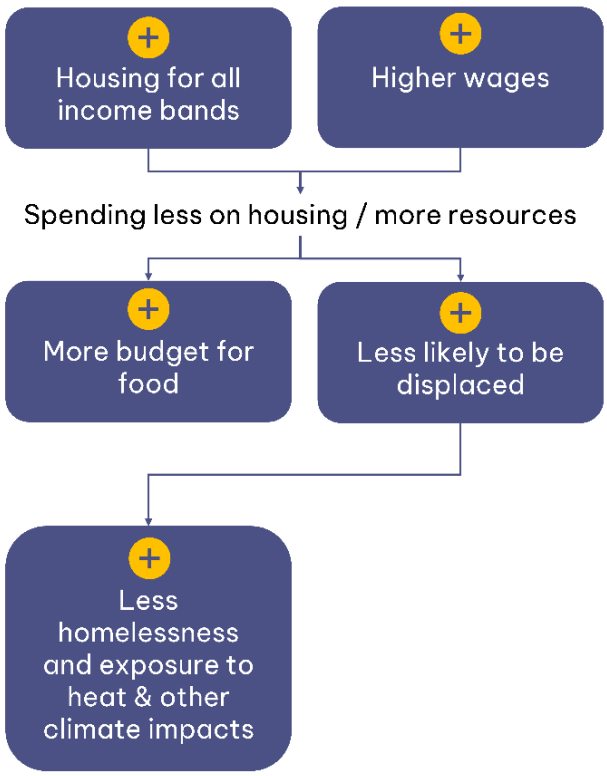
Source: BERK, 2025.

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.

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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.

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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
NO2	Nitrous Dioxide
O_3	Ozone
PIF	Park Impact Fee
$PM_{2.5}$	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	Walk, Run, Ride, or Roll website	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	

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

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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	$PM_{2.5}$ 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
Connected and accessible neighborhoods		→ 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

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	Connected and accessible neighborhoods	$PM_{2.5}$ 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
$PM_{2.5}$ and ozone			→ Strategies to address transportation noise via VMT reduction -> Strategies to address air quality via VMT reduction	→ Greening urban heat areas -> improved air quality	→ Newer buildings -> better indoor air quality	→ Higher density -> lower VMT -> lower air quality impacts	-	→ More parks with trees and vegetation -> improved air quality Strategies that improve air quality -> parks more comfortable and safe to use	→ Easier to walk or bike to supermarkets -> lower VMT -> lower air quality impacts	→ Climate impacts -> worse air quality Some climate resiliency strategies (for example, more indoor recreation facilities, air conditioning, tree planting) -> air pollution mitigation	→ More people taking transit -> lower VMT -> lower air quality impacts	→ Higher wages -> can afford to live closer to work and services -> lower VMT -> lower air quality impacts	→ Housing options at all income bands -> can afford to live closer to work and services -> lower VMT -> lower air quality impacts
Noise					→ Newer buildings -> better noise mitigation	-	-	→ More parks with trees and vegetation -> mitigates noise	→ Easier to walk or bike to supermarkets -> lower VMT -> lower noise impacts	-	→ More people taking transit -> lower VMT -> lower noise impacts	→ Higher wages -> can afford to live closer to work and services -> lower VMT -> lower noise impacts	→ Housing options at all income bands -> can afford to live closer to work and services -> lower VMT -> lower noise impacts

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	Connected and accessible neighborhoods	$PM_{2.5}$ 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
Urban heat					→ Newer buildings -> more efficient cooling	-	-	→ More parks with trees and vegetation -> cooling, refuge during heat events Strategies that reduce heat -> parks more comfortable and safe to use	-	→ Climate impacts -> more heat impacts Some climate resiliency strategies (for example, more indoor recreation facilities, air conditioning, tree planting) -> heat mitigation	-	→ + Higher wages -> greater adaptive capacity to heat impacts (for example, can afford air conditioning)	→ + Housing options at all income bands -> fewer people living unsheltered or in low quality housing -> better safety during heat events
Housing in areas with older buildings						-	→ Redevelopment in areas with older buildings -> likely impacts to displacement	-	-	→ Newer buildings -> potentially more resilient to climate impacts	-	-	⇆ Redevelopment in areas with older buildings -> loss of some naturally occurring affordable housing, housing for all income bands needs to balance various strategies for long-term needs

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	Connected and accessible neighborhoods	$PM_{2.5}$ 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
Greater % of new housing as apartments							Short term: ⇄ Rezoning for higher densities -> land is more valuable and more likely to redevelop -> potential for displacement Long term: → Apartments more likely to provide housing for middle- and lower-income bands -> availability of housing options at all income levels mitigates displacement	-	→ Higher density -> may result in desirable locations for new stores	-	Higher density + Proximity to transit = transit-oriented development -> lower VMT and emissions	Higher wages + More housing options = can afford to live closer to work and services, less time burden of commuting and daily errands -> lower VMT & emissions	→ Apartments more likely to provide housing for middle- and lower-income bands -> availability of housing options at all income levels
Areas with high displacement risk								-	-	-	-	→ + Higher wages -> less vulnerable to displacement	→ + Housing options at all income bands -> households are less likely to be displaced; displaced households have somewhere to move to in the same city or neighborhood

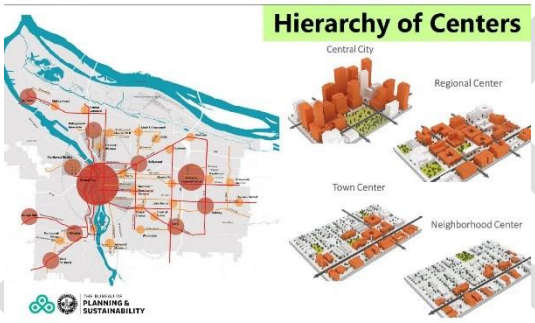
	Connected and accessible neighborhoods	$PM_{2.5}$ and ozone	Noise	Urban heat	Housing in areas with older buildings	Greater % of new housing as apartments	Areas with high displacement risk	Proximity to parks	Proximity to supermarkets	Climate impacts	Proximity to transit	More jobs in higher wage sectors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

	Connected and accessible neighborhoods	$PM_{2.5}$ 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
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. 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	**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).

Growth near transit

Description	Examples	Potential Policy/ Strategy
Promote active living by helping to improve pedestrian, bicycling, and transit spaces. 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. Promoting transit-oriented development such as increased housing density in places with existing/ planned transit can support the success of more frequent transit. Articles and Studies: • Relationships between density, transit, and household expenditures in small urban areas, 2020 • Minneapolis St Paul, Density & Activity Near Transit, Local Planning Handbook, 2018	Portland (OR) Metro, Transit-Oriented Development Program: Grants, site acquisition, and partnerships to build housing along transit; cut sheets for several years; strategic plan 2023. Spokane TOD Framework Study (2022): 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. Redmond 2050 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). Mountlake Terrace Municipal Code Ch. 19.50: 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: Herald article, April 2024	Use Transportation System Plan and Active Trip Potential to identify best locations for improvements in non-motorized access. Prioritize equity in access, safety, and efficiency in the Capital Facility Plan in the allocation of resources. Promote greater mixed uses and densities in proximity to transit.

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Park and recreation access

Description	Examples	Potential Policy/ Strategy
Increase access to parks within a 10-15 minute walk to promote active living and health. Articles and Studies: • Trust for Public Land, Parks Promote Health, 2023. with Creative Strategies to Address Gaps reviewing 100 communities • National Park and Recreation Association, Parks and an Equitable Recovery, 2021 • NRPA, Greening Without Gentrification, November 26, 2019	Improving Systems to Achieve Equitable Park Access: Using Policy to Overcome Acquisition Challenges in Tukwila, Washington, with new equity policy and tax levy. Other communities in examples. NYC Community Parks Initiative: Addresses targeted investments and programming across neighborhoods with equity focus. Chicago Green Schoolyards Program Case Study: City Parks Alliance. Partnership with schools to improve playgrounds in underserved areas.  Puget Sound Regional Council, Stormwater Parks program. Seattle linear parks/ green infrastructure. Aspen Institute's Project Play team reports on how well youth are being served in defined geographic areas, across country including Seattle-King County, Tacoma-Pierce County: 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.	Address equity and park investments in Capital Facilities Plan through levels of service on distribution, quality, and amount. 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. Engage neighborhoods in tactical short-term as well as long term phased park improvements especially in underserved areas. Optimize the open space already in hand, such as streets and alleyways, schoolyards, and brownfield redevelopment. Develop anti-displacement strategies related to park and green infrastructure.

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Heat island mitigation

Description	Examples	Potential Policy/ Strategy
Increase resilience to extreme heat. Recognize health impacts to sensitive populations. Adapt urban environments through canopy cover, pavement/roof treatments, and smart growth. Articles and Studies: • EPA Heat Island Cooling Strategies • EPA Reduce Heat Island Effect	Sacramento Metropolitan, 2019, Urban Heat Island Mitigation Plan: Pilot projects, best practices, implementation mechanisms across West Coast. Vegetation cover, cool pavement, cool and green roofs, electric vehicles, and smart growth. *Example Portland Eco Roof*  Heat Island Community Actions Database, August 2023: EPA database of examples of policies, codes, and programs across country. Can filter examples. Redmond 2050 updates to Green Building Incentive Program (RZC 21.67). LEED Heat Island Reduction Measures: Sustainable Sites.	Enhance Vancouver Urban Forestry Program and implement Management Plan Address building and street adaptations for cool/green roofs and pavement.

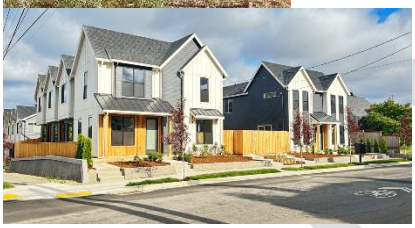
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Tree canopy, urban shade, landscaping, green infrastructure

Description	Examples	Potential Policy/ Strategy
Natural and built solutions that decrease temperatures and improve water quality in an urban environment. **Tree Canopy:** Tree canopy covers the ground and shades the area below it. **Green Infrastructure**: Stormwater management systems that mimic nature's ability to soak up and store water. Articles and Studies: • Urban Greening, Climate Action for Healthy People, Healthy Places, Healthy Planet: Urban Greening & Green Infrastructure, Climate Change and Health, 2016 • Building green infrastructure to enhance urban resilience to climate change and pandemics, 2021 • Green Infrastructure and Gentrification: Harness the Benefits, Avoid the Displacement, by Renee Mazurek, Apr 24, 2023	King Conservation District, Puget Sound Urban Tree Canopy and Stormwater Management Handbook, 2021. Port of Seattle, Student engagement model, tree canopy enhancement projects, June 2022. City of Clovis, Urban Greening Master Plan, 2015 and Fontana Urban Greening Master Plan, ASLA Award, 2020: Green Streets and Places.  Denver Green Infrastructure Implementation Plan.	Increase tree canopy cover to boost carbon sequestration, reduce heat islands, and improve air quality, prioritizing overburdened communities. (Menu of Measures). Provide temporary or permanent shade structures in parks or in rights of way to supplement the shade capacity of newly planted trees. Develop or modify design standards to integrate exterior building features that reduce the impacts of climate change and increase resilience. (Menu of Measures).

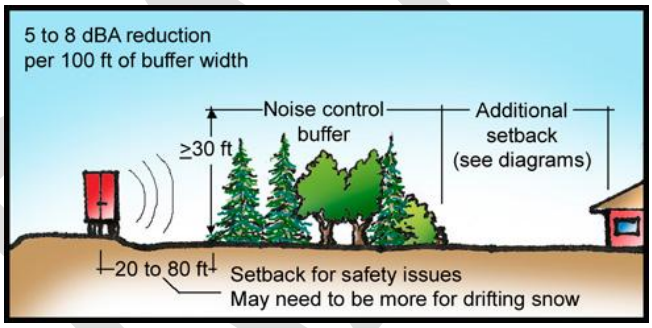
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Mixed uses and Housing variety

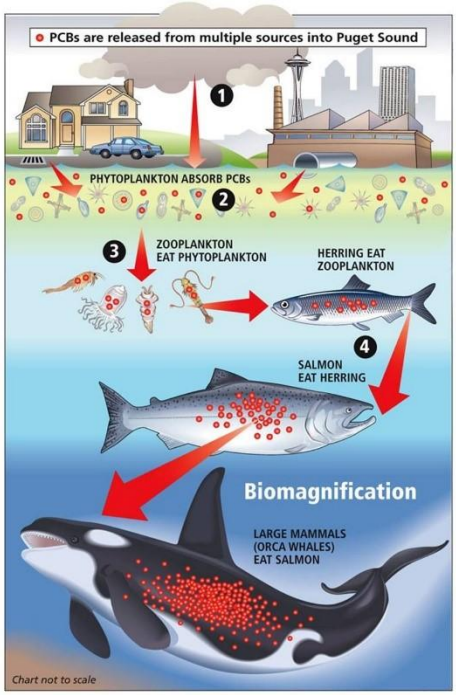
Description	Examples	Potential Policy/ Strategy
Increase opportunities for physical activity, reduced greenhouse gases, and improved community connections through mixed use neighborhoods. Increase access to housing ownership and affordability. Increase amenities that support quality of life. Articles and Studies: • What is a Mixed-Use Neighborhood?, Blue Zones 2020 • Impacts of Affordable Housing on Health, Center for Housing Policy, 2015 *[See also Connected and accessible neighborhoods and Growth near transit]*	Middle Housing in 6 cities, Sacramento, Portland, Minneapolis.   Title X: Middle Housing Toolkit: Objective Design + Development Standards (ODDS), Puget Sound Region. Expanding affordable housing opportunities, case studies: Policy and zoning. Port Orchard Municipal Code Sec. 20.139.055: Provides side-by-side duplex and attached house design standards (July 2024). ULI Case Studies: Select mixed use or district/corridor, and cities.	Land Use Alternatives, focusing on mixed uses in focal points as well as middle housing implementation across low density residential areas. 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).

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Buffering from highways / Reduce air and noise pollution

Description	Examples	Potential Policy/ Strategy
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.  A 65 to 600 ft wide buffer may reduce particulate pollution by 40 to 75 percent although many factors will affect pollutant removal  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.	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.

Water pollution

Description	Examples	Potential Policy/ Strategy
Implement land use strategies to minimize water pollution and reduce contamination. 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	King County Clean Water Healthy Habitat Strategic Plan, 2020.  *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.	Collaborate with WSU Vancouver Extension and utilize their Water Research Center through staying up to date on water quality trends in the state. Create educational opportunities for residents to learn about proper disposal of household chemicals and water quality best practices.

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Conservation of forest and agricultural land, urban farms and forests

Description	Examples	Potential Policy/ Strategy
Protection of contiguous forest canopy and urban farms in cities to provide ecosystem services and food security. 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. Articles and Studies: • MRSC, Local Government-Supported Urban Agriculture Adds Equity and Climate Change Benefits for the Public, May 2024 • Healthy Food Policy, Project, Zoning for Urban Agriculture, 2024 • DNR's Urban and Community Forestry program	**Kitsap County**: Port Gamble Heritage Park Master Plan, 2011-2021, 3500 acres. **Clark County:** 78th Street Heritage Farm Master Plan, 2020-2024.  NRCS: Urban Agriculture and Climate Change in the Northwest, includes Village Gardens, **Portland.** Community Forest Lands (ACFL): **Anacortes,** Washington. 	Enhance Vancouver Urban Forestry Program and implement Management Plan. Promote urban agriculture with zoning allowances and incentives. Consider models of affordable housing and agriculture ("agrihood").

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Community gardens

Description	Examples	Potential Policy/ Strategy
Implement a community garden program to promote community wellbeing, resiliency of local food systems, and support environmental stewardship. Articles and Studies: • Public Health Benefits of Community Gardens, 2024 • Community gardens and their effects on diet, health, psychosocial and community outcomes: a systematic review, 2022 • Community Gardening: Stress, Well-Being, and Resilience Potentials, 2020	P-Patch Gardening Program, Seattle. Community Garden Program, Bellingham. Community Garden Program, Auburn.  Community Gardens, Tigard, Oregon.	Encourage the expansion and maintenance of community gardens by ensuring equitable access to land and offering educational resources for new gardeners.

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Healthy streets

Description	Examples	Potential Policy/ Strategy
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. 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	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. 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
Provide temporary daytime or overnight shelter or resources to protect community members. Articles and Studies: • MRSC, Severe Weather Shelters for Winter and Beyond, 2022 • Severe Weather Shelters, Washington State Resources • Urban Sustainability Directors Network, Resilience Hubs	Clark Regional Emergency Services Agency (CRESA). Hazard Sheltering, Spokane. Extreme Heat and Cooling Centers, Snohomish County.  Seattle, Citywide Resilience Hub Plan. Resilience Hub Pilot Project, Washington D.C.	Consider partnering with local libraries and schools to provide emergency cooling and heating shelters. 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)

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Food access

Description	Examples	Potential Policy/ Strategy
Neighborhoods or places where access to affordable, healthy food options (especially fresh fruits and vegetables) is restricted or nonexistent. Articles and Studies: • Food Insecurity among the Overall Population in Clark County, 2019 • Downtown Vancouver's Block 10: The Grocery Gap, 2019 • Assessment of Healthy Food Availability in Washington State–Questioning the Food Desert Paradigm, 2017 • Characteristics and Influential Factors of Food Deserts, 2012	• What 5 Cities are Doing to Change the Way America Eats, January 2016. • Farmbrite, Combating Food Deserts: How Some US States Are Leading the Way, December 2023. • Clark Food & Farm Network.	Review and amend existing zoning policies that restrict supermarket development in areas with low access to fresh and healthy foods. Partner with faith-based and neighborhood organizations to provide healthy and fresh food. Prioritize areas with the greatest need. Utilize Vancouver's Local Food Action Plan. Explore converting underutilized public land to urban farms. Consider allowing mobile farmers markets and food trucks to serve more neighborhoods.

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Access to healthcare and social services

Description	Examples	Potential Policy/ Strategy
Clark County, Community Health Assessment and Improvement Plan: *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.*	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.

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Parks, Recreation & Cultural Services



7

OUR VANCOUVER

Introduction

The Parks, Recreation and Cultural Services chapter of the *Our Vancouver Comprehensive Plan* captures the vision, mission, goals, and policy recommendations from the recently adopted *Vancouver Parks, Recreation & Cultural Services Comprehensive Plan* (*VPRCS Comprehensive Plan*) and brings forward key land use recommendations based on existing conditions within Vancouver, and recent studies conducted through the *Our Vancouver* comprehensive planning process.

The VPRCS Comprehensive Plan, adopted in 2022, provided an in-depth analysis of existing parks, recreation and cultural services conditions within Vancouver and identified 10-year goals which are currently being implemented. This chapter seeks to carry through pertinent information from the *VPRCS Comprehensive Plan* through a land use planning lens – looking to provide an overview of existing programs and system structures that affect future land use decisions – and provide guidance on how the City can balance growth with the provision of parks and recreation. Building on the robust engagement process from the *VPRCS Comprehensive Plan*, the *Our Vancouver* planning process focused on engaging with Vancouver residents through the Community Survey, Community Partner discussions, and community working groups, in-person engagement events and online



Vision: Parks and Recreation

We strive for a future where all people enjoy increased access to cultural events, public art, natural areas, parks, community and green spaces, and an expansive network of trails and greenways. We recognize that art, culture and open spaces are critical elements of community health, wellness and quality of life. We commit to building inclusive and safe public spaces that reflect the diversity of our community without cost barriers, while conserving and preserving natural areas and adapting to climate change. Embracing native plants and species, we aim to create biodiverse havens that enhance ecological resilience. With a focus on health and well-being, our parks will offer diverse recreational opportunities and engaging programming, ensuring a thriving and interconnected community for generations to come.

resources, asking respondents to provide feedback on a variety of topics related to parks and recreation in Vancouver. This feedback served as the baseline for developing the vision and goals for this chapter.

VPRCS Comprehensive Plan Overview

The parks system in Vancouver is owned, maintained and managed by the City of Vancouver Parks, Recreation, and Cultural Services Department. The Department is also tasked with creating and updating a parks plan to guide the future acquisition and development of parks within the city. The State of Washington's Growth Management Act (GMA) requires that parks plans are updated in coordination with updates to land use plans and development regulations every eight years in order to ensure that city and county policies reflect state statutes.

In this case, the *VPRCS Comprehensive Plan* was adopted prior to the *Our Vancouver* planning process and the most current Environmental Impact Statement (EIS), both of which will inform future discussions and updates to the next Vancouver parks plan. The work undertaken for the *VPRCS Comprehensive Plan*, in similar fashion to this planning process, included a heavy focus on community outreach and engagement ensuring that the vision, mission, community goals and policies were reflective of the voices and needs of the Vancouver community. The following sections provide an

Community Feedback

- Increase equitable access to parks and open spaces for all Vancouver community members –both for non-white and low-income residents, and in areas that are currently underserved such as East Vancouver.
- Maintain, improve and expand on existing parks and amenities – including expanded tree canopy, and the introduction of shelters, shade structures or areas, and integration of upgraded facilities for playgrounds, restrooms and parking.
- Accommodate cultural spaces, programming and community centers addressing specific needs and low-cost and free activities, particularly for Vancouver's youth.
- Encourage community connection through city parks, community centers, libraries, farmers markets and gathering places like the waterfront.
- Diversify recreation offerings for both outdoor and indoor recreation spaces including community pools, playgrounds, skateparks and pumptracks, museums, community events, gardens, art and performance spaces, trails and dog parks."
- Implement climate resilience design principles through use of native plans, protections of natural ecosystems, and maintaining and expanding the city's tree canopy and naturalized landscapes.

overview of critical content from the *VPRCS Comprehensive Plan*, which is included as Appendix X of this document.

Vision and Essential Spaces Framework

The concept of Essential Spaces was selected as the primary theme for the *VPRCS Comprehensive Plan*, centering on the idea that the role of parks, recreation, trails, natural areas, and cultural services contribute heavily to the physical, mental, and economic health of the Vancouver community. What the City has defined as "Essential Spaces" provide enormous benefits to residents, workers, and visitors through the direct impact they have on society, the local economy, sustainability efforts, and community health. These impacts are further illustrated in Figure 1.

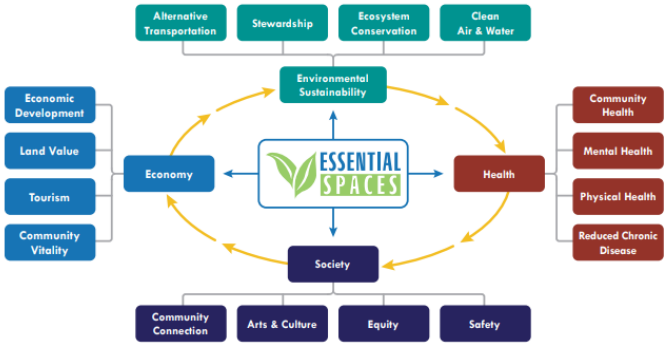


Figure 1 Essential Spaces Graphic, VRPCS Comprehensive Plan 2022

A planning framework was created for the *VPRCS Comprehensive Plan* that captures community values, the City's commitment to Diversity, Equity, and Inclusion (DEI), and additional objectives identified by Vancouver's City Council including climate action and safety. All together, these guiding principles emphasize the importance of the stewardship of public resources, inclusive access, and the creation of inclusive spaces.

VPRCS Vision and Community Goals

The *VPRCS Comprehensive Plan* includes a vision, a mission statement, and eight community goals defined through the planning and outreach process. These goals provide the foundation for the plan focusing on how the city can enhance its parks, recreation facilities, natural areas, and cultural services. The table below illustrates how the *VPRCS Comprehensive Plan* community goals relate to the Our Vancouver Comprehensive Plan goals.

Table 1 VPRCS Comprehensive Plan Community Goals vs. Our Vancouver Comprehensive Plan Goals

VPRCS Community Goals	Complementary Comprehensive Plan Goal
Provide safe and equitable access to parks, natural areas and public arts and cultural spaces for all residents.	PR-2 Parks, Trails, and Natural Spaces: Vancouver's residents have access to a well-connected and expanded network of developed parks, trails, and natural areas that support outdoor recreation, biodiversity, and climate resilience, that serve as vital hubs for community gatherings, cultural events and a shared sense of place.
Provide an interconnected system of park properties and public spaces that support alternative modes of transportation, public health, recreational opportunity and environmental stewardship.	
Preserve Vancouver's historic and cultural heritage.	PR-4 Thriving Cultural Landscape: Vancouver supports a thriving cultural landscape for residents and visitors

	by investing in public art, cultural centers and facilities, historic preservation, and supporting community centered initiatives and opportunities for creative expression that reflect the city's diverse identities and historic roots.
Expand Level of Service and Equity Gap Analysis to inform and guide project and funding opportunities and priorities.	PR-1 Increase Community Health Through Recreation Vancouver has safe and equitable access to a quality and diverse system of parks, natural areas, amenities, recreational facilities and programs that promote physical and mental well-being, cater to the varied interests and needs of community members and contribute to a vibrant and active community.
Update Improvement Level definitions to include innovative approaches that meet the needs of a growing and diversifying community.	CF-2 Inclusive and Affirming Environments: Vancouver's public spaces and neighborhoods are inclusive and affirming across race, class, age, sex, gender identity, ability, religion, national origin and citizenship status, creating a sense of belonging and safety.
Maintain and enhance parks, trails, natural areas, culture and heritage spaces, recreation facilities and community assets to meet identified standards.	PFS-1 Public Facilities and Services: Vancouver has high-quality public facilities, services, and utilities that are affordable, efficient, well maintained, and meet the needs of a growing population.
Establish and meet goals outlined in the departmental program areas.	PR-3: Community Health and Wellness: Vancouver community members have access to high-quality public spaces that support physical and mental wellbeing, active lifestyles, connection to nature, and sense of community belonging.
Reflect the community we serve through creative public engagement, collaborative planning and culturally responsive communication.	EI-1: Equitable Community: All community members have equitable and inclusive access to opportunities and resources, including communities most impacted by past and present exclusionary practices.

Source: VPRCS Comprehensive Plan

Vancouver's Park and Recreation System

As of 2022, publicly accessible lands in Vancouver were estimated at approximately 3,800 acres or roughly 12 percent of the City's total land area, where approximately 1,700 acres are identified as City owned park lands, comprised of 113 sites. The city also operates the Firstenburg and Marshall/Luepke Community Centers, which feature swimming pools, gyms, fitness amenities, a climbing wall, senior centers, and community rooms.

Table 2 Park System Inventory

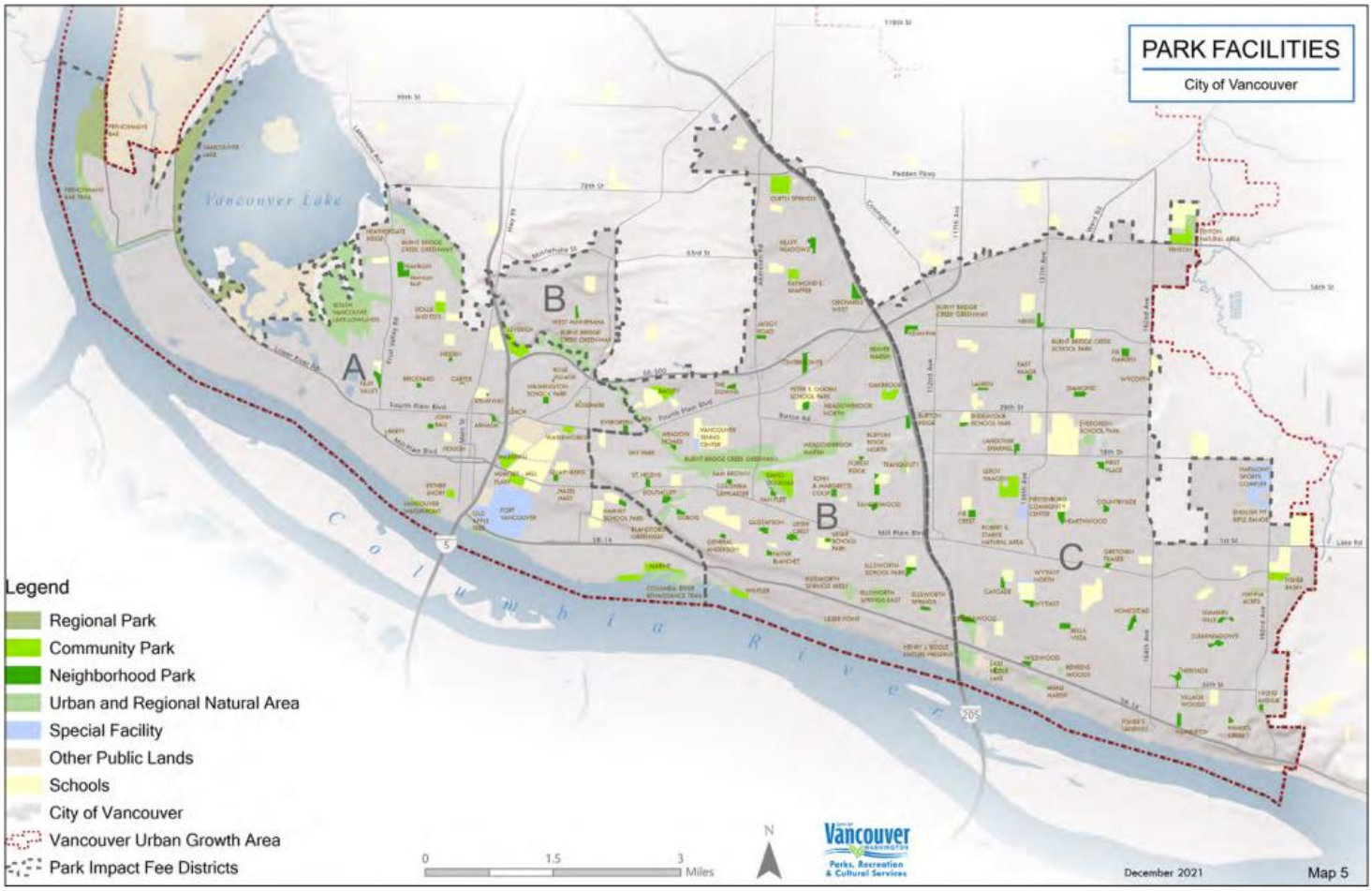
Park Type	Number of Sites	Area
Neighborhood Park	91 Sites (Includes 11 undeveloped sites, 55 developed sites, and 25 school sites)	314.84 acres
Community Parks	17 Sites (Includes 4 undeveloped sites and 13 developed sites)	287.69 acres
Regional Parks	2 Sites	489.40 acres
Urban Natural Areas	22 Sites	280.11 acres
Special Facility	9 Sites (Includes 3 developed City of Vancouver sites, 2 developed Clark County sites, 1 developed school site, and 3 developed sites managed by other providers)	332.91 acres
Regional Natural Areas	7 Sites (Includes 6 undeveloped City of Vancouver sites and 1 undeveloped Clark County site)	1,044.58 acres
Total Park Acreage		2,749.53 acres
NOTE: This table reflects updates to the number of sites and acreage since the VPRCS Comprehensive Plan as part of the Environmental Impact Assessment for the Our Vancouver project.		

Source: VPRCS Comprehensive Plan

The city continuously invests in its park system primarily through park acquisitions, park development, or rebuilding or renovating existing parks, diversifying the types of parks and spaces available to the Vancouver community. In order to accomplish this, the VPRCS Department relies on an organizational framework for its parks that includes park classification types, maintaining a parks inventory, setting and recording parks Level-Of-Service (LOS) standards, utilizing diverse funding mechanisms, and planning for parks acquisitions and capital improvements.

Figure 2 below, Vancouver Park Facilities Map, illustrates the city's boundaries, delineates the Park Impact Fee Districts, and includes Regional Parks, Community Parks, Neighborhood Parks, Urban and Regional Natural Areas, Special Facilities, Other Public Lands, and Schools.

Figure 2 Vancouver Park Facilities Map



Source: VPRCS Comprehensive Plan

Parks System Classifications

The City of Vancouver is transitioning from a traditional core-and-suburb model to a denser, mixed-use urban environment. This evolution demands adaptive planning to address changing zoning, densities, mobility, and park needs. The city's park system is organized into eight classification types based on landscape characteristics, access, development potential, local park needs and use patterns. These classifications guide the optimal use of parkland, ensuring diverse recreational opportunities through strategic funding and a balance between natural resource protection and park development.

Together, Vancouver's parks provide spaces for play, connection, and environmental stewardship, forming a resilient network that supports recreation, wellness, and habitat conservation. The current parks classifications are outlined in Table 3, below, and include both pre-existing park types in Vancouver and two new additional classifications, Civic Plazas and Linear Parks, that were introduced in the 2022 *VPRCS Comprehensive Plan*.

Table 3 VPRCS Comprehensive Plan Parks Classifications

Type	Description
Neighborhood Parks	Typically, 3–5 acres, offering amenities like playgrounds, sport courts, turfed areas, gardens, native plant resource areas, pathways and trails, and picnic areas. These parks are designed for non-organized recreational opportunities that support healthy lifestyles, neighborhood identity, social interaction, and the preservation of natural resources.
Community Parks	Ranging from 20–100 acres, these parks serve as hubs for organized recreation and events for a broad segment of the population. In addition to typical of a Neighborhood Park, Community Parks feature sports fields, skate parks, picnic shelters, community gardens, trails, event spaces, public art, cultural features. These parks typically include more support facilities such as parking and restrooms, and may also integrate natural areas, passive recreation spaces, and community facilities like community centers or senior facilities.
Linear Parks	Developed landscaped areas or other lands that follow linear natural or man-made corridors like rivers, abandoned railroad rights-of-ways, canals, and utility corridors. Linear Parks typically feature trails, signage, seating, landscaping, small play areas, and viewpoints and are intended to expand the network and connectivity of trails and pedestrian corridors.
Civic Plazas	Found in urban centers or town squares, civic plazas are public gathering spaces with landscaping, seating, performance and vendor areas, public art, and fountains. They encourage community connection and may be managed in partnership with other entities.
Regional Parks	Usually over 50 acres, Regional Parks provide facilities for a wide range of activities, including sports fields, extensive trail systems, and large picnic areas or shelters. These parks also typically include passive recreation space and unique natural features in addition to support facilities such as parking and restrooms.
Natural Areas	Ranging from a single-acre to hundreds, natural areas provide opportunities for nature-based recreation and education, such as bird-watching, walking, biking, hiking, biking, serving both local and regional needs.
Special Facilities	Special Facilities, or special use areas, are stand-alone facilities that do not have a minimum size. They include community centers, aquatic centers, sports complexes or skate parks.
Trails	Trails are not considered a Park Classification but rather an improvement / amenity.

Source: VPRCS Comprehensive Plan

Parks and Recreation System Evaluation

Vancouver's park system strives for equitable access through careful geographic distribution and service area standards. In simpler terms, the city aims to provide residents with access to a park within a certain distance of their homes – a ½-mile service area, or 10-minute walk along public rights-of-way is recognized as a reasonable expectation for residents. This is aligned with national best practice as predicated by the National Parks and Recreation Association (NPRA) which establishes national guidelines for service area standards.

Parks in Vancouver have different indicated service areas depending on classification. For example, Vancouver's Neighborhood Parks are designed to serve residents within a ½-mile radius, which equates to approximately a 10-minute walk. Community Parks, on the other hand, serve larger areas ranging from ½ mile to 3 miles, offering both walkable access and broader community coverage. Figure 3, below, illustrates how these walksheds (illustrated in green as park service areas) are determined by following public rights-of-way and easements from all access points to park sites, ensuring an accurate representation of accessible routes for residents.

The city relies heavily on service area mapping to determine which locations are served by parks, and to identify gaps where new parks or services may be needed.

Figure 3 Park Service Area Diagram



Source: VPRCS Comprehensive Plan

In the update to the *VPRCS Comprehensive Plan*, staff identified the need to expand on typical park metrics to reflect existing conditions and better assess the equitable distribution of parks across Vancouver. The VPRCS Comprehensive Plan developed a two-part methodology that involves combining demographic analyses and park scoring to guide reinvestment priorities. This methodology, though complex, reflects national best practice through layering equity considerations into the criteria:

- A detailed GIS analysis is performed at the Census Block level to identify areas with the greatest need for park access, focusing on populations such as residents under 18 and over 65, people of color, communities below the poverty level, households with low median income, individuals with disabilities, areas with high obesity rates, and regions of high population density per acre.
- Evaluation of park property using a comprehensive scoring matrix that measures factors related to quantity, quality, safety, sustainability, and accessibility.

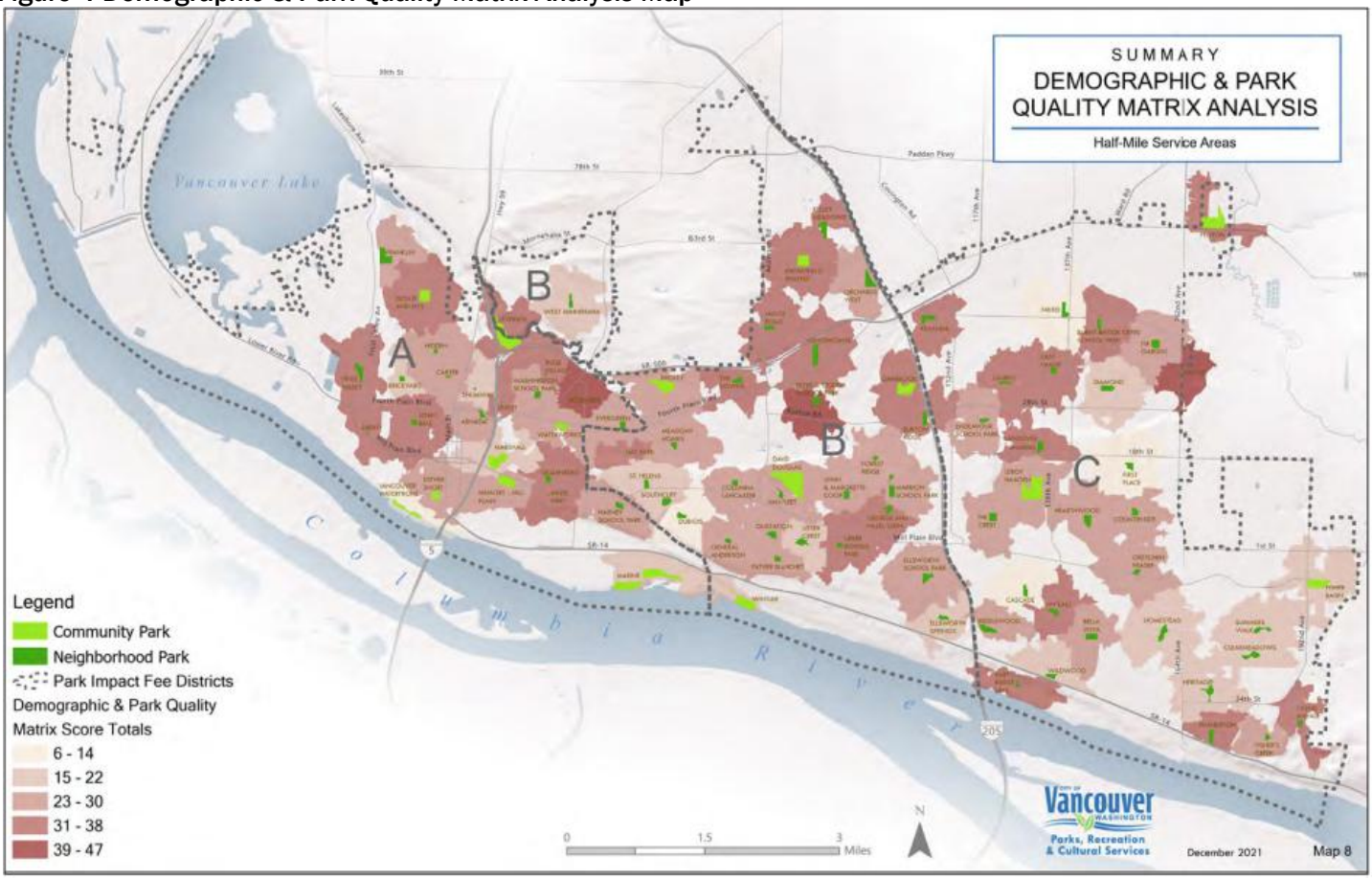
- Incorporating additional criteria including the (1) baseline ½-mile service area, (2) gaps between existing LOS and adopted standards, (3) current development status, (4) time since acquisition, (5) potential for improved accessibility, (6) safety, (7) resource protection, (8) diversity of recreation opportunities, (9) condition and lifespan of assets, (10) need for safety enhancements, (11) sustainability of infrastructure and natural resources, and (12) accessibility for people with physical limitations.

The outcome of this analysis was a matrix that prioritizes projects for reinvestment, ensuring that resources are allocated where they will have the greatest community impact and maximize the overall value of the park system for Vancouver residents.

It is anticipated that Vancouver will experience an increased demand for youth activities, after-school programs, and programming for active older citizens as it continues to grow, with an expanding need for intergenerational recreation opportunities and the implementation of inclusive design practices to welcome a more diverse community of residents. By establishing a baseline methodology, the city has created a tool that can be regularly utilized to evaluate residents' access to Vancouver's park and recreation system. This tool can be further refined and tailored to the city's needs as future policy work is undertaken as part of the next parks plan update.

Figure 4, on the next page, illustrates how demographic information is layered with park quality data to create composite scores which can help decision-makers prioritize available funding for future parks planning purposes.

Figure 4 Demographic & Park Quality Matrix Analysis Map



Source: VPRCS Comprehensive Plan

Park Demand, Park Need & Total Level-of-Service (LOS)

The City of Vancouver utilizes three calculations to guide the monitoring of its parks system: (1) Level-of-Service (LOS) (2) Park Demand and (3) Park Need where:

- Level-Of-Service (LOS) is measured as the number of park acres per 1,000 residents.
- Park Demand is the acres of parkland needed to serve a population at a set standard.
- Park Need identifies the acreage required to bring the LOS into alignment with the standard

The city updated these calculations in the *VPRCS Comprehensive Plan,* reviewing its inventory of parks, recreation facilities, natural areas, and trails owned and operated by VPRCS. The city uses this inventory to identify acreage by park classification and measure existing conditions against set LOS standards looking at how many acres are needed to be acquired and/or developed. VPRCS utilized the following standards for Neighborhood Parks, Community Parks, and Urban Natural Areas classifications in the 2022 plan update.

- *Park Acquisition*: 6 acres per 1,000 residents
- *Park Development*: 4.25 acres per 1,000 residents

Table 4 outlines the city adopted acquisition and development standards for Neighborhood Parks, Community Parks, and Urban Natural Areas.

Table 4 VPRCS Comprehensive Plan Park Acquisition and Development Standards

City of Vancouver	Neighborhood Park		Community Park		Urban NA	Total Park Acres	
Standard	Acquire	Develop	Acquire	Develop	Acquire	Acquire	Develop
Acres /1,000	2.00	2.00	3.00	2.25	1.00	6.00	4.25

Source: VPRCS Comprehensive Plan

Tables 5 and 6 detail the calculated Park Demand and Park Need established in 2022, differentiated by Park Impact Fee (PIF) Districts (A, B, or C). Park Demand calculations indicate a need for approximately 1,200 additional acres of parkland, of which over 800 acres need to be developed to adequately serve Vancouver's 2022 population. Park Need indicates that the city needed to acquire approximately 440 acres of parkland to bring its existing acreage into alignment with its LOS.

Table 5 VPRCS Comprehensive Plan Park Demand 2022

Park District	Population	Neighborhood Park (Acres)		Community Park (Acres)		Urban NA (Acres)	Total Park Acres	
		Acquire	Develop	Acquire	Develop	Acquire		Develop
A	38,770	77.5	77.5	116.3	87.2	38.8	232.6	164.8
B	61,324	122.6	122.6	183.9	138.0	61.3	367.9	260.6
C	94,592	189.2	189.2	283.8	212.8	94.6	567.6	402.0
Total	194,686	389.35	389.35	584.02	438.02	194.67	1168.05	827.37

Source: VPRCS Comprehensive Plan

Table 6 VPRCS Comprehensive Plan Park Need 2022

Park District	Population	Neighborhood Park (Acres)		Community Park (Acres)		Urban NA (Acres)	Total Park Acres	
		Acquire	Develop	Acquire	Develop	Acquire	Acquire	Develop
A	38,770	23.1	23.8	16.0	0.3	0.1	39.2	24.1
B	61,324	0.6	15.1	76.4	40.1	28.4	105.4	55.2
C	94,592	51.5	68.7	218.3	170.6	20.3	290.2	239.3
Total	194,686	75.2	107.6	310.7	211.0	48.8	434.8	318.6

Source: VPRCS Comprehensive Plan

Table 7 highlights the city's total Level-of-Service (LOS), combining Neighborhood and Community Park categories. Across measurable park classifications, the City of Vancouver provides 4.46 acres of parklands per 1,000 residents citywide – which falls short of the City's standard of 6 acres acquired Neighborhood and Community Parks per 1,000 residents, and national guidelines provided

by the National Recreation and Parks Association which indicates 10.2 acres/1,000 residents as best practice.

Table 7 Total Level-of-Service (LOS)

City-Wide Level of Service (Acres/1,000 Population)	
Neighborhood & Community Parks	3.02
Urban Natural Areas	1.44
Total	4.46

Source: VPRCS Comprehensive Plan

While the city focuses LOS calculations on Neighborhood Parks, Community Parks, and Urban Natural Areas, other park classifications are also assigned acquisition standards. The *VPRCS Comprehensive Plan* set acquisition standards for Regional Parks (10 acres / 1,000 residents) and also introduced two new park classifications – Civic Plazas and Linear Parks, to provide outdoor park spaces in compact urban areas where traditional park parcels are limited – but did not assign a standard of service. Regional Natural Areas and Special Facilities are also included as park classifications without assigned acquisition standards. As indicated in Table 3, trails are not currently considered a park classification, but rather an improvement or amenity. A detailed overview of acquisition and development standards, and 2022 LOS by park classification is provided in Table 8 below.

Table 8 2022 Park Classification Acquisition and Development Standards vs LOS

Park Classification	Acquisition / Development Standards	2022 Acquisition LOS (All PIF Districts)
Neighborhood Park	2 acres/2 acres per 1,000 residents	1.62 acres/1,000 residents
Community Park	3 acres/2.25 acres per 1,000 residents	1.40 acres/1,000 residents
Regional Park	10 acres/1,000 residents	6.80 acres/1,000 residents
Urban Natural Area	1 acre/1,000 residents	1.44 acres/1,000 residents
Regional Natural Area	No Adopted Standard	No Adopted Standard
Linear Park	No Adopted Standard	No Adopted Standard
Civic Plaza	No Adopted Standard	No Adopted Standard
Special Facilities	No Adopted Standard	No Adopted Standard

Source: VPRCS Comprehensive Plan

Recreation and Cultural Services

Recreation in Vancouver is designed to support a wide range of activities for residents of all ages, abilities, and backgrounds. It includes structured programs such as aquatics, sports, and fitness, as well as informal opportunities for play, leisure, and social connection. The city's recreation facilities include community centers, pools, and sports fields.

Figure 5 Firstenburg Pool

Public input played a key role in shaping recreation priorities established in the *VPRCS Comprehensive Plan*. Through surveys, outreach events, and stakeholder meetings, residents expressed strong interest in more trails, youth programs, water play features, and outdoor fitness equipment. These preferences are reflected in recommendations identifying a need for upgrades to existing facilities and the development of new amenities that support active lifestyles and social interaction. Engagement also identified barriers to recreation such as cost, transportation, and physical accessibility. Recommendations for addressing community feedback include increasing parks and open space in East Vancouver, investing in safe multimodal infrastructure that connects people to parks and open space, improving ADA compliance, and offering culturally responsive programming.



Source: VPRCS Comprehensive Plan

Figure 6 Día de Muertos Celebration



Source: City of Vancouver

Cultural Services are recognized as an essential component of the city's identity, greatly impacting its sense of vitality and quality-of-life. The *VPRCS Comprehensive Plan* prioritizes equitable access to cultural services, acknowledging that historically marginalized communities often face barriers to participation.

The *VPRCS Comprehensive Plan* highlights the need to expand culturally relevant programming and support for underrepresented groups, including Indigenous peoples, communities of color, LGBTQ+ residents, and people with disabilities. Strategies include increasing funding for community-led cultural initiatives, improving accessibility in cultural venues, and fostering partnerships with local artists and cultural organizations. The Cultural Services chapter of the *VPRCS Comprehensive Plan* identifies gaps in cultural infrastructure, including limited performance spaces, inadequate support for public art, and a need for flexible venues that can host a variety of cultural activities. Recommendations include investing in new cultural facilities, upgrading existing spaces, and integrating arts and culture into park and public space design. In late 2024, the City adopted a Cultural Access Program that will support improved and expanded cultural resources in the future, as it will generate approximately $7 million annually to improve access to arts, culture, heritage, and science across the community. Vancouver also seeks to make better use of schools, libraries, and other civic buildings as cultural hubs.

Preferred Alternative and Future Parks Planning

Gaps in Level-Of-Service (LOS) provide the basis for the city's land acquisition planning along with park impact fee allocation, measuring LOS and long-term planning for equitable access to recreation and green space throughout the city. Acquisition standards contribute to the city's goals for climate adaptation, tree canopy preservation, improved air quality, environmental justice, and prioritizing natural areas in historically underserved neighborhoods. These standards also assist the city in meeting the requirements of the Washington State Growth Management Act (GMA), which states that comprehensive plans must keep pace with projected population and development trends.

Priorities for parkland acquisition consider the four key criteria:

- **Geographic Equitable Access** to ensure all residents have equitable access to a park within a 10-minute walk (½ mile) (*VPRCS Comprehensive Plan*).
- **Population Growth and Development Trends** highlight new parks in rapidly growing neighborhoods, particularly east of I-205, where future residential density and family households are projected to increase (*VPRCS Comprehensive Plan*).
- **Network Connectivity and Access** prioritize sites that strengthen the citywide network of parks, trails, and greenways (*VPRCS Comprehensive Plan*).
- **Environmental Factors** protect lands that provide ecological value, such as tree canopy, wildlife habitat, flood mitigation, and climate resilience (EIS Report).

In an updated analysis conducted as part of the *Our Vancouver* planning process, Vancouver has identified a need to acquire 372.47 acres of parkland and develop 382.71 acres of parkland to meet its current metrics for LOS in 2025.

Table 9 Existing (2025) City Parks and Natural Areas Demand, Inventory, and Need by District (in acres)

Park Impact Fee By District	Acquisition Demand	Acquisition Inventory	Acquisition Need	Development Demand	Development Inventory	Development Need
A	246.43	217.12	29.31	174.56	124.50	50.05
B	388.10	327.73	60.37	274.91	207.82	67.08
C	600.13	317.33	282.80	425.09	159.52	265.57
Total	**1,234.66**	**862.19**	**372.47**	**874.55**	**491.84**	**382.71**

Source: City of Vancouver 2025
Note: Park Impact Fee District boundaries are shown in Figure 28. Demand calculated based on estimated 2025 population of 41,072 in PIF A, 64,684 in PIF B, and 100,021 in PIF C. Assumes LOS standard of 6 acres per 1,000 residents of acquisition need and 4.25 acres per 1,000 records for park development need. Need is calculated by subtracting the inventory (as of 2025) from the future projected demand.

As Vancouver continues to grow, the city will need to regularly evaluate the acquisition standards to reflect changes in population, community priorities, and new development. Population projections

through 2045 indicate a need to acquire 823.81 acres of additional parkland and develop 702.41 acres to adequately serve the community.

Table 10 Future (2045) City Parks and Natural Areas Demand, Inventory, and Need by District (in acres)

Park Impact Fee By District	Acquisition Demand	Acquisition Inventory	Acquisition Need	Development Demand	Development Inventory	Development Need
A	333.54	217.12	119.42	238.38	124.50	113.88
B	529.97	327.73	202.23	375.39	207.82	167.57
C	819.49	317.33	502.16	580.47	159.52	420.96
Total	**1,686.00**	**862.19**	**823.81**	**1,194.25**	**491.84**	**702.41**

Notes: a) Park Impact Fee District boundaries are shown in Figure 28. B) Demand calculated based on estimated 2045 population of 56,090 in PIF A, 88,328 in PIF B, and 136,582 in PIF C, for a total population of 281,000 citywide. Assumes LOS standard of 6 acres per 1,000 residents of acquisition need and 4.25 acres per 1,000 records for park development need. Need is calculated by subtracting the inventory (as of 2025) from the future projected demand. Note: These citywide projections assume that the 2045 population distribution would be similar to the 2025 population distribution. The projections do not account for differences between the alternatives in housing capacity distribution by PIF district.

Competing land use interests will present challenges for the city in meeting these goals, but the *VPRCS Comprehensive Plan* outlines a plan for acquisitions, capital assets, and planned investments to begin implementation of measures to improve Level-Of-Service (LOS).

To address LOS deficiencies, the *VPRCS Comprehensive Plan* identified several measures to be addressed in future parks plan updates. These include (1) identifying opportunities to acquire new community park sites or enhance larger neighborhood parks with community-level amenities; and (2) improving parks with low Level-of-Service (LOS) by adding amenities, increasing user capacity, and enhancing both natural and built environments to promote sustainability and recreational diversity.

The *VPRCS Comprehensive Plan* also identifies the need to explore alternative metrics for measuring LOS and setting classification standards. The addition of two new park classifications, Civic Plazas and Linear Parks, will provide additional options for recreation as the city experiences growth through the 2045 horizon of the *Our Vancouver* Comprehensive Plan, and the city will need to focus efforts on updating acquisition standards and PIFs through an updated nexus study prior to the adoption of the next update to the *VPRCS Comprehensive Plan*.

National Best Practices in Park System Planning

Many factors influence how cities establish guidelines for their park systems. In recent years, many cities have revisited how they designate parks, set Levels-of-Service (LOS), and manage facility and asset investments in response to demographic shifts, climate considerations, equity priorities, and fiscal pressures. The following section summarizes current national best practices relevant to Vancouver's future park system planning.

Park Designation, System Definitions, and Classifications

Setting city-wide criteria helps prioritize park designations, land acquisitions, capital investments, and maintenance while aligning service expectations. Vancouver currently uses a classification system for its parks, open spaces, and trails. As the city continues to grow, it may consider adding new park classifications and expanding its LOS standards to anticipate future land acquisitions or expansions and diversify opportunities for capturing additional parklands. The introduction of Civic Plazas and Linear Parks as new classifications paves the way for the city to reconsider how it is providing parks and recreation spaces in an urbanizing environment.

Most cities reexamine their park designation criteria and system definitions during updates to their Parks, Recreation, and Open Space Plans (typically every 8 to 10 years), with refinements to LOS standards or equity priorities every 3 to 5 years. These updates generally align with planning cycles and shifts in growth patterns, policy direction, or asset management frameworks rather than a fixed schedule. This aligns with NRPA's suggestion that comprehensive park system plans be updated roughly every 10 years with mid-cycle check-ins.

System Definition and Access

Traditionally, Level-of-Service (LOS) has been measured using acres of parkland per 1,000 residents. While still relevant, many cities now use a broader LOS framework that incorporates access, equity, investment, and quality. The National Recreation and Park Association (NRPA) uses a benchmarking metric of 10.2 acres per 1,000 residents (NRPA 2025 Agency Review) which is higher than Vancouver's current 6.0 acres per 1,000 residents.

Figure 7 NRPA Park Metrics



Source: NRPA Park Metrics | Research | National Recreation and Park Association | NRPA

Beyond acreage, cities are increasingly evaluating whether all residents have meaningful access to parks using metrics such as:

- 10-minute walk proximity, measured using walkshed analysis
- Quality of amenities, such as playgrounds, restrooms, or trails
- Equitable distribution across neighborhoods

Another emerging Level-of-Service (LOS) approach evaluates the condition and functionality of park and facilities assets such as playgrounds, restrooms, and trails. The NRPA's dataset, accessed through Park Metrics, allows agencies to compare operational metrics such as staffing and maintenance burden. The Trust for Public Land (TPL's) ParkScore index reflects these trends by assigning points based on acreage, investment, amenities, access, and equity. Its investment and amenity metrics also consider per-resident spending and available facilities.

Figure 8 Trust for Public Land ParkScore



Source: ParkScore® 2025 Scoring Metrics - Trust for Public Land

Equity-Focused Level-of-Service (LOS) Trends

Current best practices emphasize that LOS should account for underserved populations, spatial equity, and equitable access to both parks and park quality. The ParkScore report supports this by highlighting how investment, access, and distribution trends evolve over time, noting that residents of larger cities increasingly rely on parks for connection, well-being, and community togetherness.

Holistic Assessment of Publicly Accessible Parklands

When assessing park distribution, the Trust for Public Land (TPL) takes a more holistic approach by evaluating all publicly accessible parks, trails, and open spaces regardless of ownership. Today, cities recognize that people often do not distinguish between city parks, state parks, or school play areas. Instead, people perceive all of these as part of the public realm. The publicly accessible parks may account for:

- City-managed parks
- County Parks or open spaces
- State or Federal Lands
- School district playfields
- Nonprofit-managed open spaces
- Other publicly accessible green spaces

These methods are useful for examining a more complete understanding of distribution, proximity, and service gaps.

Considerations for Vancouver

Vancouver's park classifications adequately reflect existing conditions and provide distinction for park types currently seen across the city, however, as Vancouver continues to grow and strive for a higher Level-of-Service (LOS), additional consideration should be given to park types and intended purpose, park hierarchy, acquisition and development standards, and PIF program updates.

Based on peer communities in Washington and across the United States, Vancouver should explore:

- Explore enhanced focus on ecological value of property in planning efforts.
- Park hierarchy will need to be addressed as new park classifications are added. Vancouver should consider adding more detail to the Linear Parks classification that reflects how these spaces should function in contribution to the park system.
- Based on the *Our Vancouver* park system need cost analysis, consider adoption of proposed minimum standard of 1 acre / 30,000 residents for Civic Plazas. Additional standards for Community Centers, Regional Trails and Sports Complexes should also be considered. An updated nexus study should be conducted to affirm proposed standards are compliant with state regulations.
- Current Park Impact Fees (2025 rates) are estimated to support only 30% of the actual cost of acquisition and development. This deficit is anticipated to grow due to inflation and the use of partial impact fee waivers. Consideration should be given to increasing PIF rates to generate a proportionate share of the resources necessary to adequately serve residential development – in addition to review of incentives for private park development, impact of fee waivers on Level-of-Service to low-income areas, and application of program to non-residential development.

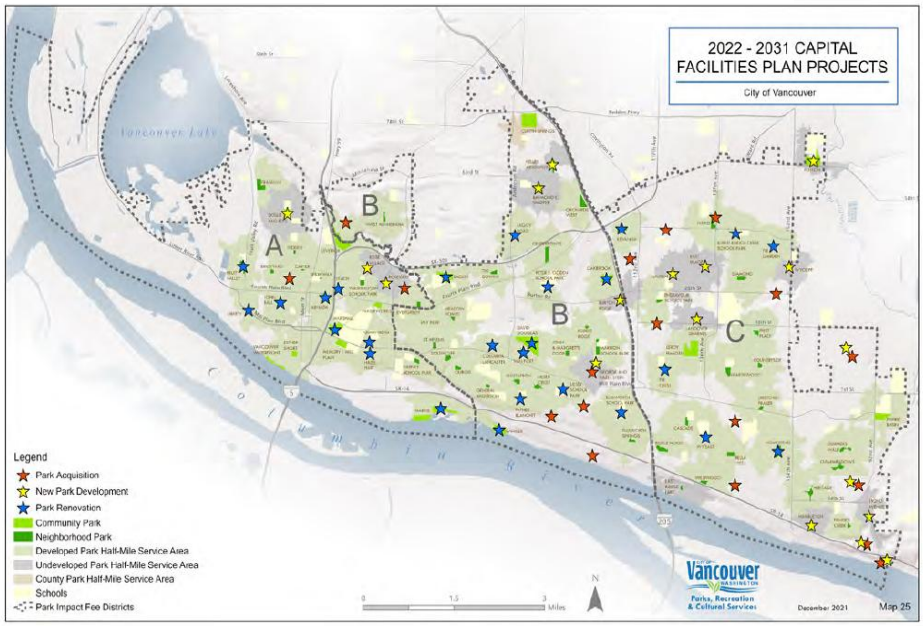
Proposed Capital Assets and Acquisition Planning

Vancouver's capital projects utilize investment and allocated funds to meet the needs of Vancouver's parks and recreation system, based on Level-of-Service (LOS) standards, growth projections, and equity indicators. The planning process for new park land is data-driven and community-informed, incorporating structured evaluation from feasibility analysis through community input and City Council approval (*VPRCS Comprehensive Plan*, EIS Report).

Capital Facilities Plan

Vancouver's Capital Facilities Plan (CFP) provides a six- to ten-year roadmap for capital projects, including major park and recreation investments, as well as the annual Capital Improvement Program (CIP). The CIP identifies near-term project priorities based on system needs, available funding, and coordination with other infrastructure investments. Capital improvements include physical changes to the park system, such as park, trail, or facility upgrades, as well as new park land acquisition.

Figure 9 Capital Facilities Plan Projects Map



Source: VPRCS Comprehensive Plan

Planned Investments

As part of the *VPRCS Comprehensive Plan*, approximately $166 million in planned capital projects are identified between 2022 and 2031. These investments include new park acquisitions, major park renovations, trail expansions, and system-wide accessibility improvements, as Vancouver continues to keep pace with population growth, new development, and environmental changes (*VPRCS Comprehensive Plan*). A minor update to the *VPRCS Comprehensive Plan* is anticipated to occur following the adoption of the Our Vancouver plan to reflect policy changes and updates to investment strategies.

East and Central Vancouver, along with the Evergreen, Burton, and Fourth Plain Boulevard corridors, have been identified as areas suitable for future investments. These locations are expected to experience increased population growth and higher-density residential development, resulting in a gap in park acreage per capita, as well as a focus on equitable access (Community Atlas Existing Conditions, EIS Report).

Implementation and Funding Sources

Implementation for Vancouver's parks and recreation system is guided by adopted plans, policies, and funding tools that align with city-wide growth and planning objectives. Funding for implementation comes from a combination of federal and state grants, and partnerships with private and nonprofit organizations. These sources provide a guide for the city to maintain existing facilities, acquire new park land, and expand recreation facilities.

The City of Vancouver has a variety of funding sources available supporting both capital improvements and ongoing operations Which are further outlined below:

- Dedicated Funding Streams. Cities and counties may allocate dedicated sources, such as property taxes, sales taxes, business license surcharges and impact fees (residential and non-residential), specifically for parks and recreation. These revenues can support both ongoing operations and capital improvements in a stable, ongoing way. The City currently utilizes impact fees, a business license surcharge, and a local Real Estate Excise Taxes (REET) to provide dedicated, ongoing Parks funding.

- Bonds and Levies. Bonds and levies may be used independently or in combination. When used together, bonds and levies can finance both the initial cost of improvements and the ongoing resources needed to support them. This combined approach offers a broader range of funding options than using either tool separately, and in most cases requires voter approval.
    - Bonds. Bonds are a debt-financing tool that allows jurisdictions to raise money upfront for large capital projects such as park development or major renovations. Repayment is typically made over time through property taxes or other dedicated revenue streams. In Washington, general obligation bonds usually require voter approval and are repaid through property taxes, while revenue bonds are repaid from specific program revenues (e.g., user fees) and typically do not require a public vote. This type of funding is focused for specific projects and is not necessarily a stable ongoing source of funding for a variety of parks related capital improvement projects.
    - Levies. Levies are property tax measures that raise revenue directly, either on a temporary or permanent basis. They are commonly used to fund park operations, maintenance, or smaller-scale capital improvements. Most levies require voter approval, often through a simple majority or, in some cases, a supermajority with minimum turnout thresholds.

- Park and Recreation Districts. Washington law authorizes the creation of park and recreation districts, service areas, and metropolitan park districts. These permanent entities may levy property taxes, issue bonds, and generate other revenues dedicated to parks. A guiding principle is that there should be a clear connection between the population served and the taxes or levies imposed.

- Grants: State and federal grant programs can provide funding for park acquisition, development, restoration, and programming. Grants are often tied to specific policy goals, such as conservation or community health, and supplement local revenue sources rather than providing ongoing funding.

- Tax Increment Financing: TIF districts capture increases in property tax revenue generated by new development within a designated area. The incremental revenue can be directed to fund a variety of infrastructure investments, including park facilities, often as part of broader subarea plan implementation and associated redevelopment efforts. The City of Vancouver currently does not have a TIF district but is actively studying their applicability to priority redevelopment areas in the city.

- Other Revenue Strategies:
    - User Fees and Charges: Fees for activities such as sports leagues, equipment rentals, or special events can generate revenue to help offset operational costs. These fees are typically structured to recover a portion of costs while maintaining access for a broad range of users. They do not typically generate revenue for parks system improvement or expansion.
    - Fundraising, Advertising and Naming Rights: Donations from individuals, foundations, or businesses, as well as organized fundraising efforts such as capital campaigns or crowdfunding, can provide additional support for parks projects. These sources are generally project-specific, vary in scale and do not provide ongoing funding.

Goal: PR-1

Increase Community Health Through Recreation

Vancouver has safe and equitable access to a quality and diverse system of parks, natural areas, amenities, recreational facilities and programs that promote physical and mental well-being, cater to the varied interests and needs of community members and contribute to a vibrant and active community.

Key Implementation Actions

✓ TBD

✓ TBD

✓ TBD

✓ TBD

✓ TBD

Vancouver's parks and recreation system will support the health of the community by creating opportunities for play, connection, engagement, and creative expression. Currently, Vancouver's parks, trails, and facilities are inclusive places to engage in physical fitness, mental well-being, and social belonging. Through intentional design and equitable distribution, Vancouver's diverse system will enhance quality of life throughout the City, connecting neighbors and nature.

Recreation is a core public service that enriches the City's livability and resiliency. Vancouver's recreational programs offer lifelong health by encouraging outdoor activity, building intergenerational relationships, and supporting inclusive events that celebrate Vancouver's diversity. Vancouver's facilities are designed and operated to be inclusive, accessible, and responsive to the needs of the community.

Community health and well-being for all ages and abilities are an important part of Vancouver's outdoor plan and recreation. According to the *Community Atlas (2023)*, one in five residents is under 18, and nearly 15 percent are over 65, emphasizing a need for more intergenerational recreation

opportunities. Youth programs provide safe and structured spaces for play, learning, and teamwork, while senior and adaptive recreation programs promote mobility, connection, and mental wellness.

Looking at both local and national trends, access to recreation and green spaces reduces the risk of chronic diseases and improves mental health, strengthening the City's dedication to inclusive and equitable recreation access (*VPRCS Comprehensive Plan*, EIS Report).

The supporting policies with this goal will support investment in recreation programs, facilities, and public spaces that promote physical activity, mental well-being, and social connection for people of all ages and abilities. The policies emphasize equitable access through universal design, inclusive programming, and programs and infrastructure that support youth, aging populations, and underserved communities. While there is an emphasis on equity and a sense of place, the policies also prioritize the coordination of capital investments to align with health and equity objectives.

Supporting Policies			Related Goals
51	**Universal Design**	Incentivize universal design principles in private development. Support accessibility retrofits for existing homes and prioritize affordable housing options tailored to multi-generational living, aging in place, and a wide range of abilities.	**EI-2** Universal Design and Access **H-2** Diverse and Accessible Housing
75	**Climate Resilient Spaces**	Incorporate elements of climate resiliency into new privately and publicly developed public spaces.	**CL-1** Resiliency and Climate Adaptation **CF-1** Social Infrastructure **PFS-3** Infrastructure Enhances Public Safety
78	**Resources for Youth and Aging Populations**	Prioritize programs and infrastructure that support youth and aging populations, including safe play areas, accessible housing, robust childcare, public facilities and community programs that foster multigenerational interaction.	**EI-3** Youth and Aging Population Focus **PFS-1** Public Facilities and Services
126	**Align Capital Improvement Program (CIP) and Capital Budget Decisions**	Maintain a prioritization process that aligns CIP projects to the goals and policies of the comprehensive plan. Use the CIP, as amended annually, to prioritize the financing of capital facilities within projected funding capacities and ensure that capital budget decisions conform with the comprehensive plan.	**PFS-2** Government Services and Financing

128	**Asset Management**	City transportation, water, sewer, and surface water facility assets shall be systematically managed to balance full life cycle costs, performance, risk, and service levels, using best management practices and data. Public infrastructure and facility investments will leverage existing investments to support efficient and equitable growth.	**PFS-2** Government Services and Financing **TM-1** Integrated Transportation and Connectivity

Goal: PR-2 Parks, Trails, and Natural Spaces

Vancouver's residents have access to a well-connected and expanded network of developed parks, trails, and natural areas that support outdoor recreation, biodiversity, and climate resilience, that serve as vital hubs for community gatherings, cultural events and a shared sense of place.

Key Implementation Actions

✓ TBD

✓ TBD

✓ TBD

✓ TBD

✓ TBD

Vancouver's parks, open spaces, and trail network connect people to the outdoors, strengthening the City's environmental health, recreation opportunities, and social vitality. Land acquisition and preservation efforts ensure that environmentally sensitive areas are protected, and new parks and open spaces expand in line with the City's population growth.

As Vancouver continues to grow, capital investments will focus on linking parks and communities, improving connectivity and access for walking, biking, and active transportation. Expanding trail networks and greenway corridors will help address service gaps and promote equitable access to outdoor spaces, particularly in East and Central Vancouver, where access to parks and trails remains limited. Natural areas also play a critical role in the City's climate adaptation strategy. Vancouver's park lands and natural areas offer community health benefits and provide relief against heat island effects, flooding impacts, and the increasing urban tree canopy. According to the *Community Atlas (2023)*, neighborhoods with higher canopy coverage and access to natural spaces have higher public health outcomes and greater resilience to climate impacts. The policies associated with this goal support the expansion and maintenance of Vancouver's connected network of parks, trails, and open spaces that provide environmental, recreational, and social benefits. There is a strong emphasis on climate resilience, preservation of sensitive lands, and creation of community streets and green corridors that bring nature into the urban environment.

Supporting Policies			Related Goals
4	**Reduce Urban Heat Island Effect**	Minimize impacts of the urban heat island effect, reduce temperature disparities for equity priority neighborhoods, and safeguard vulnerable populations from the adverse effects of extreme heat through proactive measures.	**CL-1** Resiliency and Climate Adaptation **CL-2** Increase Biodiversity and Enhance Natural Spaces **CL-4** Environmental Health
10	**Stormwater Management**	Focus on improving water quality and prevent flooding through managing stormwater flows, encouraging natural filtration of precipitation to ground water, reducing runoff, mitigating flood risks by advancing systems that manage stormwater effectively, and enhancing local water quality in the watershed	**CL-1** Resiliency and Climate Adaptation **CL-2** Increase Biodiversity and Enhance Natural Spaces **PFS-1** Public Facilities and Services
26	**Conserve Land for Open Space and Preservation**	Acquire environmentally sensitive land with ecological benefits for the purpose of conservation.	**CL-2** Increase Biodiversity and Enhance Natural Spaces
66	**Community Streets**	Develop guidance and encouragement for community use of the right-of-way, including plazas, parklets, "streateries," open streets events, public art, and demonstration projects.	**TM-1** Integrated Transportation and Connectivity **TM-4** Eliminate Traffic Fatalities (Vision Zero)
79	**Improve Connectivity Between Parks and Open Spaces**	Create an expansive network of linear parks that encourage active transportation, improve community health and wellbeing, enhance tree canopy and stormwater management, and link parks and open space with housing.	**PFS-1** Public Facilities and Services **CL-2** Increase Biodiversity and Enhance Natural Spaces

82	**Regional Trail and Open Space Networks**	Work with nonprofit and private partners, Clark County and adjacent cities to build out the regional trail network for recreation and active transportation purposes.	**TM-1** Integrated Transportation and Connectivity
114	**Reduce climate impact exposure to Vancouver's neighborhoods**	Establish development regulations that incorporate best practices for reducing the risk of wildfire, extreme heat, flooding, and other climate-exacerbated hazards.	**CL-1** Resiliency and Climate Adaptation
115	**Sustainable Parks Funding**	Identify and implement new funding strategies to support robust parks and natural area investments, ongoing maintenance and operation costs, and provide equitable access and level of service to all community members.	None
119	**Acquire Land for Public Parks**	Acquire and reserve land for the development of parks for public use and recreation in areas experiencing growth, prioritizing underserved neighborhoods and areas currently not meeting parks service standards.	None
120	**Community Safe Routes**	Create safe walking connections through programs that identify and invest in Safe Routes to Schools and Community Safe Routes that link people to transit and other important community destinations.	TM-1, TM-2, PFS-3, PR-2
131	**Pilot Projects**	Encourage the use of short-term pilot projects for park, transportation, and infrastructure improvements before making long-term investments to foster innovation, test feasibility, and increase community buy-in.	**CF-4** Innovation **TM-2** Change Travel Behavior
135	**Program Underutilized Spaces**	Encourage the thoughtful reuse and activation of underutilized lands —such as space beneath freeway viaducts, oddly shaped parcels, utility corridors, temporarily vacant lots - and other non-developable remnants—by establishing public private partnerships to program them to serve community, cultural, and environmental needs.	**CF-1** Social Infrastructure **CF-4** Innovation **LU-4** Efficient Use of Land

Goal: PR-3 Community Health and Wellness

Vancouver community members have access to high-quality public spaces that support physical and mental wellbeing, active lifestyles, connection to nature, and sense of community belonging.Parks and community spaces play an important role in supporting a community's overall health and well-being. Access to nature, opportunities for physical activity, and healthy food options contribute to individual physical, mental, and social wellness.

Vancouver's parks and recreation system connect residents to spaces and programs that encourage active living, stress reduction, and social connection. Parks, community centers, and recreation facilities function as part of the City's broader wellness network, providing inclusive environments that support physical and mental wellbeing and complement other community health services.

Key Implementation Actions

✓ TBD

✓ TBD

✓ TBD

✓ TBD

✓ TBD

This goal helps address these benefits and recognizes neighborhoods within the City with higher rates of food insecurity and chronic disease, particularly in areas with limited access to fresh produce and outdoor recreation opportunities. Addressing these disparities requires a coordinated approach that integrates park amenities, community gardens, and wellness programming into everyday public spaces (*Community Atlas (2023)*.

In collaboration with the *Vancouver Parks, Recreation & Cultural Services Comprehensive Plan (2022–2031)*, there is a need for continued investment in programs that promote lifelong wellness, including fitness classes, adaptive recreation, nature-based therapy, and nutrition education. Partnerships with local health providers, school districts, and nonprofit organizations can help extend these opportunities.

Exposure to green spaces has also been proven to lower stress, improve concentration, and encourage a sense of social belonging, benefiting youth, older adults, and residents who experience higher health risks. Policies supporting this goal emphasize collaboration among parks, health, and

social service partners to increase community wellness and provide equitable high-quality public spaces.

Supporting Policies			Related Goals
54	**Support Mental Health Access**	Partner with nonprofits to help expand access to culturally inclusive mental health, behavioral health, and physical health resources.	None
76	**Broaden Equitable Access to Natural Spaces and Parks**	Site new accessible and attainable housing close to existing and future parks, ensuring equitable access to existing facilities, and investing in new and improved facilities in underserved neighborhoods.	**CL-4** Environmental Health **H-1** Housing Production
77	**Community Centers**	Establish multipurpose community centers offering social, recreational, educational, and cultural programming, especially in underserved areas.	**CL-4** Environmental Health **PFS-1** Public Facilities and Services
80	**Community Gardens**	Expand access to community gardens and incentivize urban agriculture to improve food security and increase healthy food options.	None
81	**Increase Food Access**	Incentivize and remove regulatory barriers to locating grocery stores and neighborhood markets near housing and in underserved neighborhoods.	**LU-1** Connected and Accessible Neighborhoods
133	**Native Landscapes**	Incorporate native plantings, food forests, and agroforestry into parks and public spaces to support food security, ecological health, and cultural knowledge sharing.	**CL-2** Increase Biodiversity and Enhance Natural Spaces **EO-3** Circular and Sustainable Economy

Goal: PR-4 Thriving Cultural Landscape

Vancouver supports a thriving cultural landscape for residents and visitors by investing in public art, cultural centers and facilities, historic preservation, and supporting community centered initiatives and opportunities for creative expression that reflect the city's diverse identities and historic roots.

Key Implementation Actions

- ✓ TBD
- ✓ TBD
- ✓ TBD
- ✓ TBD
- ✓ TBD

Cultural spaces, parks, and public facilities are essential to Vancouver's uniqueness and sense of place. The park system provides community gathering spaces for creative expression and cultural learning that strengthen social connections. The City's cultural programs honor Indigenous heritage, highlight local artists, and promote diverse community voices through events, exhibits, and performances that reflect Vancouver's evolving character.

As Vancouver continues to grow, its population becomes increasingly diverse, with cultural heritage and multilingual communities shaping the City's neighborhoods and public life (*Community Atlas (2023)*). Expanding access to cultural programming and facilities helps create shared experiences across generations and cultural groups, particularly in areas where residents have fewer opportunities for arts engagement.

Partnerships with schools, cultural organizations, and local artists extend opportunities for education, performance, and creative expression beyond traditional venues. Preserving and interpreting historic sites also plays an important role in maintaining the City's identity.

Policies supporting this goal prioritize collaboration among cultural organizations, Indigenous partners, and community groups to advance arts education, heritage preservation, and equitable access to cultural experiences.

Supporting Policies			Related Goals
23	**Inclusive Use of Technology**	Utilize an equity lens to evaluate, assess, develop, and implement any use of smart technology to reduce embedded biases, and ensure that residents are not discriminated against or systemically or interpersonally harmed.	**CE-4** Innovation
52	**Incorporate Community Outcomes into Development**	Develop mechanisms to integrate community benefits into private development that requires discretionary land use review and City-led redevelopment projects.	**H-4** Prevent Displacement
70	**Increase Access to Space for Artists and Creatives**	Establish partnerships that increase access to shared, affordable spaces serving artists and arts and cultural organizations.	**CF-1** Social Infrastructure
71	**Expand Representation in Public Art**	Ensure publicly funded art projects and installations reflect and incorporate the experiences of historically excluded and underrepresented voices in the physical and cultural landscape of the City.	**CF-1** Social Infrastructure **CF-2** Inclusive and Affirming Environments
72	**Culturally Responsive Design**	Develop standards for public spaces and buildings that incorporate culturally-specific design principles and art installations and reflect the diverse history and heritage of Vancouver communities.	**CF-1** Social Infrastructure **CF-2** Inclusive and Affirming Environments
73	**Center Impacted Voices in the Development of Community Spaces**	Engage community organizations and individuals representing diverse lived and cultural experiences in the planning, design and programming of community spaces.	**CE-1** Social Infrastructure **EI-4** Transparent and Inclusive Governance **PR-4** Thriving Cultural Landscape
74	**Multilingual and Culturally Competent Services**	Ensure all city services are accessible in multiple languages and delivered with cultural competency.	**CE-2** Inclusive and Affirming Environments **H-3** Reduce Homelessness **PR-4** Thriving Cultural Landscape

101	**Engage with Tribal Community Members**	Foster meaningful partnerships with tribal communities and land stewards, integrating their knowledge, priorities, and cultural perspectives into local decision-making processes.	**EI-1** Equitable Community **EI-4** Transparent and Inclusive Governance **CL-2** Increase Biodiversity and Enhance Natural Systems
102	**Tracking Progress and Reporting Back**	Build transparency and accountability with the community through regular tracking of plan implementation and consistently reporting out on progress in an accessible manner.	**EI-4** Transparent and Inclusive
107	**Historic and Culturally Significant Resources**	Protect and preserve significant cultural, historic, archeologic, and ecologic community resources. Promote preservation, restoration, and rehabilitation of historic and architecturally significant structures.	**CF-2** Inclusive and Affirming Environments **CL-1** Resiliency and Climate Adaptation **CL-2** Increase Biodiversity and Enhance Natural Systems
117	**Access to Arts and Cultural Programs**	Improve access to arts, cultural, and heritage programs by reducing barriers to participation, prioritizing underserved and historically marginalized communities, and investing in related programs.	**EI-1** Equitable Community
118	**Increase Cultural Capacity**	Strengthen Vancouver's cultural sector by investing in capacity building across arts, culture and heritage organizations as an economic and cultural driver of the community.	None

Transportation & Mobility.

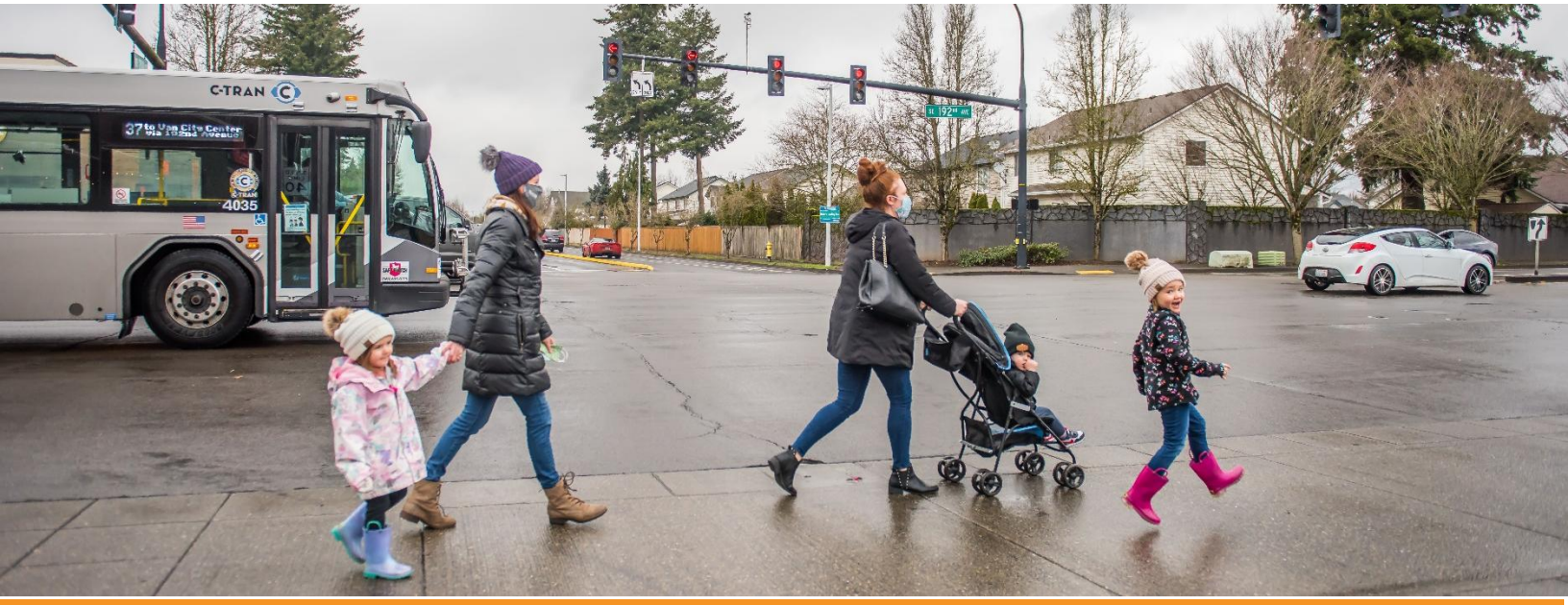


8



Introduction

Vancouver's transportation system reflects historic development patterns that prioritized vehicle movement over multimodal access, contributing to high vehicle dependence, safety risks, and gaps in pedestrian, bicycle, and transit networks. Much of the policy work undertaken by the City over the last decade aims to address these conditions, improving access to opportunity, and advancing safety and climate goals. This chapter relies heavily on the 2024- 2044 Transportation System Plan (TSP). The TSP was developed over the course of three years and formally adopted by City Council in January 2024. Development of the TSP included extensive outreach and coordination between City staff and City Council, the Transportation and Mobility Commission, a technical advisory committee, and community members. Though adopted in early 2024, the TSP may undergo a minor update after completion of the comprehensive plan to ensure alignment with the goals and policies of this chapter



Vision: Transportation and Mobility

In Vancouver, transportation is safe and accessible for everyone, regardless of where they live or their socioeconomic status. We commit to building an equitable and connected network of streets, paths and trails that are safe and comfortable for people walking, driving, rolling, using small mobility devices and taking transit. By prioritizing reliability and frequency, our public transportation system allows people to move around the community easily and safely. We embrace multi-modal options such as bicycles and small mobility devices like scooters and commit to breaking down barriers and removing financial obstacles to using these travel options. Through strategic partnerships, we will establish integrated transportation hubs, fostering safe, climate-friendly, and accessible pathways to essential resources and opportunities in Vancouver and across the region.

and account for and integrate the City's updated growth concept. The TSP is adopted by reference and referenced frequently to fulfill requirements of the Growth Management Act. The TSP is included as Appendix X.

The TSP includes its own goals, policies and programs that work in coordination with and are informed by the comprehensive plan goals, policies, and implementation actions.

Transportation System Plan Goals

The TSP's vision and goals guide future transportation investments and align resource allocation to community values, and align with and complement the goals and policies of the Comprehensive Plan. The primary Plan goals of safety, equity and climate align with City Council's priorities for the city. The remaining three goals focus on transportation choice, regional connectivity, and maintaining city assets.

Transportation System Plan Big Ideas

The TSP organizes its policies and programs under the framework of six 'big ideas' that reflect community-supported values. The TSP goals set the vision and the big ideas define how to get there. The TSP big ideas align with and complement the goals and policies of the comprehensive plan, as shown in Table 1.

Table 1 Transportation System Plan Big Ideas and Comprehensive Plan Goals

TSP Big Idea	Complementary Comprehensive Plan Goal
Support Thriving Neighborhoods. Make walking and rolling, small mobility, and transit options convenient for neighborhood travel.	LU-1: Connected and Accessible Neighborhoods: Vancouver neighborhoods are places where community members can walk, bike, or roll to a diverse mix of community and open spaces, services, retail, fresh food, healthcare and educational opportunities and amenities within 15 minutes or less (1/4 mile).
Create **complete corridors** that connect growth areas, support business, serve transit, and maximize safety. AND **Connect people to transit**. Fill sidewalk gaps, add safe crossings, and support speed and reliability projects that keep transit moving efficiently.	TM-1: Integrated Transportation and Connectivity: Vancouver is served by a reliable, frequent, and accessible transportation system that seamlessly connects residents to key areas of the city and the region.
Build low-stress networks. Make the walking, rolling, bicycling, and small mobility networks inviting for all ages and abilities.	EI-2: Universal Design and Access: Public spaces, infrastructure, information platforms and public and private buildings are universally designed and meet best practices for accessibility and inclusion.

Make growth a benefit for all. Manage growth by leveraging investments from new development and use parking and demand management policies to support livability.	EO-4: Inclusive and Community-Centered Economic Growth: Economic growth provides benefits and opportunities to all community members, supports upward mobility, and provides opportunities for wealth creation.
Embrace the future. Adopt new technologies and track data to help meet our goal of carbon neutrality by 2040.	**CE-4: Innovation:** Vancouver community members are empowered to explore creative solutions, innovative methods, entrepreneurship, calculated risk-taking, and bold solutions that drive progress, address systemic inequities, and improve quality of life within neighborhoods.

Community Feedback

- Desire for land use and transportation to be coordinated so that transit and active transportation options are near housing, jobs, parks, and essential services.
- Concerns about vehicle traffic safety and congestion, including noise and air pollution, speeding, unsafe crossings, industrial traffic, potholes, and the need for traffic calming.
- Strong support for active transportation options—walking, biking, and micromobility—and desire for more sidewalks, curb ramps, protected bike lanes, greenways, and access to scooters/bike share.
- Strong demand for expanded, reliable transit service, including more bus routes, fast and frequent service, and regional connections, especially among younger community members.
- Transit must be accessible, safe, and comfortable, including better stop amenities (shelters, lighting) and a welcoming and secure space.
- Mixed views on parking and how much land should be dedicated to it- some think parking takes up too much space, others fear losing parking near homes and businesses.
- Make sure freight can move efficiently while mitigating negative impacts on neighbors and other transportation options.

Existing Transportation System and Framework

Vancouver's transportation system is a part of a regional network in southwest Washington and across the Columbia River to Portland and surrounding cities. The City coordinates with Clark County, neighboring Cities, WSDOT, C-TRAN, the Southwest Washington Regional Transportation Council (RTC), and the tri-county Metro Regional Government in Oregon to facilitate updates to Vancouver's transportation network and assess land use assumptions. The sections below describe

the city's street network and transportation programs and tools used to assess the effectiveness and efficiency of the transportation system.

Street Network

The city's street network is the backbone of the transportation system. City streets and sidewalks account for nearly 20% of Vancouver's total land area – approximately four times the land dedicated for parks. The TSP provides an inventory of modal networks throughout Vancouver, including walking and rolling, bike and small mobility, enhanced transit corridors, freight corridors, as well as overlap of these networks.



The modal networks, described below, provide a policy framework and a roadmap for capital investment. Full maps are available in the TSP Networks chapter of the TSP.

The Pedestrian, or "Walking/ Rolling Network" identifies pedestrian corridors and pedestrian centers. Pedestrian corridors represent places where high levels of walking or rolling are expected.

- **Primary Pedestrian Corridors** include a transit route or routes, provide a continuous east-west or north-south connection, include major multi-use paths, and/or connect to the interstate bridges.
- **Secondary Pedestrian Corridors** connect to schools and parks and fill gaps in the network.

The Bicycle and Small Mobility (BSM) Network aims to provide low-stress transportation facilities within a half mile of all residents that can safely accommodate a variety of users. The facility type required to feel safe and attractive to various users is dependent upon the roadway characteristics it is located on.

- Facility types that make up the BSM Network include protected or buffered bicycle lanes, multi-use paths, unpaved trails, striped bike lanes, and neighborhood greenways.

The Enhanced Transit Network consists of enhanced transit corridors where the City will focus on supporting access to transit and transit priority.

- Corridors were identified based on existing and planned frequent service, equity considerations and growth centers.

The Freight Network includes existing critical freight corridors, which consist of the federally designated National Highway Freight Network and Truck Freight Economic Corridors, as well as Freight Access Streets, which are designated by the City based on local freight volumes.

The Roadway Network is defined by local, regional and federal functional roadway classifications. The Vancouver public roadway functional classification is defined in Title 11 of the Vancouver Municipal Code.

In addition to the street network, Vancouver's transportation network also includes Pearson Field Airport, a general aviation airport located directly east of I-5 and just north of Highway 14 and the Columbia River. The airport is operated by the City of Vancouver, which owns 61.8 acres of the airport site. The remaining 72.6 acres are owned by the National Park Service and located within the Vancouver National Historic Reserve.



Concurrency and Multimodal Level of Service

The GMA requires cities to adopt concurrency standards and ensure transportation projects, programs, and services needed to serve growth are regionally coordinated and in place either at the time of development or within six years. This occurs through coordination of the transportation system and the adopted land use map and assessment of level of service. The TSP also calls for a shift to a more multimodal approach in measuring concurrency (a measure of transportation system capacity to support development) that measures level of service for travel modes beyond just vehicles.

The City of Vancouver Multimodal Level of Service (MMLOS) will measure network completeness and level of traffic stress (LTS). The network completeness assesses the existing facility against its prescribed

Equity Lens

Historically, Vancouver and many other Washington cities have measured capacity using auto performance metrics, such as peak hour vehicle speed and intersection throughput. This autocentric approach hindered broader improvements to the multimodal system and focused on those who primarily drive to get to where they need to go. The revised concurrency policy measures conditions and performance of all modes, including walking, biking, transit and vehicles.

facility type based upon the 2024–2044 Transportation System Plan[1] modal networks. The prescribed facilities are determined by the roadway speed, traffic volumes, and adjacent land use to ensure that pedestrians, bikes and small mobility users have LTS 1 or 2[2] on the primary and secondary modal corridors. For transit, the City will invest in transit supportive infrastructure and design on the Enhanced Transit Modal Network to support speed, reliability and quality infrastructure for transit riders.

In order to bring transportation facilities and services to the established MMLOS, the City will pursue programs and policies from the TSP, such as the Complete Corridors program, leverage development with traffic impact analyses and the traffic impact fee (TIF) program, and the safe routes to school program, in addition to the goals and policies of this plan. The TSP addresses multimodal level of service in policy CC2.2, Multimodal Concurrency Standard: *Update concurrency requirements to ensure that developments and capital projects consider multimodal impacts and contribute to mode shift*.

[1] Vancouver Moves: Transportation System Plan
[2] Level of Traffic Stress

Active Transportation



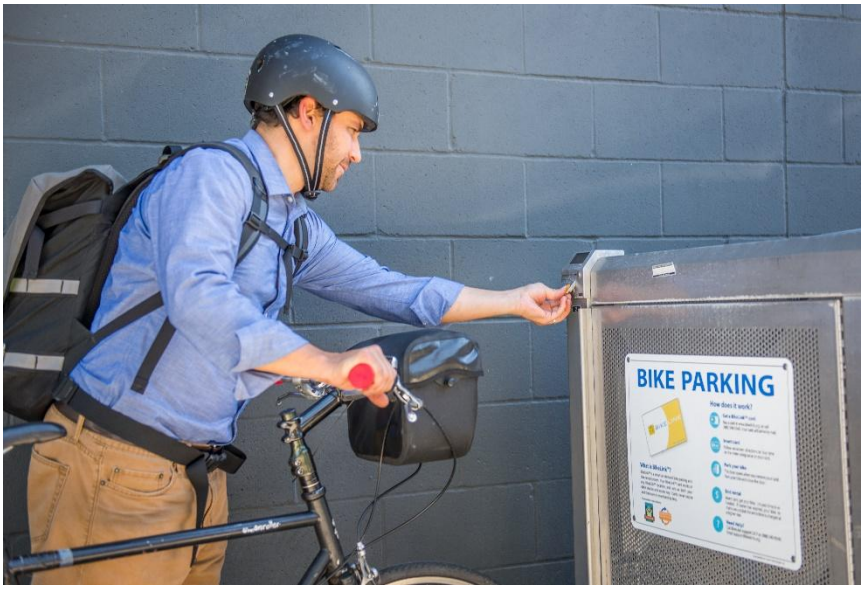
Active transportation is an integral part of the city's transportation system. The TSP includes two big ideas that support active transportation in Vancouver. One of the TSP's big ideas is to "**create complete corridors**" that connect growth areas, support businesses, serve transit, and maximize safety. The city's arterial network (which includes streets like Mill Plain Boulevard, 112th Avenue, and Andresen Road) acts as the backbone of its transportation network. They service major destinations, typically have transit service, and are often the most direct route with high demand for travel. These corridors are also fast, wide, and have the greatest number of crashes. Rethinking how the City plans, designs, and measures success on these streets is necessary to have a safe and comfortable pedestrian and bike and small mobility network.

The second applicable big idea is "**build low-stress networks**". The goal of this is to make the pedestrian and bike and small mobility (BSM) networks safe and inviting for all ages and abilities. The BSM network today consists of lower-stress neighborhood streets isolated by higher-stress collector and arterial streets. This makes it challenging to bike outside of neighborhoods and specific corridors and reduces access to key destinations and opportunities. Sidewalks are missing on nine miles of arterial streets — the fastest and most daunting places to walk or roll. Adopting a citywide low-stress network for BSM and walking and rolling must be complemented by policies and programming (wayfinding, education) that further facilitate use of these networks.

Transportation Demand Management (TDM)

TDM is supported by the TSP's big idea to "**make growth a benefit for all**". To do this, Vancouver will manage growth by leveraging investments from new development and use parking and demand management policies to support livability. With growth comes the need to update development standards to ensure necessary infrastructure is in place to accommodate new trips. These updates present an opportunity to right-size parking, balancing vehicle accessibility with the need to preserve valuable land for housing, recreation, and other uses. Demand management policies and

programs pair well with infrastructure—the design of streets can make it easy to walk, roll, or bicycle while programs incentivize multimodal choices.



Since 2006, the City of Vancouver has managed the Clark County **Commute Trip Reduction Program** on behalf of Clark County. Employers with 100+ full-time employees commuting during peak commute hours must participate. There are 56 affected worksites countywide, reaching about 11,000 employees. The 2025-2029 Commute Trip Reduction Plan's goals include establishing performance measures, developing strategies to reduce employee drive-alone commutes, and alignment with other regional plans.

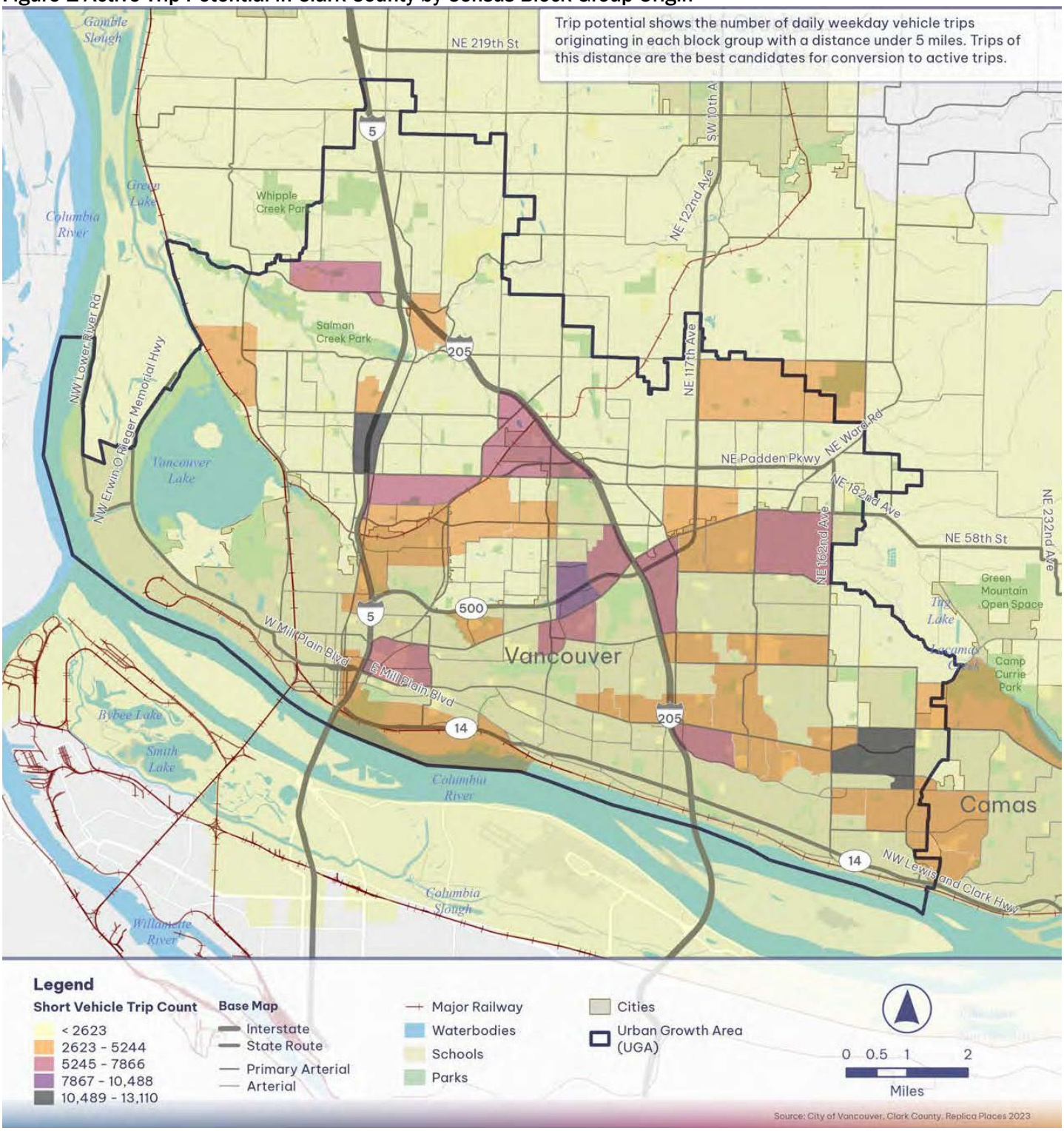
In February 2025, the "**Downtown Access, Mobility and Parking Plan: Focusing on People**" was approved by City Council. This plan includes three goals: adopt new pricing practices for parking, expand public parking supply through shared parking, and enhance downtown mobility options. The plan includes 16 specific actions – new policies, initiatives, or investments – designed to help the City achieve the plan goals. The plan calls for a five-year implementation period.

Updating pricing practices in downtown will incorporate demand-driven pricing strategies to create a user friendly "park once" environment that benefits those who drive downtown, encourages people to walk between destinations without moving their car, and maximizes utilization of the on-street parking supply. Enhancing downtown mobility options will provide new options for people to adopt car-free behaviors to get to and around downtown. This will help to reduce demand for car trips between downtown destinations. In the future, pricing strategies can be applied elsewhere in the City where land uses and transportation options make this practicable.

Transportation Forecast

Over the next twenty years there is strong potential for increasing active transportation trips in every part of the city and region. Over one-third of vehicle trips in Vancouver are less than 4 miles and are therefore potential candidates for conversion to active transportation trips. In order to convert motor vehicle trips to active trips and reduce greenhouse gas emissions, the City will focus land use and transportation strategies in the areas surrounding Clark College, the Vancouver Mall, Walnut Grove, the Hewlett-Packard campus/Columbia Tech Center, and the eastern end of SE Mill Plain Boulevard. Figure 1 shows the concentration of short vehicle trips by location, with areas with more of these trips indicating a higher potential for future conversion to active trips.

Figure 1 Active Trip Potential in Clark County by Census Block Group Origin



Vehicle Miles Traveled (VMT)

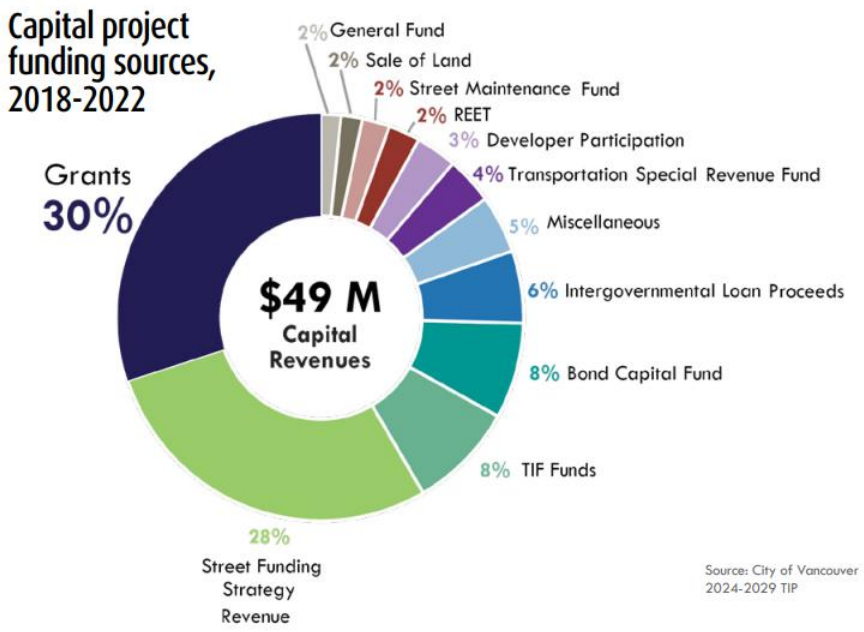
Measuring and projecting VMT provides another way to assess how changes in land use over the next twenty years will affect the transportation system. Growth and development by 2045 will increase VMT to some extent from current conditions. However, VMT per household is projected to be slightly lower by 2045, due to an increase in mixed use areas which reduce the length and frequency of vehicle trips. See details in Table 2.

Table 2 Modeled Existing and Future Daily Vehicle Miles Traveled in Vancouver

Vehicle Type	Existing Vehicle Miles Traveled (2023)	Modeled Vehicle Miles Traveled (2045)
All Vehicles Except Trucks	3,949,553	TBD
Trucks (in passenger car equivalent)	215,391	TBD
Total	**4,315,718**	**TBD**
VMT per household (average miles per day)	**45.6**	**TBD**

Transportation Improvements and Financial Analysis

Figure 2 Capital Project Funding Sources, 2018-2022



Implementing the multimodal network and improving the transportation system to meet the growing need in the City will require substantial capital investments. More than half the funding for transportation capital projects comes from grants or the City's Street Funding Strategy (SFS) (see **Error! Reference source not found.**Figure 2). The City passed the SFS in 2015 as a package of new funding for transportation. It secured revenues from utility taxes and a business license surcharge. A main source of SFS funds comes from designating the city as a Transportation Benefit District (TBD) with the ability to collect a $40 vehicle license fee. SFS makes up more than one-fifth of maintenance revenues and more than one-quarter of capital revenues. City Council further increased transportation funding in 2023 through a TBD 0.1% sales tax increase and change to the business license surcharge. This funding source has allowed the City to make significant progress—and will continue to support upgrades to substandard streets throughout the city. Additional transportation funding sources are listed in the TSP Appendix I Funding Memo.

The City prepares a Transportation Improvement Program (TIP) annually, which details all the transportation projects planned in the city for the next six years. These projects include planning studies, capital projects like arterial upgrades, pavement management activities, and upgrades to bike lanes, crosswalks, and traffic signals. The TIP offers comprehensive details and funding status for each project. It also provides details on how transportation projects are funded with state and/or federal grants and local dollars.

The TIP consists of three different project lists: funded projects, partially funded projects, and unfunded projects. Projects on the funded list are considered fully funded for design, right-of-way acquisition, and construction. Projects on the partially funded list have funding for design and/or right-of-way acquisition, but do not have full funding for the construction phase. Projects on the unfunded list do not have any funding allocated to them.

The City organizes transportation-related expenses into three categories: transportation debt, transportation capital, and street maintenance. The TIP annually reports on the six-year actual and forecasted expenses and revenue for transportation projects. The most recent TIP is available on the City's website and includes a searchable map of projects.

Resource Needs for TSP Projects List

The TSP identified a total of 228 capital projects as needed to implement the walking, rolling, and BSM elements. Implementing the TSP requires funding both for design and construction as well as for staff to manage programs. Capital projects are costly to construct; currently the City advances active transportation improvements in conjunction with pavement maintenance work when restriping will already occur. Leveraging existing projects and planned maintenance work enables the City's resources to go further in building out the walking, biking and small mobility networks. With limited budgets, the projects are phased over the next 20 years and could be implemented through either expanding the TIP or incorporating into planned pavement and other projects currently on the TIP. The TIP and Capital Improvement Program (CIP) are reviewed and updated annually. As part of this annual review, projects will be analyzed and prioritized based on a number of factors, such as impact, safety and cost to determine their priority.

Another way to fund and build TSP projects is through Traffic Impact Fees (TIFs), which are paid by developers and calculated based on how much traffic a new project is expected to generate. Vancouver is currently updating its TIF Program to keep pace with the city's rapid development, and to incorporate new multimodal level of service standards.

Vancouver receives a large portion of capital project funding through grants, but the City could continue to expand efforts into new funding programs. For example, a transportation utility program could levy fees for transportation purposes. Appendix I of the TSP lists additional federal and state grant opportunities that the City could pursue to fund capital projects.

Additional details on transportation projects included in the 6-year TIP and 20-year Capital Facilities Plan are included in the Public Services and Facilities element.

Americans Disabilities Act (ADA) Transition Plan

The City of Vancouver has drafted an ADA Self-Evaluation and Transition Plan (Transition Plan), which is a federal requirement and is adopted into the Comprehensive Plan by reference. This plan will identify and plan for the removal of barriers to accessibility in facilities and programs across the city. The Transition Plan is intended to be a working document that will be updated when barriers have been removed and when new barriers are identified.

Goal: TM-1 Integrated Transportation and Connectivity

Vancouver is served by a reliable, frequent, and accessible transportation system that seamlessly connects residents to key areas of the city and the region.

Key Actions

✓ Metric 1

✓ Metric 2

✓ Metric 3

✓ Metric 4

✓ Metric 5

✓ Metric 6

Vancouver's transportation system will serve all users by providing multimodal options that get the community to work, school, services, entertainment and shopping reliably and accessibly. Historically, Vancouver's transportation system prioritized vehicle movement over other forms of travel. This plan update and Goal TM-1, in coordination with the TSP, shifts the priority to efficiently moving people. This prioritizes building network connections that will serve not only vehicles, but transit and active transportation modes as well.

A significant portion of Vancouver households, 7.3%, do not have access to a vehicle and rely on transit, carpooling, and active transportation modes to get from place to place. Transit services will be frequent and arrive on schedule, serving both those with and without vehicles. People of all ages and abilities will have an opportunity to choose the mode that works best for them, whether that's taking transit, walking, biking, rolling, carpooling, or driving alone. The system will be well integrated with neighboring cities through close coordination between agencies who plan for land use and transportation.

The supporting policies invest in active transportation infrastructure that connects residential and commercial areas, provide connectivity through updated street design standards, and build on the existing trail and open space network to fill gaps. Another key policy supports maintaining assets and the City's existing infrastructure.

Other goals in the plan that advance related outcomes include LU-1 Connected and Accessible Neighborhoods, EI-1 Equitable Community, and PFS-1 Public Facilities and Services.

Supporting Policies			Related Goals
62	**Support Active Transportation Investments**	Improve active transportation in areas with inadequate mobility infrastructure to increase the share of trips made by foot, bike, other small mobility options and transit. Include integration of park trails into the active transportation network.	PFS-1
63	**Street Standards**	Adopt updated street standards that facilitate evolution to a safe, comfortable and accessible multimodal transportation system.	TM-2, TM-4
64	**Street Connectivity**	Adopt connectivity standards to improve pedestrian and small mobility safety and accessibility. Apply standards to development, capital, and planning projects including maximum block length, unconnected streets, cul-de-sac connections, linkages between land uses, and multiple access points.	TM-2, TM-4, LU-3
65	**Low-Stress Bicycle and Small Mobility Network**	Implement the city-wide low-stress bicycle and small mobility network that prioritizes safety and comfort for people of all ages and abilities.	TM-2, TM-4
66	**Community Streets**	Develop guidance and encouragement for community use of the right-of-way, including plazas, parklets, “streateries,” open streets events, public art, and demonstration projects.	TM-4, PR-2
68	**Accessible Mobility for All**	Promote universal design standards and mobility solutions for disabled, senior, youth, and low-income residents across all modes.	EI-2, EI-3
82	**Regional Trail and Open Space Networks**	Work with nonprofit and private partners, Clark County and adjacent cities to build out the regional trail network for recreation and active transportation purposes.	PR-2

89	**Regional Planning**	Coordinate closely with Clark County, other cities, and other government entities such as C-TRAN, the Regional Transportation Council (RTC), and school districts to sustainably manage urban growth areas, efficiently deliver urban services, expand regional transit and multimodal connectivity, and coordinate on shared goals and responsibilities, in accordance with adopted countywide planning policies.	LU-4, CL-3, TM-2
120	**Community Safe Routes**	Create safe walking connections through programs that identify and invest in Safe Routes to Schools and Community Safe Routes that link people to transit and important community destinations.	TM-2, PFS-3
121	**Regional Infrastructure**	Work with local, state, federal and tribal partners to ensure that new construction or replacement of critical infrastructure is planned and designed to avoid community harm and maximize social, environmental, and cultural value.	TM-2, PFS-1
128	**Asset Management**	City transportation, water, sewer, and surface water facility assets shall be systematically managed to balance full life cycle costs, performance, risk, and service levels, using best management practices and data. Public infrastructure and facility investments will leverage existing investments to support efficient and equitable growth.	PFS-2, PR-1
134	**Cost Efficient Infrastructure**	Design and maintain infrastructure to reduce long term maintenance and replacement costs. Consider lifecycle costs, emerging technologies, and the impacts of facility design and material choices in both capital and operating budgets.	PFS-1
59	**Pedestrian Oriented Design**	Ensure ground floor building facades, public spaces and streets are designed at a human scale to provide comfort, accessibility and visual interest for pedestrians.	LU-1

Goal: TM-2 Change Travel Behavior

Community members can access a suite of low carbon travel options that connect important destinations, including walking, cycling, small mobility, and transit, while reducing reliance on single occupancy vehicles.

Key Actions

- ✓ Metric 1
- ✓ Metric 2
- ✓ Metric 3
- ✓ Metric 4
- ✓ Metric 5
- ✓ Metric 6

As Vancouver continues to grow and change, the transportation network will adjust to provide more modal options for the community to move around the city and the region. With complete corridors and easy connections to transit, choosing those options will be more convenient. Walking or using a small mobility device for short trips will be safer and more comfortable for all users, and transit will be a reliable and convenient option to travel longer distances. These options will reduce per capita vehicle miles traveled and advance climate goals related to reducing transportation-related greenhouse gas emissions.

Policies related to this goal support investments in transit infrastructure, adding more housing and services near transit stations, updating street standards and maximizing the use of on-street parking. The policies also consider future mobility by preparing the City to adapt to emerging transportation technology and allowing for pilot projects that will test the feasibility and impact of new mobility options.

While the majority of people in Vancouver will continue to drive to important locations, providing options to walk, roll, bike, use a small mobility device and take transit will support the shift toward low-carbon transportation options.

Supporting Policies		Related Goals
27 **Transit Supportive Infrastructure**	Invest in infrastructure that supports reliable, frequent, safe and accessible transit service, including shelters, lighting, lane and signal priority and pedestrian connections, as outlined in the Transportation System Plan and the Enhanced Transit Modal Network.	EI-1, PFS-3
47 **Maximize Utilization of Existing On-Street Parking**	Implement strategic pricing mechanisms to manage the availability of on-street parking in mixed-use and regional activity centers.	LU-4
58 **Reduce VMT and GHG Emissions**	Implement land use patterns that reduce vehicle miles traveled, traffic congestion and greenhouse gas emissions per capita, while improving safety and air quality.	CL-3, CE-3
60 **Equitable Transit Oriented Development**	Tailor regulations, incentives and investments to facilitate development near current and future transit stations, ensuring new development is accessible to historically excluded and underserved communities and those most reliant on public transit.	LU-1, LU-2
61 **Emerging Mobility**	Prepare for emerging technologies by updating City policies and operational requirements for shared mobility and emerging mobility vendors, including autonomous vehicles.	CF-4
67 **Resources Near Transit**	Locate community resources near current and future transit routes to ensure access for those most reliant on public transit.	LU-1
112 **Multimodal Level of Service**	Update regulations and design guidance to reflect multimodal level of service standards that require private development and capital projects to advance multimodal safety and support shifts to non-drive-alone modes.	TM-1

131	**Pilot Projects**	Encourage the use of short-term pilot projects for park, transportation, and infrastructure improvements before making long-term investments to foster innovation, test feasibility, and increase community buy-in.	CF-4, PR-2

Goal: TM-3 Efficient Freight Access

Efficient and resilient port and freight infrastructure safely and efficiently moves goods, supports economic growth, and minimizes negative environmental impacts.

Key Actions

- ✓ Metric 1
- ✓ Metric 2
- ✓ Metric 3
- ✓ Metric 4
- ✓ Metric 5
- ✓ Metric 6

Efficient and resilient freight infrastructure supports commercial and industrial activities in Vancouver and enables goods to move quickly, safely, and reliably throughout the region. A well-maintained freight network reduces congestion, prevents delays, and lowers fuel consumption while supporting economic productivity and competitiveness. Smart infrastructure planning, like incorporating dedicated freight routes throughout the transportation network and optimizing traffic flow with intelligent transportation systems can significantly reduce environmental impacts.

The policies associated with this goal will enhance freight movement to and from the Port of Vancouver and other employment areas and reduce conflict between freight vehicles and other roadway users such as personal vehicles, bikes, and pedestrians.

Supporting Policies			Related Goals
32	**Conserve Employment Land**	Conserve and invest in industrial lands and other areas that provide employment for middle and high wage jobs.	LU-2, EO-2
36	**Facilitate Business and Job Growth**	Support businesses that create high-quality jobs by reducing barriers to growth, streamlining development processes, and investing in infrastructure.	EO-2, EO-4, CE-4
90	**Optimize Freight Corridors**	Designate and enhance freight corridors to facilitate efficient movement of goods and reduce congestion.	EO-2
91	**Enhance Port Access**	Improve infrastructure and connectivity to and from the Port of Vancouver to streamline freight operations.	EO-2
121	**Regional Infrastructure**	Work with local, state, federal and tribal partners to ensure that new construction or replacement of critical infrastructure is planned and designed to avoid community harm and maximize social, economic, environmental and cultural value.	TM-1, PFS-1

Goal: TM-4

Eliminate Traffic Fatalities (Vision Zero)

Eliminate traffic-related fatalities and serious injuries occurring in the transportation network and create a safe and comfortable travel environment for all users, regardless of age, ability or mode of travel.

Key Implementation Actions

✓ Metric 1

✓ Metric 2

✓ Metric 3

✓ Metric 4

✓ Metric 5

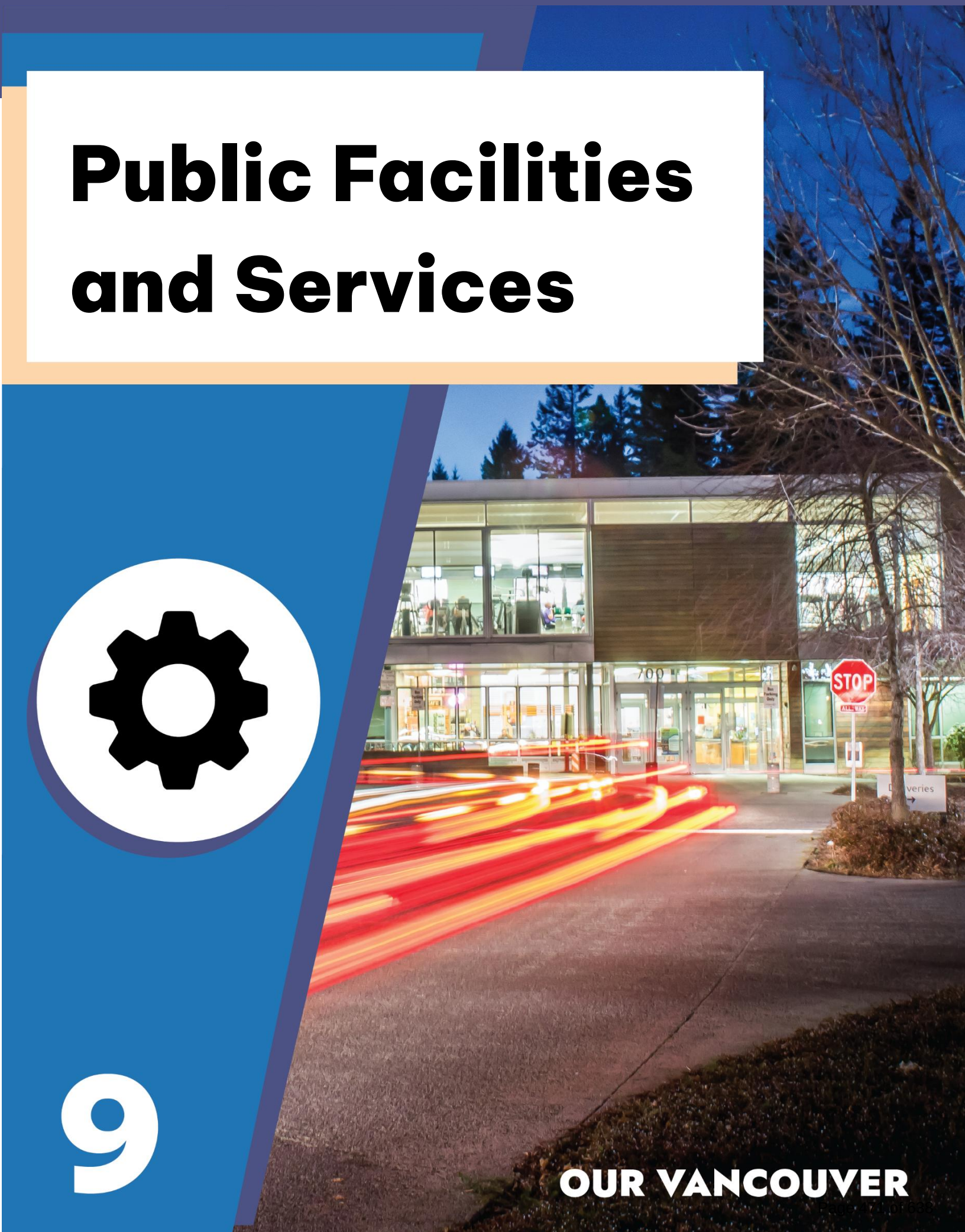
✓ Metric 6

Vision Zero represents a bold commitment to rethinking transportation systems so that safety is not negotiable. Roads, intersections, and mobility policies are designed to prioritize human life above speed or convenience, eliminating death or serious injuries in the transportation network. This extends beyond drivers to include pedestrians, cyclists, transit riders, children, older adults, and people with disabilities, recognizing that everyone deserves to move through their community without fear. By creating a safe and comfortable travel environment for all modes and abilities, Vision Zero fosters equity, encourages active transportation, and builds trust in public infrastructure.

The policies supporting the goal of Vision Zero include street standards that ensure the design of all streets in Vancouver are comfortable and inviting to multiple modes of transportation. Many of the policies focus on making streets safer and more comfortable for those who are biking, walking or rolling.

Supporting Policies			Related Goals
53	**Invest in Underserved Areas**	Prioritize infrastructure, housing and public service investments in underserved neighborhoods and areas of the City that have not benefitted from past investments.	PFS-1, EI-1
63	**Street Standards**	Adopt updated street standards that facilitate evolution to a safe, comfortable, and accessible multimodal transportation system.	TM-1, TM-2
64	**Street Connectivity**	Adopt connectivity standards to improve pedestrian and small mobility safety and accessibility. Apply standards to development, capital, and planning projects including maximum block length, unconnected streets, cul-de-sac connections, linkages between land uses, and multiple access points.	TM-1, TM-2, LU-3
65	**Low-Stress Bicycle and Small Mobility Network**	Implement a city-wide low-stress bicycle and small mobility network that prioritizes safety and comfort for people of all ages and abilities.	TM-1, TM-2
66	**Community Streets**	Develop guidance and encouragement for community use of the right-of-way, including plazas, parklets, “streateries,” open streets events, public art, and demonstration projects.	TM-1, PR-2
79	**Improve Connectivity Between Parks and Open Spaces**	Create an expansive network of linear parks that encourage active transportation, improve community health and wellbeing, enhance tree canopy and stormwater management, and link parks and open space with housing.	PR-2, PFS-1, CL-2

Public Facilities and Services



9

Introduction

Cities and counties must be supported by a range of local public facilities and services, including transportation, water, sanitary sewer, stormwater, parks, fire and emergency services, police, solid waste, schools, and libraries. This chapter summarizes the City of Vancouver's capital facilities and physical infrastructure needed to serve growth anticipated to occur in the City over the next 20 years. Most of these facilities are owned by the City of Vancouver, but some are owned by outside public agencies. The Public Facilities and Services chapter closely connects with the transportation and land use chapters to plan and manage infrastructure and urban services. It provides an inventory of existing facilities and infrastructure and a forecast of future needs based on population and employment growth and anticipated changes in the city. It includes a detailed financing plan identifying how capital facilities needed to serve the first six years of the Comprehensive Plan will be paid for, and more generalized information about costs over the remainder of the 20-year period. This chapter summarizes more detailed information in the multi-year capital plans and budgets of individual City



Vision: Public Facilities and Services

We will prioritize public infrastructure and facility investments that leverage our existing investments to support efficient and equitable growth. We commit to providing high quality, well maintained and affordable public services that protect the environment, mitigate and adapt to climate change, ensure equitable access to programs and resources, and respond to our community's needs as we grow. We commit to enhancing social infrastructure to foster a sense of connectedness, well-being and acceptance to advance equitable outcomes.

departments and outside agencies. Pursuant to the Growth Management Act, it focuses on needs for new or expanded capital facilities rather than operating or maintenance cost of those facilities, or personnel or non-capital facilities needs. This chapter is a long term planning document and intended to be amended periodically over time to remain relevant, but it will not be updated as frequently as department or agency capital budgets or project lists. Existing facilities/urban services and the service providers are listed in Table 1.

Public Facilities and Services

Table 1 Vancouver Public Facilities/Urban Services and Service Providers

Facility/Service	Provider(s)	Relative Planning Documents
Transportation	• City of Vancouver • Clark County (UGA) • Washinton Department of Transportation (I-5, I-205, SR-14) • Port of Vancouver • Burlington Northern Santa Fe (BNSF) Railroad	• Transportation Chapter of Comprehensive Plan • 2024 Vancouver Moves (Transportation System Plan) • Vancouver 2026-2031 Transportation Improvement Program • Clark County Comprehensive Plan • 2013 Pearson Field Master Plan (update planned for 2026-2027)
Transit	• C-TRAN	• 2025-2030 C-TRAN Transit Development Plan • Transportation Chapter of the Comprehensive Plan • RTC Regional Transportation Plan (2024)
Water	• City of Vancouver • Clark Public Utilities (UGA)	• 2015 Comprehensive Water System Plan (20-year plan). Update in process, adoption anticipated 2026-2027.
Sanitary Sewer (wastewater)	• City of Vancouver • Clark Regional Wasterwater District • Discovery Clean Water Alliance (Treatment only)	• 2011 General Sewer Plan (20-year plan). Update in process, adoption anticipated 2026-2027.
Stormwater	• City of Vancouver • Clark County	• 2025 Stormwater Management Plan • Climate and Environment Chapter
Parks	• City of Vancouver • Clark County	• Parks and Recreation Chapter

Facility/Service	Provider(s)	Relative Planning Documents
	• National Parks Service (Fort Vancouver)	• 2022-2031 Parks, Recreation and Cultural Services Comprehensive Plan • City of Vancouver Long Range Facilities Plan (2025)
Urban Foresty	• City of Vancouver	• 2023 Urban Forestry Management Plan • Climate and Environment Chapter
Fire and Emergency Services	• City of Vancouver • Clark County Fire District #5 (City and UGA) • Clark County Fire District #6 (UGA)	• City of Vancouver Long Range Facilities Plan (2025) • Proposition 2
Police	• City of Vancouver • Clark County Sheriff (UGA)	• City of Vancouver Long Range Facilities Plan (2025) • Proposition 5
Solid Waste	• Waste Connections, Inc. • Columbia Resource Company	• 2025-2030 Comprehensive Countywide Solid Waste Management Plan
Public Schools	• Vancouver, Evergreen and Camas School Districts • Battle Ground, Ridgefield and Hockinson School Districts (UGA)	• Vancouver School District Capital Facilities Plan (2022) • Evergreen Public Schools Capital Facilities Plan (2026) • Vancouver School District Strategic Plan • EPS Strategic Plan (2023-2027) • CSD Strategic Plan (2025) • Battle Ground Public Schools Strategic Plan (2022-2027) • Ridgefield School District Strategic Plan (2025) • Hockinson School District Strategic Plan (2025-2030)
Libraries	• Fort Vancouver Regional Library System	• Fort Vancouver Regional Libraries Comprehensive Facilities Plan (2025)
General Government	• City of Vancouver • Clark County	• City of Vancouver Long Range Facilities Plan (2025) • 6-Year Project List (2025)

Community Feedback

- Concerns about whether infrastructure, facilities, and services can keep pace with growth
- Need to maintain and upgrade existing infrastructure and public facilities.
- Desire for repairs and updates to community centers, streets, sidewalks, stormwater systems, and parks.
- Concerns that schools, fire and police services, and parks are strained.
- Concerns about rising utility costs and the potential for housing displacement associated with increased costs.
- Infrastructure and services must support climate resilience and emergency preparedness. Concerns about public safety and enforcement, including crime, traffic and parking enforcement, and clean and safe public spaces.

Wastewater

The City of Vancouver provides wasterwater services within city limits and in portions of the Urban Growth Area outside of city limits. The Clark Regional Wasterwater District (CRWWD) services northwest portions of the UGA. See service boundaries in **Error! Reference source not found.** below.

The City of Vancouver's wasterwater collection system consists of interceptors, trunk lines, main lines, pump stations, and force mains. The wastewater treatment system is comprised of three main facilities:

- Marine Park Water Reclamation Facility
- Westside Water Reclamation Facility
- Industrial pretreatment lagoon

Several conveyance pump stations balance the flows between Marine Park and the Westside facilities. These diversion pump stations include the Orchards Diversion Pump Station, Andresen Diversion Pump Station, and the Industrial Pump Station. There are an additional 30 collection pump stations that serve smaller areas. The collection system consists of mainly gravity lines, most of which have an 8 inch diameter pipe size. The City's existing Sewer System includes nearly 800 miles of pipelines serving approximaltey 47,000 customer accounts through a variety of sewer laterals and other collection means. Flows from the gravity collection system are routed to a series of interceptors, built between 1947 and 1996. More detailed information regarding the inventory of sewer system assets can be found in the General Sewer Plan.[1]

[1] City of Vancouver 2011 General Sewer Plan

Industrial and commercial wastewater may contain metals, oil and grease, organics or other pollutants at greater concentration than typical domestic wastewater. Vancouver's pretreatment program protects the wastewater collection system, treatment facilities, and environment from uncontrolled toxic pollutants. Facilities, such as restaurants, dental offices, manufacturers, fabricators, chemical blenders and others, that discharge non-domestic wastewater into the system must meet federal Clean Water requirements. The City monitors food establishments, dental facilities, and industrial dischargers on an annual basis, and issues 5-year industrial wastewater discharge permits to facilities classified as significant and medium industrial users.

The model for the major wastewater collection system was refined as part of the City's General Sewer Plan (2011) to determine whether the network of pipes, manholes, pumps, and other physical facilities were adequate to convey estimated flows under storm conditions. The General Sewer Plan is currently being updated to be consistent with Washington State Department of Ecology requirements, the adopted Comprehensive Plan, and to reflect changes to the infrastructure since 2011.

Table 2 Inventory of Sewer Facilities, Capacity, and Flows in 2025

Facility	Average daily flow capacity (in MGD)	Average daily flow (in MGD)	Maximum average daily (in MGD)
Westside Water Reclamation Facility	28.3	10.7	17.1
Marine Park Water Reclamation Facility	16.1	11.0	18.1
Industrial pretreatment	3.2	1.1	2.0

Future Demand

The existing sewer system meets all federal and state standards and has adequate capacity for existing demand. An amendment to the General Sewer Plan is underway to confirm future demand capacity and expected to be complete late 2026/early 2027. Proposed capital improvement projects will be incorporated into the capital improvement plan (CIP) annually if deficiences are identified. The system is monitored closely along with development trends to plan treatment, conveyance and collection system projects well before the system reaches capacity.

In 2025, there were approximately 5,355 onsite sewage treatment or septic systems in the Vancouver sewer service area, serving 14,456 people and discharging 0.4 million gallons per day (MGD) of effluent into the ground for treatment. Most of these systems are reaching the end of their expected life spans, therefore failures are more likley to occur. This can result in contamination of nearby streams, lakes, or shallow drinking water wells, and may increase nitrates in groundwater. The Sewer Connection Incentive Program (SCIP) was developed to protect water resources from failing septic systems and to support homeowners in eliminating unreliable septic systems by connecting to the sewer system. The program completed 112 projects extending public sanitary sewers to 4,781 properties at an investment of approximately $46 million since 2000. In 2025, there were two SCIP projects under construction, connecting approximately 50 properties to the sewer

system. There were three projects in the design phase, that will connect approximatley an additional 175 properties to the system.

Figure 1 Sanitary Sewer System



Water

Potable water is provided by both the City of Vancouver and Clark Public Utilities (CPU). See Figure 2 for details of the service boundaries. The City serves approximately 270,000 residents through 77,000 water service connections and, in 2024, produced approximately 9.85 billion gallons, or an average daily production of 26.9 million gallons per day. The City operates and maintains 9 water production stations, 40 wells, 52 booster pumps, more than 1,100 miles of pipes and 77,000 service connections that include commercial, industrial, and institutional customers.[2]

Equity Lens

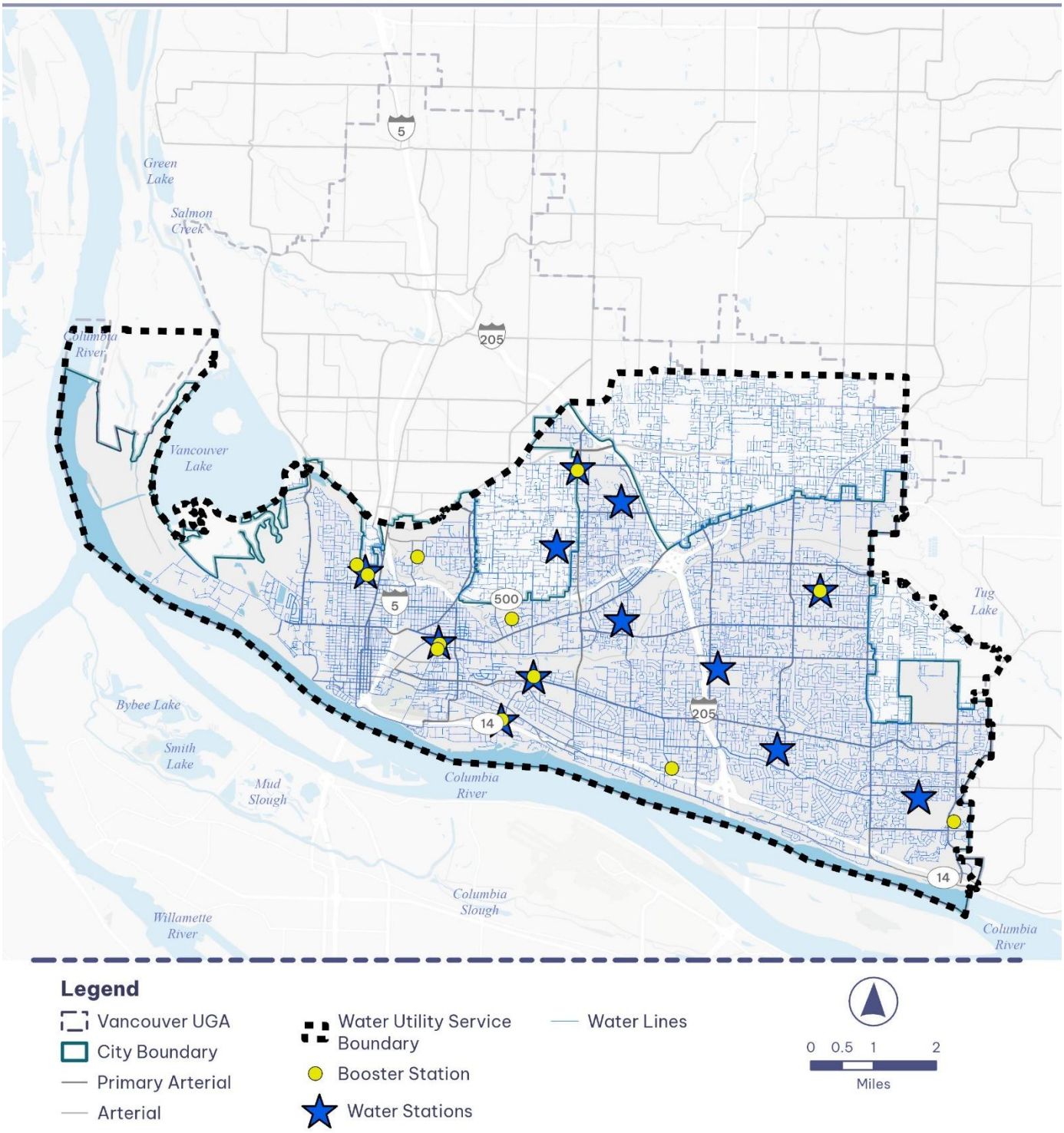
Public facilities and services play an essential role in Vancouver's safety, growth and opportunities. The Equity Index identifies locations in Vancouver with potentially underserved populations, focusing on various metrics at the census tract level. This tool will help inform future planning and design of community services and facilities and will play a role in prioritizing investments.

Water pressure requirements for the system are determined by the Washington Department of Health, which establishes minimum operating pressure standards of 30 pounds per square inch.[3] These standards ensure that adequate water flow is maintained during peak hours when there is high demand. Compliance with these pressure standards is crucial for providing a reliable water supply to the community. The National Fire Protection Association (NFPA) also plays a role in ensuring the effectiveness of the water system, particularly in the event of a fire. The NFPA sets guidelines and regulations for the supply, storage, and distribution of water to meet the firefighting needs of the community. Fire flow requirements often determine the minimum size of water lines and storage capacity to ensure an adequate water supply is available for firefighting purposes.

The complete water system analysis, hydraulic model and asset inventory for the Water System is detailed in the City's Water System Plan (2015). The hydraulic model is used to determine whether the system is adequate to provide average daily, peak daily, and fire flow demands to the City's service customers. The Water System Plan is currently being updated to be consistent with the Washington State Departmnet of Health regulations, the adopted Comprehensive Plan, and to reflect changes to the infrastructure since 2015.

[2] City of Vancouver 2022 Amendment to the 2016 Water System Plan 4-Year Extension Update
[3] WAC 246-290-420

Figure 2 Water Service Area and Facilities



Future Demand

Table 3 shows the Vancouver public water supply system and summarizes current production and future demand for the water system. Vancouver has a total annual water right for withdrawal of 16.3 billion gallons per year, or an annual withdrawal rate of 44.86 MGD. Maximum instantaneous withdrawal allowed is 108.1 MGD at 75,000 gallons per minute. Ideal design practice recommends

that the source of supply be able to serve the maximum day demand (MDD), allowing stored water to be used for the daily peaking requirements of the system. Currently, the total peak reliable well capacity is 88 MGD, but other limiting factors, such as treatment capacity, restrict the total reliable capacity to 80.6 MGD. The peak day system demand was 44.6 million gallons in 2012, or 248 gallons per person. In 2025, the average day demand per person is estimated to be 102 gallons. It is estimated that the average daily demand will increase to 122 gallons per person by 2045 and that the peak day demand will increase to 300 gallons per person due to an increase in industrial and wholesale demand. The City is committed to making full use of its water rights. Based on existing and future water rights analysis, no new water rights are required in the 20-year planning period.

One challenge faced by the water system in Vancouver is the geographical disconnect between the location of the water reservoirs in the southwest area of the city and the areas experiencing population growth in the northeast part of the city. To maintain the flow of water and meet the increasing demands, the City continuously improves its transmission infrastructure and pumping systems while addressing the storage capacity issue in the northeast. Projects are identified in the capital improvement plan and reviewed and updated annually.

Table 3 Water Production and Projected Demand

Category	2012 (actual)	2025 (estimate)	2045 (projected)
Service area population (includes incorporated City and adjacent unincorporated areas)	228,779	273,500	324,335
Average Daily Demand (ADD) in millions of gallons per day (MGD)	25	28.0	39.6
ADD/person, in gallons	144	102	122
Peak day demand in MGD	44.6	54.4	76.8
Number of sources (wells)	40	40	40
Reliable source (well) capacity in MGD	49.8	49.8	58.44
Storage capacity in MG	24	28.25	39.25
Primary water rights, Instantaneous Withdrawal (Q_i) in MGD	43.41	43.41	43.41
Primary water rights, Annual Withdrawal (Q_a) in billions of gallons per year	15.8	15.8	15.8

Stormwater

The City of Vancouver works to protect local water resources and aims to improve water quality. Stormwater is regulated under the Federal Clean Water Act through the National Pollutant Discharge Elimination System (NPDES) permit program administered by Washington State Department of Ecology (Ecology). The City's current stormwater permit is valid through July 31, 2029, and re-issued

every five years. The City follows the Stormwater Management Manual for Western Washington (SWMMWW) as the standard for designing and managing stormwater systems.

Ecology also regulates stormwater infiltration to protect groundwater and drinking water supplies. These requirements help prevent pollutants in stormwater runoff from contaminating groundwater. Vancouver's stormwater infiltration systems, such as drywells, are regulated under this program.

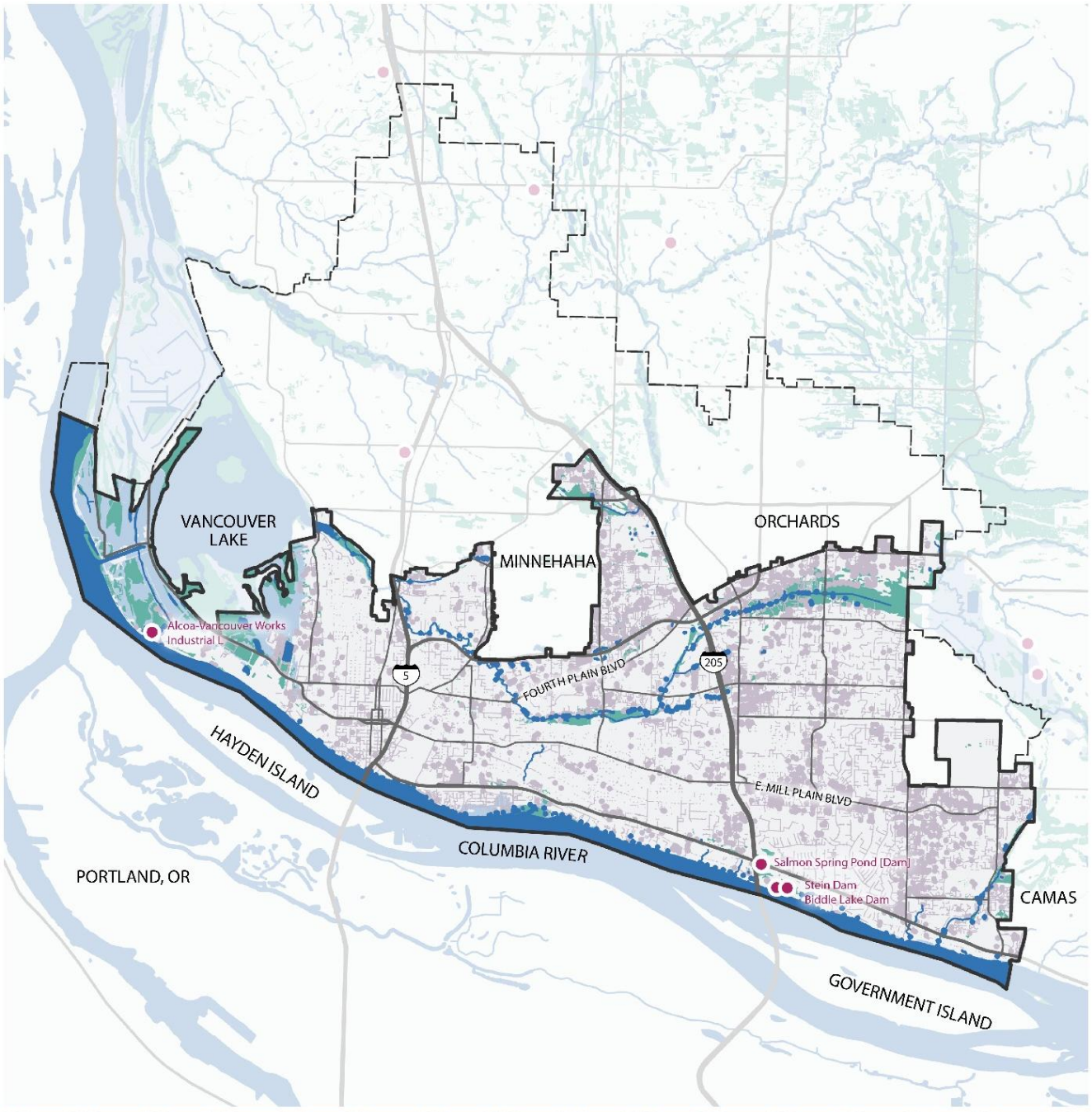
When stormwater infiltrates into the ground, it can mix with shallow groundwater that feeds nearby streams, springs, and rivers, or it can recharge deeper groundwater aquifers. Burnt Bridge Creek and springs along the Columbia Slope are supplied by both surface water and groundwater, including water influenced by stormwater infiltration systems.

The City owns and maintains approximately 3,500 drywells and nearly 65 miles of infiltration trenches, many of which have been in place for more than 40 years. In addition, the City's stormwater system includes approximately 275 miles of pipes, 188 outfalls to surface waters, and 724 treatment and flow control facilities which includes over 400 bioretention facilities.

Because much of Vancouver was developed before current stormwater regulations were adopted, runoff from older areas is often not treated before discharging to the ground or surface waters. The City is actively identifying areas that would benefit from additional stormwater treatment best management practices (BMPs) and is incorporating these improvements into the Capital Improvement Plan. The City maintains a Stormwater Management Program Plan (SWMP), which documents current and planned actions to protect water resources. The SWMP is updated annually. Vancouver implements Low Impact Development (LID) Principles and best management practices as the preferred approach for site development under the City's land use and development codes. Development projects are required to comply with the SWMMWW, which emphasizes LID techniques such as groundwater recharge, preservation of on-site natural features, thoughtful site planning, and the use of distributed stormwater BMPs integrated into a project's design. Common LID practices include bioretention facilities, rain gardens, roof runoff infiltration, permeable pavements, reduced excavation foundations, vegetated roofs, and rainwater harvesting.[4]

[4] 2025 Stormwater Management Program Plan

Figure 3 Stormwater Facilities



Future Demand

New construction or redevelopment will increase the amount of new impervious surfaces, including rooftops, driveways, roadways, sidewalks, parking lots, and compacted soils. Impervious surfaces reduce natural infiltration of water into soils and increase surface water runoff, which can change the way that water and pollutants travel to urban streams and lead to increased stormwater impacts. All development projects are required to provide erosion control, stormwater capture and treatment, and conveyance on-site in accordance with VMC 14.24, 14.25 and 14.26.

Development projects that create or replace impervious surfaces within City Right of Way (ROW) are required to construct new stormwater facilities to City standards, and are dedicated to the City for operation and maintenance. If on-site stormwater management is not feasible for a specific site, projects may propose to connect to City owned stormwater facilities and must provide a full downstream capacity analysis prior to approval.

Green Infrastructure

In 2023, HB1181 took effect in Washington and includes a new term, "green infrastructure," to be included with the inventory of existing capital facilities. Green infrastructure includes parks and tree canopy and stormwater infrastructure and management practices. Vancouver's stormwater infrastructure and policies are detailed in the section above, as well as in Vancouver's Stormwater Management Program Plan. More information about Vancouver's parks can be found in the Parks and Recreation Chapter of this plan and the Parks, Recreation and Cultural Services Comprehensive Plan. Vancouver's Urban Forestry Division works to preserve, manage and enhance Vancouver's existing tree canopy and promotes reforestation of the urban area. Tree canopy management practices and policies can be found in the Urban Forestry Management Plan.

Fire and Emergency Services

The Vancouver Fire Department (VFD) provides fire protection and emergency medical services (EMS) to the City and Clark County (via Fire District 5). In addition to fire and EMS, they provide maritime response, fire prevention and fire investigation. Regionally, they provide hazardous materials and technical rescue responses. VFD, in partnership with Fire District 5, serves 301,500 residents in the City and in portions of the UGA, across 90 square miles,



including 22 miles of shoreline along the Columbia River, running more than 38,500 calls per year. In 2024, 62.9% of all service requests were emergency medical calls. The City also partners with American Medical Response (AMR) for ambulance transport.[5]

The consolidated fire department currently has 14 facilities, including 11 fire stations, operated by 256 VFD and 190 AMR personnel. Vehicular equipment includes one each of heavy rescue unit, medical rehab unit, mobile air compressor, fire boat, high-capacity pump and foam tender and fire investigation unit; two each of brush units and battalion chief units; three each of mobile water tenders, ladder trucks, and paramedic squads; and 11 fire engines.

VFD uses a metric of firefighters per 1,000 people as one way of projecting future needs to maintain or improve levels of service to the community. The current ratio is 0.83 firefighters per 1,000 people.[6]

Table 4 VFD Calls Per Station*

Station #	1	2	3	4	5	6	7	8	9	10	11
Calls/ station 2010	2,644	2,474	3,521	1,942	3,339	2,133	854	2,598	1,946	1,350	N/A[7]
Calls/ station 2024	5,263	3,796	3,612	2,025	5,562	4,533	1,414	4,830	3,452	2,034	1,901
% change	49.8	34.8	2.5	4.1	40	52.9	39.6	46.2	43.6	33.6	N/A

***Calls are for fire and emergency medical aid service.**

Table 5 2024 VFD Response Time Performance

Alarm type	Standard Response Time	2024	2024 percent met standard	Number of calls received in 2024	Percent change over 2023
Priority 1 and 2 (except maritime)	07:59	08:01	89.9%	16,676	5.5%
Priority 3 and 4 (except maritime)	10:59	08:43	95.8%	8,582	-0.7%
Priority 5 Non-Medical	15:59	10:35	98.3%	5,873	16.3%
Priority 5 Emergency Medical-Ambulance Only	17:59	17:50	90.4%	7,436	-5.4%

[5] VFD-Annual-Report_2024-final.pdf
[6] 949b2eaca3e28d8fdc13a296056e0dcf_OurVancouver_DraftEIS_July2025.pdf
[7] Construction of Fire Station 11 was completed in 2022.

Priority 1 and 2 include fire and critical medical calls, priority 3 and 4 are less critical, and priority 5 are the least emergent.

Future Demand

Population density, number of emergency calls per station area, response times, and national standards developed by the Insurance Services Offices, Inc. and the US Fire Administration are used to decide when to staff fire stations with career personnel, and when and where to build new fire stations. The need for additional response units is based on the same factors and on the number of emergency calls per response unit.

VFD is planning to relocate and construct new facilities for Station 3 in The Heights in Central Vancouver and Station 6 in Burton Ridge in East Vancouver over the next five years to address growing needs in these areas. The City is also considering construction of new fire stations downtown and/or in the St. Johns area to accommodate future city growth and ensure adequate emergency response times and serviceability. Station 5 is an aging facility at capacity that either requires a seismic upgrade or rebuild after 2030. Station 4 will be seismically retrofitted as part of the Proposition 2 capital project work. Fire and Police identified a need for training facilities, which could be combined and/or include other partners. Construction of a training facility is dependent on finding an appropriate property and securing partnerships and funding.

Police



The Vancouver Police Department (VPD) provides police services in the city and is authorized to employ 241 officers, with 226 sworn members as of February 2025. VPD is located in eight facilities throughout the city. Similar to VFD, VPD uses a metric of sworn officers per 1,000 people to help project future needs to maintain or enhance its services to the community. VPD currently has a ratio of 1.2 sworn officers per 1,000 people but has identified a need to increase that number to 1.4 sworn officers per 1,000 people based on current population and anticipated growth. A ballot initiative, Proposition 5, that was approved by voters in fall 2025, will help to fund hiring of new officers to meet that goal. VPD serves approximately 50 square miles, divided into two precincts, east and west, which are further divided into two districts per precinct. Each district is then divided

into beats, and individual patrol officers are responsible for handling calls for service within each beat.[8]

Table 6 summarizes the number of events initiated by community members and by officers in 2024, as well as the average response time for community-initiated events. The event priority number refers to the level of emergency, with Priority 1, 2, and 3 indicating calls that require an immediate response and 4, 5 and 9 referring to calls with less immediacy.

Table 6 Vancouver Police Department Response Times

Event Priority	2024 Community-Initiated Events (% Change from 2023)	Avg Response Time Community-Initiated Events	2024 Officer-Initiated Events (% Change from 2023)	Total Events (% Change from 2023)
1	460 (-16.2%)	5.56 minutes	11 (-50.0%)	471 (-17.5%)
2	5,968 (-4.7%)	8.34 minutes	192 (6.1%)	6,160 (-4.4%)
3	43,034 (-7.1%)	10.74 minutes	19,922 (64.4%)	62,956 (7.7%)
4	21,972 (-10.3%)	13.82 minutes	12,413 (-6.2%)	34,385 (-8.9%)
5	2,307 (-21.7%)	13.18 minutes	1,564 (-10.0%)	3,871 (-17.4%)
9	5,349 (-15.4%)	7.46 minutes	19 (11.8%)	5,368 (-15.3%)
Total	**79,090 (-9.0)**	**10.82 minutes**	**34,121 (25.0%)**	**113,211 (-0.9%)**

Future Demand

Projected incremental residential and employment growth will increase demand for VPD services. The City has identified a replacement of VPD Headquarters on its list of capital improvements through 2029. VPD reports that its east and west precinct buildings are currently at capacity for current staff levels and have limited potential for expansion due to land constraints. VPD will need to re-evaluate staffing levels and equipment within both the east and west precincts to accommodate future demand. The evidence storage facility lacks adequate parking, covered storage, and evidence processing space. Plans to expand this facility begin in 2030. Fire and Police identified a need for training facilities, which could be combined and/or include other partners. Construction of a training facility is dependent on finding an appropriate property and securing partnerships and funding.

Schools

The Vancouver school system is a mix of public, charter, private, and special schools. Two regional public school districts have facilities in Vancouver: the Vancouver Public Schools (VPS) and the Evergreen Public Schools (EPS). The City also is home to the Washington School for the Deaf, the Washington School for the Blind, and Clark College, a community college offering bachelor's and associate degrees and certificates. Cascadia Tech Academy, which offers cooperative career and

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technical learning experiences in partnership with 10 school districts including VPS and EPS, is also located in central Vancouver.

Vancouver's school districts are facing the challenge of providing quality educational facilities given the rapid growth and development in the city and county. For the fastest growing school districts, the dilemma of serving students in portables (or having "unhoused students") is exacerbated by the continued growth projections for the region. Capital facilities demands are increased by aging infrastructure, the need for better instructional technology and facilities to support high quality teaching and learning (such as computers, presentation equipment and science labs), the desire for equity among facilities and the move toward smaller class sizes and special programs. Close coordination between the City, County and school districts is essential to adequately address these challenges.[9]



VPS is the primary provider of public education in West and Central Vancouver. The school district consists of 21 elementary, six middle, and seven high schools covering a district of 58 square miles, as well as 5 specialty schools. The average student-teacher ratio is 17:1, which is less than the state average of 19.7:1.

In 2022, VPS adopted a six-year Capital Facilities Plan (CFP) that established average classroom sizes for elementary, middle, and high school grade levels. The CFP guidelines suggest that average class sizes should be as follows:

- Elementary school, grades K-5: 21.5 students per classroom
- Middle school, grades 6-8: 26 students per classroom
- High school, grades 9-12: 27 students per classroom
- Special education students: 10 students per classroom

[9] Draft Clark County Comprehensive Plan School Element

VPS uses standard assumptions about new student generation rates to forecast their capacity needs. A map of existing Vancouver Public Schools is available in the VPS Capital Facilities Plan (2022).

The EPS Capital Facilities Plan for 2026-2032 establishes educational programs and standards of service, an inventory of capital facilities, enrollment projections, facility needs, finance plans, and review of school impact fees. EPS serves Clark County and the eastern part of Vancouver and consists of 22 elementary, six middle, and six high schools serving about 23,366 students (2024 enrollment). It also includes 4 specialty schools. A map of EPS building locations is available in Appendix X, District Map. The District's educational standards of service include:

- Grades Kindergarten-3 – targeted at 23 students per class
- Grades 4-5 – targeted at 25 students per class
- Special Education – 1 to 15 students per classroom for elementary schools
- Grades 6-8 – targeted at 27.33 students per class
- Grades 9-12 – targeted at 30 students per class
- Special Programs (e.g., music, art, and physical education) –20 to 70 students per class

Future Demand

The VPS CFP projected insufficient capacity by 2028 at two schools, Ogden Elementary in Central Vancouver and Sacajawea Elementary in West Vancouver and called for adding classrooms and co-op space at both schools. All other VPS schools had reported enrollment levels below their building capacity.

The updated Evergreen CFP projects a decrease in enrollment that will level off and remain steady through 2032. One factor hindering enrollment growth has been the slow growth in the child population cohort within Evergreen boundaries. The annual kindergarten-to-birth (K-to-birth) ratio is a key metric representing a combination of net migration between birth and age five and the share of five-year-old residents enrolled in district kindergarten classes, often referred to as a "capture rate."

EPS also uses standard assumptions about new student generation rates to forecast their capacity needs. The ratios for Evergreen have fluctuated, recovering from the 2020-21 low of 0.75, but have not returned to pre-pandemic levels. The middle scenario assumes that K-to-birth ratios will increase slightly in the next years before stabilizing at 0.89 from 2028 through 2032.

Looking forward to 2045, population growth will increase the number of new students in both VPS and EPS. This growth would occur incrementally over the next 20 years. Table 7 summarizes the projected number of future new students for each school district in 2045 based on estimated capacity for housing units and associated new school-age population. There will be more projected new students in areas served by Evergreen than VPS because more growth is forecast to occur within the Evergreen service area (primarily East Vancouver). Both school districts will need to account for this projected growth as part of their CFP planning processes and identify potential capacity issues.

Table 7 Future Projected New Students

School Level	Vancouver Public Schools	Evergreen Public Schools
Elementary School (K-5)	1,732	1,986
Middle School (6-8)	764	896
High School (9-12)	953	1,158
Total	**3,449**	**4,040**

Library Services

Fort Vancouver Regional Library District (FVRLibraries) serves more than 550,000 residents of Clark, Klickitat, Skamania, and Cowlitz counties. There are 15 library locations, two bookmobiles, 24/7 digital branch, and diverse outreach programs. It also maintains an Operations Center that houses Library administrative and support services. There are over 596,000 physical items and over 197,000 digital materials. Vancouver has four library branches within city limits or the UGA, including Cascade Park Community Library, Vancouver Community Library, Vancouver Mall Community Library, and the Three Creeks Community Library, as well as the District's Operations Center.[10]

In 2025, FVRLibraries updated its comprehensive facilities plan, which includes a 20-year facilities vision and a 10-year capital plan. A new 5-year strategic plan (2026-2030) for FVRLibraries will be completed in early 2026. The 2025 Fort Vancouver Regional Libraries Comprehensive Facilities Plan establishes a level of service for public library space of 0.5 to 0.6 square feet per capita. As of 2025, within Vancouver there is 123,660 square feet of public library space (not including the Operations Center). The current space per capita for Vancouver is 0.64 square feet.

Future Demand

To keep public library facilities well-maintained and build capacity for future community growth, the Comprehensive Facilities Plan recommends the following capital projects:

- Renovate Three Creeks Community Library
- Renovate Cascade Park Community Library
- Address ongoing capital maintenance needs at Vancouver Community Library
- Acquire a suitable site and build a new library branch within the area bounded by I-5, I-205, and State Route 500.

Administrative and Public Works Buildings

In addition to fire and police stations, community centers and specific utility sites, the City owns and operates buildings in which various government and educational services are provided. City Hall at

[10] FVRL Comprehensive Facilities Plan 2025



415 W. Sixth Street provides office and meeting space for numerous city departments. It contains Council Chambers, where City Council and other commissions and boards meet. The Permit Center is located in City Hall and is open to the public three days per week.

In 2022, the City purchased 521 Chkalov and is renovating the building to relocate some public facing and customer service functions.

The Zhen Building, at 5107 E. Fourth Plain Boulevard, hosts Community Court and a division of Public Works. The building is in poor condition and once vacated, will be demolished. Community Court will need to relocate when that happens.

The Operations Center, at 4711 E Fourth Plain Blvd., provides office and meeting space primarily for the Public Works Department. A new 32-acre Public Works Operations Campus on NE 94th Ave. between NE 88th St. and NE 91st St. is planned to open by the end of 2028. The current Operations Center does not meet the current or long term needs of the community. The facility has original electric and plumbing systems from 1951, lacks ADA-compliant access and does not currently meet seismic standards.



The new campus will allow the City's Department of Public Works to provide more efficient and effective operations, increase sustainable practices, enhance responsiveness, provide continued operations in the event of a seismic event, and serve as an Emergency Operations Center (EOC) in the event of a major emergency or natural disaster. The new Operations Campus will replace/relocate the existing operations center's staff and facility and consolidate additional operations sites currently scattered around the city to a single location. Consolidation will decrease costs and increase overall efficiency of services to the public.

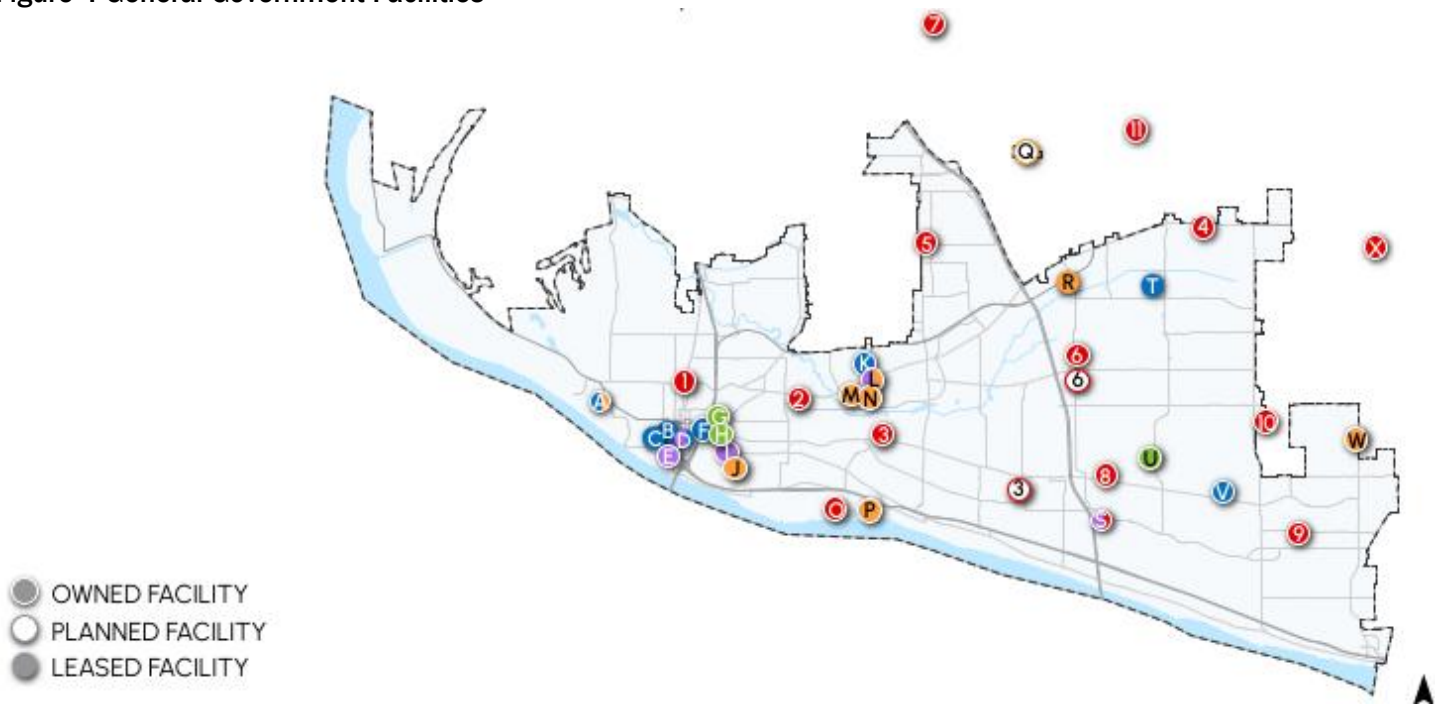
The Brookside Complex (2323 General Anderson Avenue) includes the public-facing Utilities Billings office and an operations yard, fleet parking and crew building. The Eastside Operations Center (912 NE 192nd Avenue) includes portable crew building, enclosed parking shed, bulk material storage, and laydown space.

The Marine Park Engineering building at 4500 SE Columbia Way provides office and meeting space for the Utilities Engineering, Environmental Services and Business Services divisions of the Public Works Department.

The Water Resource Education Center, at 4600 SE Columbia Way, is a facility meant to educate the public about planning and managing water resources and sewer infrastructure as well as advancing stewardship of the community's high-quality water resources. Programming such as exhibits, tours and volunteer programs are available to the public, as well as access to the community room, hosting up to 160 people.

The Vancouver Parks, Recreation & Cultural Services Department owns and operates the Firstenburg Community Center in east Vancouver, Luepke Senior Center and Marshall Community Center (both in west Vancouver). The Arts Hub is an emerging community space in the design stage as of 2025 and located in the former Fort Vancouver Regional Library Operations Center. The Vancouver Tennis Center (in central Vancouver) is owned by Vancouver School District but site improvements and management are funded by the City. Additional details about these community centers can be found in the Parks Chapter of this plan, as well as the Parks, Recreation & Cultural Services Comprehensive Plan.

Figure 4 General Government Facilities



POLICE	
A	Evidence Facility
B	Clark County Children's Justice Center[1]
C	Elder Justice Center[1]
D	DVPC[1]
F	Headquarters
K	West Precinct
T	Image Elementary[1]
V	East Precinct

ADMINISTRATION	
E	City Hall
S	521 Chkalov
I	Historic Trust/Officers Row[2]
J	Zhen Building
D	DVPC[1]

1 Leased facility
2 Managed by outside contractor

PARKS, RECREATION, AND CULTURAL SERVICES	
G	Marshall Community Center and Luepke Senior Center
H	Arts Hub
U	Firstenburg Community Center

PUBLIC WORKS	
A	Westside Wastewater Treatment Plant[2]
J	Pearson Airport[2]
L	Zhen Building
M	Fourth Plain Operations Center
N	Brookside Complex
P	Marine Park Water Engineering, Marine Park Wastewater Treatment Plant[2], and Water Resource Education Center
Q	Operations Center (planned)
R	WSDOT Building[1]
W	Eastside Operations Center

FIRE	
1	Station 1
2	Station 2
3	Station 3
3	Station 3 (planned)
4	Station 4
5	Station 5
6	Station 6
6	Station 6 (planned)
7	Station 7
8	Station 8
9	Station 9
10	Station 10
11	Station 11
O	Boathouse
S	521 Chkalov
X	Fire Cache

Solid Waste

The City's Public Works Department oversees a Solid Waste utility providing garbage, recycling and organics collection through a contractor, Waste Connections. The City offers a variety of waste and recycling resources to residents including information on hazardous waste removal, recyclables, and composting. The City also offers organics pickup for residents and businesses to help reduce the amount of organic materials going to landfills. This practice is in alignment with the State of Washington's Organics Management Law which is intended to divert 75% of previously disposed organic materials from the landfill by 2030, and rescue 20% of previously disposed edible food for human consumption by 2025.



The City has historically been included in the development of and adopted Clark County's Comprehensive Solid Waste Management Plan, which has been updated for the years

2025-2030 and is pending adoption by the Washington State Department of Ecology (Ecology). The plan describes existing conditions and outlines strategies for waste reduction, recycling, organics, moderate risk waste, miscellaneous waste, solid waste collection, transfer and disposal. The plan also discusses funding and financing of capital needs and an implementation schedule with recommendations for each of these areas of the County, including the City of Vancouver.

Columbia Resource Company, a subsidiary of Waste Connections, operates three transfer stations in Clark County (in Central Vancouver, West Vancouver, and Washougal) and is the designated processor of recyclables. These transfer stations charge fees to accept miscellaneous solid waste, organics, and recyclables. Master plans for each facility identify the investments needed to build them out to meet future growth.

Future Demand

Increases in population density and new residential and commercial development will increase demand for garbage, recycling, and organics collection. Additionally, new mandates adopted by the Washington State Legislature relating to organics management and the reduction of solid waste will put a significant additional burden on the utility in the coming years. The recently passed organics management laws aim to divert organic materials away from landfills through prevention, food rescue, and organics management facilities to achieve its 2030 goal to reduce organic material in the landfill by 75%.

Private Utilities

Efforts to transition to non-emitting[11] and renewable[12] energy sources are underway in the city and region, with roughly 52.7%[13] of energy used in Vancouver and greater Clark County coming from non-emitting and renewable energy sources. Clark Public Utilities manages and operates electrical distribution, generation, and water systems. Clark Public Utilities serves electricity to all of Clark County, Washington. The Clean Energy Transformation Act (CETA) commits the state to transition to 100% clean electricity by 2045, and Clark Public Utilities will help lead this effort locally. Currently, Clark Public Utilities energy sources include hydropower (42.46%), natural gas (28.75%), nuclear electricity (7.03%), wind power (3.21%) and unspecified sources (18.55%). Unspecified sources are market purchases that are not tracked back to physical resources. Since hydropower is widely available in the region, a significant but unknown portion of this source is from hydropower. The remaining balance was sourced from natural gas powered plants.

In 2024, Clark Public Utilities provided electric service to 239,896 customers with 5,610,947 megawatt hours and a peak demand of 1,144 megawatts. Its generating system produced 1,418,300 megawatt hours of electricity. In their 2024 Integrated Resource Plan, Clark Public Utilities forecast

[11] Nuclear resources are classified in the Clean Energy Transformation Act as "non-emitting"
[12] Includes hydropower and wind energy sources
[13] Clark Public Utilities 2024 Fuel Mix Disclosure

that sufficient energy resources are available to meet customer demand through 2035; however, there is already a capacity[14] deficit, which is expected to grow through 2044. The finding of an immediate need for additional capacity prompted Clark Public Utilities to switch to the Bonneville Power Administration's load following product in October 2025. Clark Public Utilities determined that it will need to procure new energy resources to continue meeting customer demand for the next 20 years.

NW Natural is the natural gas provider for the city and provides heating and other energy needs to approximately 2.5 million people across Oregon and Southwest Washington. The company serves more than 140 communities through 800,000 meters. In Washington, the typical residential customer uses an average of 57 therms per month. NW Natural is aiming to reach carbon neutrality by 2050 by providing renewable natural gas, introducing clean hydrogen energy, and carbon capture, use and storage.

Telecommunications and internet services are provided by numerous private companies, including but not limited to AT&T, Verizon, Xfinity (Comcast), T-Mobile, Century Link, and Ooma.

Future Demand

New residential, commercial, and industrial development will result in additional utility demand and energy use. Energy providers will need to coordinate with the City to ensure their respective future infrastructure planning is consistent with the city's projected growth through 2045. Specific proposed projects will need to demonstate that there are adequate energy resources to support their development. Clark Public Utilities has identified a potential future energy deficit and is identifying sources to meet additional energy needs. Past and current versions of Clark Public Utilities' long-term plans, including the Integrated Resource Plan, Clean Energy Implementation Plan and plans for Conservation, Demand Response and Transportation Electrification are available on the utility's public website.

Parks and Open Space

For information and details on Vancouver's Parks and Recreation amenities, see Chapter 7, Parks and Recreation.

Transportation System

For information and details on Vancouver's transportation system, see Chapter 8, Transportation and Mobility.

Level of Service

Level of service (LOS) is a quantifiable measure for an amount or quality of a public facility or service. LOS helps measure the capacity of a facility or service to provide for the community. As the community changes, the LOS may indicate where to prioritize future funding and resources. Some

[14] Maximum electricity output that can produced under specified conditions.

public facilities and services also have concurrency standards. Concurrency means that the level of service of the facility is maintained to serve new development at the same time, or within six years of occupancy, which may require mitigation if the standard is not maintained. The Comprehensive Plan requires concurrency for water, sewer, and transportation services and identifies them as Tier I public facilities and services. LOS is not required for Tier II facilities, as listed below in Table 8.

Table 8 Service Tier and Level of Service

Service Tier	Public Facility	Level of Service
Tier I	Wastewater	Meet all federal and state standards with adequate capacity for existing and future demand.
Tier I	Water	Meet peak hourly demands with pressure ≥30 psi at all points in the distribution system. For fireflow conditions, ≥40 psi.
Tier I	Transportation	See Chapter 8, Transportation and Mobility
Tier II	Stormwater	Meet and maintain requirements in the National Pollutant Discharge Elimination System (NPDES) Phase II Stormwater Permit
Tier II	Fire and Emergency Services	0.83 firefighters/1,000 residents AMR Response Time: Priority 1 and 2 (high, low density): 9:59, 19:59 Priority 3 and 4 (high, low density): 12:59, 19:59 Priority 5 and 6 (high, low density): 17:59, 29:59
Tier II	Police	1.4 sworn officers per 1,000 people
Tier II	Schools – VPS	Average class sizes Elementary: 21.5 Middle: 26 High: 27 Special Education: 10
Tier II	Schools – Evergreen PS	Targeted students/class K-3: 23 Grades 4-5: 25 Special Education (elementary): 1 to 15 Middle: 27.33 High: 30 Special Programs (e.g., music, art, PE): 20 to 70
Tier II	Parks	6 acres acquired neighborhood/community parks/1,000 residents 4.25 acres developed neighborhood/community parks/1,000 residents
Tier II	Library Facilities	0.5-0.6 square feet of library branch space/resident

Capital Facilities Forecast

The GMA requires cities to plan for adequate capital facilities to meet anticipated demand based on anticipated growth and the adopted land use map. Table 9 identifies the 20-year capital facility plan required to meet anticipated demand and Table 9 20-Year Capital Facilities Plan Project Cost Summary

Capital Facility	Project Type	2026-2031	2032-2045
Water	Design	$114,300,000	$39,743,500
	Construction	$609,600	$119,230,500
Wastewater	Design	$80,987,500	$82,712,500
	Construction	$242,962,500	$248,137,500
Surface Water	Design	$7,885,300	$12,225,000
	Construction	$42,054,900	$36,675,000
Transportation	Design and Construction	$132,028,000 Note: fully and partially funded projects only	$369,700,000-390,000,000
Transit	Design and Construction	$403,902,000	$20,000,000 Note: Additional details available in 2024 RTP
Parks	Acquisition, Development, and Improvements	$207,128,000	TBD
Fire & EMS	Design and Construction	$138,300,000	TBD
Police	Design and Construction	$64,380,000	TBD
General Government Long Range Facility Plan	Design and Construction	$204,400,000	TBD
Solid Waste	Design and Construction	$6,000,000	TBD
Schools – VPS	Design and Construction	$7,425,000	TBD
Schools – EPS		None anticipated	EPS does not plan this far into the future
Fort Vancouver Regional Library	Design and Construction	$25,700,000	None proposed in Vancouver
Total 20-year CFP		**$1,678,062,300**	**TBD**

Table 10 provides a six-year finance plan that identifies costs of planned projects and funding over the next six years to maintain or improve levels of service to Vancouver residents. These two tables identify known capital projects for the short and long term planning periods. These projects, once

completed, require staff to operate and maintain, along with ongoing costs, to ensure consistency in the services provided. These costs are not included in the tables below but will be assessed regularly through the City budget process and the Capital Improvement Program (CIP). Note that amounts are rounded to the nearest $1,000. For further details, see the respective plans and programs as linked below and included in the appendices.

Table 9 20-Year Capital Facilities Plan Project Cost Summary

Capital Facility	Project Type	2026-2031	2032-2045
Water	Design	$114,300,000	$39,743,500
	Construction	$609,600	$119,230,500
Wastewater	Design	$80,987,500	$82,712,500
	Construction	$242,962,500	$248,137,500
Surface Water	Design	$7,885,300	$12,225,000
	Construction	$42,054,900	$36,675,000
Transportation	Design and Construction	$132,028,000 Note: fully and partially funded projects only	$369,700,000-390,000,000
Transit	Design and Construction	$403,902,000	$20,000,000 Note: Additional details available in 2024 RTP
Parks	Acquisition, Development, and Improvements	$207,128,000	TBD
Fire & EMS	Design and Construction	$138,300,000	TBD
Police	Design and Construction	$64,380,000	TBD
General Government Long Range Facility Plan	Design and Construction	$204,400,000	TBD
Solid Waste	Design and Construction	$6,000,000	TBD
Schools – VPS	Design and Construction	$7,425,000	TBD
Schools – EPS		None anticipated	EPS does not plan this far into the future
Fort Vancouver Regional Library	Design and Construction	$25,700,000	None proposed in Vancouver
Total 20-year CFP		**$1,678,062,300**	**TBD**

Table 10 Summary of Planned Six-Year Capital Facilities Costs 2026-2031

Service	Major Capital Projects	Est. Total	Funding Source(s)
Transportation	Funded Projects, 2026-2031	$78,878,000	

Service	Major Capital Projects	Est. Total	Funding Source(s)
TIP	Partially-Funded Projects, 2026-2031	$53,150,000	Current non-grant revenue sources, dedicated street funding non-grant sources, and grant sources
	Annual Programs, 2026-2031	$124,890,000	
Transit (2025-2030) Transit Development Plan	Infrastructure	$27,901,000	Sales tax, federal and state grants, farebox, interest
	System Expansion	$147,271,000	
	Capital Obligations	$228,730,000	
Water 6-Year Water Capital improvement Program 2026-2031	Production Projects	$310,000,000	Ratepayer revenue, System Development Charges (SDCs), grants/loans, PFAS legal settlement funds, and miscellaneous revenue
	SCADA Projects	$2,200,000	
	Distribution Projects	$10,000,000	
	Other	$135,000,000	
	Transmission Projects	$13,000,000	
Sanitary Sewer 6-Year Wastewater Capital Improvement Program 2026-2031	Collection	$121,450,000	Ratepayer revenue, System Development Charges (SDCs), loans, and miscellaneous revenue
	Treatment: Marine Park	$34,900,000	
	Treatment: Westside	$197,700,000	
	Treatment: Lagoon	$1,200,000	
	Treatment: Other	$20,100,000	
Stormwater (Surface Water) 6-Year Surface Water Capital Improvement Program 2026-2031	Regulatory Compliance Projects	$20,066,000	Ratepayer revenue, grants, and miscellaneous revenue
	Neighborhood Infiltration Retrofit/Rehabilitation	$6,350,000	
	Arterial Safety/ Treatment Projects	$2,600,000	
	Facility Retrofits Program	$3,650,000	
	Property Acquisition	$660,000	
	Sub-Standard Systems	$14,825,000	
	WSDOT Fee Projects	$3,392,000	
	Watershed Planning	$2,500,000	
	Stormwater Demand Response	$2,825,000	
	Burton Basin Study	$2,477,000	
	Burnt Bridge Creek WQ Study TMDL/SMAP Projects	$5,520,000	
Parks	Park Acquision	$41,953,000	

Service	Major Capital Projects	Est. Total	Funding Source(s)
Parks Comprehensive Plan 2022-2031	Park Development	$147,886,000	Bonds, grants, general funds, Park Impact Fees, Conservation Futures, donations, federal funding, partnerships, state funding
	Park Improvements	$5,640,000	
	Capital Repairs, Planning, Trails	$8,424,000	
	Special Facility Development & Improvement	$3,585,000	
Fire & EMS Construction	Build new Stations 3 and 6	$34,500,000	Proposition 2
	Retrofit and expand Station 8	$11,500,000	
	Retrofit Station 4	$2,000,000	
	Rebuild Station 5	$48,900,000	
	Land acquisition for waterfront station	$11,700,000	
	Design and build waterfront station	$29,700,000	
Police	Police Headquarters Land and Building	$40,529,000	Proposition 5
	Renovate East Precinct	$12,000,000	
	Expand Evidence Storage	$11,851,000	
General Government Long Range Facility Plan	Chkalov renovations	$17,700,000	Proposition 2, ratepayer revenue, general fund
	Consolidate/restack City Hall	$11,700,000	
	Public Works Operations Center	$175,000,000	
Solid Waste Comprehensive Solid Waste Management Plan	Approved Capital Projects (2025-2030)	$3,000,000	Designated Capital Improvement and Maintenance Restricted Fund, Regional Solid Waste System Fund
	Reimbursable Capital Projects (2025-2030)	$3,000,000	
Schools – VPS (2022-2028)	Additional Capacity for Odgen Elementary and Sacajawea Elementary	$7,425,000	Uncommitted property sale funds, general obligation bonds, state match funds, impact fees
Schools – EPS (2026-2031)	None	N/A	N/A
	Three Creeks Community Library Renovation	$7,090,000	FVRL Foundation, Stae of Washington, Library

Service	Major Capital Projects	Est. Total	Funding Source(s)
Fort Vancouver Regional Libraries (2026-2037) FVRL Comprehensive Facilities Plan	Cascade Park Community Library Renovation	$12,000,000	Capital Improvement Program
	Vancouver Community Library Capital Maintenance	$5,610,000	
	Acquire site for new branch	$1,000,000	
City of Vancouver Total		**$1,588,092,000**	
Non-municipal Agencies Total		**$443,027,000**	

Impact Fees and System Development Charges

Vancouver collects impacts fees for parks and transportation purposes. For planning and funding parklands, Vancouver is divided into three park impact fee (PIF) districts. The program establishes level of service standards for urban parks, including neighborhood and community parks and urban open space, and assesses park impact fees on new residential development to offset the cost of providing these parks. Additional details are in the Parks and Recreation chapter.

The City collects traffic impact fees (TIF) paid at the time of the development application to offset the proportionate system impacts of the proposed added travel demand associated with the proposed project. The city has three TIF districts that consider the unique growth and investment characteristics of each area. The collected TIF from all districts is used to fund TIF eligible projects in any of the three districts. City staff determine which project will be constructed. A developer may elect to construct a TIF eligible project as part of their development program and receive a TIF credit for doing so. Recent Washington legislation allows funds collected through the TIF to be used for multimodal projects. As such, the TIF project list has been updated to add walking/rolling and BSM projects from the TSP. Additional details on TIFs can be found in the Transportation and Mobility chapter as well as in the TSP.

On behalf of the school districts, the City also collects School Impact Fees (SIFs). The revenue is collected and held in special accounts by the Clark County Treasurer for use by the districts for growth-related capital expenditures. Current SIFs are listed in Table 11.

Table 11 School District Impact Fees

School District	Single-family	Multifamily
Battle Ground	$10,760	$3,845
Camas	$6,650	$6,650
Evergreen	$6,432	$3,753
Vancouver	$2,786	$2,486

Goal: PFS-1

Public Facilities and Services

Vancouver has high-quality public facilities, infrastructure, and utilities that are efficient, well maintained, and meet the needs of a growing population.

Vancouver will provide high-quality facilities, services, and utilities that are affordable, efficient, and well maintained. The City will ensure that these essential systems are designed to meet the evolving needs of the growing community. Through strategic planning and sustainable investment, Vancouver will maintain and build infrastructure that supports residents with reliable access and operational excellence, fostering a resilient and inclusive urban environment.

Key Actions

✓ Metric 1

✓ Metric 2

✓ Metric 3

✓ Metric 4

✓ Metric 5

✓ Metric 6

	Supporting Policies		Related Goals
5	**Incorporate Green Infrastructure into Development**	Integrate climate resilience best practices into development and infrastructure projects and investments in public spaces.	**CL-1** **CL-2**
10	**Stormwater Management**	Improve water quality and reduce flood risks by managing stormwater flows, promoting natural groundwater infiltration, reducing runoff, and advancing effective stormwater management systems that protect watersheds.	**CL-1**
11	**Adapt Infrastructure to Climate Change**	Retrofit existing infrastructure, parks and natural spaces, and construct new facilities to adapt to the localized impacts that will occur in the community due to climate change.	**CL-1** **PFS-3**
16	**Reduce Built Environment Emissions**	Reduce emissions from buildings, structures, and infrastructure in the community.	**CL-3**
19	**Support the Use of Renewable Energy**	Encourage new renewable energy infrastructure and promote development of storage systems to ensure a stable, resilient, and sustainable energy grid.	**CL-3**
24	**Environmentally Conscious Procurement and Maintenance**	Include criteria related to the use of environmentally sustainable materials and practices in procurement processes and maintenance contracts.	**None**
39	**Proportional Fees**	Establish proportional impact fees and system development charges based on size of unit for residential uses while ensuring cost recovery. .	**None**

50	**Equity and Climate Data**	Incorporate the City's Equity Index, Displacement Risk Assessment tool, and climate vulnerability assessment in public investment and infrastructure improvement decisions.	**EI-1**
106	**Water Service**	Provide safe, clean, quality drinking water to every home and business, at water pressure and volumes necessary to support fire suppression systems. Encourage on-site water reuse systems where practicable.	**None**
121	**Regional Infrastructure**	Work with local, state, federal and tribal partners to ensure that new construction or replacement of critical infrastructure is programmed to avoid community harm and maximize social, environmental, and cultural value	**TM-1**
122	**Sewer Service**	Provide safe and sustainable sewer service throughout the City, connect remaining existing development served by septic to the public sewer system, and manage domestic and industrial wastewater to reduce health hazards and environmental impacts.	**None**
123	**Service Availability and Standards**	Consider water, sewer, storm water management, solid waste, police, fire and schools as necessary public facilities and services. Ensure levels of service are sufficient to support planned development. Establish service standards and planning assumptions for estimating needed public facilities, based on service capabilities, local land use designations and best management practices.	**None**
134	**Cost Efficient Infrastructure**	Design and maintain infrastructure to reduce long term maintenance and replacement costs. Consider lifecycle costs, emerging technologies, and the impacts of facility design and material choices in both capital and operating budgets.	**TM-1**

Goal: PFS-2 Government Services and Financing

Vancouver's process for funding public services and facilities is transparent and aligns with community priorities as well as state requirements.

Vancouver will implement an inclusive and transparent process for funding public infrastructure and government services. The city will actively engage residents to ensure that investments align with community priorities and reflect diverse voices. Equitable participation will be a cornerstone of decision-making, empowering all groups to contribute meaningfully. Through coordinated, long-term planning, Vancouver will support sustainable development of essential facilities and services that meet the evolving needs of its population.

Key Actions

- ✓ Metric 1
- ✓ Metric 2
- ✓ Metric 3
- ✓ Metric 4
- ✓ Metric 5
- ✓ Metric 6

Supporting Policies			Related Goals
125	**Essential Public Facilities**	Plan, site, and design essential public facilities through coordinated, equitable, and transparent processes that support regional planning goals, minimize community impacts, and ensure long-term benefit to all Vancouver residents.	None
126	**Align Capital Improvement Program (CIP) and Capital Budget Decisions**	Maintain a prioritization process that aligns the Capital Improvement Program (CIP) with the goals and policies of the Comprehensive Plan and other relevant long-term planning documents.	None
127	**Schools**	Work with local school districts to provide adequate school facilities, including f timely and efficient review processes for new facilities.	None
128	**Asset Management**	City transportation, water, sewer, and surface water facility assets shall be systematically managed to balance full life cycle costs, performance, risk, and service levels, using best management practices and data. Public infrastructure and facility investments will leverage existing investments to support efficient and equitable growth.	TM-1 PR-1
129	**Open Government**	Ensure transparent and equitable access to government data by maintaining open, user-friendly platforms that allow community members to understand, engage with, and influence public decisions and investments.	EI-4

Goal: PFS-3 Infrastructure Enhances Public Safety

Investments in public services, facilities and infrastructure advance community safety, contribute to the emergency preparedness, and support disaster response.

Vancouver will develop and maintain resilient infrastructure that remains operational during disruptive natural and manmade events. The city will ensure uninterrupted access for emergency vehicles and services, enabling swift and effective responses in times of crisis. Fire and police departments will be well-equipped, responsive, and rooted in community leadership, fostering trust and collaboration. Through proactive planning and investment, Vancouver will strengthen its capacity to protect residents and uphold public safety under all conditions.

Key Actions

✓ Metric 1

✓ Metric 2

✓ Metric 3

✓ Metric 4

✓ Metric 5

✓ Metric 6

Supporting Policies		Related Goals
3 **Disaster Recovery and Emergency Response**	Develop plans and resources to ensure effective emergency response and equal access to emergency services and recovery resources, mitigating risks from natural disasters, climate-related hazards, and social disruptions.	CE-3 CL-1
11 **Adapt Infrastructure to Climate Change**	Retrofit existing infrastructure, parks and natural spaces, and construct new facilities to adapt to localized climate change impacts.	CL-1 PFS-1
25 **Support Decentralized Infrastructure Systems**	Support decentralized local energy and water solutions while strengthening community adaptability to environmental, social, and economic changes.	PFS-1 CE-4
75 **Climate Resilient Spaces**	Incorporate elements of climate resiliency into new public spaces.	CL-1 CE-1 PR-1
116 **Public Safety**	Support public safety through investment in emergency services, facilities, and coordinated preparedness efforts that strengthen community resilience and response.	CE-3
130 **Coordinate with Fire and Police**	Coordinate with the Vancouver Fire Department and Vancouver Police Department to plan for expected growth, provide adequate facilities to equitably serve the community, ensure adequate levels of service, and facilitate emergency vehicle access.	CE-3

OUR VANCOUVER

OUR FUTURE 2045

Comprehensive Plan/Title 20 Update
Planning Commission Workshop: Code Details Pt. 2

Rebecca Kennedy (she/her), Deputy Director, Community Development

Mark Person (he/him), Senior Planner, Community Development

February 10, 2026

Agenda

- Recap
  - Comprehensive Plan
  - Code Framework
  - Council-endorsed Preferred Land Use Alternative and Council feedback
- Zoning Code Details
  - Buffers between districts
  - Bicycle parking requirements
  - Landscaping and tree preservation
  - Non-conformities
  - Development notice updates
- Coming Up + Discussion

Purpose

Get your feedback on additional details of the draft zoning code



OUR VANCOUVER Comprehensive Plan

- A guide for the city's growth and development over the next **20 years** (2025-2045).

	2024	Growth	2045 Targets
Population	~200,000	+ 81,000	~281,000
Housing Units	~86,000	+ 38,000	~124,000
Jobs	~100,000	+ 43,100	~143,100

Vancouver is an equitable and prosperous community, which ensures that all residents, businesses and organizations benefit from the growth and advancement we make together.

Vancouver will be recognized for our quality of life, as evidenced by affordable housing in vibrant, safe and walkable neighborhoods, access to jobs and economic opportunity for all, and leading-edge efforts to address climate change.

Learn about our community | **Develop alternatives** | **Understand potential impacts** | **Refine map, policies, & code** | **Adopt plan and code**

New State Laws

- At a minimum, allow up to 4 units per residential lot and up to 6 units per residential lot if near transit or if at least 2 units are affordable.
  - ➡ Standards for middle housing cannot be more restrictive than those for detached single-family homes
- Make room for set numbers of housing units in all income levels – over 30,000 total new units citywide
  - ➡ Including permanently supportive housing



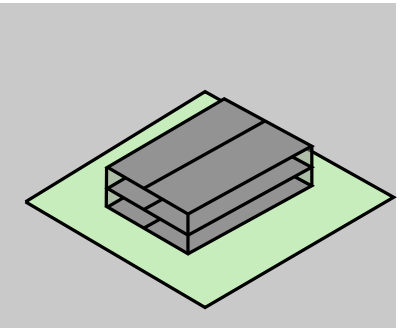
- Account for racially disparate impacts
- At a minimum, allow 2 ADUs per residential lot
- No parking minimums for affordable housing and no more than 0.5 per unit for all other housing
- Only one stairwell required for residential buildings 6-stories or less
- Align impact fees to size of housing
- Allow for permanently supportive housing

Goals for the Code

- Easy to understand – graphics, reduced footnotes, simplified districts and overlays
- Supports the creation of
  - ➡ Connected and accessible neighborhoods by allowing commercial and residential uses to mix
  - ➡ Greater number and variety of housing
  - ➡ Unique and authentic places
- Uses land efficiently and balances the built and natural environment
- Focuses on form, relationship between buildings and the street, and impact mitigation
- Reduces non-conformities

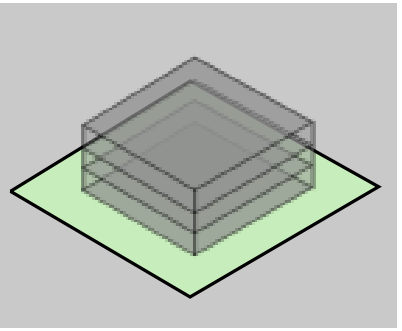


Duplex



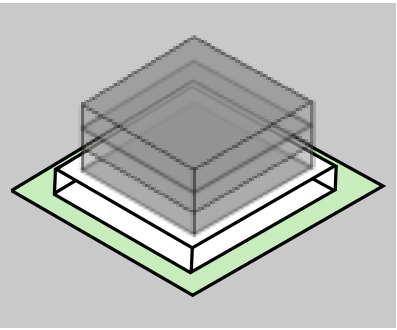


Multi-Family





Podium



Draft Zoning Code

All areas will have a **Base District**

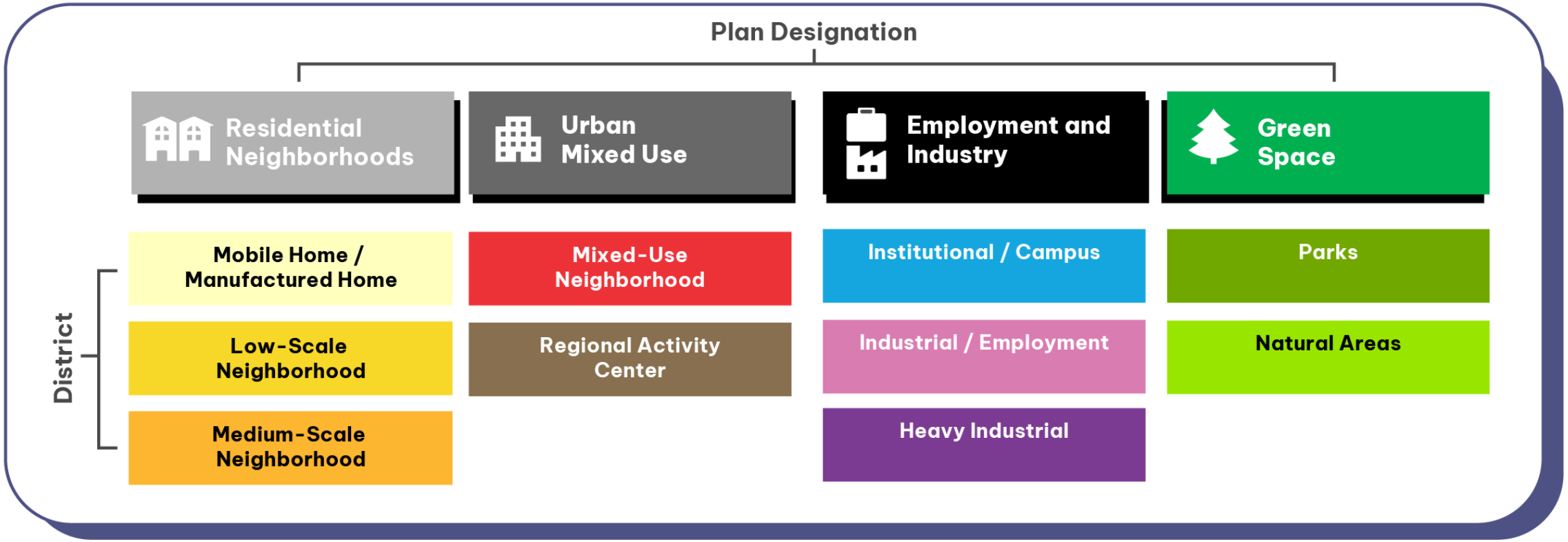
- Minimum density
- Maximum height
- Allowed **building types**
  - ➡ Lot standards
  - ➡ Building and parking placement
  - ➡ Pedestrian access
  - ➡ Lot coverage
  - ➡ Frontages
  - ➡ Landscaping and public space
- Allowed **uses**
  - ➡ What can go in the various allowed building types

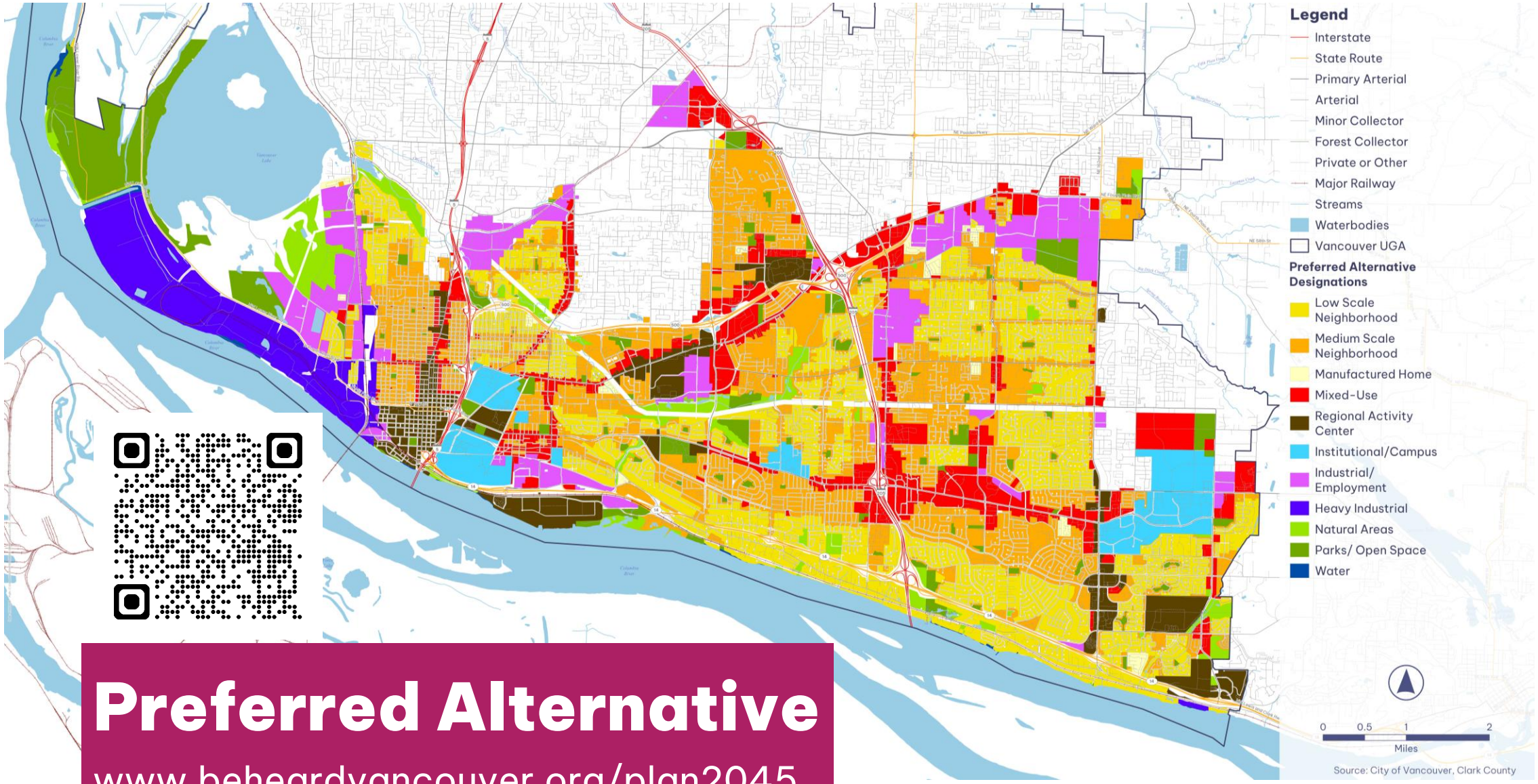
Some areas will also have an **Overlay**

	Existing Code	New Code
Uses	Allowed or prohibited	Mixing uses allowed/required
Density	Focuses on density maximums	Focuses on density minimums
Building Height	Maximums	Maximums
Parking	Minimums	No minimums
Building placement	Lot coverage, setbacks	Relationship to the street, build-to lines, building types

Note: Heavy Industrial zoning district will be fundamentally different from all other districts.

Plan Designations and Zoning Districts





Preferred Alternative

www.beheardvancouver.org/plan2045

Draft Densities and Heights

Base District	Minimum Residential Density (units/acre)	Maximum Height
Manufactured Home	None	2 stories (35’)
Low-Scale	8	*3 stories (45’)
Medium-Scale	16	5 stories (75’)
Mixed-Use	32	8 stories (110’)
Regional Activity Center	64	None
Institutional/Campus	None	None
Employment/Industrial	N/A	12 stories (150’)
Heavy Industrial	N/A	None

No maximum density or minimum heights in any district.
**Low-Scale Neighborhood is only district where max number of floors is proposed to be regulated*

Jan. 26 Council Feedback

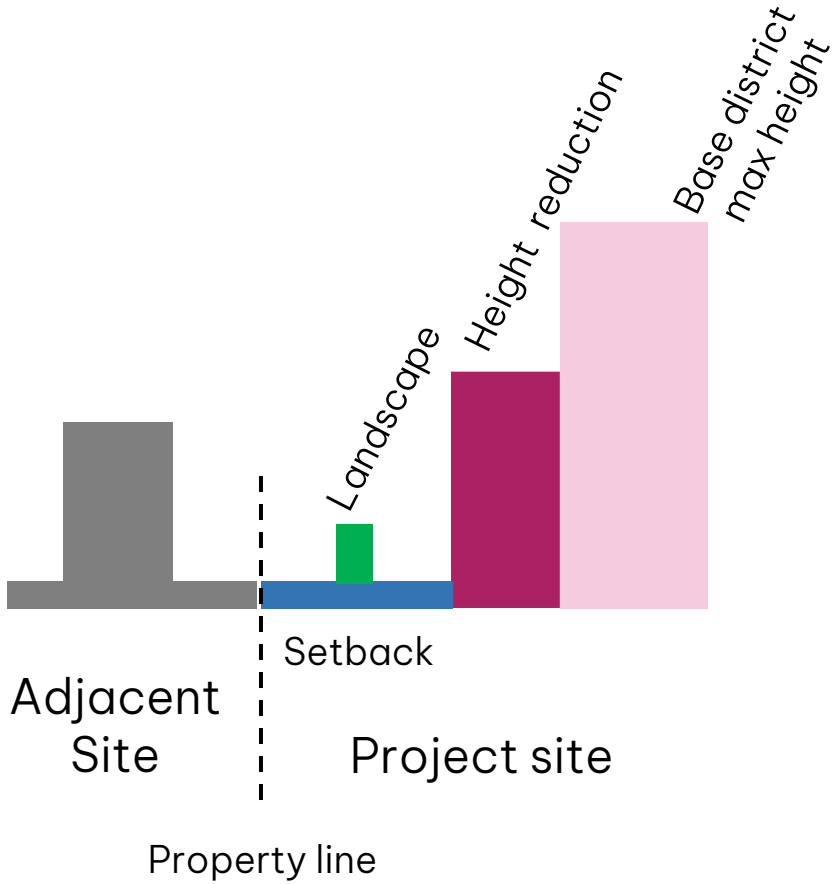
- Be clear on what type of notice each procedural step requires and how neighborhoods can be involved
- Ensure that manufactured home definitions and standards are not limiting to types and new technologies- increase height limit in zone
- Disappointment that parking maximums are not included in code
- Desire to ensure setbacks in low scale neighborhood have flexibility to fit in with different development patters
  - Example: Pre-1945 neighborhoods with front lawns; staff clarified that there is range of allowed setbacks.
- Building types- questions about standards related to corridors, lobbies and number of entrances, and request to make this clearer.

Buffers Between Zoning Districts

- Fewer base districts result in bigger jumps between districts.
- Like our existing code, increased setbacks proposed where different zoning districts share a property line

Example:

- If a property zoned Mixed-use (MX) is being developed and is next to Low-scale Neighborhood (LS),
  - The property being developed will need to have a 15' setback that includes a 6-foot screen of landscaping
  - The building height will be limited to 45' within 20' feet of the shared property line.
  - The rest of site can develop to the base district max height of 110'.



Graphic for illustrative purposes only. Not to scale.

Buffers between districts

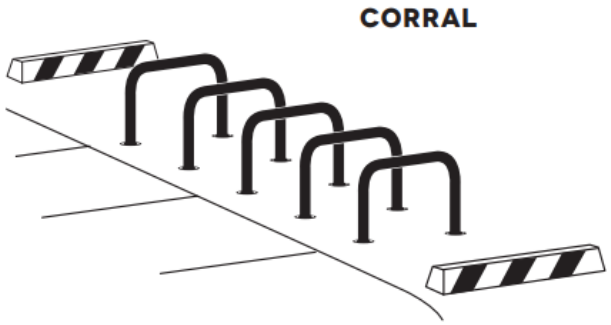
Project Site	Manuf. Home	Low-Scale	Medium-Scale	Mixed-use	Regional Activity C.	Institut./ Campus
Manuf. Home	-	-	-	-	-	-
Low-Scale N.	Landscape only	-	-	-	-	-
Medium-Scale Neighborhood	Buffer	Landscape only	-	-	-	-
Mixed-use Neighborhood	Buffer	Buffer	Buffer	-	-	-
Regional Activity Center	Buffer	Buffer	Buffer	-	-	-
Institutional / Campus	Buffer	Buffer	Buffer	-	-	-
Industrial / Employment	Buffer	Buffer	Buffer	Buffer	Buffer	Buffer
Heavy Industrial	Buffer	Buffer	Buffer	Buffer	Buffer	Buffer

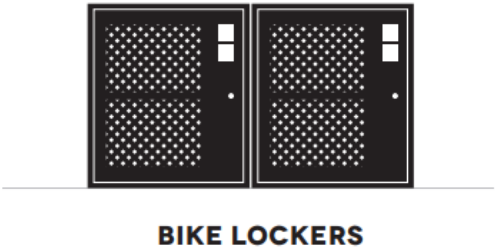
Buffer = setback + landscaping screen + height reduction. Details in attachment.

Bicycle Parking

- Existing code has standards but does not *require* bicycle parking. Draft code requires for new and full re-developme
- Requirements for both short-term and long-term parking
- Number of spaces
  - ➡ Based on use
  - ➡ Not required for 6 units or less on parent parcel (middle housin
  - ➡ 50% reduction allowed when at least half of units are affordab to people making 100% of the area median or below
  - ➡ Can count on-street public spaces to meet required short-term
- Space size and access
  - ➡ 6 feet by 3 feet by 2 feet, with 5 feet clearance leading up to th space, 6 feet for lockers
  - ➡ Minimum access pathway of 32 inches (matches ADA minimum) that connects to right of way. Can include elevators.
  - ➡ Allowances for in-unit spaces and shared facilities.







Landscaping and Tree Preservation

- Updated landscaping and tree preservation requirements in alignment with the Climate Action Framework and best practices.
  - ➡ Increase preservation requirements for trees in fair and good condition 12-inch diameter at breast height (DBH) or larger onsite
  - ➡ Increase landscape parking islands and tree cover/shade for surface parking lots
  - ➡ Automated irrigation system required





Non-conformities

- Change in zoning and development standards will result in nonconforming situations.
- Allow for the continuation and expansion of legally-established nonconforming structures and uses.
  - Current code does not allow any expansion of nonconforming use
- If a nonconforming structure is damaged by a catastrophic event, it may be rebuilt within its original footprint if an application is filed within one year of the damage.
- Routine repairs and maintenance are permitted. Any changes to a structure required by the Building Official or Fire Marshal is permitted as repair and maintenance.

Development Notice Updates

Development	Notice
3-6 units	No notification per state law. (Same as single-family and duplex)
7-200 units	Large sign. Adding pre-app for 7-19 units.
>200 units	Large sign. Mailed notice to occupants and owners within 300'. + Public comment period
Subdivisions	Large sign. Mailed notice to occupants and owners within 300'. + Public comment period



Neighborhood Notice

- For subdivisions and when 7+ units
- Neighborhoods may opt in to pre-app notice.
- Neighbors may attend pre-app and ask questions as time allows.
- Applicant to send notice to neighborhood associations prior to land use submittal.

Coming Up

- **Draft of Plan & Code**
  - ➡ Mid-February: Release of drafts for public
    - Community presentations
  - ➡ March 10: Planning Commission – Code and Plan Pt. 3
    - Process changes, Master Plan requirements, how existing code sections are integrated into new code
  - ➡ April 14: Planning Commission
    - Changes based on feedback on draft plan and code
- Initiate Adoption Process
  - ➡ April 28 PC Meeting – Public Hearing
  - ➡ May (Council)
    - Supported by Final Environmental Impact Statement (Final EIS)

Community Presentations

Thur, Feb 19
4p-6p
Virtual

Thur, Feb 26
11a-1p
Virtual

Sat, Feb 28
11a-1p
City Hall

Wed, Mar 4
5:30-7:30p
Cascade Park Community Library

Thank you!

www.beheardvancouver.org/plan2045

OurVancouver2045@cityofvancouver.us



OUR COMMUNITY CODE

THE CITY OF VANCOUVER, WA

DRAFT: 02.02.25

CHAPTER 20.400

Development Standards

20.400.001 PURPOSE.

The purpose of this chapter is to establish development standards that guide high-quality, context-sensitive growth within the City of Vancouver. These standards support a broader range of mixed-use and middle-housing options while preserving neighborhood livability and protecting consumer choice in the housing market. Flexibility is encouraged by allowing a diverse set of building types in each district, provided they reinforce the intended land-use character and contribute positively to the surrounding urban form to the extent possible.

20.400.002 DEVELOPMENT STANDARDS.

20.410 Zoning Districts.

20.420 Building Types.

20.430 Use Requirements.

20.440 Frontage Types.

20.450 Additional Development Standards.

CHAPTER 20.410

Zoning Districts

20.410.001 PURPOSE.

The purpose of this chapter is to introduce ten (10) city-wide zoning districts, each with baseline zoning requirements applicable to every parcel of property (lot). The zoning districts are aligned with the place-type goals outlined in the future land use plan and include requirements for base densities, height ranges, and allowable building types.

20.410.002 APPLICABILITY.

This chapter shall be applicable to all permit applications on any lot or lots. Building types and primary use types associated with any permit shall also be subject to **Chapter 20.270 VMC Site Plan Review**, and as applicable per requirements for the primary use type or types per **Chapter 20.430 VMC Use Requirements**.

20.410.003 ESTABLISHMENT OF ZONING DISTRICTS.

The zoning districts include the following:

20.410.010 Low-Scale Neighborhood District (LS).

20.410.020 Medium-Scale Neighborhood District (MS).

20.410.030 Mixed-Use Neighborhood District (MX).

20.410.040 Regional Activity Center (RA).

20.410.050 Institutional / Campus District (IC).

20.410.060 Industrial / Employment District (IE).

20.410.070 Heavy Industrial District (HI).

20.410.080 Manufactured Home District (MH).

20.410.090 Parks and Open Space District (PO).

20.410.100 Natural Areas District (NA).

20.410.010 LOW-SCALE NEIGHBORHOOD



Character Image

1. PURPOSE AND CHARACTER.

The Low-Scale Neighborhood District (LS) is designed to foster a community characterized by lower intensity and scaled housing that includes diverse middle housing options. This includes a range of housing types such as single-family homes, townhouses, rowhouses, duplexes, triplexes, fourplexes, fiveplexes, six-plexes, stacked flats, and cottage cluster housing. The LS district also encourages smaller-scale commercial activities at corner nodes to enhance neighborhood life, such as cafés, salons, professional services, and restaurants. The character image on this page is advisory only.

2. ADDITIONAL REQUIREMENTS.

- See **Chapter 20.450 VMC Additional Development Standards** of this code for other requirements that may apply to this district.
- See **Chapter 20.500 VMC Overlay Districts** of this code for other requirements that may apply to this district.
- See **Chapter 20.600 VMC Plan Districts** of this code for other requirements that may apply to this district.
- See **Chapter 20.700 VMC Environmental Regulations** of this code for other requirements that may apply to this district.

Building Types (See Chapter 20.420 VMC)	Allowable
010 Single-Family Residential Building (SFB)	**Yes**
020 Townhouse / Rowhouse Building (TRB)	**Yes**
030 Stacked Multi-Plex Building (SMB)	**Yes**
040 Flex-Plex Building (FPB)	**Yes**
050 Cottage Court Building (CCB)	**Yes**
060 Multifamily Building (MFB)	**No**
070 Mid-Rise Residential Building (MIB)	**No**
080 Mixed-Use Residential Building (MXB)	**Yes**
090 Mixed-Use Office Building (MOB)	**No**
100 Commercial Block Building (CBB)	**Yes**
110 Big Box Retail Building (BRB)	**No**
120 Flexible-Use Building (FUB)	**No**
130 Industrial / Distribution Building (IDB)	**No**
140 Structured Parking Garage Building (SPB)	**No**
150 Civic / Institutional Building (CIB)	**Yes**

Table of Allowable Building Types

3. BASE DENSITY.

- **Minimum Density.** Eight (8) Units per Acre.
- **Maximum Density.** No Maximum.

4. HEIGHT RANGE.

- **Minimum Height.** No minimum.
- **Maximum Height.** Three (3) floors above the adjacent grade and forty-five (45') feet.

5. BUILDING TYPES.

See table on this page for allowable building types within the district. See **Chapter 20.420 VMC Building Types** of this code for building type requirements.

6. USE REQUIREMENTS.

See **Chapter 20.430 VMC Use Requirements** of this code for individual use permit requirements.

010 LS

20.410.020 MEDIUM-SCALE NEIGHBORHOOD



Character Image

1. PURPOSE AND CHARACTER.

The Medium-Scale Neighborhood District (MS) is designed to foster a vibrant community with medium-intensity housing and a variety of housing options. This includes housing types such as courtyard buildings, apartment buildings, and multifamily buildings, complementing those found in LS. The MS district also supports commercial activities that enhance neighborhood vitality and creates main streets, such as cafés, restaurants, small offices, retail shops, and other local businesses. The character image on this page is advisory only.

2. ADDITIONAL REQUIREMENTS.

- See **Chapter 20.450 VMC Additional Development Standards** of this code for other requirements that may apply to this district.
- See **Chapter 20.500 VMC Overlay Districts** of this code for other requirements that may apply to this district.
- See **Chapter 20.600 VMC Plan Districts** of this code for other requirements that may apply to this district.
- See **Chapter 20.700 VMC Environmental Regulations** of this code for other requirements that may apply to this district.

Building Types (See Chapter 20.420 VMC)	Allowable
010 Single-Family Residential Building (SFB)	**Yes**
020 Townhouse / Rowhouse Building (TRB)	**Yes**
030 Stacked Multi-Plex Building (SMB)	**Yes**
040 Flex-Plex Building (FPB)	**Yes**
050 Cottage Court Building (CCB)	**Yes**
060 Multifamily Building (MFB)	**Yes**
070 Mid-Rise Residential Building (MIB)	**No**
080 Mixed-Use Residential Building (MXB)	**Yes**
090 Mixed-Use Office Building (MOB)	**Yes**
100 Commercial Block Building (CBB)	**Yes**
110 Big Box Retail Building (BRB)	**No**
120 Flexible-Use Building (FUB)	**Yes**
130 Industrial / Distribution Building (IDB)	**No**
140 Structured Parking Garage Building (SPB)	**No**
150 Civic / Institutional Building (CIB)	**Yes**

Table of Allowable Building Types

3. BASE DENSITY.

- **Minimum Density.** Sixteen (16) Units per Acre.
- **Maximum Density.** No Maximum.

4. HEIGHT RANGE.

- **Minimum Height.** No minimum.
- **Maximum Height.** Seventy-five (75') feet.

5. BUILDING TYPES.

See table on this page for allowable building types within the district. See **Chapter 20.420 VMC Building Types** of this code for building type requirements.

6. USE REQUIREMENTS.

See **Chapter 20.430 VMC Use Requirements** of this code for individual use permit requirements.

020 MS

20.410.030 MIXED-USE NEIGHBORHOOD



Character Image

1. PURPOSE AND CHARACTER.

The Mixed-Use Neighborhood District (MX) is designed to foster a vibrant, walkable environment that integrates diverse housing options with commercial uses and urban public spaces, connected by pedestrian-friendly streets. Housing options in this district include mid-rise residential buildings, mixed-use developments, and multifamily buildings of varying scales, expanding upon those found in the Medium-Scale Neighborhood District (MS). The MX district also supports a range of commercial activities that enhance the district's vibrancy, such as professional offices, medical services, cafés, restaurants, grocery stores, markets, and other retail shops. The character image on this page is advisory only.

2. ADDITIONAL REQUIREMENTS.

- See **Chapter 20.450 VMC Additional Development Standards** of this code for other requirements that may apply to this district.
- See **Chapter 20.500 VMC Overlay Districts** of this code for other requirements that may apply to this district.
- See **Chapter 20.600 VMC Plan Districts** of this code for other requirements that may apply to this district.
- See **Chapter 20.700 VMC Environmental Regulations** of this code for other requirements that may apply to this district.

Building Types (See Chapter 20.420 VMC)	Allowable
010 Single-Family Residential Building (SFB)	**No**
020 Townhouse / Rowhouse Building (TRB)	**Yes**
030 Stacked Multi-Plex Building (SMB)	**Yes**
040 Flex-Plex Building (FPB)	**Yes**
050 Cottage Court Building (CCB)	**Yes**
060 Multifamily Building (MFB)	**Yes**
070 Mid-Rise Residential Building (MIB)	**Yes**
080 Mixed-Use Residential Building (MXB)	**Yes**
090 Mixed-Use Office Building (MOB)	**Yes**
100 Commercial Block Building (CBB)	**Yes**
110 Big Box Retail Building (BRB)	**No**
120 Flexible-Use Building (FUB)	**Yes**
130 Industrial / Distribution Building (IDB)	**No**
140 Structured Parking Garage Building (SPB)	**Yes**
150 Civic / Institutional Building (CIB)	**Yes**

Table of Allowable Building Types

3. BASE DENSITY.

- **Minimum Density.** Thirty-Two (32) Units per Acre.
- **Maximum Density.** No Maximum.

4. HEIGHT RANGE.

- **Minimum Height.** No minimum.
- **Maximum Height.** One hundred and ten (110') feet.
- **Maximum Buffer Height.** See **Table 20.410.004.1**.

5. BUILDING TYPES.

See table on this page for allowable building types within the district. See **Chapter 20.420 VMC Building Types** of this code for building type requirements.

6. USE REQUIREMENTS.

See **Chapter 20.430 VMC Use Requirements** of this code for individual use permit requirements.

030 MX

20.410.040 REGIONAL ACTIVITY CENTER



Character Image

1. PURPOSE AND CHARACTER.

The Regional Activity Center District (RA) is designed to foster economic growth, provide diverse entertainment and civic opportunities, and address housing needs. This district encourages the development of compact, mixed-use areas with integrated open spaces that seamlessly connect the city's core to surrounding neighborhoods through walkable corridors and frequent transit access. Housing options in the RA include mid-rise residential buildings, mixed-use developments, podium buildings, and multifamily structures of various scales. The district also supports a wide range of commercial activities and complementary uses that enhance its vibrancy and diversity, such as mixed-use offices, structured parking, and civic or institutional buildings. The character image on this page is advisory only.

2. ADDITIONAL REQUIREMENTS.

- See **Chapter 20.450 VMC Additional Development Standards** of this code for other requirements that may apply to this district.
- See **Chapter 20.500 VMC Overlay Districts** of this code for other requirements that may apply to this district.
- See **Chapter 20.600 VMC Plan Districts** of this code for other requirements that may apply to this district.
- See **Chapter 20.700 VMC Environmental Regulations** of this code for other requirements that may apply to this district.

Building Types (See Chapter 20.420 VMC)	Allowable
010 Single-Family Residential Building (SFB)	**No**
020 Townhouse / Rowhouse Building (TRB)	**No**
030 Stacked Multi-Plex Building (SMB)	**No**
040 Flex-Plex Building (FPB)	**No**
050 Cottage Court Building (CCB)	**No**
060 Multifamily Building (MFB)	**Yes**
070 Mid-Rise Residential Building (MIB)	**Yes**
080 Mixed-Use Residential Building (MXB)	**Yes**
090 Mixed-Use Office Building (MOB)	**Yes**
100 Commercial Block Building (CBB)	**Yes**
110 Big Box Retail Building (BRB)	**Yes**
120 Flexible-Use Building (FUB)	**Yes**
130 Industrial / Distribution Building (IDB)	**No**
140 Structured Parking Garage Building (SPB)	**Yes**
150 Civic / Institutional Building (CIB)	**Yes**

Table of Allowable Building Types

3. BASE DENSITY.

- **Minimum Density.** Sixty-Four (64) Units per Acre.
- **Maximum Density.** No Maximum.

4. HEIGHT RANGE.

- **Minimum Height.** No minimum.
- **Maximum Height.** No maximum.

5. BUILDING TYPES.

See table on this page for allowable building types within the district. See **Chapter 20.420 VMC Building Types** of this code for building type requirements.

6. USE REQUIREMENTS.

See **Chapter 20.430 VMC Use Requirements** of this code for individual use permit requirements.

040 RA

20.410.050 INSTITUTIONAL / CAMPUS



Character Image

1. PURPOSE AND CHARACTER.

The Institutional / Campus District (IC) is designed to foster areas that will support employment through academic, civic, and medical institutions and provide housing options that blend with the district character. These may also include uses such as athletic facilities, event spaces, equipment, and other accessory uses that are needed to support the city's valuable institutions and enhance economic development. Housing options in the IC district include rowhouses, rowhouses, multifamily buildings, and mid-rise buildings intended to encourage more walking and biking to work. The character image on this page is advisory only.

2. ADDITIONAL REQUIREMENTS.

- See **Chapter 20.450 VMC Additional Development Standards** of this code for other requirements that may apply to this district.
- See **Chapter 20.500 VMC Overlay Districts** of this code for other requirements that may apply to this district.
- See **Chapter 20.600 VMC Plan Districts** of this code for other requirements that may apply to this district.
- See **Chapter 20.700 VMC Environmental Regulations** of this code for other requirements that may apply to this district.

Building Types (See Chapter 20.420 VMC)	Allowable
010 Single-Family Residential Building (SFB)	**No**
020 Townhouse / Rowhouse Building (TRB)	**Yes**
030 Stacked Multi-Plex Building (SMB)	**Yes**
040 Flex-Plex Building (FPB)	**Yes**
050 Cottage Court Building (CCB)	**No**
060 Multifamily Building (MFB)	**Yes**
070 Mid-Rise Residential Building (MIB)	**Yes**
080 Mixed-Use Residential Building (MXB)	**Yes**
090 Mixed-Use Office Building (MOB)	**Yes**
100 Commercial Block Building (CBB)	**Yes**
110 Big Box Retail Building (BRB)	**Yes**
120 Flexible-Use Building (FUB)	**Yes**
130 Industrial / Distribution Building (IDB)	**Yes**
140 Structured Parking Garage Building (SPB)	**Yes**
150 Civic / Institutional Building (CIB)	**Yes**

Table of Allowable Building Types

3. BASE DENSITY.

- **Minimum Density.** No Minimum.
- **Maximum Density.** No Maximum.

4. HEIGHT RANGE.

- **Minimum Height.** No minimum.
- **Maximum Height.** No Maximum.

5. BUILDING TYPES.

See table on this page for allowable building types within the district. See **Chapter 20.420 VMC Building Types** of this code for building type requirements.

6. USE REQUIREMENTS.

See **Chapter 20.430 VMC Use Requirements** of this code for individual use permit requirements.

050 IC

20.410.060 INDUSTRIAL / EMPLOYMENT



Character Image

1. PURPOSE AND CHARACTER.

The Industrial/Employment District (IE) is designed to foster a mix of larger-scale industrial facilities, warehousing, and flexible-use spaces alongside smaller multi-tenant industrial and office uses. Clustered to promote economic development and synergy between business and industries, the IE district also includes parks and open spaces that buffer industrial areas and connections to adjacent residential areas to encourage more walking and biking to work. The character image on this page is advisory only.

2. ADDITIONAL REQUIREMENTS.

- See **Chapter 20.450 VMC Additional Development Standards** of this code for other requirements that may apply to this district.
- See **Chapter 20.500 VMC Overlay Districts** of this code for other requirements that may apply to this district.
- See **Chapter 20.600 VMC Plan Districts** of this code for other requirements that may apply to this district.
- See **Chapter 20.700 VMC Environmental Regulations** of this code for other requirements that may apply to this district.

Building Types (See Chapter 20.420 VMC)	Allowable
010 Single-Family Residential Building (SFB)	**No**
020 Townhouse / Rowhouse Building (TRB)	**No**
030 Stacked Multi-Plex Building (SMB)	**No**
040 Flex-Plex Building (FPB)	**No**
050 Cottage Court Building (CCB)	**No**
060 Multifamily Building (MFB)	**No**
070 Mid-Rise Residential Building (MIB)	**No**
080 Mixed-Use Residential Building (MXB)	**No**
090 Mixed-Use Office Building (MOB)	**Yes**
100 Commercial Block Building (CBB)	**Yes**
110 Big Box Retail Building (BRB)	**Yes**
120 Flexible-Use Building (FUB)	**Yes**
130 Industrial / Distribution Building (IDB)	**Yes**
140 Structured Parking Garage Building (SPB)	**Yes**
150 Civic / Institutional Building (CIB)	**Yes**

Table of Allowable Building Types

3. BASE DENSITY.

- **Minimum Density.** No Minimum.
- **Maximum Density.** No Maximum.

4. HEIGHT RANGE.

- **Minimum Height.** No minimum.
- **Maximum Height.** One hundred and fifty (150') feet.

5. BUILDING TYPES.

See table on this page for allowable building types within the district. See **Chapter 20.420 VMC Building Types** of this code for building type requirements.

6. USE REQUIREMENTS.

See **Chapter 20.430 VMC Use Requirements** of this code for individual use permit requirements.

060 IE

20.410.070 HEAVY INDUSTRIAL



Character Image

1. PURPOSE AND CHARACTER.

The Heavy Industrial District (HI) is designed to foster large-scale industrial activities, such as manufacturing, processing, and distribution, while integrating principles of walkability and bikability to enhance functionality and aesthetics. The HI district emphasizes efficient land use, incorporating landscaped buffers, shared pathways, and well-planned building orientation to minimize conflicts between industrial operations and pedestrian-friendly environments that traverse the area. The character image on this page is advisory only.

2. ADDITIONAL REQUIREMENTS.

- See **Chapter 20.450 VMC Additional Development Standards** of this code for other requirements that may apply to this district.
- See **Chapter 20.500 VMC Overlay Districts** of this code for other requirements that may apply to this district.
- See **Chapter 20.600 VMC Plan Districts** of this code for other requirements that may apply to this district.
- See **Chapter 20.700 VMC Environmental Regulations** of this code for other requirements that may apply to this district.

Building Types (See Chapter 20.420 VMC)	Allowable
010 Single-Family Residential Building (SFB)	**No**
020 Townhouse / Rowhouse Building (TRB)	**No**
030 Stacked Multi-Plex Building (SMB)	**No**
040 Flex-Plex Building (FPB)	**No**
050 Cottage Court Building (CCB)	**No**
060 Multifamily Building (MFB)	**No**
070 Mid-Rise Residential Building (MIB)	**No**
080 Mixed-Use Residential Building (MXB)	**No**
090 Mixed-Use Office Building (MOB)	**No**
100 Commercial Block Building (CBB)	**No**
110 Big Box Retail Building (BRB)	**No**
120 Flexible-Use Building (FUB)	**Yes**
130 Industrial / Distribution Building (IDB)	**Yes**
140 Structured Parking Garage Building (SPB)	**Yes**
150 Civic / Institutional Building (CIB)	**No**

Table of Allowable Building Types

3. BASE DENSITY.

- **Minimum Density.** Not applicable.
- **Maximum Density.** Not applicable.

4. HEIGHT RANGE.

- **Minimum Height.** No minimum.
- **Maximum Height.** No maximum.

5. BUILDING TYPES.

See table on this page for allowable building types within the district. See **Chapter 20.420 VMC Building Types** of this code for building type requirements.

6. USE REQUIREMENTS.

See **Chapter 20.430 VMC Use Requirements** of this code for individual use permit requirements.

070 HI

20.410.080 MANUFACTURED HOME



Character Image

1. PURPOSE AND CHARACTER.

The Manufactured Home District (MH) is designed to preserve areas for manufactured housing, protecting long-term affordability and preventing displacement of existing residents. The MH district supports community stability and ensures access to lower-cost housing by limiting new development within these areas and promoting inclusive land use practices. The character image on this page is advisory only.

2. ADDITIONAL REQUIREMENTS.

- See **Chapter 20.450 VMC Additional Development Standards** of this code for other requirements that may apply to this district.
- See **Chapter 20.500 VMC Overlay Districts** of this code for other requirements that may apply to this district.
- See **Chapter 20.600 VMC Plan Districts** of this code for other requirements that may apply to this district.
- See **Chapter 20.700 VMC Environmental Regulations** of this code for other requirements that may apply to this district.

Building Types (See Chapter 20.420 VMC)	Allowable
010 Single-Family Residential Building (SFB)	**No**
020 Townhouse / Rowhouse Building (TRB)	**No**
030 Stacked Multi-Plex Building (SMB)	**No**
040 Flex-Plex Building (FPB)	**No**
050 Cottage Court Building (CCB)	**No**
060 Multifamily Building (MFB)	**No**
070 Mid-Rise Residential Building (MIB)	**No**
080 Mixed-Use Residential Building (MXB)	**No**
090 Mixed-Use Office Building (MOB)	**No**
100 Commercial Block Building (CBB)	**No**
110 Big Box Retail Building (BRB)	**No**
120 Flexible-Use Building (FUB)	**No**
130 Industrial / Distribution Building (IDB)	**No**
140 Structured Parking Garage Building (SPB)	**No**
150 Civic / Institutional Building (CIB)	**No**

Table of Allowable Building Types

3. BASE DENSITY.

- **Minimum Density.** Not applicable.
- **Maximum Density.** Not applicable.

4. HEIGHT RANGE.

- **Minimum Height.** No minimum.
- **Maximum Height.** Thirty-five (35') feet.

5. BUILDING TYPES.

See table on this page for allowable building types within the district. See **Chapter 20.420 VMC Building Types** of this code for building type requirements.

6. USE REQUIREMENTS.

See **Chapter 20.430 VMC Use Requirements** of this code for individual use permit requirements.

080 MH

20.410.090 PARKS / OPEN SPACE



Character Image

1. PURPOSE AND CHARACTER.

The purpose of the Parks / Open Space District (PO) is designed to provide a range of open spaces that support the community in a variety of ways. Neighborhood parks support local recreation, active lifestyles, and community engagement, while community parks offer larger amenities like sports fields, skate parks, trails, and public art. Regional parks provide diverse recreation with trails, sports facilities, and natural features, while civic plazas, linear parks, and special-use facilities cater to dense urban areas and specialized activities and user groups. The character image on this page is advisory only.

2. ADDITIONAL REQUIREMENTS.

- See **Chapter 20.450 VMC Additional Development Standards** of this code for other requirements that may apply to this district.
- See **Chapter 20.500 VMC Overlay Districts** of this code for other requirements that may apply to this district.
- See **Chapter 20.600 VMC Plan Districts** of this code for other requirements that may apply to this district.
- See **Chapter 20.700 VMC Environmental Regulations** of this code for other requirements that may apply to this district.

Building Types (See Chapter 20.420 VMC)	Allowable
010 Single-Family Residential Building (SFB)	**No**
020 Townhouse / Rowhouse Building (TRB)	**No**
030 Stacked Multi-Plex Building (SMB)	**No**
040 Flex-Plex Building (FPB)	**No**
050 Cottage Court Building (CCB)	**No**
060 Multifamily Building (MFB)	**No**
070 Mid-Rise Residential Building (MIB)	**No**
080 Mixed-Use Residential Building (MXB)	**No**
090 Mixed-Use Office Building (MOB)	**No**
100 Commercial Block Building (CBB)	**No**
110 Big Box Retail Building (BRB)	**No**
120 Flexible-Use Building (FUB)	**No**
130 Industrial / Distribution Building (IDB)	**No**
140 Structured Parking Garage Building (SPB)	**No**
150 Civic / Institutional Building (CIB)	**Yes**

Table of Allowable Building Types

3. BASE DENSITY.

- **Minimum Density.** Not applicable.
- **Maximum Density.** Not applicable.

4. HEIGHT RANGE.

- **Minimum Height.** No minimum.
- **Maximum Height.** Forty-five (45') feet.

55. BUILDING TYPES.

See table on this page for allowable building types within the district. See **Chapter 20.420 VMC Building Types** of this code for building type requirements.

6. USE REQUIREMENTS.

See **Chapter 20.430 VMC Use Requirements** of this code for individual use permit requirements.

090 PO

20.410.100 NATURAL AREAS



Character Image

1. PURPOSE AND CHARACTER.

The purpose of the Natural Areas District (NA) is designed to establish primarily undeveloped lands managed for ecological value and light-impact recreation. Ranging from small urban sites to vast regional landscapes, they support activities like bird-watching, environmental education, walking, running, biking, and hiking. The NA District is intended to offer relief from urban density while preserving sensitive ecosystems such as wetlands, floodplains, riparian zones, mature woodlands, wildlife habitats, scenic viewpoints, wooded ridgelines, and prairie meadows. The character image on this page is advisory only.

2. ADDITIONAL REQUIREMENTS.

- See **Chapter 20.450 VMC Additional Development Standards** of this code for other requirements that may apply to this district.
- See **Chapter 20.500 VMC Overlay Districts** of this code for other requirements that may apply to this district.
- See **Chapter 20.600 VMC Plan Districts** of this code for other requirements that may apply to this district.
- See **Chapter 20.700 VMC Environmental Regulations** of this code for other requirements that may apply to this district.

Building Types (See Chapter 20.420 VMC)	Allowable
010 Single-Family Residential Building (SFB)	**No**
020 Townhouse / Rowhouse Building (TRB)	**No**
030 Stacked Multi-Plex Building (SMB)	**No**
040 Flex-Plex Building (FPB)	**No**
050 Cottage Court Building (CCB)	**No**
060 Multifamily Building (MFB)	**No**
070 Mid-Rise Residential Building (MIB)	**No**
080 Mixed-Use Residential Building (MXB)	**No**
090 Mixed-Use Office Building (MOB)	**No**
100 Commercial Block Building (CBB)	**No**
110 Big Box Retail Building (BRB)	**No**
120 Flexible-Use Building (FUB)	**No**
130 Industrial / Distribution Building (IDB)	**No**
140 Structured Parking Garage Building (SPB)	**No**
150 Civic / Institutional Building (CIB)	**No**

Table of Allowable Building Types

3. BASE DENSITY.

- **Minimum Density.** Not applicable.
- **Maximum Density.** Not applicable.

4. HEIGHT RANGE.

- **Minimum Height.** No minimum.
- **Maximum Height.** Forty-five (45') feet.

5. BUILDING TYPES.

See table on this page for allowable building types within the district. See **Chapter 20.420 VMC Building Types** of this code for building type requirements.

6. USE REQUIREMENTS.

See **Chapter 20.430 VMC Use Requirements** of this code for individual use permit requirements.

100 NA

20.410.200 LOT BUFFERS.

20.410.200.1 Purpose of this Section

The purpose of this Chapter is to balance new development in more intense districts with existing development and lower-intensity districts in terms of heights and build out. These lot buffers and are applicable to the side and rear property lines (and associated setbacks) for any lot or lots which utilizes a building type as part of this Chapter of the code.

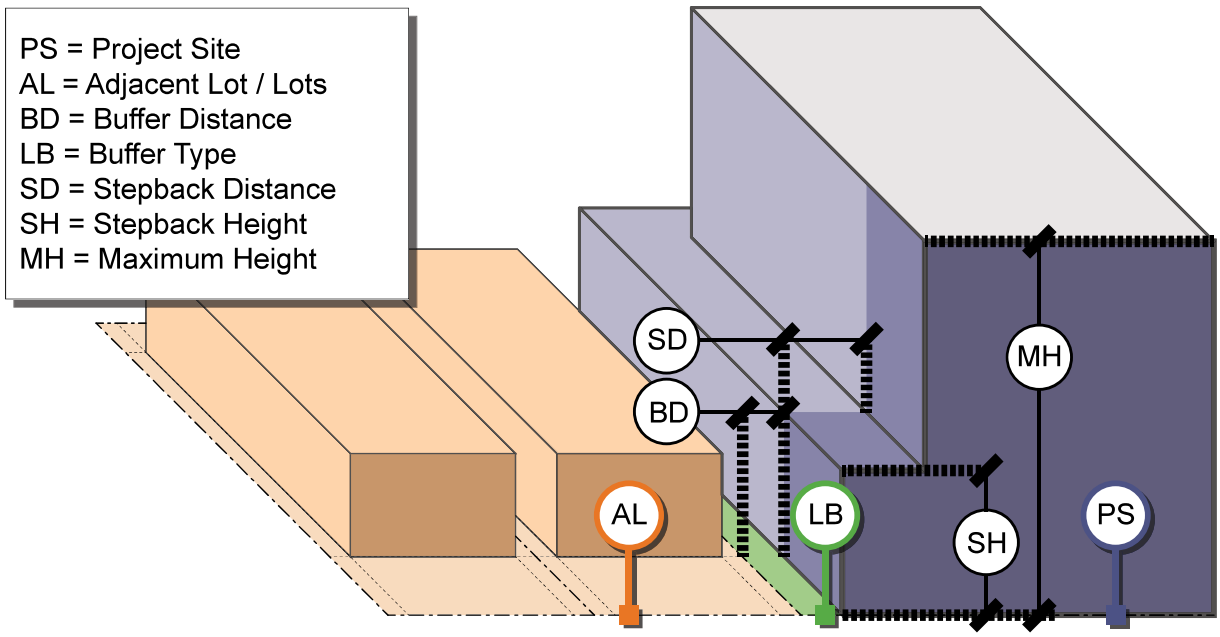
20.410.200.2 Landscape Requirements

All development subject to this Chapter must also meet **Chapter VMC Landscaping - Table 20.450.006.030-1 Landscaping and Screening Design Standards** per the Landscape Buffer (LB) identified for the lot.

20.410.200.3 Overview of Lot Buffers

The following diagram provides a brief overview of how lot buffers are intended to work for the development along with an associated way to measure and account for the buffer, stepback height limitations, and stepback distance associated. This diagram is purely an example for illustrative purposes.

Diagram 10.410.200.3-1: Lot Buffer Diagram



20.410.200.4 Lot Buffers By Base District

The following table provides a guide to lot buffers for all new development based on the zoning district of the project site (PS) or sites and the adjacent lot or lots (AL). Maximum height is always regulated by the zoning district established in **Chapter 20.410 VMC Zoning District.** Lot buffers indicating "none" are not applicable and must only meet the building placement and buildout requirements for the associated building type or types in **Chapter 20.420 VMC Building Types**. The following lot buffers are applicable:

Table 10.410.200.4-1: Lot Buffers by Zoning District

Project Site or Sites (PS)	Adjacent Lot or Lots (AL)									
	LS	MS	MX	RA	IC	IE	HI	MH	PO	NA
LS	None.							LB=L1	None.	
MS	LB=L2	None.						BU=10′ SH=35′ SD=20′ LB=L3	None.	
MX	BD=15′ SH=45′ SD=20′ LB=L3	BD=10′ SH=75′ SD=15′ LB=L2	None.					BU=10′ SH=35′ SD=20′ LB=L4	None.	
RA	BD=25′ SH=55′ SD=30′ LB=L4	BD=15′ SH=75′ SD=20′ LB=L3	None.						None.	
IC			None.						None.	
IE	BD=35′ SH=45′ SD=40′ LB=L5	BD=20′ SH=75′ SD=30′ LB=L4	BD=15′ SH=75′ SD=20′ LB=L3		None.			BD=25′ SH=35′ SD=30′ LB=L3	None.	
HI	BD=45′ SH=45′ SD=50′ LB=L5		BD=35′ SH=75′ SD=50′ LB=L4		None.				None.	
MH	None.									
PO	None.									
NA	None.									

CHAPTER 20.420

Building Types

20.420.001 PURPOSE.

This chapter introduces fifteen (15) building types that support the implementation of the code by enabling a fine-grained mix of structures tailored to each zoning district's character and scale. Each type is regulated by standards for lot size, setbacks, frontage, massing, and articulation. These standards ensure new development aligns with the intended character, complements the surrounding context, and contributes to a cohesive, walkable, and vibrant built environment that reinforces a strong sense of place.

20.420.002 APPLICABILITY.

This chapter shall be applicable to all permit applications for new construction or major renovations on any lot or lots. Building types included in this chapter are subject to **Chapter 20.270 VMC Site Plan Review**, and as applicable per standards or submittal requirements for the primary use type or types associated with the building type per **Chapter 20.430 VMC Use Requirements**.

20.420.003 ESTABLISHMENT OF BUILDING TYPES.

The building types include the following:

20.420.010 Single Family Residential Building Type (SFB).

20.420.020 Townhouse / Rowhouse Building Type (TRB).

20.420.030 Stacked Multi-Plex Building Type (SMB).

20.420.040 Flex-Plex Building Type (FPB).

20.420.050 Cottage Court Building Type (CCB).

20.420.060 Multifamily Building Type (MFB).

20.420.070 Mid-Rise Residential Building Type (MIB).

20.420.080 Mixed-Use Residential Building Type (MXB).

20.420.090 Mixed-Use Office Building Type (MOB).

20.420.100 Commercial Block Building Type (CBB).

20.420.110 Big Box Retail Building Type (BRB).

20.420.120 Flexible Use Building Type (FUB).

20.420.130 Industrial / Distribution Building Type (IDB).

20.420.140 Structured Parking Garage Building Type (SPB).

20.420.150 Civic / Institutional Building Type (CIB).

20.420.004 ALLOWABLE BUILDING TYPES PER ZONING DISTRICT.

The table below outlines the allowable building types for each zoning district.

#	BUILDING TYPE	ABV.	LS	MS	MX	RA	IC	IE	HI	MH	PO	NA
010	Single-Family Residential Building	SFB	Yes	Yes	No	No	No	No	No	No	No	No
020	Townhouse / Rowhouse Building	TRB	Yes	Yes	Yes	No	Yes	No	No	No	No	No
030	Stacked Multi-Plex Building	SMB	Yes	Yes	Yes	No	Yes	No	No	No	No	No
040	Flex-Plex Building	FPB	Yes	Yes	Yes	No	Yes	No	No	No	No	No
050	Cottage Court Building	CCB	Yes	Yes	Yes	No	No	No	No	No	No	No
060	Multifamily Building	MFB	No	Yes	Yes	Yes	Yes	No	No	No	No	No
070	Mid-Rise Residential Building	MIB	No	No	Yes	Yes	Yes	No	No	No	No	No
080	Mixed-Use Residential Building	MXB	Yes	Yes	Yes	Yes	Yes	No	No	No	No	No
090	Mixed-Use Office Building	MOB	No	Yes	Yes	Yes	Yes	Yes	No	No	No	No
100	Commercial Block Building	CBB	Yes	Yes	Yes	Yes	Yes	Yes	No	No	No	No
110	Big Box Retail Building	BRB	No	No	No	Yes	Yes	Yes	No	No	No	No
120	Flexible-Use Building	FUB	No	Yes	Yes	Yes	Yes	Yes	Yes	No	No	No
130	Industrial / Distribution Building	IDB	No	No	No	No	Yes	Yes	Yes	No	No	No
140	Structured Parking Garage Building	SPB	No	No	Yes	Yes	Yes	Yes	Yes	No	No	No
150	Civic / Institutional Building	CIB	Yes	Yes	Yes	Yes	Yes	Yes	No	No	Yes	No

"Yes" = Allowed "No" = Not Allowed

20.420.005 UNDERSTANDING THE STREET NETWORK.

Streets and open spaces are vital in codes because they define the public realm, shape how people interact with their environment, and build value around public investment. Streets should be designed as more than transportation corridors, prioritizing pedestrians, cyclists, and social activity through features like wide sidewalks, bike lanes, and active building frontages, fostering connectivity, safety, and a human-scaled urban experience. Open spaces, including parks, plazas, and greenways, complement this network by providing areas for recreation, relaxation, and community gatherings while supporting environmental goals like stormwater management and urban cooling. Together, streets and open spaces create a cohesive, multi-functional public realm that enhances walkability, promotes a sense of place, and improves the overall livability and character of a community. The street and open space network is defined as:

20.420.005.1 Street Network.

1. Primary Streets. A primary street for a lot is defined as a public right-of-way intended by the city for general traffic circulation and the main means of access to abutting lots which is identified as a any street within the transportation element of the current comprehensive plan as an existing or planned Enhanced Transit Corridor (HCT) or as part of the Primary Pedestrian Network or the Primary Bicycle and Small Mobility Network. Primary streets also include any public right-of-way abutting a public open space, park, greenway, natural area, trail, or otherwise as identified by the City's current comprehensive plan.

2. Side Street. A side street for a lot is defined as a public right-of-way intended by the city for general traffic circulation and a means of access to abutting lots that is not a primary street per this code.

3. Alley. An alley for a lot is defined as a public right-of-way or private easement not over thirty (30') feet in width which provides a secondary means of access to abutting lots, not intended by the city for general traffic circulation.

20.420.005.2 Rules of the Street Network.

1. When more than one primary street is present. If a lot has frontage onto more than one (1) primary street per definition, the main building must meet the primary street requirement for at least two (2) of those primary streets. Frontage for the lot onto all other streets may be defined as side streets.
Examples: *A corner lot at two (2) intersecting primary streets must meet the requirements for both of the streets; and a full block lot with all four (4) surrounding streets designated as primary streets must only meet the primary street requirements for two (2) of those streets and the other two (2) may be considered side streets.*

2. When only one street is present and that street is a primary street. If the lot only has frontage onto one (1) primary street, the main building is not required to meet requirements for a side street.
Examples: *In infill lot located on a primary street with no other frontage must only meet the primary street requirements.*

3. When no primary street is present. Any lot without frontage onto any primary street must meet the primary street requirements for frontage onto a least one (1) side street. Frontage for the lot onto all other streets may be defined as side streets.
Examples: *A corner lot at two (2) intersecting side streets must meet the requirements for primary streets on at least one (1) of the side streets; a full block lot with all four (4) surrounding streets designated as side streets must only meet the primary street requirements for one (1) of those streets and the other three (3) may be considered side streets; and infill lot located on a side street with no other frontage must meet the primary street requirements for the side street.*

4. When a primary street is located at the rear of a lot. For any lot in which frontage onto any primary street located at the rear of the lot, a planning official will determine which street frontage must meet the requirements for the primary street.
Examples: *An infill lot within a neighborhood subdivision located on a side street has a primary street located at the rear of the lot and the planning official determines that the side street must meet primary street requirements.*

20.420.006 THE BASICS OF BUILDING TYPES

This section introduces the basics of Building Types, outlining their typical structure, summarizing what each page includes, and explaining their essential purpose. The following section provides more detailed guidance on how to use the core components of each Building Type.

Page #1: General Information.

This sheet provides a clear definition (1) of the Building Type, outlines its key characteristics and basic purpose, and identifies the applicability of zoning districts in which it is permitted.

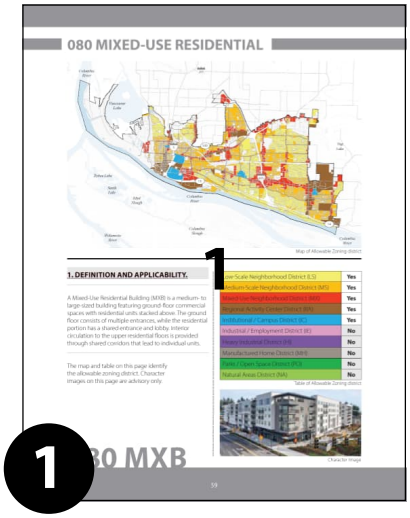
Page #2-3: Development Standards.

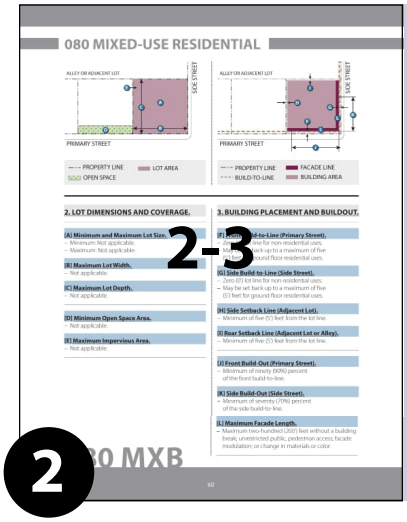
These sheets present the core development standards (2-5) for each Building Type, including lot dimensions and coverage, building placement and buildout, building height and frontage, and parking and access requirements. They include measurable, quantifiable core standards that must be met for project approval.

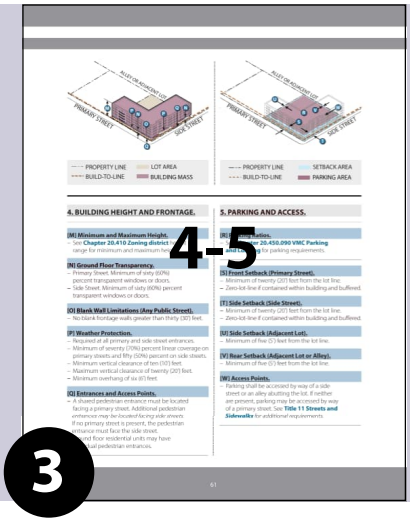
Page #4: Other / Overlay Requirements.

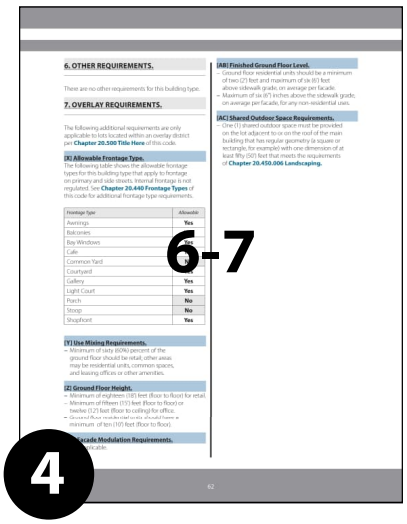
This sheet outlines any other requirements (6) that apply to the Building Type beyond the core development standards. It also identifies additional requirements (7) for projects located within the overlay districts defined in Chapter 20.500, such as specific Frontage Types, use-mixing requirements, and minimum ground-floor heights. These additional requirements apply only to Building Types situated within an applicable overlay district.

Previous Building Type

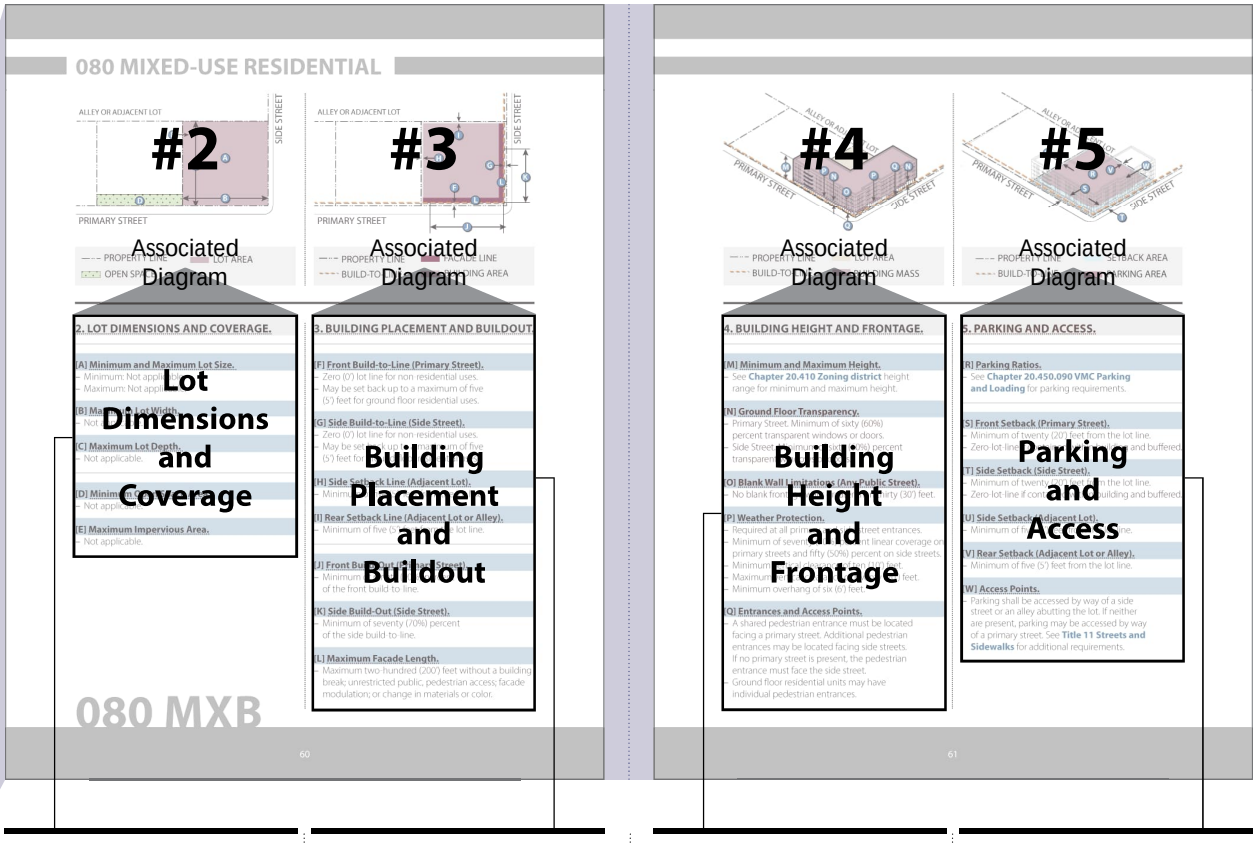








Next Building Type



Lot dimension and coverage standards include minimum and maximum lot size (in square feet), maximum lot width and depth (in linear feet), minimum required open space (as a percentage of the lot, excluding setbacks), and maximum impervious surface area. Together, these standards establish the fundamental parameters for lot development and support the creation of a compact, urban development pattern for each Building Type.

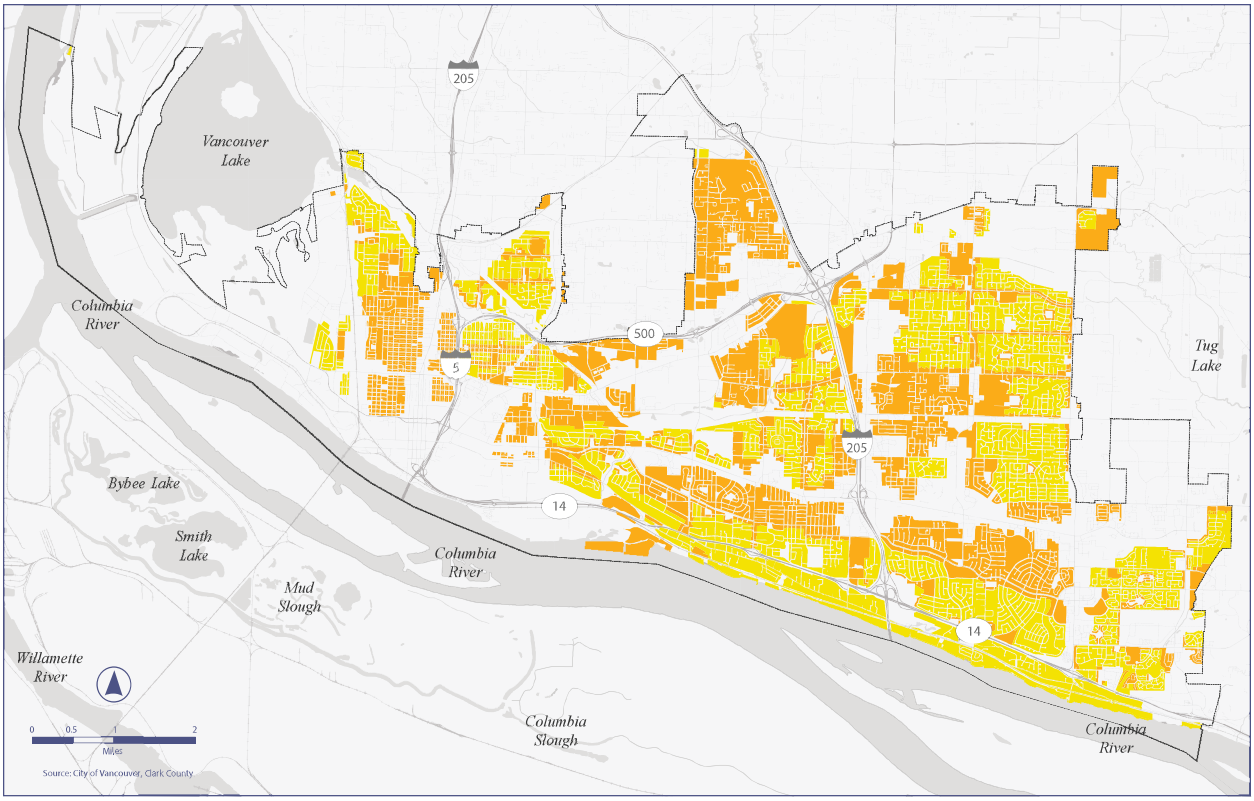
The building placement and buildout standards shape the fundamentals of urban form, including how facades align with build-to lines or setbacks, the required extent of facade buildout, and the allowable length of building fronts. Setbacks provide flexible ranges for front, side, and rear property lines based on the adjacent street type (primary or side street). Facade buildout is focused on creating consistent frontage between the setback lines, while maximum facade lengths help promote connectivity, break up long building walls, and reinforce a human-scaled streetscape.

The building height and frontage standards define the overall scale of buildings and the facade elements that shape the adjacent streetscape. Although minimum and maximum heights are set by the base zoning district, the allowable height for each Building Type varies accordingly. Requirements for ground-floor transparency, limits on blank walls, weather protection, and clearly defined entrances ensure that facades engage pedestrians, support active frontages, and strengthen the building's connection to the public realm.

The parking and access standards establish the basic requirements for parking, including minimum parking ratios, permitted parking locations, and allowed points of vehicular access. Parking is generally directed toward the rear of lots to maintain active building frontages and minimize curb cuts along primary and side streets. Access is prioritized from alleys when available, from side streets when alleys are not present, and from primary streets only as a last resort.

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010 SINGLE-FAMILY RESIDENTIAL



Map of Allowable Zoning Districts

1. DEFINITION AND APPLICABILITY.

A Single-Family Residential Building (SFB) is a standalone, single-unit structure typically designed for single-family living. Fully detached, it features no shared walls or connections to adjacent homes. This building type is intended to foster a welcoming streetscape with elements such as porches or stoops that engage with the street. To maximize curb appeal and promote pedestrian-friendly design, garages and parking areas should be located at the rear of the lot or set back from the main facade.

When this building type includes accessory dwelling units (ADUs) as defined by RCW RCW 36.70A.680, 681 and 696, the 040 Flex Plex Building Type (FPB) will be utilized.

The map and table on this page identify the allowable zoning district. Character images on this page are advisory only.

Low-Scale Neighborhood District (LS)	**Yes**
Medium-Scale Neighborhood District (MS)	**Yes**
Mixed-Use Neighborhood District (MX)	**No**
Regional Activity Center District (RA)	**No**
Institutional / Campus District (IC)	**No**
Industrial / Employment District (IE)	**No**
Heavy Industrial District (HI)	**No**
Manufactured Home District (MH)	**No**
Parks / Open Space District (PO)	**No**
Natural Areas District (NA)	**No**

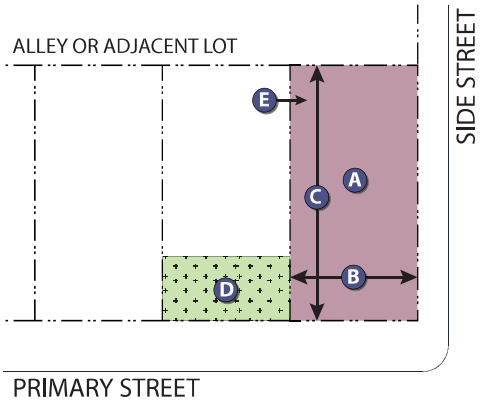
Table of Allowable Zoning district

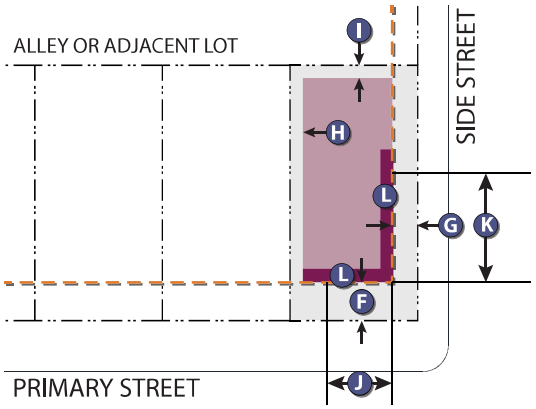


Character Image

010 SFB

010 SINGLE-FAMILY RESIDENTIAL





2. LOT DIMENSIONS AND COVERAGE.

[A] Minimum and Maximum Lot Size.
- Minimum: Not applicable.
- Maximum: Five thousand (5,000) square feet.

[B] Maximum Lot Width.
- Fifty (50') feet.

[C] Maximum Lot Depth.
- One-hundred (100') feet.

[D] Minimum Open Space Area.
- Twenty (20%) percent of lot size. Setback areas may contribute to meeting this requirement.

[E] Maximum Impervious Area.
- Sixty-five (65%) percent of lot size.
- The total square feet of a green roof and any other impervious surfaces may be excluded from this calculation.

3. BUILDING PLACEMENT AND BUILDOUT.

[F] Front Build-to-Line (Primary Street).
- Five (5') feet to eighteen (18') feet from the lot line.

[G] Side Build-to-Line (Side Street).
- Five (5') feet to eighteen (18') feet from the lot line.

[H] Side Setback Line (Adjacent Lot).
- Minimum of five (5') feet from the lot line.

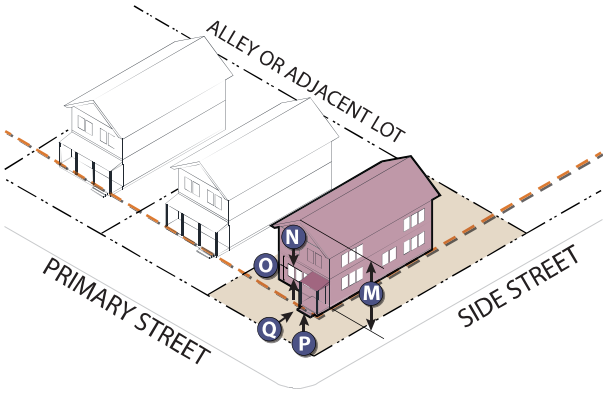
[I] Rear Setback Line (Adjacent Lot or Alley).
- Minimum of five (5') feet from the lot line.

[J] Front Build-Out (Primary Street).
- Minimum of sixty (60%) percent of the front build-to-line.
- For any portion of a garage facing a Primary Street, the width of the garage may be a maximum of ten (10') feet or sixty (60%) percent of the front build-to-line, whichever is the greater dimension.

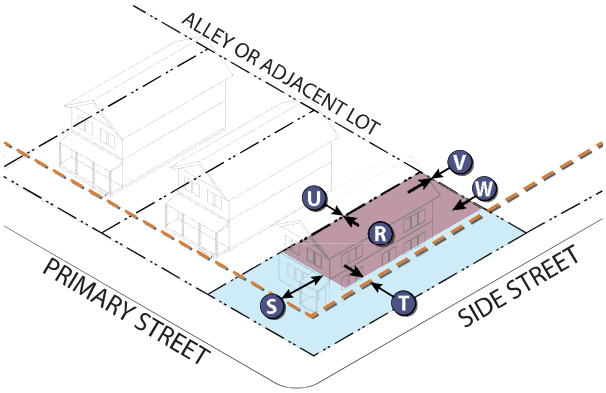
[K] Side Build-Out (Side Street).
- Minimum of fifty (50%) percent of the side build-to-line.

[L] Maximum Facade Length.
- Maximum one-hundred (100') feet without a building break of ten (10') feet between buildings located on the lot or lots.

010 SFB



PROPERTY LINE
BUILD-TO-LINE
LOT AREA
BUILDING MASS



PROPERTY LINE
BUILD-TO-LINE
SETBACK AREA
PARKING AREA

4. BUILDING HEIGHT AND FRONTAGE.

[M] Minimum and Maximum Height.

- See **Chapter 20.410 Zoning district** height range for minimum and maximum height.

[N] Ground Floor Transparency.

- Primary Street. Minimum of fifteen (15%) percent transparent windows or doors.
- Side Street. Minimum of fifteen (15%) percent transparent windows or doors.

[O] Blank Wall Limitations (Any Public Street).

- No blank frontage walls greater than twenty-five (25') feet without transparency or entrances.

[P] Weather Protection.

- No frontage weather protection requirements.

[Q] Entrances and Access Points.

- Pedestrian entrances must be located facing a primary street. Additional pedestrian entrances may be located facing side streets. If no primary street is present, pedestrian entrances must face the side street.
- Lots with multiple buildings may have also have pedestrian entrances from a shared courtyard.

5. PARKING AND ACCESS.

[R] Parking Ratios.

- See **Chapter 20.450.090 VMC Parking and Loading** for parking requirements.

[S] Front Setback (Primary Street).

- Twenty (20') feet behind the main building facade.
- Parking is permitted in front of garages; but never blocking a public sidewalk or in a driveway apron.
- Parking is permitted in the front yard setback provided it is: located on a legally established driveway; located out of sight triangles as per **Chapter 20.895 VMC**; does not extend into any public right-of-way.

[T] Side Setback (Side Street).

- Five (5') feet behind the main building facade.

[U] Side Setback (Adjacent Lot).

- No Minimum from the lot line.

[V] Rear Setback (Adjacent Lot or Alley).

- No Minimum from the lot line.

[W] Access Points.

- If there is an alley abutting the lot, parking shall be accessed by way of the alley only. If there is side street and no alley, parking may be accessed by way of the side street. Parking may only be accessed from a primary street should there be no other option. See **Title 11 Streets and Sidewalks** for additional requirements.

6. OVERLAY REQUIREMENTS.

6.1 GROUND FLOOR ACTIVATION:

Pursuant to this Chapter, any building type located within a zoning district subject to **Chapter 20.501 Active Ground Floor Use Overlay** shall be required to comply with the following requirements:

[X] Required Frontage Type.

The following table shows the allowable frontage types for this building type that apply to frontage on primary and side streets. Internal frontage is not regulated. See **Chapter 20.440 Frontage Types** of this code for additional frontage type requirements.

Frontage Type	*Allowable*
Awnings	**No**
Balconies	**Yes**
Bay Windows	**Yes**
Cafe	**No**
Common Yard	**Yes**
Courtyard	**No**
Gallery	**No**
Light Court	**No**
Porch	**Yes**
Stoop	**No**
Shopfront	**No**

[Y] Frontage Modulation Requirements.

– One (1) vertical modulation of minimum twelve (12") inches every twenty-five (25') feet of facade on all streets.

[Z] Ground Floor Use Activation.

– Not applicable.

[AA] Minimum Ground Floor-to-Ceiling Height.

– Not applicable.

[AB] Increased Ground Floor Transparency.

– Not applicable.

6.2 GROUND FLOOR READY:

Pursuant to this Chapter, any building type located within a zoning district subject to **Chapter 20.502 Active Ground Floor Use Ready Overlay** shall be required to comply with the following requirements:

[AC] Minimum Ground Floor-to-Ceiling Height.

– Not applicable.

[AD] Increased Ground Floor Transparency.

– Not applicable.

6.3 TRANSIT-BASED HEIGHT ALLOWANCE:

Pursuant to this Chapter and Washington State HB 1491, any building type located within a 1/4-mile radius of an existing or planned bus rapid or light rail transit, are eligible for no maximum height limits, subject to the **Chapter 20.503 Station Areas Overlay**.

[AE] Increased Maximum Height.

– No maximum.

6.4 OTHER OVERLAY REQUIREMENTS:

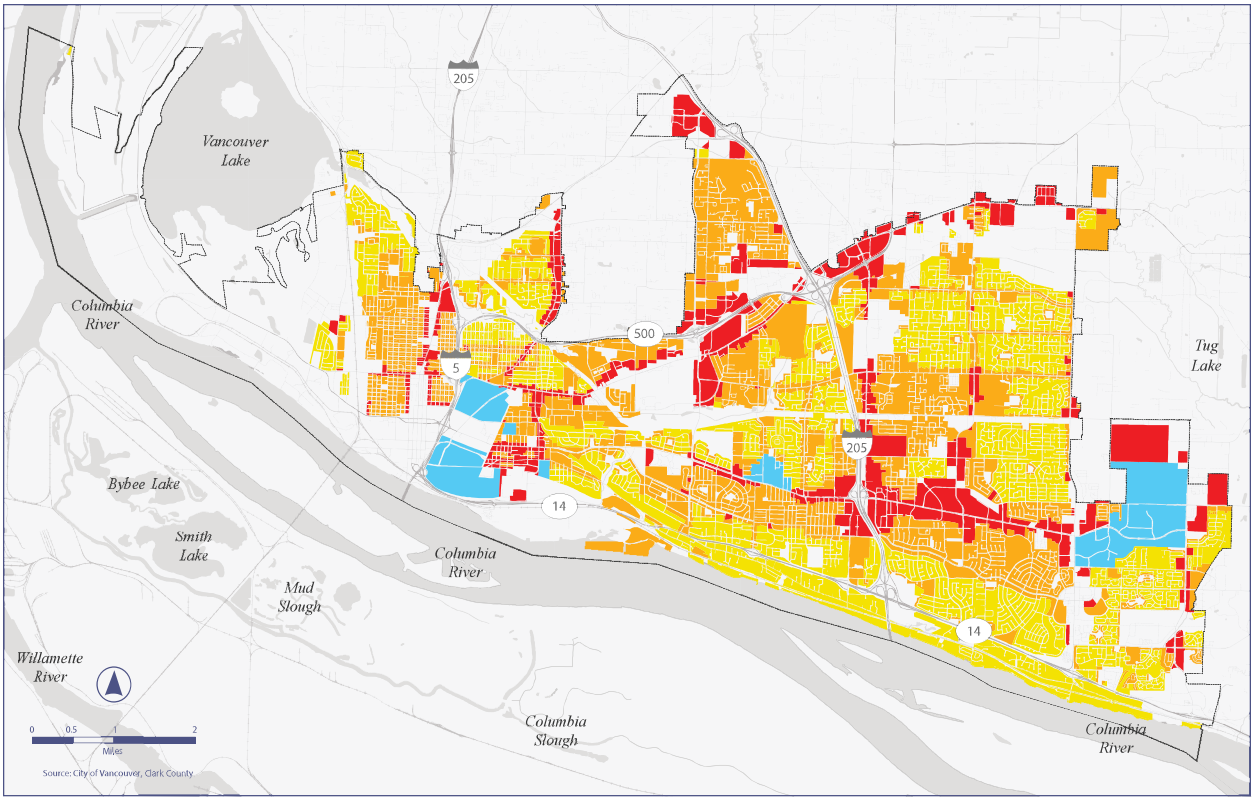
The following may also apply:

– See **Chapter 20.500 VMC Overlay Districts** of this code for other requirements that may apply to this district.

– See **Chapter 20.600 VMC Plan Districts** of this code for other requirements that may apply to this district.

– See **Chapter 20.700 VMC Environmental Regulations** of this code for other requirements that may apply to this district.

020 TOWNHOUSE / ROWHOUSE



Map of Allowable Zoning Districts

1. DEFINITION AND APPLICABILITY.

A Townhouse / Rowhouse Building (TRB) is a series of side-by-side buildings designed as attached or detached dwelling units on narrower lots facing the street, each separated by shared walls and a defined space. Each unit has its own private entrance, with limited front setbacks that enhance the streetscape with a small front green space or discreet parking access. To preserve the vibrancy of the streetscape, garages are allowed but generally discouraged. The lot layout typically includes a modest rear yard, providing residents with private outdoor space.

This building type includes townhouses as defined by RCW 36.70A.030 and accessory dwelling units (ADUs) per RCW 36.70A.680, 681 and 696.

The map and table on this page identify the allowable zoning district. Character images on this page are advisory only.

Low-Scale Neighborhood District (LS)	**Yes**
Medium-Scale Neighborhood District (MS)	**Yes**
Mixed-Use Neighborhood District (MX)	**Yes**
Regional Activity Center District (RA)	**No**
Institutional / Campus District (IC)	**Yes**
Industrial / Employment District (IE)	**No**
Heavy Industrial District (HI)	**No**
Manufactured Home District (MH)	**No**
Parks / Open Space District (PO)	**No**
Natural Areas District (NA)	**No**

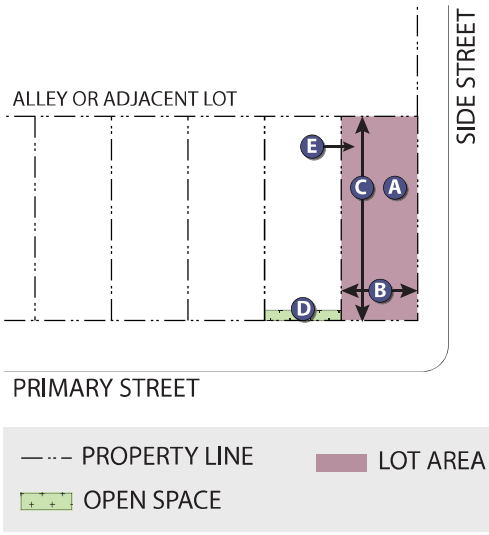
Table of Allowable Zoning district

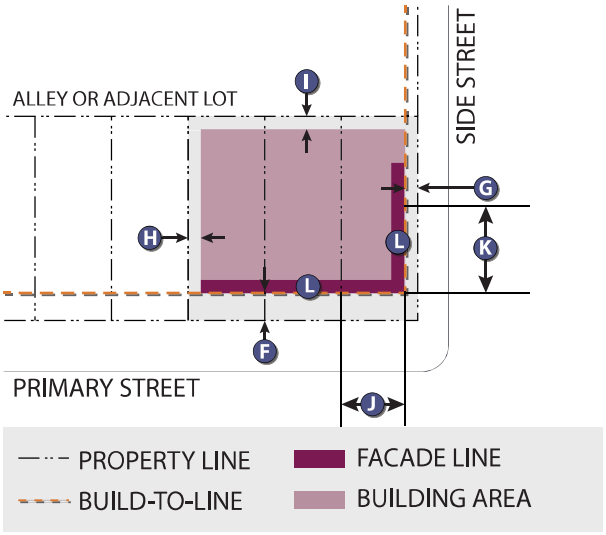


Character Image

020 TRB

020 TOWNHOUSE / ROWHOUSE





2. LOT DIMENSIONS AND COVERAGE.

[A] Minimum and Maximum Lot Size.
- Minimum: Not applicable.
- Maximum: Five thousand (5,000) square feet.

[B] Maximum Lot Width.
- Fifty (50') feet.

[C] Maximum Lot Depth.
- One-hundred (100') feet.

[D] Minimum Open Space Area.
- Ten (10%) percent of lot size. Setback areas may contribute to meeting this requirement.

[E] Maximum Impervious Area.
- Eighty-five (85%) percent of lot size.
- The total square feet of a green roof and any other impervious surfaces may be excluded from this calculation.

3. BUILDING PLACEMENT AND BUILDOUT.

[F] Front Build-to-Line (Primary Street).
- Five (5') feet to eighteen (18') feet from the lot line.

[G] Side Build-to-Line (Side Street).
- Five (5') feet to eighteen (18') feet from the lot line.

[H] Side Setback Line (Adjacent Lot).
- Minimum of five (5') feet from the lot line.
- Zero (0') lot line for attached units.

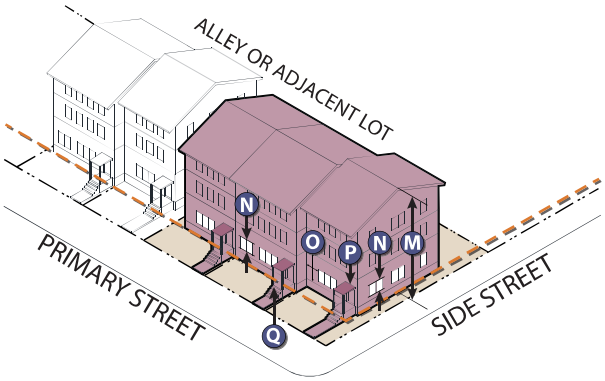
[I] Rear Setback Line (Adjacent Lot or Alley).
- Minimum of five (5') feet from the lot line.

[J] Front Build-Out (Primary Street).
- Minimum of sixty (60%) percent of the front build-to-line.

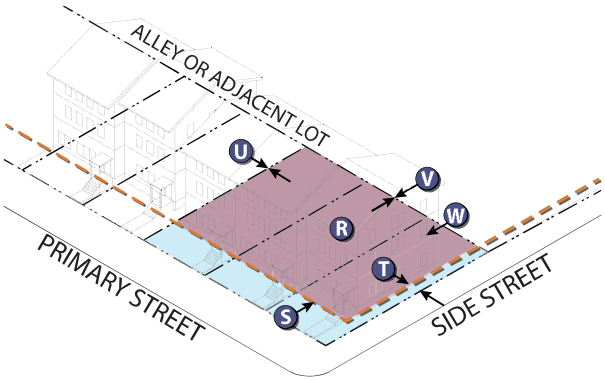
[K] Side Build-Out (Side Street).
- Minimum of fifty (50%) percent of the side build-to-line.

[L] Maximum Facade Length.
- Maximum one-hundred (100') feet without a building break of ten (10') feet between buildings located on the lot or lots.

020 TRB



PROPERTY LINE
BUILD-TO-LINE
LOT AREA
BUILDING MASS



PROPERTY LINE
BUILD-TO-LINE
SETBACK AREA
PARKING AREA

4. BUILDING HEIGHT AND FRONTAGE.

[M] Minimum and Maximum Height.

- See **Chapter 20.410 Zoning district** height range for minimum and maximum height.

[N] Ground Floor Transparency.

- Primary Street. Minimum of fifteen (15%) percent transparent windows or doors.
- Side Street. Minimum of five (5%) percent transparent windows or doors.

[O] Blank Wall Limitations (Any Public Street).

- No blank frontage walls greater than twenty-five (25') feet without transparency or entrances.

[P] Weather Protection.

- No frontage weather protection requirements.

[Q] Entrances and Access Points.

- Pedestrian entrances must be located facing a primary street. Additional pedestrian entrances may be located facing side streets. If no primary street is present, pedestrian entrances must face the side street.
- Lots with multiple buildings may have also have pedestrian entrances from a shared courtyard.

5. PARKING AND ACCESS.

[R] Parking Ratios.

- See **Chapter 20.450.090 VMC Parking and Loading** for parking requirements.

[S] Front Setback (Primary Street).

- To match the front build-to-line.
- Parking is permitted in front of garages; but never blocking a public sidewalk or in a driveway apron.
- Parking is permitted in the front yard setback provided it is: located on a legally established driveway; located out of sight triangles as per **Chapter 20.895 VMC**; does not extend into any public right-of-way.

[T] Side Setback (Side Street).

- To match the side build-to-line and never in front of the main building facade.

[U] Side Setback (Adjacent Lot).

- No Minimum from the lot line.

[V] Rear Setback (Adjacent Lot or Alley).

- No Minimum from the lot line.

[W] Access Points.

- If there is an alley abutting the lot, parking shall be accessed by way of the alley only. If there is side street and no alley, parking may be accessed by way of the side street. Parking may only be accessed from a primary street should there be no other option. See **Title 11 Streets and Sidewalks** for additional requirements.

6. OVERLAY REQUIREMENTS.

6.1 GROUND FLOOR ACTIVATION:

Pursuant to this Chapter, any building type located within a zoning district subject to **Chapter 20.501 Active Ground Floor Use Overlay** shall be required to comply with the following requirements:

[X] Required Frontage Type.

The following table shows the allowable frontage types for this building type that apply to frontage on primary and side streets. Internal frontage is not regulated. See **Chapter 20.440 Frontage Types** of this code for additional frontage type requirements.

Frontage Type	*Allowable*
Awnings	**No**
Balconies	**Yes**
Bay Windows	**Yes**
Cafe	**No**
Common Yard	**Yes**
Courtyard	**No**
Gallery	**No**
Light Court	**No**
Porch	**No**
Stoop	**Yes**
Shopfront	**No**

[Y] Frontage Modulation Requirements.

– One (1) vertical modulation of minimum twelve (12") inches every twenty-five (25') feet of facade on all streets.

[Z] Ground Floor Use Activation.

– Not applicable.

[AA] Minimum Ground Floor-to-Ceiling Height.

– Not applicable.

[AB] Increased Ground Floor Transparency.

– Not applicable.

6.2 GROUND FLOOR READY:

Pursuant to this Chapter, any building type located within a zoning district subject to **Chapter 20.502 Active Ground Floor Use Ready Overlay** shall be required to comply with the following requirements:

[AC] Minimum Ground Floor-to-Ceiling Height.

– Not applicable.

[AD] Increased Ground Floor Transparency.

– Not applicable.

6.3 TRANSIT-BASED HEIGHT ALLOWANCE:

Pursuant to this Chapter and Washington State HB 1491, any building type located within a 1/4-mile radius of an existing or planned bus rapid or light rail transit, are eligible for no maximum height limits, subject to the **Chapter 20.503 Station Areas Overlay**.

[AE] Increased Maximum Height.

– No maximum.

6.4 OTHER OVERLAY REQUIREMENTS:

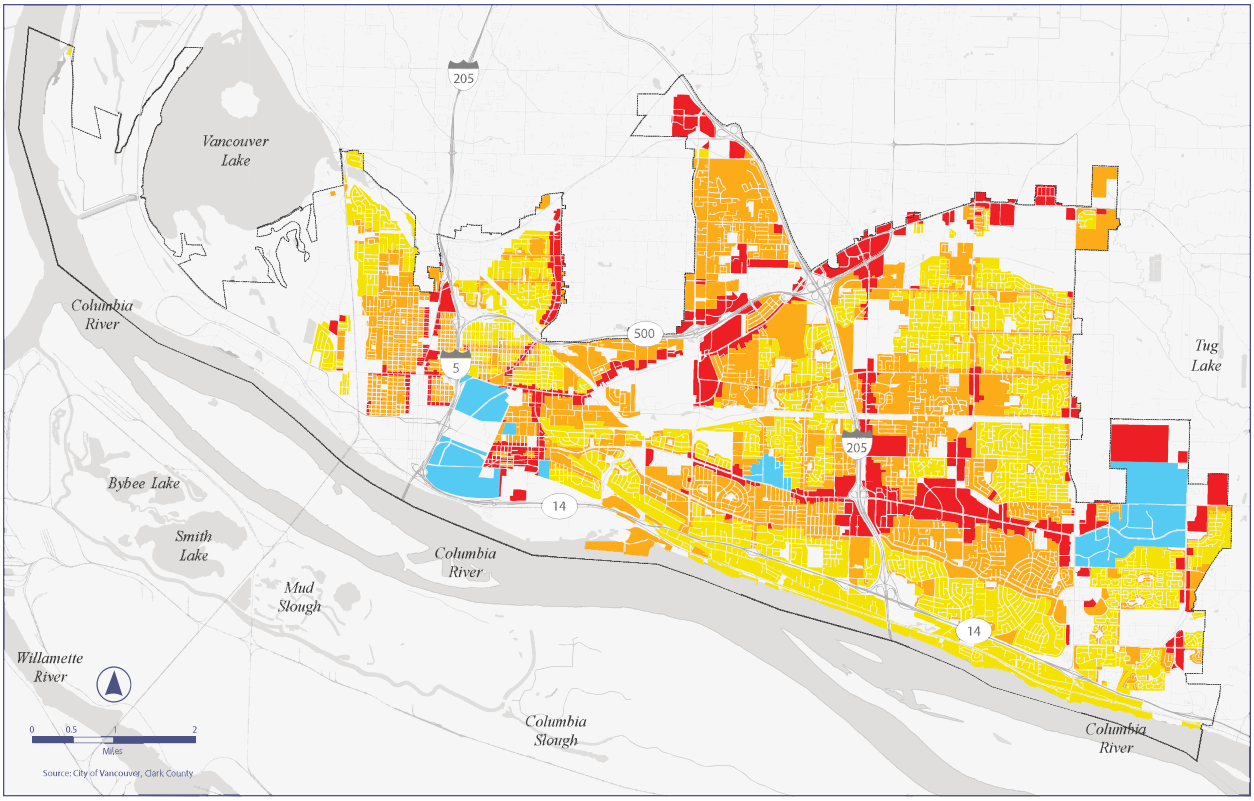
The following may also apply:

– See **Chapter 20.500 VMC Overlay Districts** of this code for other requirements that may apply to this district.

– See **Chapter 20.600 VMC Plan Districts** of this code for other requirements that may apply to this district.

– See **Chapter 20.700 VMC Environmental Regulations** of this code for other requirements that may apply to this district.

030 STACKED MULTI-PLEX



Map of Allowable Zoning Districts

1. DEFINITION AND APPLICABILITY.

A Stacked Multi-Plex Building (SMB) is designed to house two (2) or more dwelling units in a single building on a single lot. Typically accommodating single or multiple units on each floor, these residences are arranges vertically (i.e., flats on separate floors). Pedestrian access is oriented toward the primary street, with a singular shared entrances. Circulation within the building may be provided through interior corridors or exterior pathways. Does not include single-family dwellings or townhouse / rowhouses with accessory dwelling units.

This building type includes townhouses as defined by RCW 36.70A.030 and accessory dwelling units (ADUs) per RCW 36.70A.680, 681 and 696.

The map and table on this page identify the allowable zoning district. Character images on this page are advisory only.

Low-Scale Neighborhood District (LS)	**Yes**
Medium-Scale Neighborhood District (MS)	**Yes**
Mixed-Use Neighborhood District (MX)	**Yes**
Regional Activity Center District (RA)	**No**
Institutional / Campus District (IC)	**Yes**
Industrial / Employment District (IE)	**No**
Heavy Industrial District (HI)	**No**
Manufactured Home District (MH)	**No**
Parks / Open Space District (PO)	**No**
Natural Areas District (NA)	**No**

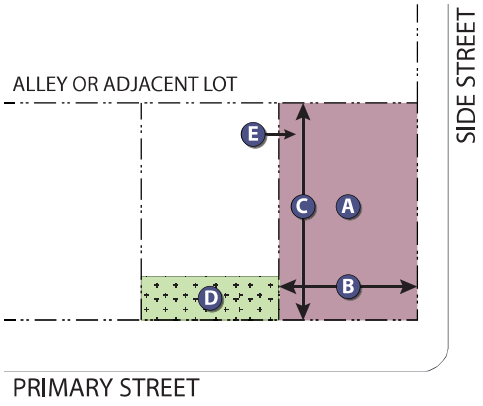
Table of Allowable Zoning district

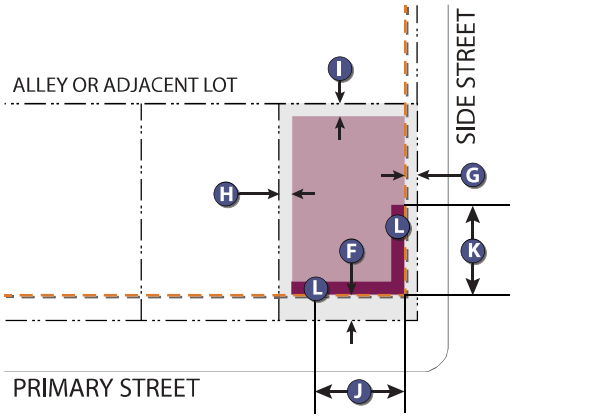


Character Image

030 SMB

030 STACKED MULTI-PLEX





2. LOT DIMENSIONS AND COVERAGE.

[A] Minimum and Maximum Lot Size.
- Minimum: Not applicable.
- Maximum: Not applicable.

[B] Maximum Lot Width.
- Not applicable.

[C] Maximum Lot Depth.
- Not applicable.

[D] Minimum Open Space Area.
- Ten (10%) percent of lot size. Setback areas may contribute to meeting this requirement.

[E] Maximum Impervious Area.
- Eighty-five (85%) percent of lot size.
- The total square feet of a green roof and any other impervious surfaces may be excluded from this calculation.

3. BUILDING PLACEMENT AND BUILDOUT.

[F] Front Build-to-Line (Primary Street).
- Five (5') feet to eighteen (18') feet from the lot line.

[G] Side Build-to-Line (Side Street).
- Five (5') feet to eighteen (18') feet from the lot line.

[H] Side Setback Line (Adjacent Lot).
- Minimum of five (5') feet from the lot line.
- No minimum for internal lot lines.

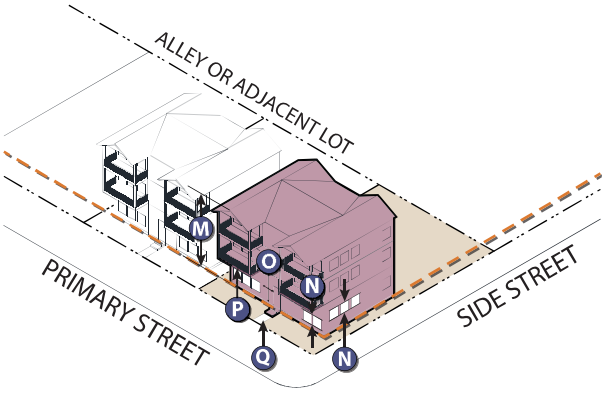
[I] Rear Setback Line (Adjacent Lot or Alley).
- Minimum of five (5') feet from the lot line.

[J] Front Build-Out (Primary Street).
- Minimum of sixty (60%) percent of the front build-to-line.

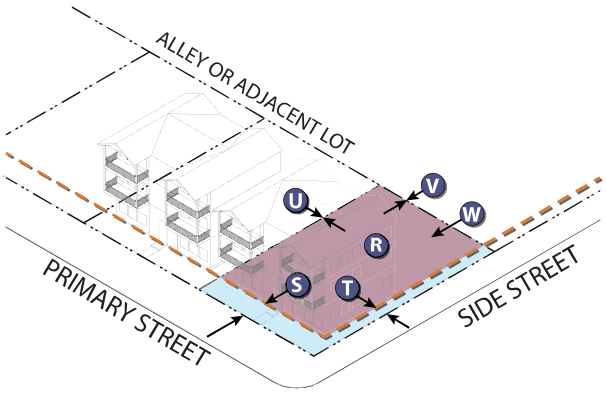
[K] Side Build-Out (Side Street).
- Minimum of fifty (50%) percent of the side build-to-line.

[L] Maximum Facade Length.
- Maximum one-hundred (100') feet without a building break of ten (10') feet between buildings located on the lot or lots.

030 SMB



PROPERTY LINE
BUILD-TO-LINE
LOT AREA
BUILDING MASS



PROPERTY LINE
BUILD-TO-LINE
SETBACK AREA
PARKING AREA

4. BUILDING HEIGHT AND FRONTAGE.

[M] Minimum and Maximum Height.

- See **Chapter 20.410 Zoning district** height range for minimum and maximum height.

[N] Ground Floor Transparency.

- Primary Street. Minimum of fifteen (15%) percent transparent windows or doors.
- Side Street. Minimum of ten (10%) percent transparent windows or doors.

[O] Blank Wall Limitations (Any Public Street).

- No blank frontage walls greater than twenty-five (25') feet without transparency or entrances.

[P] Weather Protection.

- No frontage weather protection requirements.

[Q] Entrances and Access Points.

- A shared pedestrian entrance must be located facing a primary street. Additional pedestrian entrances may be located facing side streets. If no primary street is present, the pedestrian entrance must face the side street.
- Ground floor residential units may have individual pedestrian entrances.
- Lots with multiple buildings may have also have pedestrian entrances from a shared courtyard.

5. PARKING AND ACCESS.

[R] Parking Ratios.

- See **Chapter 20.450.090 VMC Parking and Loading** for parking requirements.

[S] Front Setback (Primary Street).

- To match the front build-to-line.
- Parking is permitted in the front yard setback provided it is: located on a legally established driveway; located out of sight triangles as per **Chapter 20.895 VMC**; does not extend into any public right-of-way.

[T] Side Setback (Side Street).

- To match the side build-to-line and never in front of the main building facade.

[U] Side Setback (Adjacent Lot).

- No Minimum from the lot line.

[V] Rear Setback (Adjacent Lot or Alley).

- No Minimum from the lot line.

[W] Access Points.

- Parking shall be accessed by way of a side street or an alley abutting the lot. If neither are present, parking may be accessed by way of a primary street. See **Title 11 Streets and Sidewalks** for additional requirements.

6. OVERLAY REQUIREMENTS.

6.1 GROUND FLOOR ACTIVATION:

Pursuant to this Chapter, any building type located within a zoning district subject to **Chapter 20.501 Active Ground Floor Use Overlay** shall be required to comply with the following requirements:

[X] Required Frontage Type.

The following table shows the allowable frontage types for this building type that apply to frontage on primary and side streets. Internal frontage is not regulated. See **Chapter 20.440 Frontage Types** of this code for additional frontage type requirements.

Frontage Type	*Allowable*
Awnings	**No**
Balconies	**Yes**
Bay Windows	**Yes**
Cafe	**No**
Common Yard	**Yes**
Courtyard	**Yes**
Gallery	**No**
Light Court	**No**
Porch	**Yes**
Stoop	**Yes**
Shopfront	**No**

[Y] Frontage Modulation Requirements.

– One (1) vertical modulation of minimum twelve (12") inches every forty (40') feet of facade on all streets.

[Z] Ground Floor Use Activation.

– Not applicable.

[AA] Minimum Ground Floor-to-Ceiling Height.

– Not applicable.

[AB] Increased Ground Floor Transparency.

– Not applicable.

6.2 GROUND FLOOR READY:

Pursuant to this Chapter, any building type located within a zoning district subject to **Chapter 20.502 Active Ground Floor Use Ready Overlay** shall be required to comply with the following requirements:

[AC] Minimum Ground Floor-to-Ceiling Height.

– Not applicable.

[AD] Increased Ground Floor Transparency.

– Not applicable.

6.3 TRANSIT-BASED HEIGHT ALLOWANCE:

Pursuant to this Chapter and Washington State HB 1491, any building type located within a 1/4-mile radius of an existing or planned bus rapid or light rail transit, are eligible for no maximum height limits, subject to the **Chapter 20.503 Station Areas Overlay**.

[AE] Increased Maximum Height.

– No maximum.

6.4 OTHER OVERLAY REQUIREMENTS:

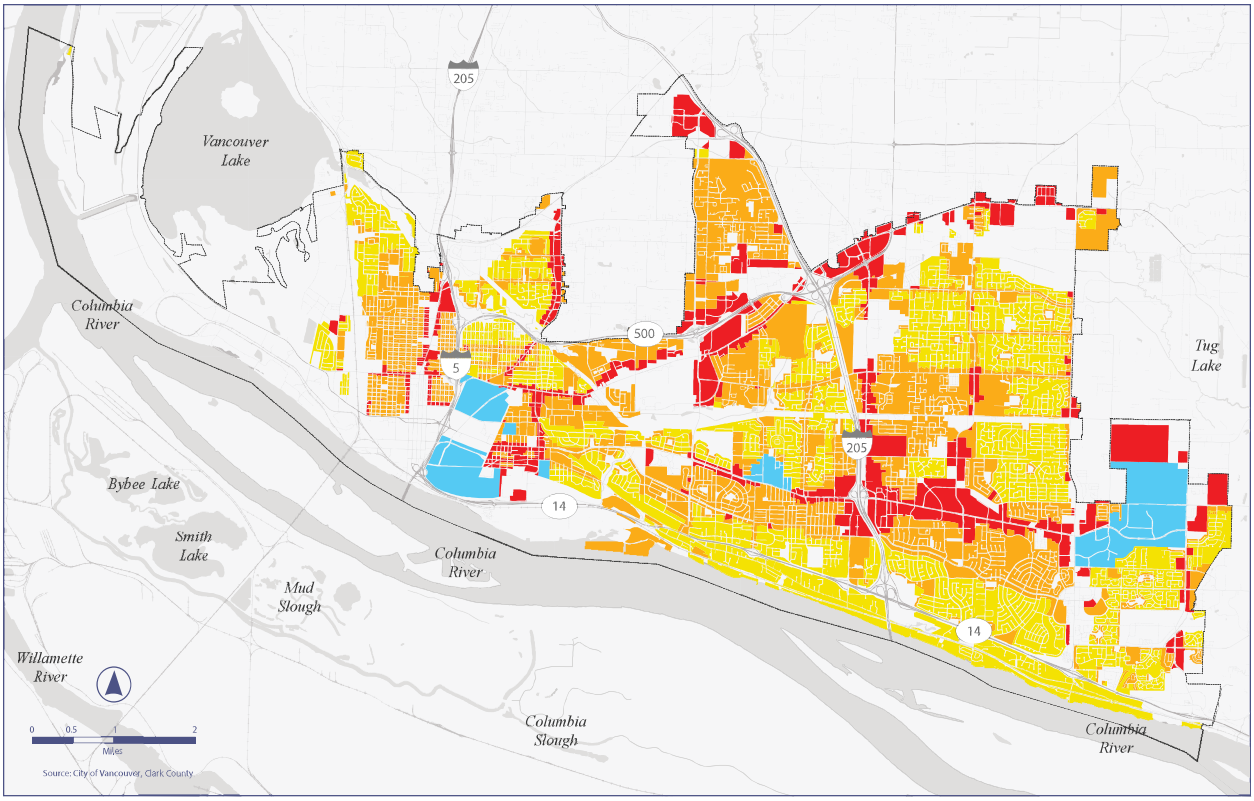
The following may also apply:

– See **Chapter 20.500 VMC Overlay Districts** of this code for other requirements that may apply to this district.

– See **Chapter 20.600 VMC Plan Districts** of this code for other requirements that may apply to this district.

– See **Chapter 20.700 VMC Environmental Regulations** of this code for other requirements that may apply to this district.

040 FLEX-PLEX



Map of Allowable Zoning Districts

1. DEFINITION AND APPLICABILITY.

A Multi-Cluster Building (CCB) is a development form consisting of a cluster of two (2) to six (6) detached or attached units on a single, parent parcel, where not all units must face the street. Buildings include single-unit and rowhouses with up to two (2) accessory dwelling units (attached or detached) and townhouses. This layout creates an active, street-oriented presence while accommodating a variety of units within a unified development pattern. Each unit may have its own individual or shared entrances with other units; however, pedestrian access should be a shared access point at the streetscape. Does not include cottage courts.

This building type includes townhouses as defined by RCW 36.70A.030 and accessory dwelling units (ADUs) per RCW 36.70A.680, 681 and 696.

The map and table on this page identify the allowable zoning district. Character images on this page are advisory only.

Low-Scale Neighborhood District (LS)	**Yes**
Medium-Scale Neighborhood District (MS)	**Yes**
Mixed-Use Neighborhood District (MX)	**Yes**
Regional Activity Center District (RA)	**No**
Institutional / Campus District (IC)	**Yes**
Industrial / Employment District (IE)	**No**
Heavy Industrial District (HI)	**No**
Manufactured Home District (MH)	**No**
Parks / Open Space District (PO)	**No**
Natural Areas District (NA)	**No**

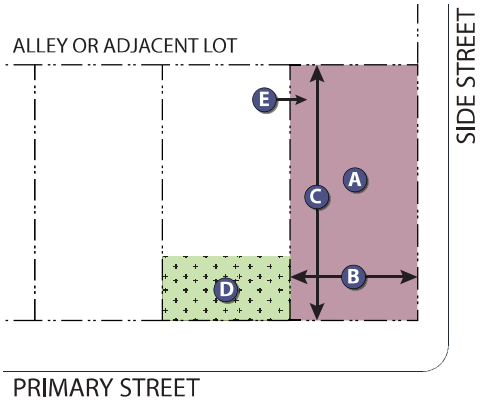
Table of Allowable Zoning district

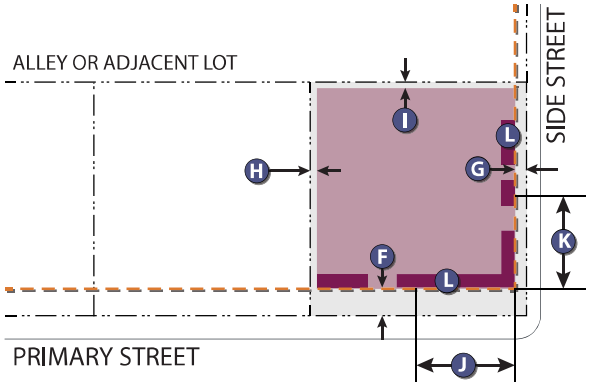


Character Image

040 FPB

040 FLEX-PLEX





2. LOT DIMENSIONS AND COVERAGE.

[A] Minimum and Maximum Lot Size.
- Not applicable.
- Maximum: Forty thousand (40,000) square feet.

[B] Maximum Lot Width.
- Not applicable.

[C] Maximum Lot Depth.
- Not applicable.

[D] Minimum Open Space Area.
- Ten (10%) percent of lot size. Setback areas may contribute to meeting this requirement.

[E] Maximum Impervious Area.
- Sixty-five (65%) percent of lot size for less than three (3) units.
- Seventy-five (75%) percent of lot size for four (4) to six (6) units.
- Eighty-five (85%) percent of lot size for seven (7) or more units.
- The total square feet of a green roof and any other impervious surfaces may be excluded from this calculation.

3. BUILDING PLACEMENT AND BUILDOUT.

[F] Front Build-to-Line (Primary Street).
- Five (5') feet to eighteen (18') feet from the lot line.

[G] Side Build-to-Line (Side Street).
- Five (5') feet to eighteen (18') feet from the lot line.

[H] Side Setback Line (Adjacent Lot).
- Minimum of five (5') feet from the lot line.
- May be zero lot line between any building on the lot.

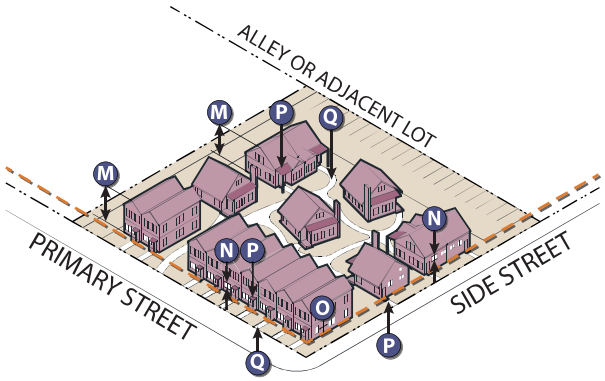
[I] Rear Setback Line (Adjacent Lot or Alley).
- Minimum of five (5') feet from the lot line.

[J] Front Build-Out (Primary Street).
- Minimum of sixty (60%) percent of the front build-to-line.

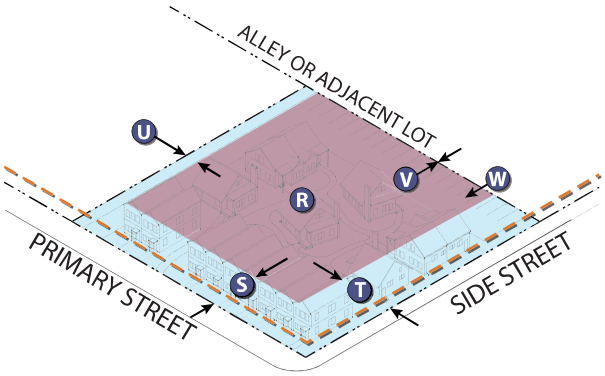
[K] Side Build-Out (Side Street).
- Minimum of fifty (50%) percent of the side build-to-line.

[L] Maximum Facade Length.
- Maximum one-hundred (100') feet without a building break of ten (10') feet between buildings located on the lot or lots.

040 FPB



PROPERTY LINE
BUILD-TO-LINE
LOT AREA
BUILDING MASS



PROPERTY LINE
BUILD-TO-LINE
SETBACK AREA
PARKING AREA

4. BUILDING HEIGHT AND FRONTAGE.

[M] Minimum and Maximum Height.

- See **Chapter 20.410 Zoning district** height range for minimum and maximum height.

[N] Ground Floor Transparency.

- Primary Street. Minimum of fifteen (15%) percent transparent windows or doors.
- Side Street. Minimum of ten (10%) percent transparent windows or doors.
- No requirements on internal buildings.

[O] Blank Wall Limitations (Any Public Street).

- No blank frontage walls greater than twenty-five (25') feet without transparency or entrances.

[P] Weather Protection.

- No frontage weather protection requirements.

[Q] Entrances and Access Points.

- Buildings located along the primary street must have pedestrian entrances must be located facing the primary street. Additional pedestrian entrances may be located facing side streets. If no primary street is present, the pedestrian entrance must face the side street.
- Ground floor residential units throughout the lot may have individual pedestrian entrances and must be accessible by a pathway no less than five (5') feet wide that connects with the primary street.

5. PARKING AND ACCESS.

[R] Parking Ratios.

- See **Chapter 20.450.090 VMC Parking and Loading** for parking requirements.

[S] Front Setback (Primary Street).

- Minimum of twenty (20') from the lot line.
- Parking is permitted in the front yard setback provided it is: located on a legally established driveway; located out of sight triangles as per **Chapter 20.895 VMC**; does not extend into any public right-of-way.

[T] Side Setback (Side Street).

- Minimum of twenty (20') from the lot line.

[U] Side Setback (Adjacent Lot).

- Minimum of five (5') from the lot line.

[V] Rear Setback (Adjacent Lot or Alley).

- No minimum.

[W] Access Points.

- Parking shall be accessed by way of a side street or an alley abutting the lot. If neither are present, parking may be accessed by way of a primary street. See **Title 11 Streets and Sidewalks** for additional requirements.

6. OVERLAY REQUIREMENTS.

6.1 GROUND FLOOR ACTIVATION:

Pursuant to this Chapter, any building type located within a zoning district subject to **Chapter 20.501 Active Ground Floor Use Overlay** shall be required to comply with the following requirements:

[X] Required Frontage Type.

The following table shows the allowable frontage types for this building type that apply to frontage on primary and side streets. Internal frontage is not regulated. See **Chapter 20.440 Frontage Types** of this code for additional frontage type requirements.

Frontage Type	*Allowable*
Awnings	**No**
Balconies	**Yes**
Bay Windows	**Yes**
Cafe	**No**
Common Yard	**Yes**
Courtyard	**Yes**
Gallery	**No**
Light Court	**No**
Porch	**Yes**
Stoop	**Yes**
Shopfront	**No**

[Y] Frontage Modulation Requirements.

– One (1) vertical modulation of minimum twelve (12") inches every forty (40') feet of facade on all streets.

[Z] Ground Floor Use Activation.

– Not applicable.

[AA] Minimum Ground Floor-to-Ceiling Height.

– Not applicable.

[AB] Increased Ground Floor Transparency.

– Not applicable.

6.2 GROUND FLOOR READY:

Pursuant to this Chapter, any building type located within a zoning district subject to **Chapter 20.502 Active Ground Floor Use Ready Overlay** shall be required to comply with the following requirements:

[AC] Minimum Ground Floor-to-Ceiling Height.

– Not applicable.

[AD] Increased Ground Floor Transparency.

– Not applicable.

6.3 TRANSIT-BASED HEIGHT ALLOWANCE:

Pursuant to this Chapter and Washington State HB 1491, any building type located within a 1/4-mile radius of an existing or planned bus rapid or light rail transit, are eligible for no maximum height limits, subject to the **Chapter 20.503 Station Areas Overlay**.

[AE] Increased Maximum Height.

– No maximum.

6.4 OTHER OVERLAY REQUIREMENTS:

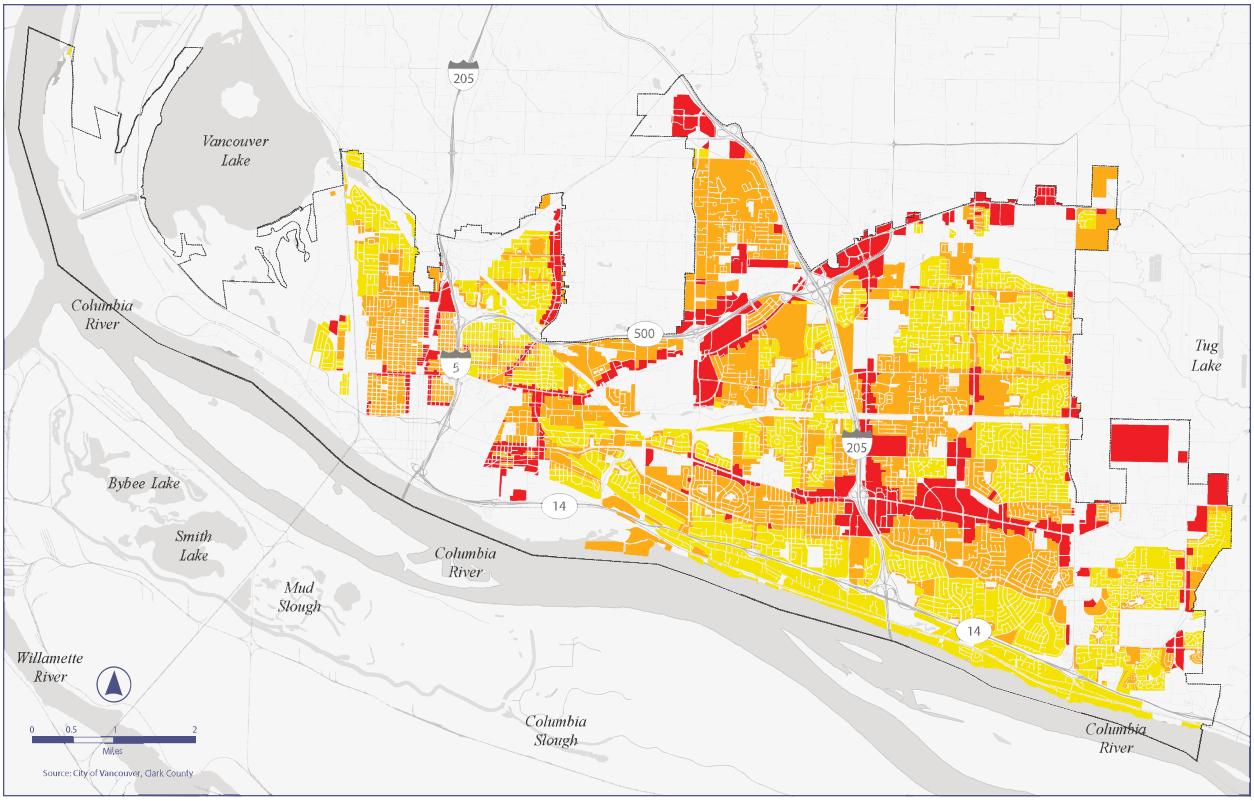
The following may also apply:

– See **Chapter 20.500 VMC Overlay Districts** of this code for other requirements that may apply to this district.

– See **Chapter 20.600 VMC Plan Districts** of this code for other requirements that may apply to this district.

– See **Chapter 20.700 VMC Environmental Regulations** of this code for other requirements that may apply to this district.

050 COTTAGE COURT



Map of Allowable Zoning Districts

1. DEFINITION AND APPLICABILITY.

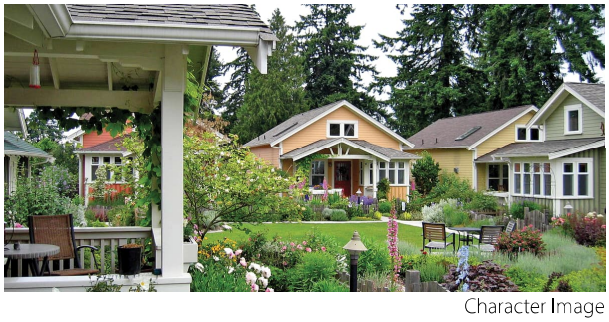
A Cottage Court Building (CCB) is a cluster of small, detached or attached buildings oriented around a shared courtyard space (and not having any private open space for individual units). The units are typically arranged around this shared pedestrian-focused courtyard, with the rear building often positioned perpendicular to the street. Each unit typically has its own entrance; however, pedestrian access should be a shared access point at the streetscape.

This building type includes townhouses as defined by RCW 36.70A.030 and accessory dwelling units (ADUs) per RCW 36.70A.680, 681 and 696.

The map and table on this page identify the allowable zoning district. Character images on this page are advisory only.

Low-Scale Neighborhood District (LS)	**Yes**
Medium-Scale Neighborhood District (MS)	**Yes**
Mixed-Use Neighborhood District (MX)	**Yes**
Regional Activity Center District (RA)	**No**
Institutional / Campus District (IC)	**No**
Industrial / Employment District (IE)	**No**
Heavy Industrial District (HI)	**No**
Manufactured Home District (MH)	**No**
Parks / Open Space District (PO)	**No**
Natural Areas District (NA)	**No**

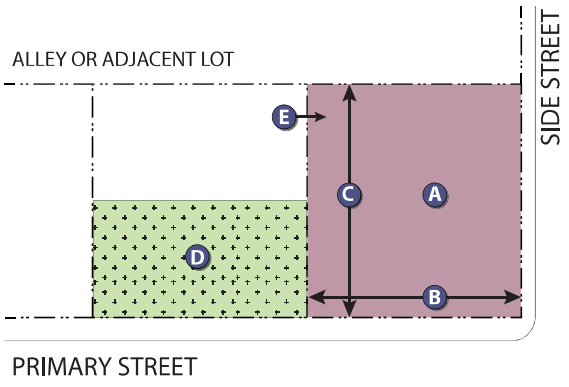
Table of Allowable Zoning district

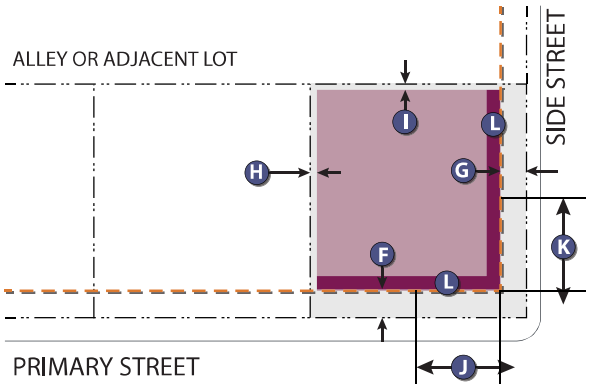


Character Image

050 CCB

050 COTTAGE COURT





2. LOT DIMENSIONS AND COVERAGE.

[A] Minimum and Maximum Lot Size.
- Not applicable.
- Maximum: Forty thousand (40,000) square feet.

[B] Maximum Lot Width.
- Not applicable.

[C] Maximum Lot Depth.
- Not applicable.

[D] Minimum Open Space Area.
- Not applicable.

[E] Maximum Impervious Area.
- Not applicable.

3. BUILDING PLACEMENT AND BUILDOUT.

[F] Front Build-to-Line (Primary Street).
- Five (5′) feet to twenty-five (25′) feet from the lot line.

[G] Side Build-to-Line (Side Street).
- Five (5′) feet to eighteen (18′) feet from the lot line.

[H] Side Setback Line (Adjacent Lot or Building).
- Minimum of five (5′) feet from the lot line.

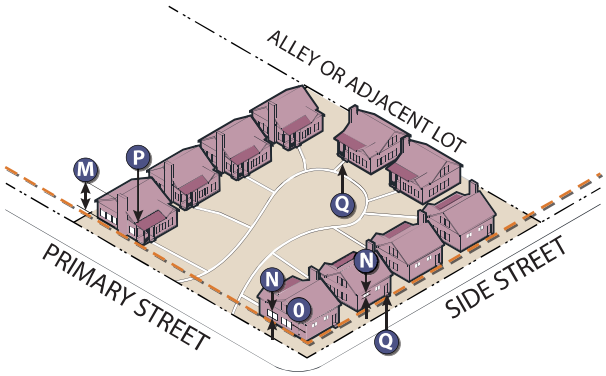
[I] Rear Setback Line (Adjacent Lot or Alley).
- Minimum of five (5′) feet from the lot line.

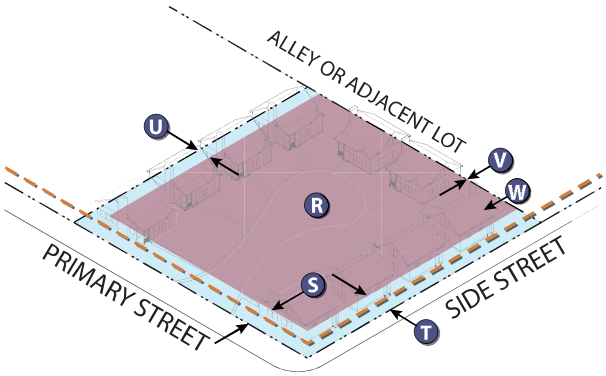
[J] Front Build-Out (Primary Street).
- Minimum of forty (40%) percent of the front build-to-line.

[K] Side Build-Out (Side Street).
- Minimum of fifty (50%) percent of the side build-to-line.

[L] Maximum Facade Length.
- Maximum one-hundred (100′) feet without a building break of ten (10′) feet between buildings located on the lot or lots.

050 CCB





4. BUILDING HEIGHT AND FRONTAGE.

[M] Minimum and Maximum Height.

- See **Chapter 20.410 Zoning district** height range for minimum and maximum height.

[N] Ground Floor Transparency.

- Primary Street. Minimum of ten (10%) percent transparent windows or doors.
- Side Street. Minimum of ten (10%) percent transparent windows or doors.

[O] Blank Wall Limitations (Any Public Street).

- No blank frontage walls greater than twenty-five (25') feet without transparency or entrances.

[P] Weather Protection.

- No frontage weather protection requirements.

[Q] Entrances and Access Points.

- Individual buildings that face a primary street or side street must have pedestrian entrances facing those streets and a path that connects to sidewalks.
- A pedestrian path must be provided that connects the main entrance of each building to the following the shared courtyard, shared parking or solid waste storage areas; community buildings, and sidewalks on primary and side streets.
- The pedestrian path must be hard-surfaced and a minimum of three (3') feet wide.

5. PARKING AND ACCESS.

[R] Parking Ratios.

- See **Chapter 20.450.090 VMC Parking and Loading** for parking requirements.

[S] Front Setback (Primary Street).

- Minimum of twenty (20') from the lot line.
- Parking is permitted in the front yard setback provided it is: located on a legally established driveway; located out of sight triangles as per **Chapter 20.895 VMC**; does not extend into any public right-of-way.

[T] Side Setback (Side Street).

- Minimum of twenty (20') from the lot line.

[U] Side Setback (Adjacent Lot).

- Minimum of ten (10') from the lot line.

[V] Rear Setback (Adjacent Lot or Alley).

- No minimum.

[W] Access Points.

- Parking may only be accessed from an alley. See **Title 11 Streets and Sidewalks** for additional requirements.

6. OVERLAY REQUIREMENTS.

6.1 GROUND FLOOR ACTIVATION:

Pursuant to this Chapter, any building type located within a zoning district subject to **Chapter 20.501 Active Ground Floor Use Overlay** shall be required to comply with the following requirements:

[X] Required Frontage Type.

The following table shows the allowable frontage types for this building type that apply to frontage on primary and side streets. Internal frontage is not regulated. See **Chapter 20.440 Frontage Types** of this code for additional frontage type requirements.

Frontage Type	*Allowable*
Awnings	**No**
Balconies	**Yes**
Bay Windows	**Yes**
Cafe	**No**
Common Yard	**Yes**
Courtyard	**Yes**
Gallery	**No**
Light Court	**No**
Porch	**Yes**
Stoop	**Yes**
Shopfront	**No**

[Y] Frontage Modulation Requirements.

– One (1) vertical modulation of minimum twelve (12") inches every forty (40') feet of facade on all streets.

[Z] Ground Floor Use Activation.

– Not applicable.

[AA] Minimum Ground Floor-to-Ceiling Height.

– Not applicable.

[AB] Increased Ground Floor Transparency.

– Not applicable.

6.2 GROUND FLOOR READY:

Pursuant to this Chapter, any building type located within a zoning district subject to **Chapter 20.502 Active Ground Floor Use Ready Overlay** shall be required to comply with the following requirements:

[AC] Minimum Ground Floor-to-Ceiling Height.

– Not applicable.

[AD] Increased Ground Floor Transparency.

– Not applicable.

6.3 TRANSIT-BASED HEIGHT ALLOWANCE:

Pursuant to this Chapter and Washington State HB 1491, any building type located within a 1/4-mile radius of an existing or planned bus rapid or light rail transit, are eligible for no maximum height limits, subject to the **Chapter 20.503 Station Areas Overlay**.

[AE] Increased Maximum Height.

– No maximum.

6.4 OTHER OVERLAY REQUIREMENTS:

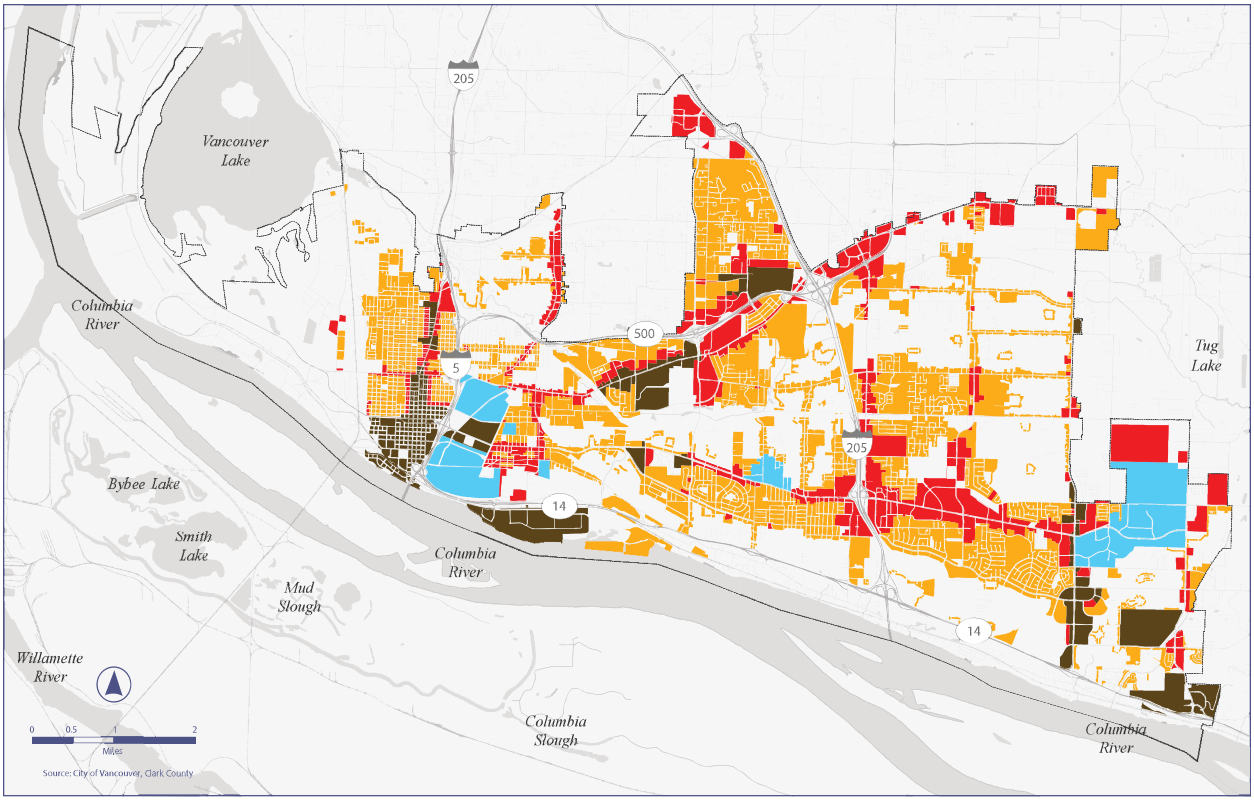
The following may also apply:

– See **Chapter 20.500 VMC Overlay Districts** of this code for other requirements that may apply to this district.

– See **Chapter 20.600 VMC Plan Districts** of this code for other requirements that may apply to this district.

– See **Chapter 20.700 VMC Environmental Regulations** of this code for other requirements that may apply to this district.

060 MULTIFAMILY



Map of Allowable Zoning Districts

1. DEFINITION AND APPLICABILITY.

A Multifamily Building (MFB) is a medium- to large-sized building containing multiple dwelling units for rent or to own arranged along a shared corridor. The units are attached and stacked to achieve higher density. The building typically features a shared entrance for all residents, with some ground-floor units offering individual street-facing entrances. Parking is usually located at the rear of the site or beneath the building to maximize space and maintain an active street presence.

The map and table on this page identify the allowable zoning district. Character images on this page are advisory only.

Low-Scale Neighborhood District (LS)	**No**
Medium-Scale Neighborhood District (MS)	**Yes**
Mixed-Use Neighborhood District (MX)	**Yes**
Regional Activity Center District (RA)	**Yes**
Institutional / Campus District (IC)	**Yes**
Industrial / Employment District (IE)	**No**
Heavy Industrial District (HI)	**No**
Manufactured Home District (MH)	**No**
Parks / Open Space District (PO)	**No**
Natural Areas District (NA)	**No**

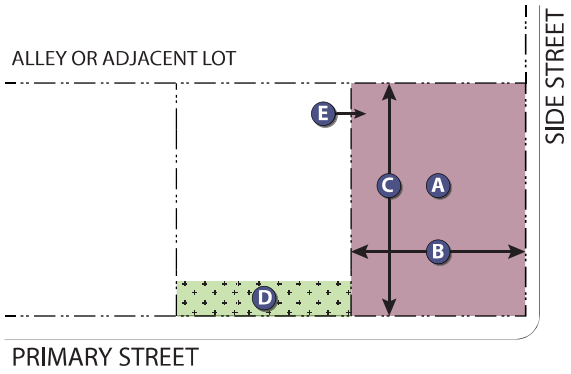
Table of Allowable Zoning district

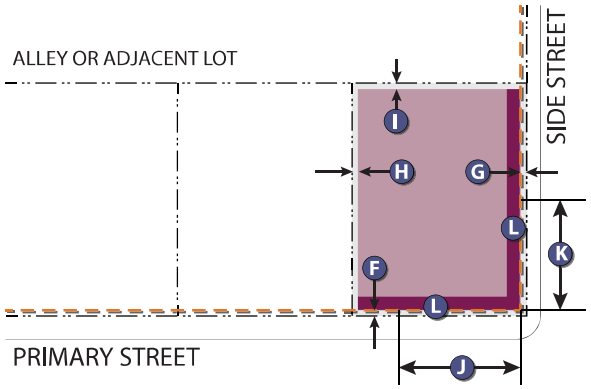


Character Image

060 MFB

060 MULTIFAMILY





2. LOT DIMENSIONS AND COVERAGE.

[A] Minimum and Maximum Lot Size.
- Not applicable.

[B] Maximum Lot Width.
- Not applicable.

[C] Maximum Lot Depth.
- Not applicable.

[D] Minimum Open Space Area.
- Fifteen (15%) percent of lot size. Setback areas may contribute to meeting this requirement.
- Terraces, verandas, patios, roof decks, and other shared outdoor spaces accessible by all residential units on upper floors may contribute to meeting this requirement.

[E] Maximum Impervious Area.
- Ninety (90%) percent of lot size.
- The total square feet of a green roof and any other impervious surfaces may be excluded from this calculation.

3. BUILDING PLACEMENT AND BUILDOUT.

[F] Front Build-to-Line (Primary Street).
- Maximum of five (5') feet from the lot line.
- May encroach the build-to-line with a ROW permit.

[G] Side Build-to-Line (Side Street).
- Maximum of five (5') feet from the lot line.
- May encroach the build-to-line with a ROW permit.

[H] Side Setback Line (Adjacent Lot).
- Subject to screening and buffering standards.

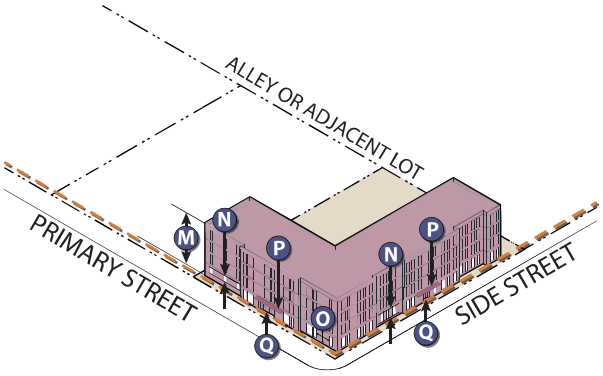
[I] Rear Setback Line (Adjacent Lot or Alley).
- Subject to screening and buffering standards.

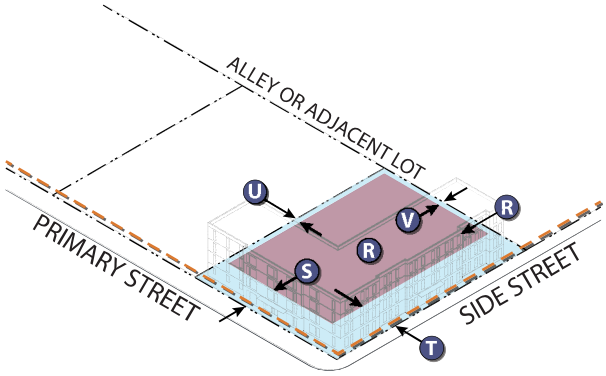
[J] Front Build-Out (Primary Street).
- Minimum of eighty (80%) percent of the front build-to-line.

[K] Side Build-Out (Side Street).
- Minimum of fifty (50%) percent of the side build-to-line.

[L] Maximum Facade Length.
- Maximum two-hundred (200') feet without a building break; unrestricted public, pedestrian access; facade modulation; or change in materials or color.

060 MFB





4. BUILDING HEIGHT AND FRONTAGE.

[M] Minimum and Maximum Height.

- See **Chapter 20.410 Zoning district** height range for minimum and maximum height.

[N] Ground Floor Transparency.

- Primary Street. Minimum of fifteen (15%) percent transparent windows or doors.
- Side Street. Minimum of fifteen (15%) percent transparent windows or doors.

[O] Blank Wall Limitations (Any Public Street).

- No blank frontage walls greater than thirty (30') feet.

[P] Weather Protection.

- Required at all primary and side street entrances.
- Minimum vertical clearance of ten (10') feet.
- Maximum vertical clearance of twenty (20') feet.
- Minimum overhang of six (6') feet.

[Q] Entrances and Access Points.

- A shared pedestrian entrance must be located facing a primary street. Additional pedestrian entrances may be located facing side streets. If no primary street is present, the pedestrian entrance must face the side street.
- Ground floor residential units may have individual pedestrian entrances.

5. PARKING AND ACCESS.

[R] Parking Ratios.

- See **Chapter 20.450.090 VMC Parking and Loading** for parking requirements.

[S] Front Setback (Primary Street).

- Minimum of twenty (20') feet from the lot line.
- Zero-lot-line if contained within building and buffered.

[T] Side Setback (Side Street).

- Minimum of twenty (20') feet from the lot line.
- Zero-lot-line if contained within building and buffered.

[U] Side Setback (Adjacent Lot).

- Minimum of five (5') feet from the lot line.

[V] Rear Setback (Adjacent Lot or Alley).

- Minimum of five (5') feet from the lot line.

[W] Access Points.

- Parking shall be accessed by way of a side street or an alley abutting the lot. If neither are present, parking may be accessed by way of a primary street. See **Title 11 Streets and Sidewalks** for additional requirements.

6. OVERLAY REQUIREMENTS.

6.1 GROUND FLOOR ACTIVATION:

Pursuant to this Chapter, any building type located within a zoning district subject to **Chapter 20.501 Active Ground Floor Use Overlay** shall be required to comply with the following requirements:

[X] Required Frontage Type.

The following table shows the allowable frontage types for this building type that apply to frontage on primary and side streets. Internal frontage is not regulated. See **Chapter 20.440 Frontage Types** of this code for additional frontage type requirements.

Frontage Type	*Allowable*
Awnings	**Yes**
Balconies	**Yes**
Bay Windows	**Yes**
Cafe	**No**
Common Yard	**No**
Courtyard	**Yes**
Gallery	**No**
Light Court	**No**
Porch	**Yes**
Stoop	**Yes**
Shopfront	**No**

[Y] Frontage Modulation Requirements.

– One (1) vertical modulation of minimum twelve (12") inches every fifty (50') feet of facade on all streets.

[Z] Ground Floor Use Activation.

– Fifty (50%) percent of ground floor frontage along primary streets must be common uses supportive of the Primary Residential Use per **Chapter VMC 20.430 Use Requirements**; or the side street when no primary street is present.

[AA] Minimum Ground Floor-to-Ceiling Height.

– Minimum of fourteen (14') feet (floor-to-ceiling) for all primary uses.

[AB] Increased Ground Floor Transparency.

– Minimum of forty (40%) percent windows or doors on all street types.

6.2 GROUND FLOOR READY:

Pursuant to this Chapter, any building type located within a zoning district subject to **Chapter 20.502 Active Ground Floor Use Ready Overlay** shall be required to comply with the following requirements:

[AC] Minimum Ground Floor-to-Ceiling Height.

– Minimum of twelve (12') feet (floor-to-ceiling) for all primary uses.

[AD] Increased Ground Floor Transparency.

– Minimum of forty (40%) percent transparent windows or doors on all street types.

6.3 TRANSIT-BASED HEIGHT ALLOWANCE:

Pursuant to this Chapter and Washington State HB 1491, any building type located within a 1/4-mile radius of an existing or planned bus rapid or light rail transit, are eligible for no maximum height limits, subject to the **Chapter 20.503 Station Areas Overlay**.

[AE] Increased Maximum Height.

– No maximum.

6.4 OTHER OVERLAY REQUIREMENTS:

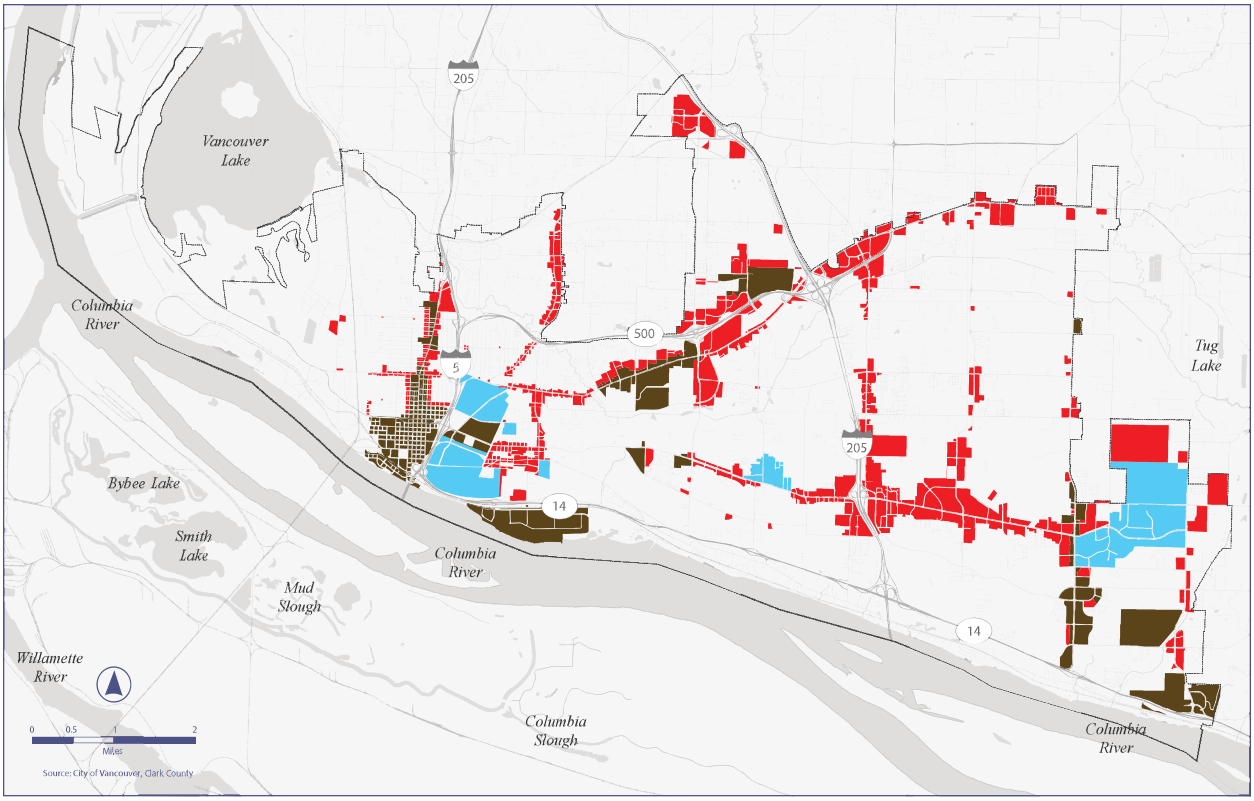
The following may also apply:

– See **Chapter 20.500 VMC Overlay Districts** of this code for other requirements that may apply to this district.

– See **Chapter 20.600 VMC Plan Districts** of this code for other requirements that may apply to this district.

– See **Chapter 20.700 VMC Environmental Regulations** of this code for other requirements that may apply to this district.

070 MID-RISE RESIDENTIAL



Map of Allowable Zoning Districts

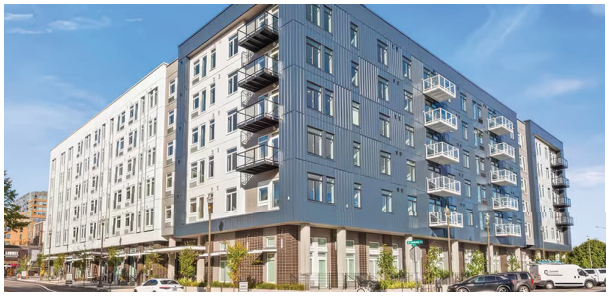
1. DEFINITION AND APPLICABILITY.

A Mid-Rise Residential Building (MIB) is a large, zero-lot-line building with multiple attached and stacked dwelling units. The building features a shared street-level entrance leading to an interior lobby, with corridors providing access to each unit. The building should include shared spaces for residents to foster community interaction. Parking is typically below grade and should be accessed from side streets rather than the primary street to maintain an active and pedestrian-friendly frontage.

The map and table on this page identify the allowable zoning district. Character images on this page are advisory only.

Low-Scale Neighborhood District (LS)	**No**
Medium-Scale Neighborhood District (MS)	**No**
Mixed-Use Neighborhood District (MX)	**Yes**
Regional Activity Center District (RA)	**Yes**
Institutional / Campus District (IC)	**Yes**
Industrial / Employment District (IE)	**No**
Heavy Industrial District (HI)	**No**
Manufactured Home District (MH)	**No**
Parks / Open Space District (PO)	**No**
Natural Areas District (NA)	**No**

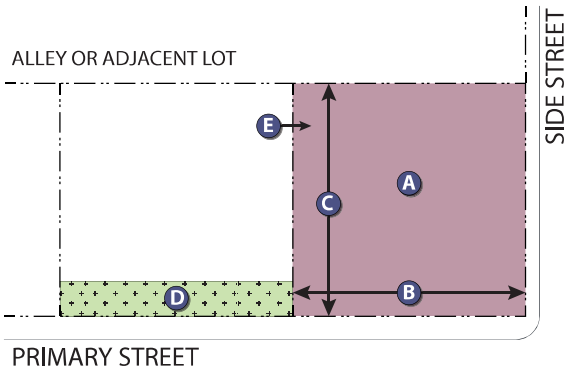
Table of Allowable Zoning district

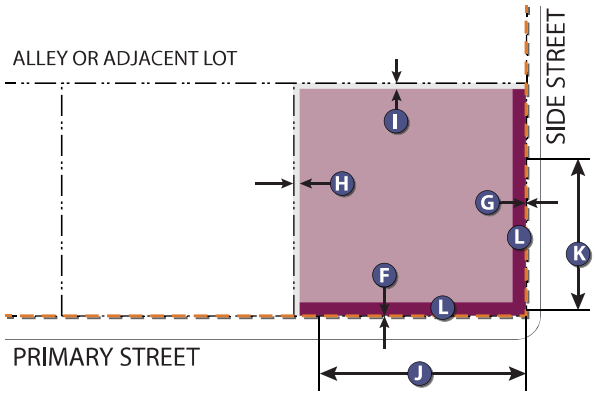


Character Image

070 MIB

070 MID-RISE RESIDENTIAL





2. LOT DIMENSIONS AND COVERAGE.

[A] Minimum and Maximum Lot Size.
- Not applicable.

[B] Maximum Lot Width.
- Not applicable.

[C] Maximum Lot Depth.
- Not applicable.

[D] Minimum Open Space Area.
- Fifteen (15%) percent of lot size. Setback areas may contribute to meeting this requirement.
- Terraces, verandas, patios, roof decks, and other shared outdoor spaces accessible by all residential units on upper floors may contribute to meeting this requirement.

[E] Maximum Impervious Area.
- Ninety-five (95%) percent of lot size.
- The total square feet of a green roof and any other impervious surfaces may be excluded from this calculation.

3. BUILDING PLACEMENT AND BUILDOUT.

[F] Front Build-to-Line (Primary Street).
- Maximum of five (5') feet from the lot line.
- May encroach the build-to-line with a ROW permit.

[G] Side Build-to-Line (Side Street).
- Maximum of five (5') feet from the lot line.
- May encroach the build-to-line with a ROW permit.

[H] Side Setback Line (Adjacent Lot).
- Subject to screening and buffering standards.

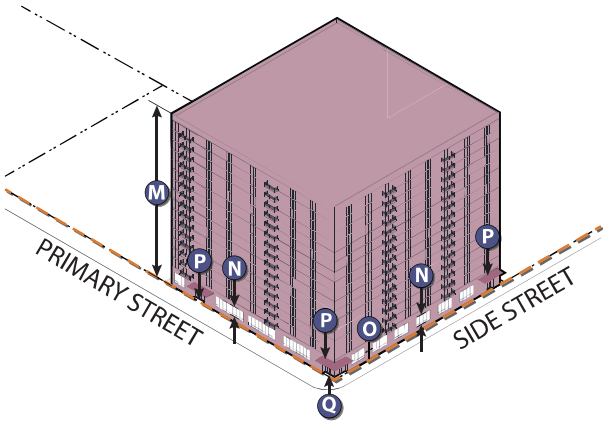
[I] Rear Setback Line (Adjacent Lot or Alley).
- Subject to screening and buffering standards.

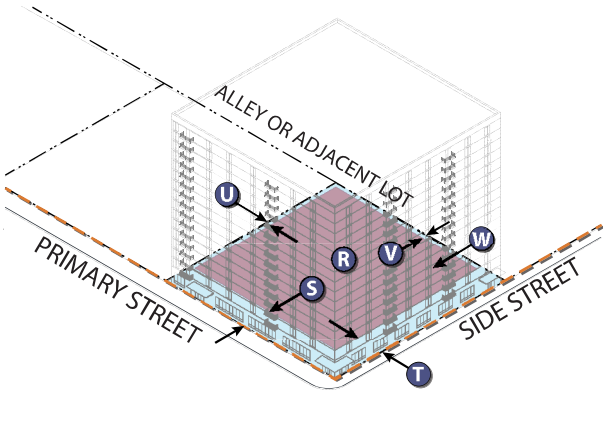
[J] Front Build-Out (Primary Street).
- Minimum of eighty (80%) percent of the front build-to-line.

[K] Side Build-Out (Side Street).
- Minimum of seventy (70%) percent of the side build-to-line.

[L] Maximum Facade Length.
- Maximum two-hundred (200') feet without a building break; unrestricted public, pedestrian access; facade modulation; or change in materials or color.

070 MIB





4. BUILDING HEIGHT AND FRONTAGE.

[M] Minimum and Maximum Height.
- See **Chapter 20.410 Zoning district** height range for minimum and maximum height.

[N] Ground Floor Transparency.
- Primary Street. Minimum of forty (40%) percent transparent windows or doors.
- Side Street. Minimum of forty (40%) percent transparent windows or doors.

[O] Blank Wall Limitations (Any Public Street).
- No blank frontage walls greater than thirty (30') feet.

[P] Weather Protection.
- Required at all primary and side street entrances.
- Minimum vertical clearance of ten (10') feet.
- Maximum vertical clearance of twenty (20') feet.
- Minimum overhang of six (6') feet.

[Q] Entrances and Access Points.
- A shared pedestrian entrance must be located facing a primary street. Additional pedestrian entrances may be located facing side streets. If no primary street is present, the pedestrian entrance must face the side street.

5. PARKING AND ACCESS.

[R] Parking Ratios.
- See **Chapter 20.450.090 VMC Parking and Loading** for parking requirements.

[S] Front Setback (Primary Street).
- Minimum of twenty (20') feet from the lot line.
- Zero-lot-line if contained within building and buffered.

[T] Side Setback (Side Street).
- Minimum of twenty (20') feet from the lot line.
- Zero-lot-line if contained within building and buffered.

[U] Side Setback (Adjacent Lot).
- Minimum of five (5') feet from the lot line.

[V] Rear Setback (Adjacent Lot or Alley).
- Minimum of five (5') feet from the lot line.

[W] Access Points.
- Parking shall be accessed by way of a side street or an alley abutting the lot. If neither are present, parking may be accessed by way of a primary street. See **Title 11 Streets and Sidewalks** for additional requirements.

6. OVERLAY REQUIREMENTS.

6.1 GROUND FLOOR ACTIVATION:

Pursuant to this Chapter, any building type located within a zoning district subject to **Chapter 20.501 Active Ground Floor Use Overlay** shall be required to comply with the following requirements:

[X] Required Frontage Type.

The following table shows the allowable frontage types for this building type that apply to frontage on primary and side streets. Internal frontage is not regulated. See **Chapter 20.440 Frontage Types** of this code for additional frontage type requirements.

Frontage Type	*Allowable*
Awnings	**Yes**
Balconies	**Yes**
Bay Windows	**Yes**
Cafe	**No**
Common Yard	**No**
Courtyard	**Yes**
Gallery	**Yes**
Light Court	**No**
Porch	**No**
Stoop	**No**
Shopfront	**No**

[Y] Frontage Modulation Requirements.

- One (1) vertical modulation of minimum twelve (12") inches every fifty (50') feet of facade on all streets.

[Z] Ground Floor Use Activation.

- Fifty (50%) percent of ground floor frontage along primary streets must be common uses supportive of the Primary Residential Use per **Chapter VMC 20.430 Use Requirements**; or the side street when no primary street is present.

[AA] Minimum Ground Floor-to-Ceiling Height.

- Minimum of fourteen (14') feet (floor-to-ceiling) for all primary uses.

[AB] Increased Ground Floor Transparency.

- Minimum of sixty (60%) percent windows or doors on all street types.

6.2 GROUND FLOOR READY:

Pursuant to this Chapter, any building type located within a zoning district subject to **Chapter 20.502 Active Ground Floor Use Ready Overlay** shall be required to comply with the following requirements:

[AC] Minimum Ground Floor-to-Ceiling Height.

- Minimum of twelve (12') feet (floor-to-ceiling) for all primary uses.

[AD] Increased Ground Floor Transparency.

- Minimum of sixty (60%) percent windows or doors on all street types.

6.3 TRANSIT-BASED HEIGHT ALLOWANCE:

Pursuant to this Chapter and Washington State HB 1491, any building type located within a 1/4-mile radius of an existing or planned bus rapid or light rail transit, are eligible for no maximum height limits, subject to the **Chapter 20.503 Station Areas Overlay**.

[AE] Increased Maximum Height.

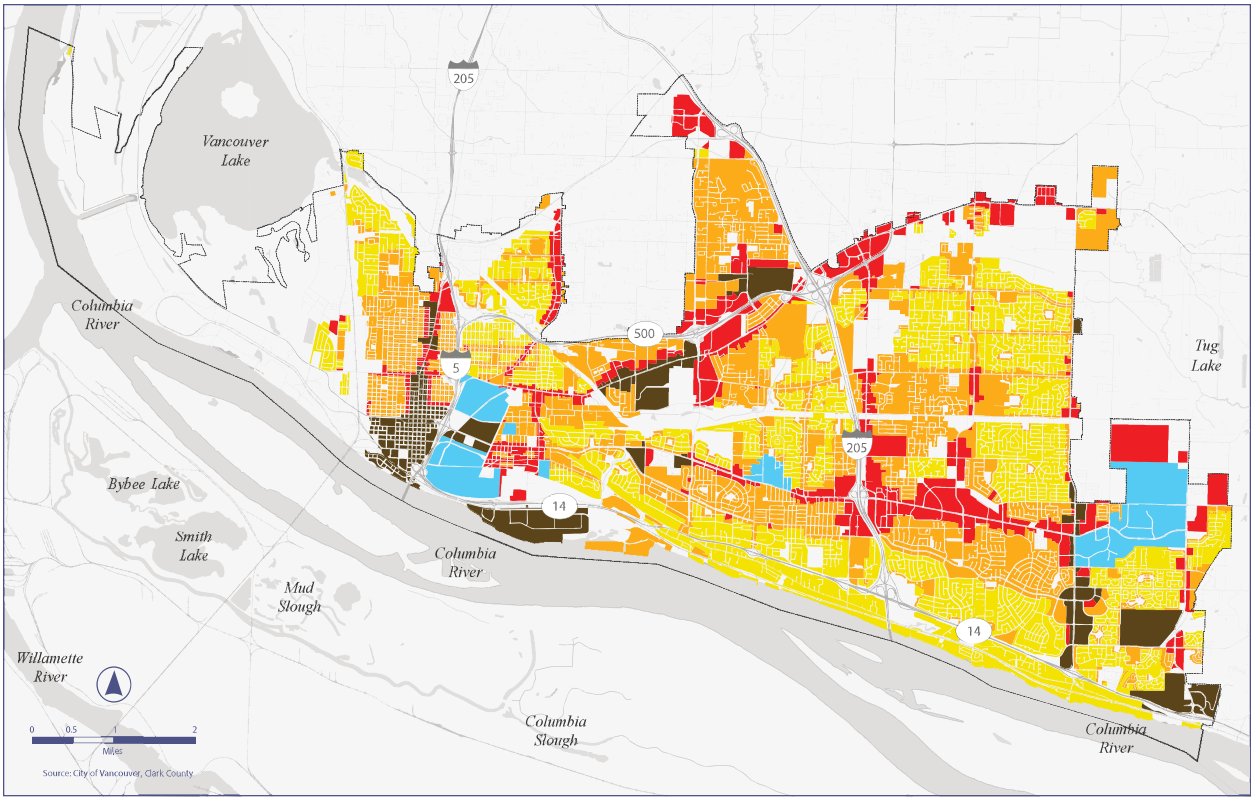
- No maximum.

6.4 OTHER OVERLAY REQUIREMENTS:

The following may also apply:

- See **Chapter 20.500 VMC Overlay Districts** of this code for other requirements that may apply to this district.
- See **Chapter 20.600 VMC Plan Districts** of this code for other requirements that may apply to this district.
- See **Chapter 20.700 VMC Environmental Regulations** of this code for other requirements that may apply to this district.

080 MIXED-USE RESIDENTIAL



Map of Allowable Zoning Districts

1. DEFINITION AND APPLICABILITY.

A Mixed-Use Residential Building (MXB) is a medium- to large-sized building featuring ground-floor commercial spaces with residential units stacked above. The ground floor consists of multiple entrances, while the residential portion has a shared entrance and lobby. Interior circulation to the upper residential floors is provided through shared corridors that lead to individual units.

The map and table on this page identify the allowable zoning district. Character images on this page are advisory only.

Low-Scale Neighborhood District (LS)	**Yes**
Medium-Scale Neighborhood District (MS)	**Yes**
Mixed-Use Neighborhood District (MX)	**Yes**
Regional Activity Center District (RA)	**Yes**
Institutional / Campus District (IC)	**Yes**
Industrial / Employment District (IE)	**No**
Heavy Industrial District (HI)	**No**
Manufactured Home District (MH)	**No**
Parks / Open Space District (PO)	**No**
Natural Areas District (NA)	**No**

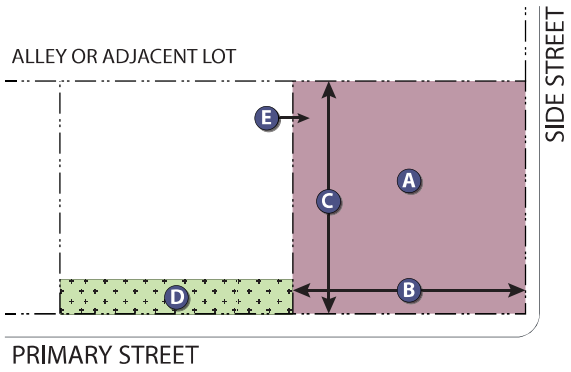
Table of Allowable Zoning district

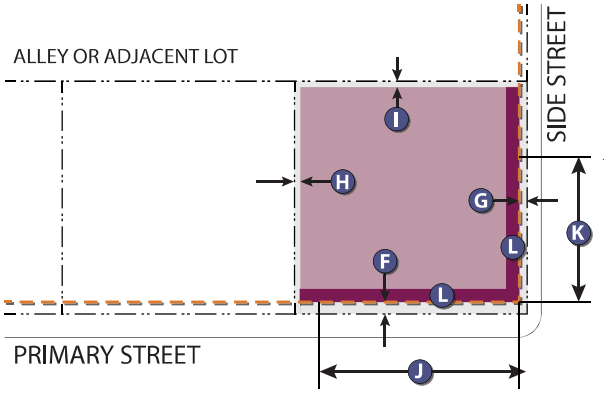


Character Image

080 MXB

080 MIXED-USE RESIDENTIAL





2. LOT DIMENSIONS AND COVERAGE.

[A] Minimum and Maximum Lot Size.
- Minimum: Not applicable.
- Maximum: Not applicable.

[B] Maximum Lot Width.
- Not applicable.

[C] Maximum Lot Depth.
- Not applicable.

[D] Minimum Open Space Area.
- Not applicable.

[E] Maximum Impervious Area.
- Not applicable.

3. BUILDING PLACEMENT AND BUILDOUT.

[F] Front Build-to-Line (Primary Street).
- Maximum of five (5') feet from the lot line.
- May encroach the build-to-line with a ROW permit.

[G] Side Build-to-Line (Side Street).
- Maximum of five (5') feet from the lot line.
- May encroach the build-to-line with a ROW permit.

[H] Side Setback Line (Adjacent Lot).
- Minimum of five (5') feet from the lot line.

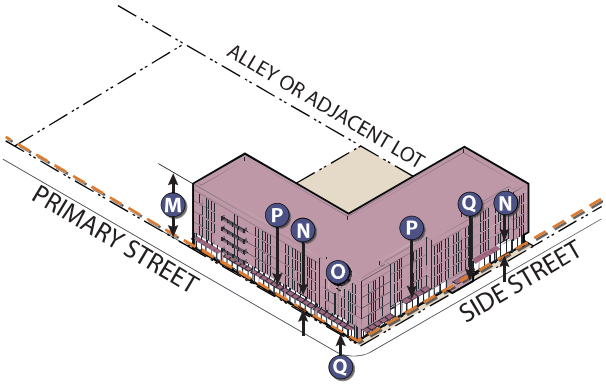
[I] Rear Setback Line (Adjacent Lot or Alley).
- Minimum of five (5') feet from the lot line.

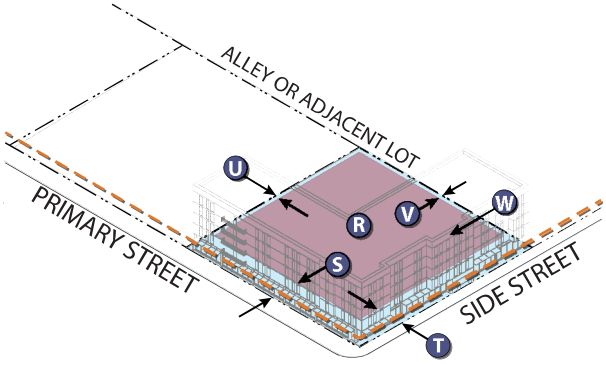
[J] Front Build-Out (Primary Street).
- Minimum of ninety (90%) percent of the front build-to-line.

[K] Side Build-Out (Side Street).
- Minimum of seventy (70%) percent of the side build-to-line.

[L] Maximum Facade Length.
- Maximum two-hundred (200') feet without a building break; unrestricted public, pedestrian access; facade modulation; or change in materials or color.

080 MXB





4. BUILDING HEIGHT AND FRONTAGE.

[M] Minimum and Maximum Height.

- See **Chapter 20.410 Zoning district** height range for minimum and maximum height.

[N] Ground Floor Transparency.

- Primary Street. Minimum of sixty (60%) percent transparent windows or doors.
- Side Street. Minimum of sixty (60%) percent transparent windows or doors.

[O] Blank Wall Limitations (Any Public Street).

- No blank frontage walls greater than thirty (30') feet.

[P] Weather Protection.

- Required at all primary and side street entrances.
- Minimum of seventy (70%) percent linear coverage on primary streets and thirty (30%) percent on side streets.
- Minimum vertical clearance of ten (10') feet.
- Maximum vertical clearance of twenty (20') feet.
- Minimum overhang of six (6') feet.

[Q] Entrances and Access Points.

- No requirements for shared pedestrian entrances.
- Ground floor residential units may have individual pedestrian entrances.

5. PARKING AND ACCESS.

[R] Parking Ratios.

- See **Chapter 20.450.090 VMC Parking and Loading** for parking requirements.

[S] Front Setback (Primary Street).

- Minimum of twenty (20') feet from the lot line.
- Zero-lot-line if contained within building and buffered.

[T] Side Setback (Side Street).

- Minimum of twenty (20') feet from the lot line.
- Zero-lot-line if contained within building and buffered.

[U] Side Setback (Adjacent Lot).

- Minimum of five (5') feet from the lot line.

[V] Rear Setback (Adjacent Lot or Alley).

- Minimum of five (5') feet from the lot line.

[W] Access Points.

- Parking shall be accessed by way of a side street or an alley abutting the lot. If neither are present, parking may be accessed by way of a primary street. See **Title 11 Streets and Sidewalks** for additional requirements.

6. OVERLAY REQUIREMENTS.

6.1 GROUND FLOOR ACTIVATION:

Pursuant to this Chapter, any building type located within a zoning district subject to **Chapter 20.501 Active Ground Floor Use Overlay** shall be required to comply with the following requirements:

[X] Required Frontage Type.

The following table shows the allowable frontage types for this building type that apply to frontage on primary and side streets. Internal frontage is not regulated. See **Chapter 20.440 Frontage Types** of this code for additional frontage type requirements.

Frontage Type	*Allowable*
Awnings	**Yes**
Balconies	**Yes**
Bay Windows	**Yes**
Cafe	**Yes**
Common Yard	**No**
Courtyard	**Yes**
Gallery	**Yes**
Light Court	**Yes**
Porch	**No**
Stoop	**No**
Shopfront	**Yes**

[Y] Frontage Modulation Requirements.

– One (1) vertical modulation of minimum twelve (12") inches every fifty (50') feet of facade on all streets.

[Z] Ground Floor Use Activation.

– Fifty (50%) percent of ground floor frontage along primary streets must be Active Retail Uses per **Chapter VMC 20.430 Use Requirements**; or the side street when no primary street is present.

[AA] Minimum Ground Floor-to-Ceiling Height.

– Minimum of fourteen (14') feet (floor-to-ceiling) for all primary uses.

[AB] Increased Ground Floor Transparency.

– Minimum of seventy (70%) percent windows or doors on all street types.

6.2 GROUND FLOOR READY:

Pursuant to this Chapter, any building type located within a zoning district subject to **Chapter 20.502 Active Ground Floor Use Ready Overlay** shall be required to comply with the following requirements:

[AC] Minimum Ground Floor-to-Ceiling Height.

– Minimum of twelve (12') feet (floor-to-ceiling) for all primary uses.

[AD] Increased Ground Floor Transparency.

– Minimum of seventy (70%) percent windows or doors on all street types.

6.3 TRANSIT-BASED HEIGHT ALLOWANCE:

Pursuant to this Chapter and Washington State HB 1491, any building type located within a 1/4-mile radius of an existing or planned bus rapid or light rail transit, are eligible for no maximum height limits, subject to the **Chapter 20.503 Station Areas Overlay**.

[AE] Increased Maximum Height.

– No maximum.

6.4 OTHER OVERLAY REQUIREMENTS:

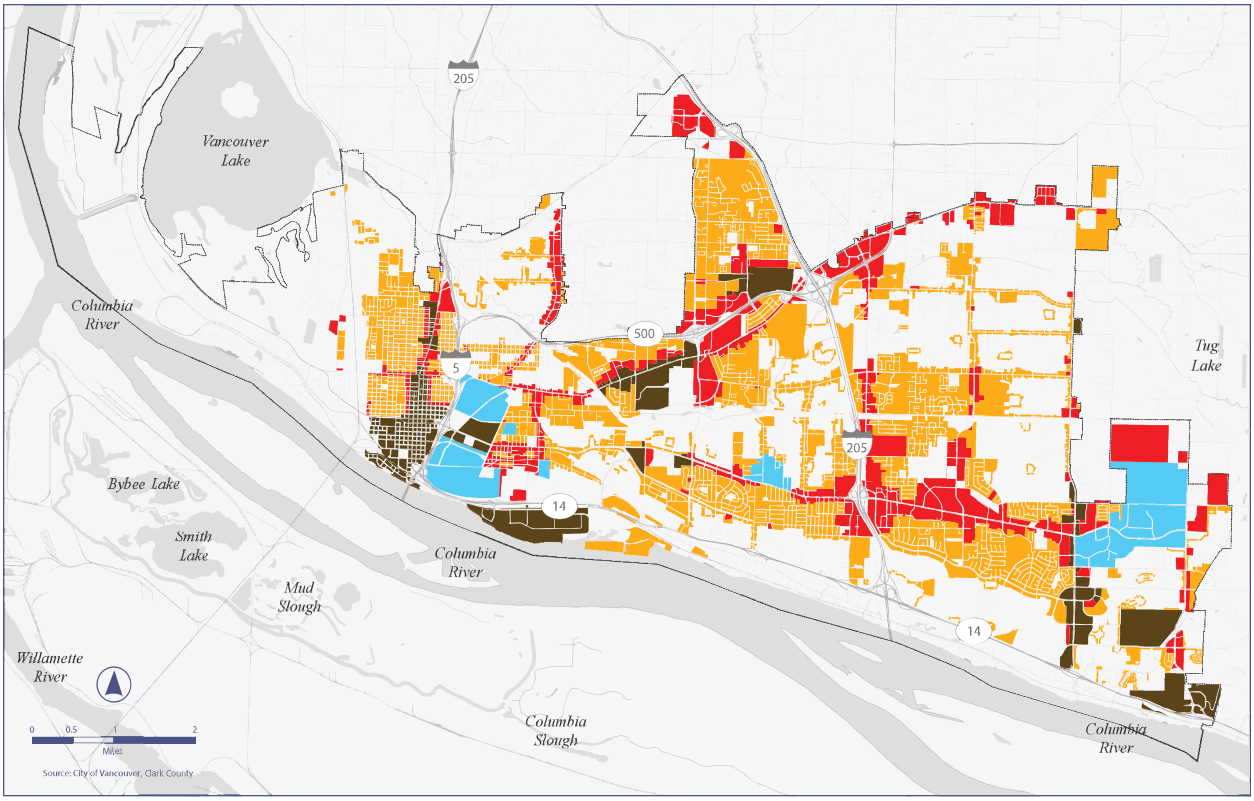
The following may also apply:

– See **Chapter 20.500 VMC Overlay Districts** of this code for other requirements that may apply to this district.

– See **Chapter 20.600 VMC Plan Districts** of this code for other requirements that may apply to this district.

– See **Chapter 20.700 VMC Environmental Regulations** of this code for other requirements that may apply to this district.

090 MIXED-USE OFFICE



Map of Allowable Zoning Districts

1. DEFINITION AND APPLICABILITY.

A Mixed-Use Office Building (MOB) is a medium- to large-sized building designed to feature ground-floor commercial spaces with office space above. The retail areas have independent entrances for easy access to street-level shops. Office space on the upper floors is accessed via interior circulation, which can include a central corridor or open area, depending on whether the floor is occupied by a single tenant or divided among multiple tenants.

The map and table on this page identify the allowable zoning district. Character images on this page are advisory only.

Low-Scale Neighborhood District (LS)	**No**
Medium-Scale Neighborhood District (MS)	**Yes**
Mixed-Use Neighborhood District (MX)	**Yes**
Regional Activity Center District (RA)	**Yes**
Institutional / Campus District (IC)	**Yes**
Industrial / Employment District (IE)	**Yes**
Heavy Industrial District (HI)	**No**
Manufactured Home District (MH)	**No**
Parks / Open Space District (PO)	**No**
Natural Areas District (NA)	**No**

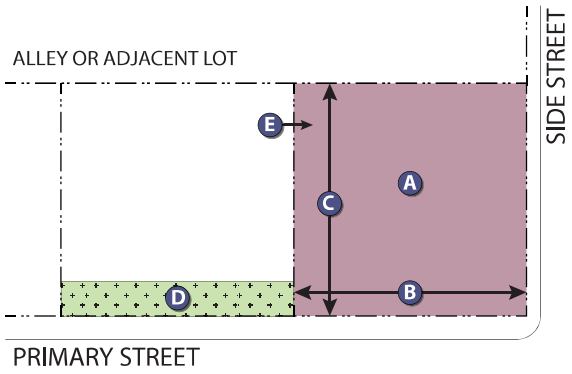
Table of Allowable Zoning district

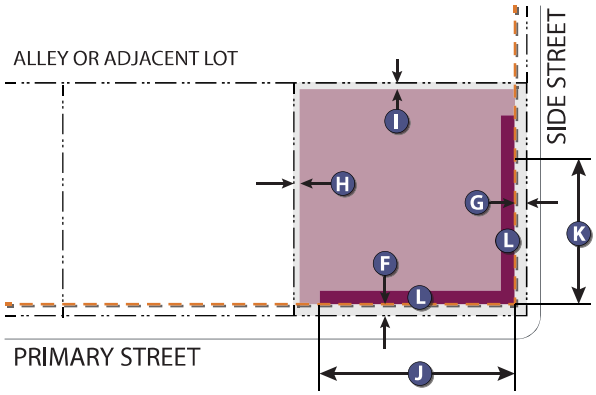


Character Image

090 MOB

090 MIXED-USE OFFICE





PROPERTY LINE
LOT AREA
OPEN SPACE

PROPERTY LINE
FACADE LINE
BUILD-TO-LINE
BUILDING AREA

2.LOT DIMENSIONS AND COVERAGE.

[A] Minimum and Maximum Lot Size.
- Minimum: Not applicable.
- Maximum: Not applicable.

[B] Maximum Lot Width.
- Not applicable.

[C] Maximum Lot Depth.
- Not applicable.

[D] Minimum Open Space Area.
- Not applicable.

[E] Maximum Impervious Area.
- Not applicable.

3. BUILDING PLACEMENT AND BUILDOUT.

[F] Front Build-to-Line (Primary Street).
- Maximum of ten (10') feet from the lot line.
- May encroach the build-to-line with a ROW permit.

[G] Side Build-to-Line (Side Street).
- Maximum of ten (10') feet from the lot line.
- May encroach the build-to-line with a ROW permit.

[H] Side Setback Line (Adjacent Lot).
- Minimum of five (5') feet from the lot line.

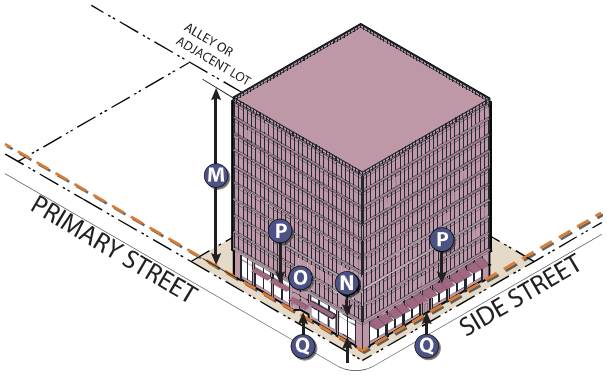
[I] Rear Setback Line (Adjacent Lot or Alley).
- Minimum of five (5') feet from the lot line.

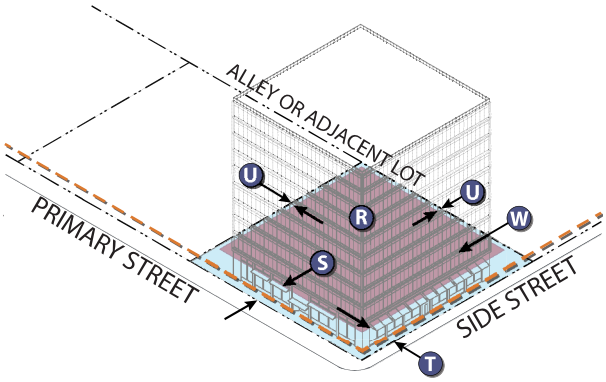
[J] Front Build-Out (Primary Street).
- Minimum of ninety (90%) percent of the front build-to-line.

[K] Side Build-Out (Side Street).
- Minimum of fifty (50%) percent of the side build-to-line.

[L] Maximum Facade Length.
- Maximum two-hundred (200') feet without a building break; unrestricted public, pedestrian access; facade modulation; or change in materials or color.

090 MOB





4. BUILDING HEIGHT AND FRONTAGE.

[M] Minimum and Maximum Height.
- See **Chapter 20.410 Zoning district** height range for minimum and maximum height.

[N] Ground Floor Transparency.
- Primary Street. Minimum of sixty (60%) percent transparent windows or doors.
- Side Street. Minimum of twenty (20%) percent transparent windows or doors.

[O] Blank Wall Limitations (Any Public Street).
- No blank frontage walls greater than thirty (30') feet.

[P] Weather Protection.
- Required at all primary and side street entrances.
- Minimum of seventy (70%) percent linear coverage on primary streets.
- Minimum vertical clearance of ten (10') feet.
- Maximum vertical clearance of twenty (20') feet.
- Minimum overhang of six (6') feet.

[Q] Entrances and Access Points.
- No requirements for shared pedestrian entrances.

5. PARKING AND ACCESS.

[R] Parking Ratios.
- See **Chapter 20.450.090 VMC Parking and Loading** for parking requirements.

[S] Front Setback (Primary Street).
- Minimum of twenty (20') feet from the lot line.
- Zero-lot-line if contained within building and buffered.

[T] Side Setback (Side Street).
- Minimum of twenty (20') feet from the lot line.
- Zero-lot-line if contained within building and buffered.

[U] Side Setback (Adjacent Lot).
- Minimum of five (5') feet from the lot line.

[V] Rear Setback (Adjacent Lot or Alley).
- Minimum of five (5') feet from the lot line.

[W] Access Points.
- Parking shall be accessed by way of a side street or an alley abutting the lot. If neither are present, parking may be accessed by way of a primary street. See **Title 11 Streets and Sidewalks** for additional requirements.

6. OVERLAY REQUIREMENTS.

6.1 GROUND FLOOR ACTIVATION:

Pursuant to this Chapter, any building type located within a zoning district subject to **Chapter 20.501 Active Ground Floor Use Overlay** shall be required to comply with the following requirements:

[X] Required Frontage Type.

The following table shows the allowable frontage types for this building type that apply to frontage on primary and side streets. Internal frontage is not regulated. See **Chapter 20.440 Frontage Types** of this code for additional frontage type requirements.

Frontage Type	*Allowable*
Awnings	**Yes**
Balconies	**No**
Bay Windows	**No**
Cafe	**Yes**
Common Yard	**No**
Courtyard	**Yes**
Gallery	**Yes**
Light Court	**No**
Porch	**No**
Stoop	**No**
Shopfront	**Yes**

[Y] Frontage Modulation Requirements.

– One (1) vertical modulation of minimum twelve (12") inches every fifty (50') feet of facade on all streets.

[Z] Ground Floor Use Activation.

– Fifty (50%) percent of ground floor frontage along primary streets must be Active Retail Uses per **Chapter VMC 20.430 Use Requirements**; or the side street when no primary street is present.

[AA] Minimum Ground Floor-to-Ceiling Height.

– Minimum of fourteen (14') feet (floor-to-ceiling) for all primary uses.

[AB] Increased Ground Floor Transparency.

– Minimum of seventy (70%) percent windows or doors on all street types.

6.2 GROUND FLOOR READY:

Pursuant to this Chapter, any building type located within a zoning district subject to **Chapter 20.502 Active Ground Floor Use Ready Overlay** shall be required to comply with the following requirements:

[AC] Minimum Ground Floor-to-Ceiling Height.

– Minimum of twelve (12') feet (floor-to-ceiling) for all primary uses.

[AD] Increased Ground Floor Transparency.

– Minimum of forty (40%) percent windows or doors on all street types.

6.3 TRANSIT-BASED HEIGHT ALLOWANCE:

Pursuant to this Chapter and Washington State HB 1491, any building type located within a 1/4-mile radius of an existing or planned bus rapid or light rail transit, are eligible for no maximum height limits, subject to the **Chapter 20.503 Station Areas Overlay**.

[AE] Increased Maximum Height.

– No maximum.

6.4 OTHER OVERLAY REQUIREMENTS:

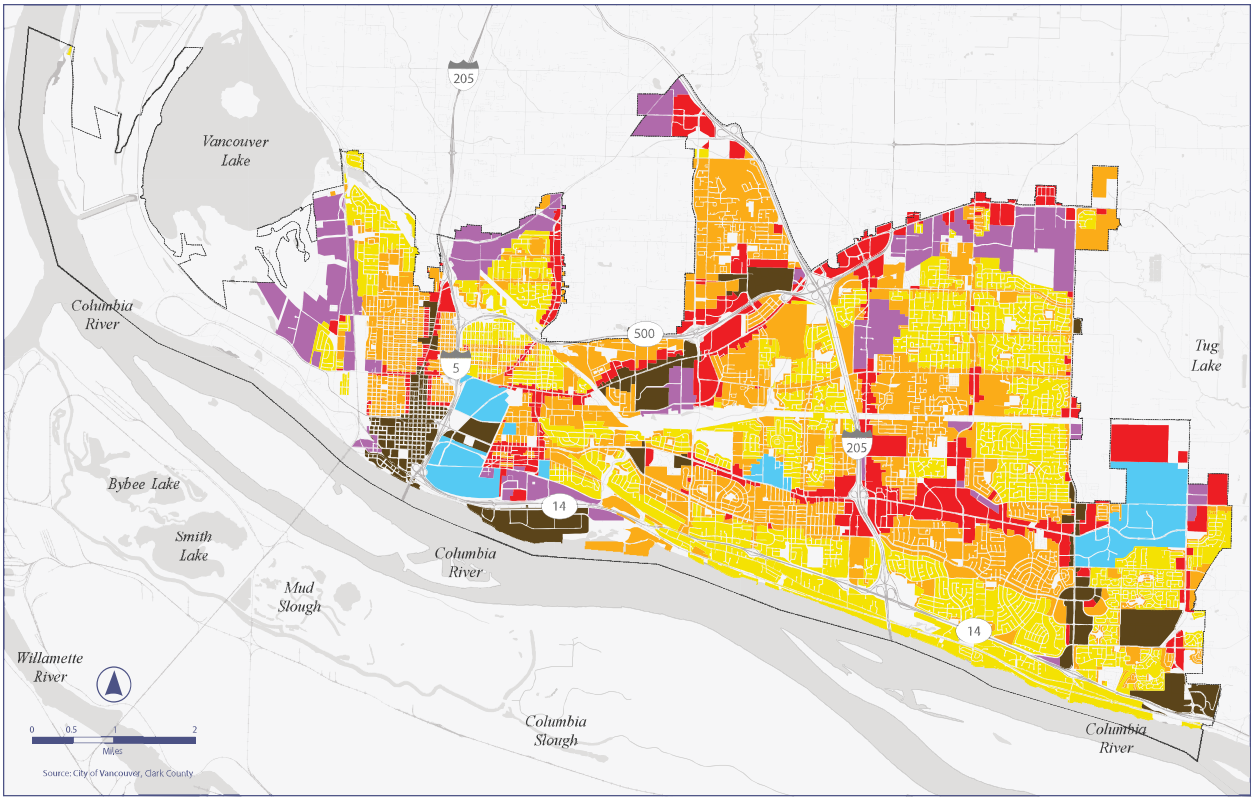
The following may also apply:

– See **Chapter 20.500 VMC Overlay Districts** of this code for other requirements that may apply to this district.

– See **Chapter 20.600 VMC Plan Districts** of this code for other requirements that may apply to this district.

– See **Chapter 20.700 VMC Environmental Regulations** of this code for other requirements that may apply to this district.

100 COMMERCIAL BLOCK



Map of Allowable Zoning Districts

1. DEFINITION AND APPLICABILITY.

A Commercial Block Building (CBB) is a small, low-rise rectangular building with individual entrances for in-line shops or stores, designed to foster an active and engaging street presence. The building should be oriented with entrances facing the street, while parking is placed at the rear to prioritize pedestrian access.

The map and table on this page identify the allowable zoning district. Character images on this page are advisory only.

Low-Scale Neighborhood District (LS)	**Yes**
Medium-Scale Neighborhood District (MS)	**Yes**
Mixed-Use Neighborhood District (MX)	**Yes**
Regional Activity Center District (RA)	**Yes**
Institutional / Campus District (IC)	**Yes**
Industrial / Employment District (IE)	**Yes**
Heavy Industrial District (HI)	**No**
Manufactured Home District (MH)	**No**
Parks / Open Space District (PO)	**No**
Natural Areas District (NA)	**No**

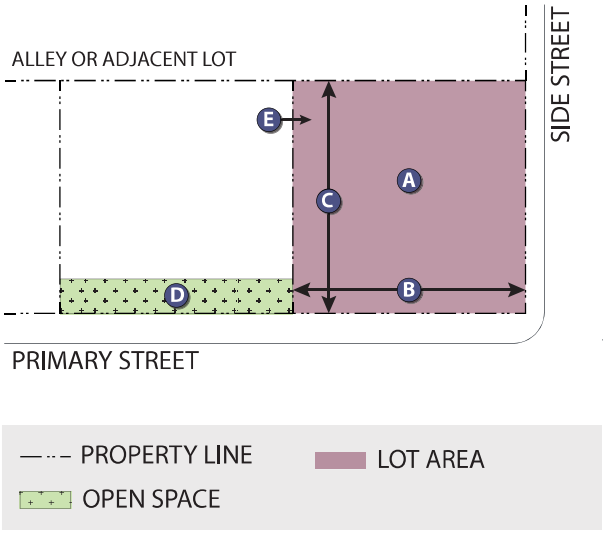
Table of Allowable Zoning district

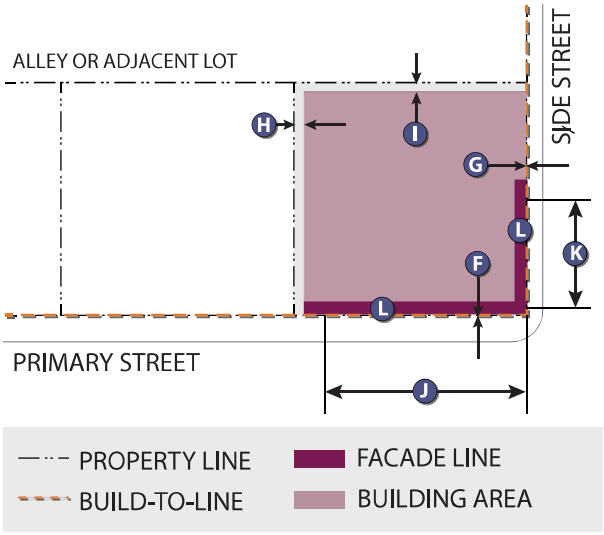


Character Image

100 CBB

100 COMMERCIAL BLOCK





2. LOT DIMENSIONS AND COVERAGE.

[A] Minimum and Maximum Lot Size.
- Minimum: Not applicable.
- Maximum: Not applicable.

[B] Maximum Lot Width.
- Not applicable.

[C] Maximum Lot Depth.
- Not applicable.

[D] Minimum Open Space Area.
- Not applicable.

[E] Maximum Impervious Area.
- Not applicable.

3. BUILDING PLACEMENT AND BUILDOUT.

[F] Front Build-to-Line (Primary Street).
- Maximum of five (5') feet from the lot line.

[G] Side Build-to-Line (Side Street).
- Maximum of five (5') feet from the lot line.

[H] Side Setback Line (Adjacent Lot).
- Minimum of five (5') feet from the lot line.

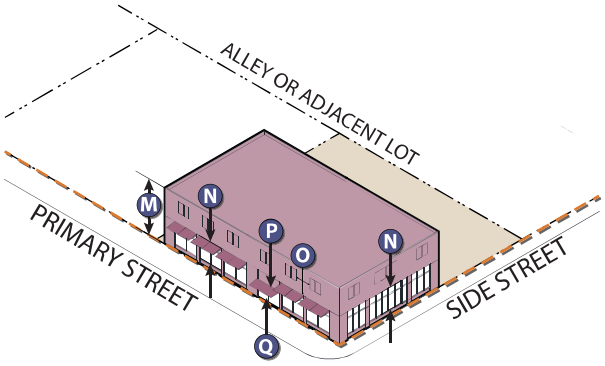
[I] Rear Setback Line (Adjacent Lot or Alley).
- Minimum of five (5') feet from the lot line.

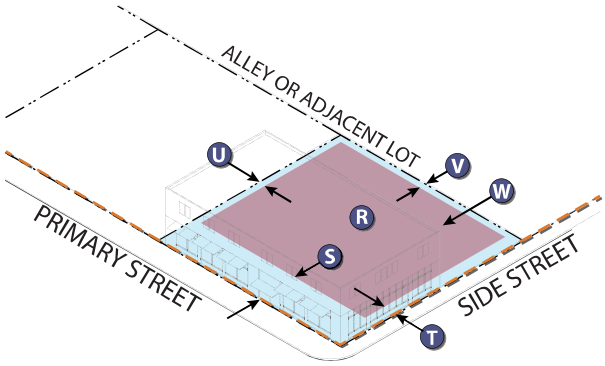
[J] Front Build-Out (Primary Street).
- Minimum of ninety (90%) percent of the front build-to-line.

[K] Side Build-Out (Side Street).
- Minimum of fifty (50%) percent of the side build-to-line.

[L] Maximum Facade Length.
- Maximum two-hundred (200') feet without a building break; unrestricted public, pedestrian access; facade modulation; or change in materials or color.

100 CBB





4. BUILDING HEIGHT AND FRONTAGE.

[M] Minimum and Maximum Height.
- See **Chapter 20.410 Zoning district** height range for minimum and maximum height.

[N] Ground Floor Transparency.
- Primary Street. Minimum of sixty (60%) percent transparent windows or doors.
- Side Street. Minimum of twenty (20%) percent transparent windows or doors.

[O] Blank Wall Limitations (Any Public Street).
- No blank frontage walls greater than fifteen (15') feet.

[P] Weather Protection.
- Required at all primary and side street entrances.
- Minimum of seventy (70%) percent linear coverage on primary streets.
- Minimum vertical clearance of ten (10') feet.
- Maximum vertical clearance of twenty (20') feet.
- Minimum overhang of six (6') feet.

[Q] Entrances and Access Points.
- No requirements for shared pedestrian entrances.

5. PARKING AND ACCESS.

[R] Parking Ratios.
- See **Chapter 20.450.090 Parking and Loading** for parking requirements.

[S] Front Setback (Primary Street).
- Minimum of twenty (20') feet from the lot line.

[T] Side Setback (Side Street).
- Minimum of ten (10') feet from the lot line.

[U] Side Setback (Adjacent Lot).
- Minimum of five (5') feet from the lot line.

[V] Rear Setback (Adjacent Lot or Alley).
- Minimum of five (5') feet from the lot line.

[W] Access Points.
- Parking shall be accessed by way of a side street or an alley abutting the lot. If neither are present, parking may be accessed by way of a primary street. See **Title 11 Streets and Sidewalks** for additional requirements.

6. OVERLAY REQUIREMENTS.

6.1 GROUND FLOOR ACTIVATION:

Pursuant to this Chapter, any building type located within a zoning district subject to **Chapter 20.501 Active Ground Floor Use Overlay** shall be required to comply with the following requirements:

[X] Required Frontage Type.

The following table shows the allowable frontage types for this building type that apply to frontage on primary and side streets. Internal frontage is not regulated. See **Chapter 20.440 Frontage Types** of this code for additional frontage type requirements.

Frontage Type	*Allowable*
Awnings	**Yes**
Balconies	**No**
Bay Windows	**No**
Cafe	**Yes**
Common Yard	**No**
Courtyard	**No**
Gallery	**No**
Light Court	**Yes**
Porch	**No**
Stoop	**No**
Shopfront	**Yes**

[Y] Frontage Modulation Requirements.

– One (1) vertical modulation of minimum twelve (12") inches every fifty (50') feet of facade on all streets.

[Z] Ground Floor Use Activation.

– Fifty (50%) percent of ground floor frontage along primary streets must be Active Retail Uses per **Chapter VMC 20.430 Use Requirements**; or the side street when no primary street is present.

[AA] Minimum Ground Floor-to-Ceiling Height.

– Minimum of fourteen (14') feet (floor-to-ceiling) for all primary uses.

[AB] Increased Ground Floor Transparency.

– Minimum of seventy (70%) percent windows or doors on all street types.

6.2 GROUND FLOOR READY:

Pursuant to this Chapter, any building type located within a zoning district subject to **Chapter 20.502 Active Ground Floor Use Ready Overlay** shall be required to comply with the following requirements:

[AC] Minimum Ground Floor-to-Ceiling Height.

– Minimum of twelve (12') feet (floor-to-ceiling) for all primary uses.

[AD] Increased Ground Floor Transparency.

– Minimum of forty (40%) percent windows or doors on all street types.

6.3 TRANSIT-BASED HEIGHT ALLOWANCE:

Pursuant to this Chapter and Washington State HB 1491, any building type located within a 1/4-mile radius of an existing or planned bus rapid or light rail transit, are eligible for no maximum height limits, subject to the **Chapter 20.503 Station Areas Overlay**.

[AE] Increased Maximum Height.

– No maximum.

6.4 OTHER OVERLAY REQUIREMENTS:

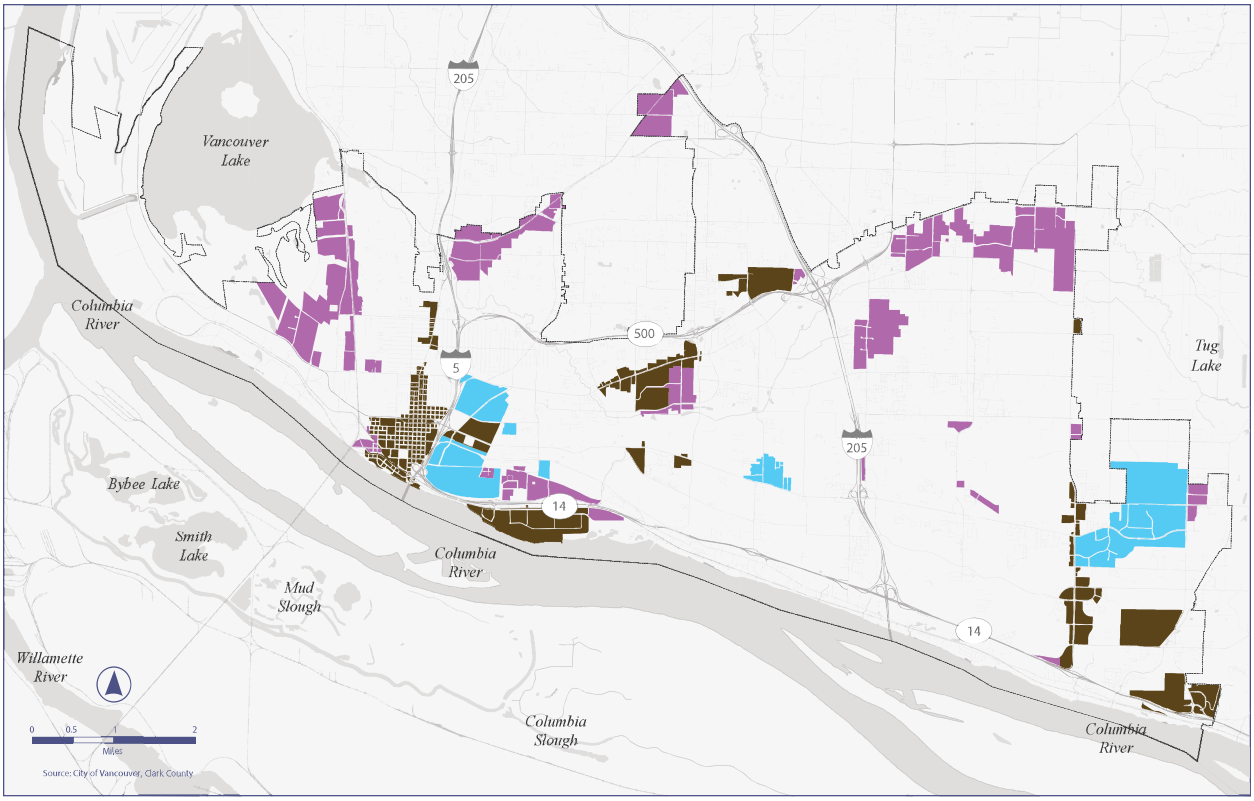
The following may also apply:

– See **Chapter 20.500 VMC Overlay Districts** of this code for other requirements that may apply to this district.

– See **Chapter 20.600 VMC Plan Districts** of this code for other requirements that may apply to this district.

– See **Chapter 20.700 VMC Environmental Regulations** of this code for other requirements that may apply to this district.

110 BIG BOX RETAIL



Map of Allowable Zoning Districts

1. DEFINITION AND APPLICABILITY.

A Big Box Retail Building (BRB) is a larger footprint, building that often spans an entire block, designed with a single, controlled entrance to manage high volumes of goods and customer traffic. Entrances should face the street and be easily accessible, with parking situated at the rear or sides to promote walkability and pedestrian-oriented frontage. When satellite buildings are included, it is crucial to include pedestrian safety and landscaping around the site for a cohesive and safe environment. If a permit application has more than one (1) lot, all other lots must meet the requirements of the CBB Building Type. If a lot has more than one (1) primary street, that lot is only required to meet the primary street requirements for one (1) of those primary streets and all other streets may be defined as a side street.

The map and table on this page identify the allowable zoning district. Character images on this page are advisory only.

Low-Scale Neighborhood District (LS)	**No**
Medium-Scale Neighborhood District (MS)	**No**
Mixed-Use Neighborhood District (MX)	**No**
Regional Activity Center District (RA)	**Yes**
Institutional / Campus District (IC)	**Yes**
Industrial / Employment District (IE)	**Yes**
Heavy Industrial District (HI)	**No**
Manufactured Home District (MH)	**No**
Parks / Open Space District (PO)	**No**
Natural Areas District (NA)	**No**

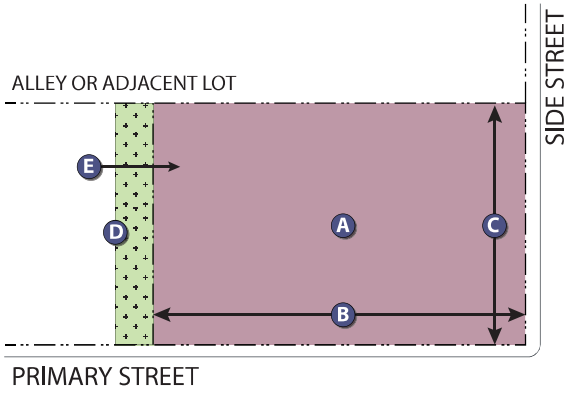
Table of Allowable Zoning district

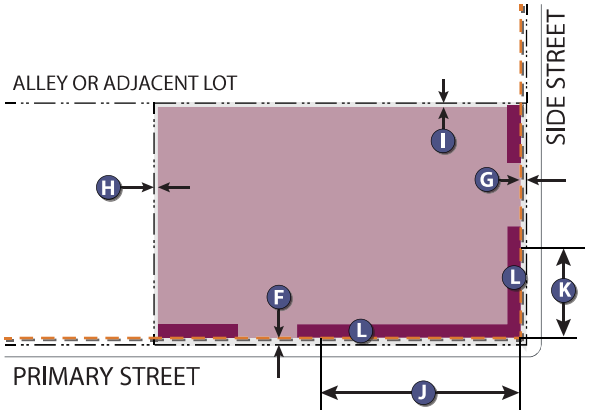


Character Image

110 BRB

110 BIG BOX RETAIL





2. LOT DIMENSIONS AND COVERAGE.

[A] Minimum and Maximum Lot Size.
- Minimum: Not applicable.
- Maximum: Not applicable.

[B] Maximum Lot Width.
- Not applicable.

[C] Maximum Lot Depth.
- Not applicable.

[D] Minimum Open Space Area.
- Not applicable.

[E] Maximum Impervious Area.
- Not applicable.

3. BUILDING PLACEMENT AND BUILDOUT.

[F] Front Build-to-Line (Primary Street).
- Maximum of ten (10') feet from the lot line.

[G] Side Build-to-Line (Side Street).
- Maximum of ten (10') feet from the lot line.

[H] Side Setback Line (Adjacent Lot).
- Minimum of five (5') feet from the lot line.

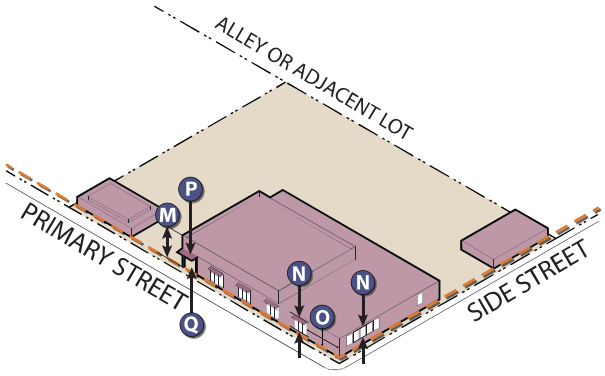
[I] Rear Setback Line (Adjacent Lot or Alley).
- Minimum of five (5') feet from the lot line.

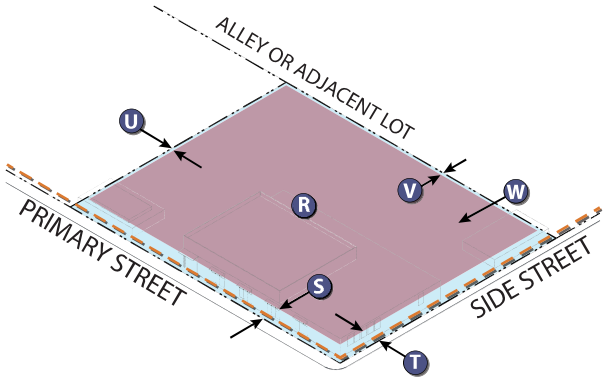
[J] Front Build-Out (Primary Street).
- Minimum of sixty (60%) percent of the front build-to-line.

[K] Side Build-Out (Side Street).
- Minimum of thirty (30%) percent of the side build-to-line.

[L] Maximum Facade Length.
- Maximum two-hundred (200') feet without a building break; unrestricted public, pedestrian access; facade modulation; or change in materials or color.

110 BRB





4. BUILDING HEIGHT AND FRONTAGE.

[M] Minimum and Maximum Height.
- See **Chapter 20.410 Zoning district** height range for minimum and maximum height.

[N] Ground Floor Transparency.
- Primary Street. Minimum of forty (40%) percent transparent windows or doors.
- Side Street. Minimum of twenty (20%) percent transparent windows or doors.

[O] Blank Wall Limitations (Any Public Street).
- No blank frontage walls greater than fifty (50') feet.

[P] Weather Protection.
- Required at all primary and side street entrances.
- Minimum of fifty (50%) percent linear coverage on primary streets.
- Minimum vertical clearance of ten (10') feet.
- Maximum vertical clearance of twenty (20') feet.
- Minimum overhang of six (6') feet.

[Q] Entrances and Access Points.
- No requirements for shared pedestrian entrances.
- Pedestrian entrances on additional buildings on other lots must meet the entrances and access points requirements for CBB.

5. PARKING AND ACCESS.

[R] Parking Ratios.
- See **Chapter 20.450.090 VMC Parking and Loading** for parking requirements.

[S] Front Setback (Primary Street).
- Minimum of twenty (20') feet from the lot line.

[T] Side Setback (Side Street).
- Minimum of five (5') feet from the lot line.

[U] Side Setback (Adjacent Lot).
- Minimum of five (5') feet from the lot line.

[V] Rear Setback (Adjacent Lot or Alley).
- Minimum of five (5') feet from the lot line.

[W] Access Points.
- Parking shall be accessed by way of a side street or an alley abutting the lot. If neither are present, parking may be accessed by way of a primary street. See **Title 11 Streets and Sidewalks** for additional requirements.

NOTE: Any BRB Building located within the MX, RA, and IE districts must utilize a Structured Parking Garage (SPB) Building Type. Surface parking is allowed with a BBR Building in all other zoning districts.

6. OVERLAY REQUIREMENTS.

6.1 GROUND FLOOR ACTIVATION:

Pursuant to this Chapter, any building type located within a zoning district subject to **Chapter 20.501 Active Ground Floor Use Overlay** shall be required to comply with the following requirements:

[X] Required Frontage Type.

The following table shows the allowable frontage types for this building type that apply to frontage on primary and side streets. Internal frontage is not regulated. See **Chapter 20.440 Frontage Types** of this code for additional frontage type requirements.

Frontage Type	*Allowable*
Awnings	**Yes**
Balconies	**No**
Bay Windows	**No**
Cafe	**Yes**
Common Yard	**No**
Courtyard	**No**
Gallery	**No**
Light Court	**No**
Porch	**No**
Stoop	**No**
Shopfront	**Yes**

[Y] Frontage Modulation Requirements.

– One (1) vertical modulation of minimum twelve (12") inches every fifty (50') feet of facade on all streets.

[Z] Ground Floor Use Activation.

– Fifty (50%) percent of ground floor frontage along primary streets must be Active Retail Uses per **Chapter VMC 20.430 Use Requirements**; or the side street when no primary street is present.

[AA] Minimum Ground Floor-to-Ceiling Height.

– Minimum of fourteen (14') feet (floor-to-ceiling) for all primary uses.

[AB] Increased Ground Floor Transparency.

– Minimum of sixty(60%) percent windows or doors on all street types.

6.2 GROUND FLOOR READY:

Pursuant to this Chapter, any building type located within a zoning district subject to **Chapter 20.502 Active Ground Floor Use Ready Overlay** shall be required to comply with the following requirements:

[AC] Minimum Ground Floor-to-Ceiling Height.

– Minimum of twelve (12') feet (floor-to-ceiling) for all primary uses.

[AD] Increased Ground Floor Transparency.

– Minimum of forty (40%) percent windows or doors on all street types.

6.3 TRANSIT-BASED HEIGHT ALLOWANCE:

Pursuant to this Chapter and Washington State HB 1491, any building type located within a 1/4-mile radius of an existing or planned bus rapid or light rail transit, are eligible for no maximum height limits, subject to the **Chapter 20.503 Station Areas Overlay**.

[AE] Increased Maximum Height.

– No maximum.

6.4 OTHER OVERLAY REQUIREMENTS:

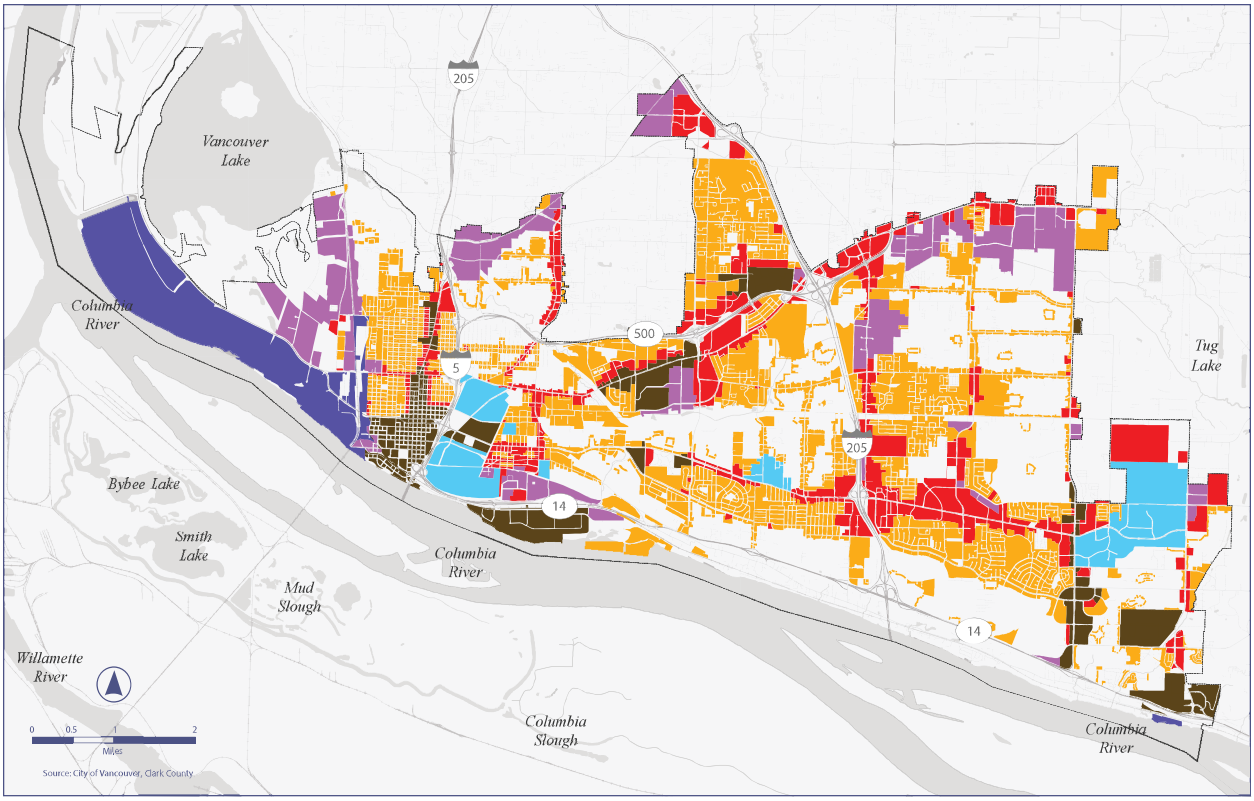
The following may also apply:

– See **Chapter 20.500 VMC Overlay Districts** of this code for other requirements that may apply to this district.

– See **Chapter 20.600 VMC Plan Districts** of this code for other requirements that may apply to this district.

– See **Chapter 20.700 VMC Environmental Regulations** of this code for other requirements that may apply to this district.

120 FLEXIBLE-USE



Map of Allowable Zoning Districts

1. DEFINITION AND APPLICABILITY.

A Flexible-Use Building (FUB) is a larger footprint, rectangular building designed to accommodate diverse uses such as office, innovation, medical, research, and light manufacturing. When upper floors are included, access is through a shared ground-floor entrance, with interior circulation tailored to the number of tenants and specific layout. Parking and loading docks should be located at the rear or along an alley to maintain a clean streetscape. Side setbacks are ideal for creating outdoor areas and shared spaces that enhance the ground-floor facilities.

The map and table on this page identify the allowable zoning district. Character images on this page are advisory only.

Low-Scale Neighborhood District (LS)	**No**
Medium-Scale Neighborhood District (MS)	**Yes**
Mixed-Use Neighborhood District (MX)	**Yes**
Regional Activity Center District (RA)	**Yes**
Institutional / Campus District (IC)	**Yes**
Industrial / Employment District (IE)	**Yes**
Heavy Industrial District (HI)	**Yes**
Manufactured Home District (MH)	**No**
Parks / Open Space District (PO)	**No**
Natural Areas District (NA)	**No**

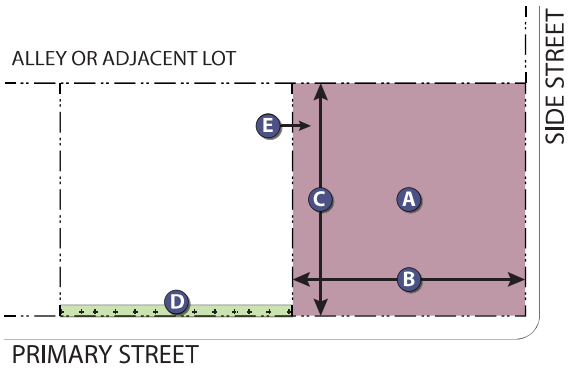
Table of Allowable Zoning district

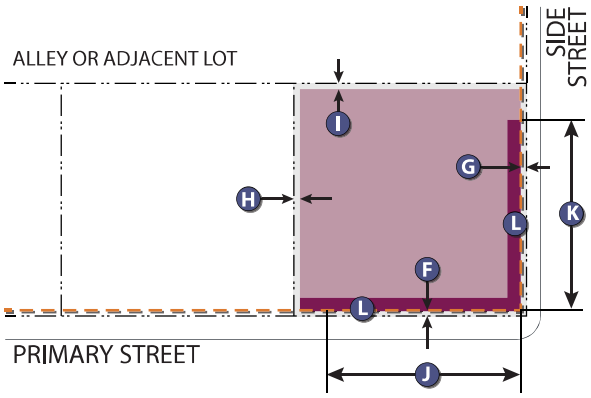


Character Image

120 FUB

120 FLEXIBLE-USE





2. LOT DIMENSIONS AND COVERAGE.

[A] Minimum and Maximum Lot Size.
- Minimum: Not applicable.
- Maximum: Not applicable.

[B] Maximum Lot Width.
- Not applicable.

[C] Maximum Lot Depth.
- Not applicable.

[D] Minimum Open Space Area.
- Not applicable.

[E] Maximum Impervious Area.
- Not applicable.

3. BUILDING PLACEMENT AND BUILDOUT.

[F] Front Build-to-Line (Primary Street).
- Maximum of ten (10') feet from the lot line.

[G] Side Build-to-Line (Side Street).
- Maximum of ten (10') feet from the lot line.

[H] Side Setback Line (Adjacent Lot).
- Minimum of five (5') feet from the lot line.

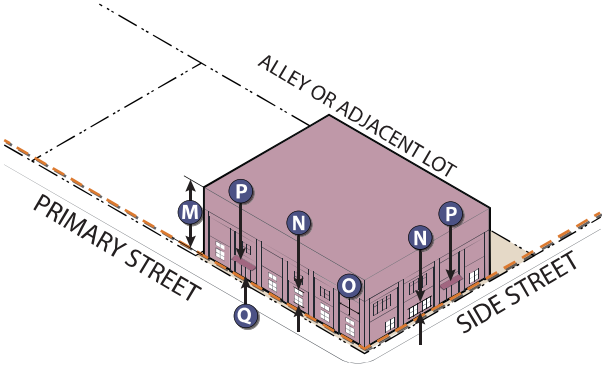
[I] Rear Setback Line (Adjacent Lot or Alley).
- Minimum of five (5') feet from the lot line.

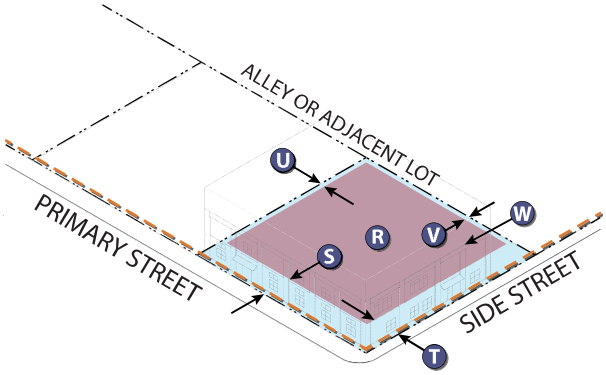
[J] Front Build-Out (Primary Street).
- Minimum of sixty (60%) percent of the front build-to-line.

[K] Side Build-Out (Side Street).
- Minimum of forty (40%) percent of the side build-to-line.

[L] Maximum Facade Length.
- Maximum two-hundred (200') feet without a building break; unrestricted public, pedestrian access; facade modulation; or change in materials or color.

120 FUB





4. BUILDING HEIGHT AND FRONTAGE.

[M] Minimum and Maximum Height.
- See **Chapter 20.410 Zoning district** height range for minimum and maximum height.

[N] Ground Floor Transparency.
- Primary Street. Minimum of sixty (60%) percent transparent windows or doors.
- Side Street. Minimum of forty (40%) percent transparent windows or doors.

[O] Blank Wall Limitations (Any Public Street).
- No blank frontage walls greater than fifty (50') feet.

[P] Weather Protection.
- Required at all primary and side street entrances.
- Minimum of forty (40%) percent linear coverage on primary streets.
- Minimum vertical clearance of ten (10') feet.
- Maximum vertical clearance of twenty (20') feet.
- Minimum overhang of six (6') feet.

[Q] Entrances and Access Points.
- No requirements for shared pedestrian entrances.

5. PARKING AND ACCESS.

[R] Parking Ratios.
- See **Chapter 20.450.090 VMC Parking and Loading** for parking requirements.

[S] Front Setback (Primary Street).
- Minimum of twenty (20') feet from the lot line.

[T] Side Setback (Side Street).
- Minimum of twenty (20') feet from the lot line.

[U] Side Setback (Adjacent Lot).
- Minimum of five (5') feet from the lot line.

[V] Rear Setback (Adjacent Lot or Alley).
- Minimum of five (5') feet from the lot line.

[W] Access Points.
- Parking shall be accessed by way of a side street or an alley abutting the lot. If neither are present, parking may be accessed by way of a primary street. See **Title 11 Streets and Sidewalks** for additional requirements.

6. OVERLAY REQUIREMENTS.

6.1 GROUND FLOOR ACTIVATION:

Pursuant to this Chapter, any building type located within a zoning district subject to **Chapter 20.501 Active Ground Floor Use Overlay** shall be required to comply with the following requirements:

[X] Required Frontage Type.

The following table shows the allowable frontage types for this building type that apply to frontage on primary and side streets. Internal frontage is not regulated. See **Chapter 20.440 Frontage Types** of this code for additional frontage type requirements.

Frontage Type	*Allowable*
Awnings	**Yes**
Balconies	**No**
Bay Windows	**No**
Cafe	**No**
Common Yard	**No**
Courtyard	**No**
Gallery	**No**
Light Court	**No**
Porch	**No**
Stoop	**No**
Shopfront	**Yes**

[Y] Frontage Modulation Requirements.

– One (1) vertical modulation of minimum twelve (12") inches every fifty (50') feet of facade on all streets.

[Z] Ground Floor Use Activation.

– Fifty (50%) percent of ground floor frontage along primary streets must be Active Retail Uses per **Chapter VMC 20.430 Use Requirements**; or the side street when no primary street is present.

[AA] Minimum Ground Floor-to-Ceiling Height.

– Minimum of fourteen (14') feet (floor-to-ceiling) for all primary uses.

[AB] Increased Ground Floor Transparency.

– Not applicable.

6.2 GROUND FLOOR READY:

Pursuant to this Chapter, any building type located within a zoning district subject to **Chapter 20.502 Active Ground Floor Use Ready Overlay** shall be required to comply with the following requirements:

[AC] Minimum Ground Floor-to-Ceiling Height.

– Minimum of twelve (12') feet (floor-to-ceiling) for all primary uses.

[AD] Increased Ground Floor Transparency.

– Not applicable.

6.3 TRANSIT-BASED HEIGHT ALLOWANCE:

Pursuant to this Chapter and Washington State HB 1491, any building type located within a 1/4-mile radius of an existing or planned bus rapid or light rail transit, are eligible for no maximum height limits, subject to the **Chapter 20.503 Station Areas Overlay**.

[AE] Increased Maximum Height.

– No maximum.

6.4 OTHER OVERLAY REQUIREMENTS:

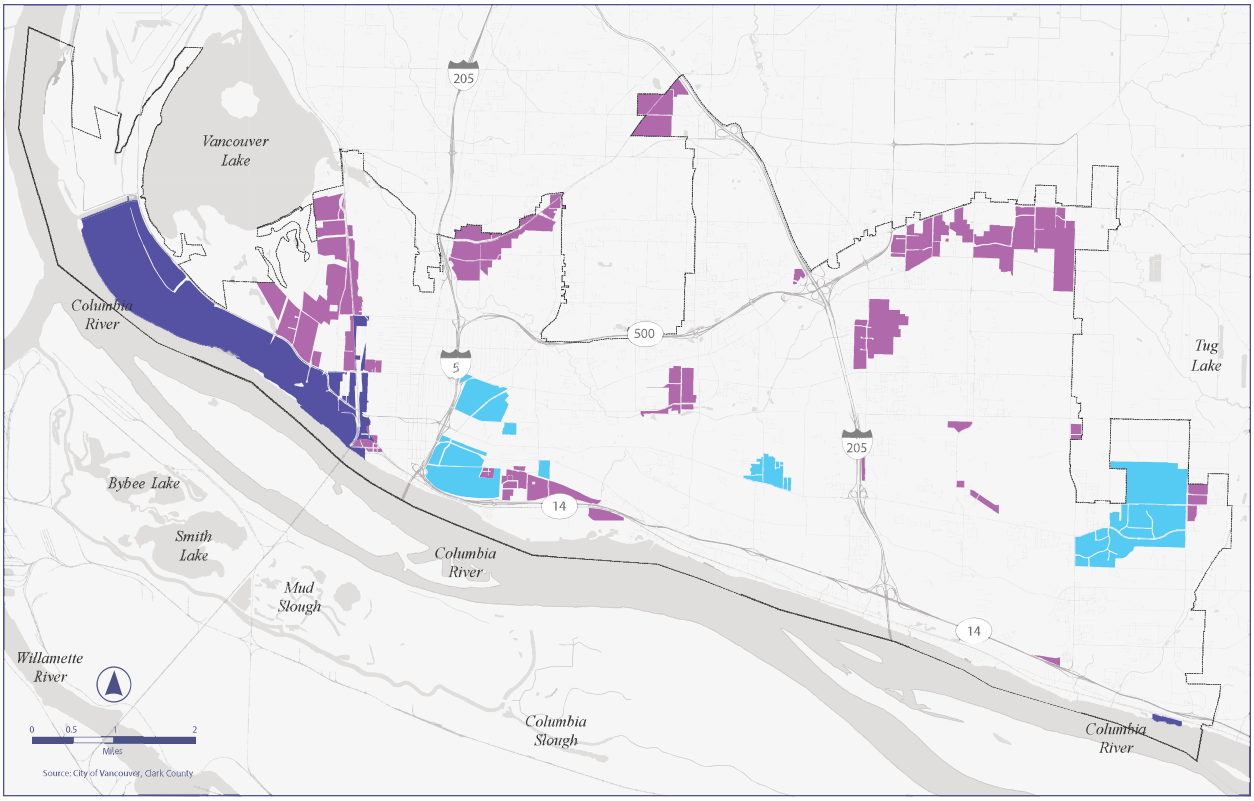
The following may also apply:

– See **Chapter 20.500 VMC Overlay Districts** of this code for other requirements that may apply to this district.

– See **Chapter 20.600 VMC Plan Districts** of this code for other requirements that may apply to this district.

– See **Chapter 20.700 VMC Environmental Regulations** of this code for other requirements that may apply to this district.

130 INDUSTRIAL / DISTRIBUTION



Map of Allowable Zoning Districts

1. DEFINITION AND APPLICABILITY.

An Industrial / Distribution Building (IDB) is a large standalone building, typical of business parks or commercial corridors, often featuring setbacks and green space. The entrance is strategically located based on local circulation patterns, typically near or visible from the main street for ease of access. Vehicular access and loading areas should be positioned along secondary streets or at the rear of the lot to accommodate large trucks and deliveries, ensuring smooth operations for industrial and manufacturing uses while maintaining an attractive frontage.

The map and table on this page identify the allowable zoning district. Character images on this page are advisory only.

Low-Scale Neighborhood District (LS)	**No**
Medium-Scale Neighborhood District (MS)	**No**
Mixed-Use Neighborhood District (MX)	**No**
Regional Activity Center District (RA)	**No**
Institutional / Campus District (IC)	**Yes**
Industrial / Employment District (IE)	**Yes**
Heavy Industrial District (HI)	**Yes**
Manufactured Home District (MH)	**No**
Parks / Open Space District (PO)	**No**
Natural Areas District (NA)	**No**

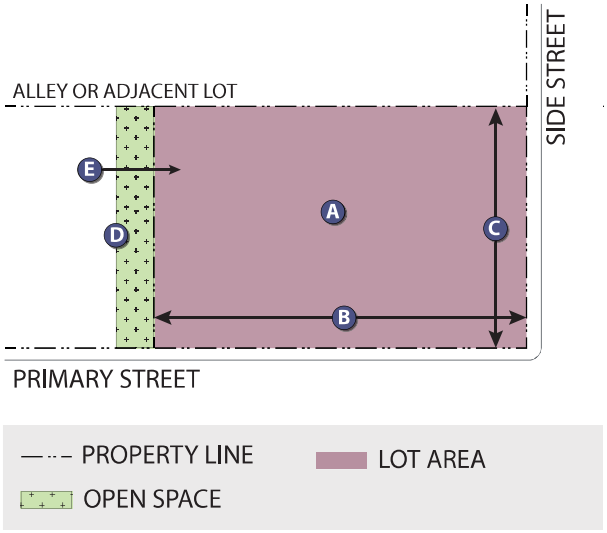
Table of Allowable Zoning district

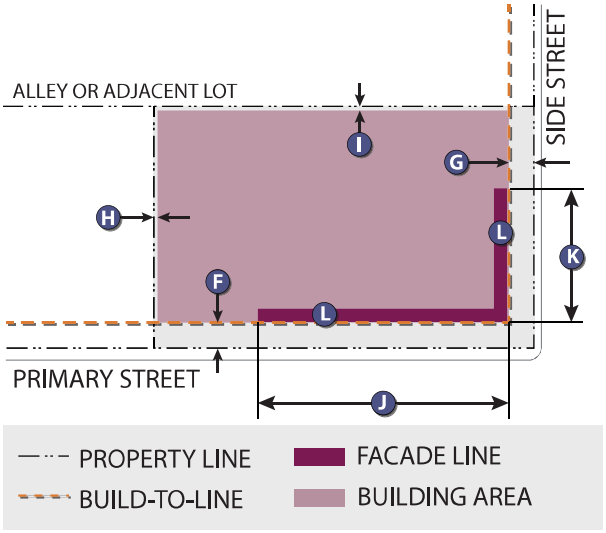


Character Image

130 IDB

130 INDUSTRIAL / DISTRIBUTION





2. LOT DIMENSIONS AND COVERAGE.

[A] Minimum and Maximum Lot Size.
- Minimum: Not applicable.
- Maximum: Not applicable.

[B] Maximum Lot Width.
- Not applicable.

[C] Maximum Lot Depth.
- Not applicable.

[D] Minimum Open Space Area.
- Not applicable.

[E] Maximum Impervious Area.
- Not applicable.

3. BUILDING PLACEMENT AND BUILDOUT.

[F] Front Build-to-Line (Primary Street).
- Not applicable.

[G] Side Build-to-Line (Side Street).
- Not applicable.

[H] Side Setback Line (Adjacent Lot).
- Minimum of five (5') feet from the lot line.

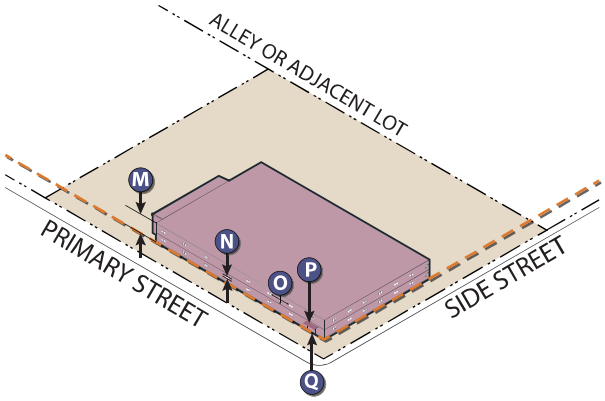
[I] Rear Setback Line (Adjacent Lot or Alley).
- Minimum of five (5') feet from the lot line.

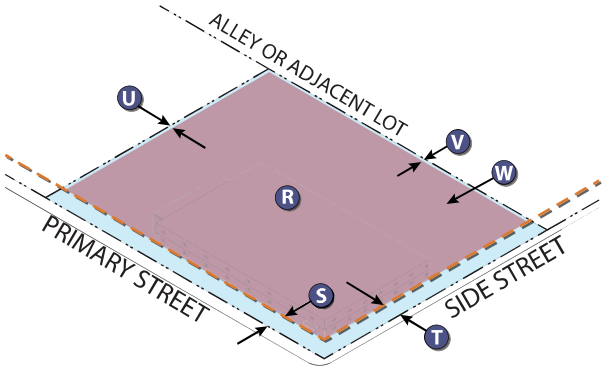
[J] Front Build-Out (Primary Street).
- Minimum of sixty (60%) percent of the front build-to-line.

[K] Side Build-Out (Side Street).
- Minimum of thirty (30%) percent of the side build-to-line.

[L] Maximum Facade Length.
- Not applicable.

130 IDB





4. BUILDING HEIGHT AND FRONTAGE.

[M] Minimum and Maximum Height.
- See **Chapter 20.410 Zoning district** height range for minimum and maximum height.

[N] Ground Floor Transparency.
- Primary Street. Minimum of ten (10%) percent transparent windows or doors.
- Side Street. Minimum of five (5%) percent transparent windows or doors.

[O] Blank Wall Limitations (Any Public Street).
- No blank frontage walls greater than fifty (50') feet.

[P] Weather Protection.
- Required at all primary and side street entrances.
- Minimum vertical clearance of ten (10') feet.
- Maximum vertical clearance of twenty (20') feet.
- Minimum overhang of six (6') feet.

[Q] Entrances and Access Points.
- Not applicable.

5. PARKING AND ACCESS.

[R] Parking Ratios.
- See **Chapter 20.450.090 VMC Parking and Loading** for parking requirements.

[S] Front Setback (Primary Street).
- Minimum of twenty (20') feet from the lot line.

[T] Side Setback (Side Street).
- Minimum of twenty (20') feet from the lot line.

[U] Side Setback (Adjacent Lot).
- Minimum of five (5') feet from the lot line.

[V] Rear Setback (Adjacent Lot or Alley).
- Minimum of five (5') feet from the lot line.

[W] Access Points.
- Parking shall be accessed by way of a side street or an alley abutting the lot. If neither are present, parking may be accessed by way of a primary street. See **Title 11 Streets and Sidewalks** for additional requirements.

6.1 GROUND FLOOR ACTIVATION:

Pursuant to this Chapter, any building type located within a zoning district subject to **Chapter 20.501 Active Ground Floor Use Overlay** shall be required to comply with the following requirements:

[X] Required Frontage Type.

The following table shows the allowable frontage types for this building type that apply to frontage on primary and side streets. Internal frontage is not regulated. See **Chapter 20.440 Frontage Types** of this code for additional frontage type requirements.

Frontage Type	*Allowable*
Awnings	**Yes**
Balconies	**No**
Bay Windows	**No**
Cafe	**No**
Common Yard	**No**
Courtyard	**No**
Gallery	**No**
Light Court	**No**
Porch	**No**
Stoop	**No**
Shopfront	**Yes**

[Y] Frontage Modulation Requirements.

– One (1) vertical modulation of minimum twelve (12") inches every fifty (50') feet of facade on all streets.

[Z] Ground Floor Use Activation.

– Not applicable.

[AA] Minimum Ground Floor-to-Ceiling Height.

– Not applicable.

[AB] Increased Ground Floor Transparency.

– Not applicable.

6.2 GROUND FLOOR READY:

Pursuant to this Chapter, any building type located within a zoning district subject to **Chapter 20.502 Active Ground Floor Use Ready Overlay** shall be required to comply with the following requirements:

[AC] Minimum Ground Floor-to-Ceiling Height.

– Not applicable.

[AD] Increased Ground Floor Transparency.

– Not applicable.

6.3 TRANSIT-BASED HEIGHT ALLOWANCE:

Pursuant to this Chapter and Washington State HB 1110, any building type located within a zoning district subject to the **Chapter 20.503 Station Areas Overlay** shall be eligible for the following transit-based height allowance.

[AE] Increased Maximum Height.

– No maximum.

6.4 OTHER OVERLAY REQUIREMENTS:

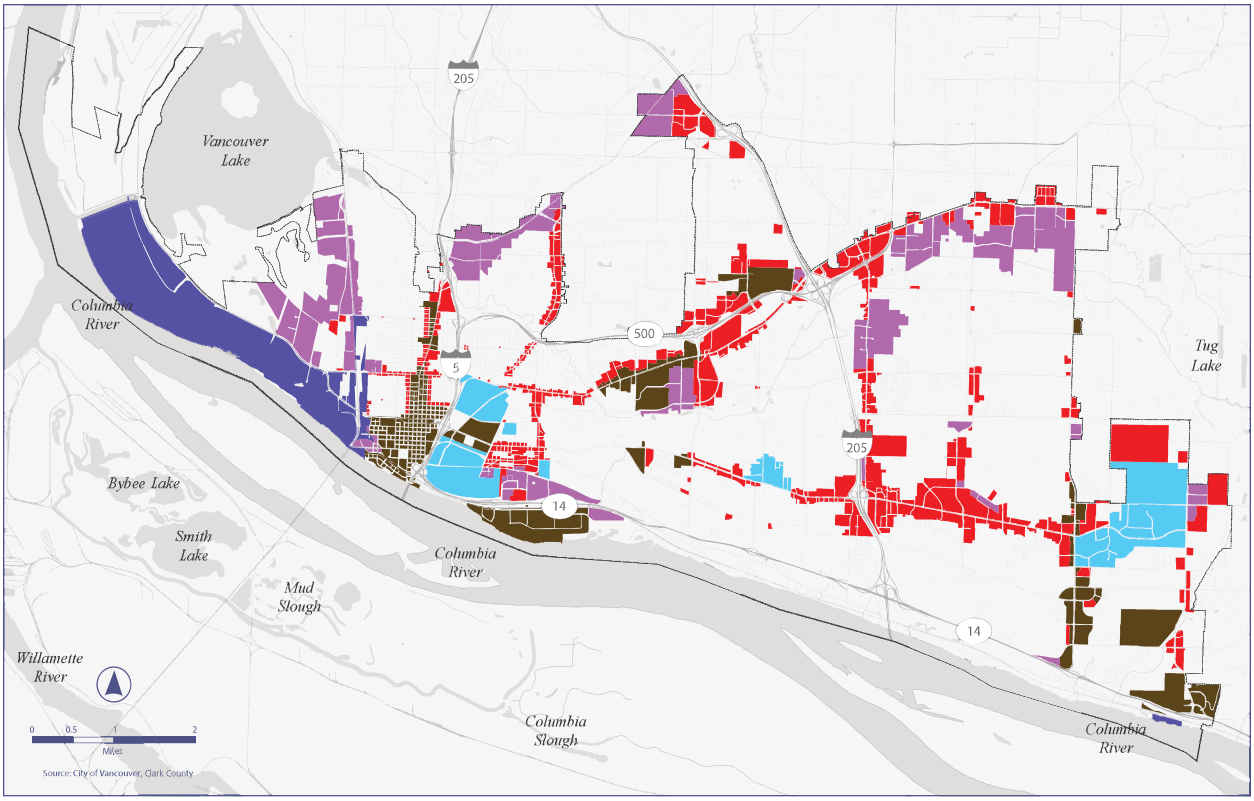
The following may also apply:

– See **Chapter 20.500 VMC Overlay Districts** of this code for other requirements that may apply to this district.

– See **Chapter 20.600 VMC Plan Districts** of this code for other requirements that may apply to this district.

– See **Chapter 20.700 VMC Environmental Regulations** of this code for other requirements that may apply to this district.

140 STRUCTURED PARKING GARAGE



Map of Allowable Zoning Districts

1. DEFINITION AND APPLICABILITY.

A Structured Parking Garage Building (SPB) is a neighborhood scale or larger parking garage serving multiple uses or buildings within a city or commercial corridor. These structures can be underground or above ground, and where possible, should incorporate active commercial spaces at the ground level. Design elements should enhance visual interest at the pedestrian scale and mitigate the visual impact of the parking levels above, creating a more attractive and engaging streetscape.

The map and table on this page identify the allowable zoning district. Character images on this page are advisory only.

Low-Scale Neighborhood District (LS)	**No**
Medium-Scale Neighborhood District (MS)	**No**
Mixed-Use Neighborhood District (MX)	**Yes**
Regional Activity Center District (RA)	**Yes**
Institutional / Campus District (IC)	**Yes**
Industrial / Employment District (IE)	**Yes**
Heavy Industrial District (HI)	**Yes**
Manufactured Home District (MH)	**No**
Parks / Open Space District (PO)	**No**
Natural Areas District (NA)	**No**

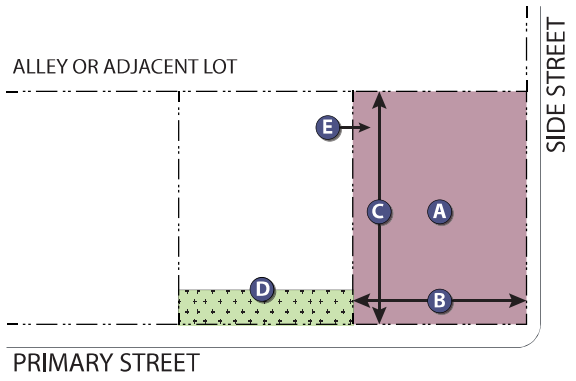
Table of Allowable Zoning district

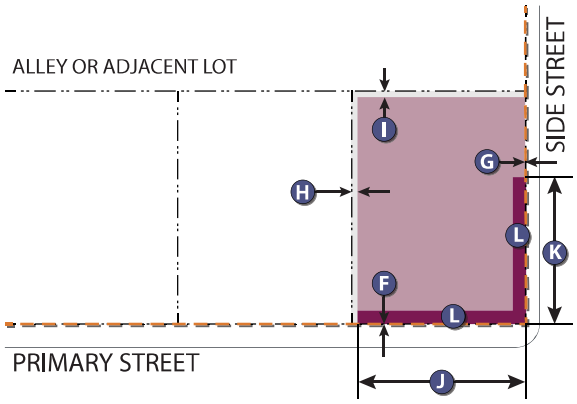


Character Image

140 SPB

140 STRUCTURED PARKING GARAGE





2.LOT DIMENSIONS AND COVERAGE.

[A] Minimum and Maximum Lot Size.
- Minimum: Not applicable.
- Maximum: Not applicable.

[B] Maximum Lot Width.
- Not applicable.

[C] Maximum Lot Depth.
- Not applicable.

[D] Minimum Open Space Area.
- Not applicable.

[E] Maximum Impervious Area.
- Not applicable.

3. BUILDING PLACEMENT AND BUILDOUT.

[F] Front Build-to-Line (Primary Street).
- Maximum of five (5') feet from the lot line.

[G] Side Build-to-Line (Side Street).
- Maximum of five (5') feet from the lot line.

[H] Side Setback Line (Adjacent Lot).
- Minimum of five (5') feet from the lot line.

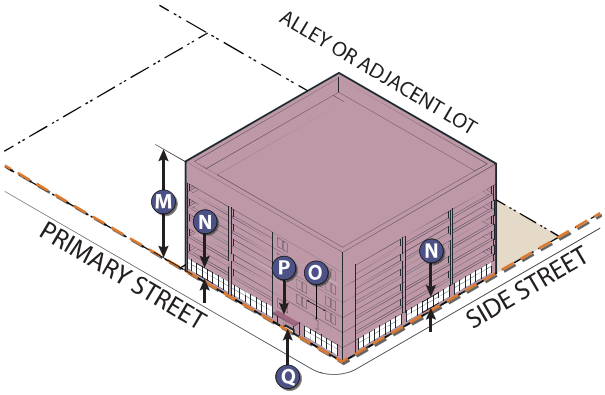
[I] Rear Setback Line (Adjacent Lot or Alley).
- Minimum of five (5') feet from the lot line.

[J] Front Build-Out (Primary Street).
- Minimum of ninety (90%) percent of the front build-to-line.

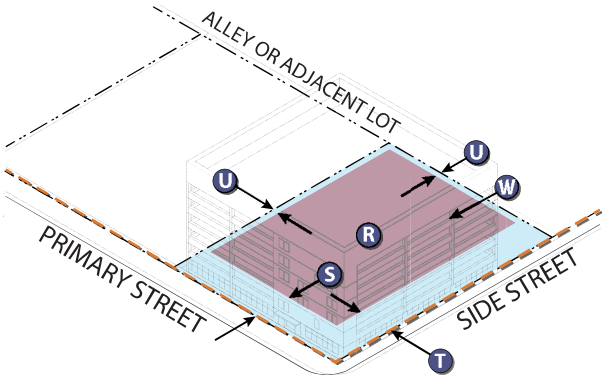
[K] Side Build-Out (Side Street).
- Minimum of fifty (50%) percent of the side build-to-line.

[L] Maximum Facade Length.
- Not applicable.

140 SPB



PROPERTY LINE
BUILD-TO-LINE
LOT AREA
BUILDING MASS



PROPERTY LINE
BUILD-TO-LINE
SETBACK AREA
PARKING AREA

4. BUILDING HEIGHT AND FRONTAGE.

[M] Minimum and Maximum Height.

- See **Chapter 20.410 Zoning district** height range for minimum and maximum height.

[N] Ground Floor Transparency.

- Primary Street. Minimum of twenty (20%) percent transparent windows or doors.
- Side Street. Minimum of twenty (20%) percent transparent windows or doors.
- May exclude those portions of the facades devoted to driveway entrances and exits, stairwells, elevators and centralized payment booths from the calculation.

[O] Blank Wall Limitations (Any Public Street).

- No blank frontage walls greater than fifteen (15') feet.

[P] Weather Protection.

- Required at all primary and side street entrances.
- Minimum of forty (40%) percent linear coverage on primary streets.
- Minimum vertical clearance of ten (10') feet.
- Maximum vertical clearance of twenty (20') feet.
- Minimum overhang of six (6') feet.

[Q] Entrances and Access Points.

- A shared pedestrian entrance must be located facing a primary street. Additional pedestrian entrances may be located facing side streets. If no primary street is present, the pedestrian entrance must face the side street.

5. PARKING AND ACCESS.

[R] Parking Ratios.

- See **Chapter 20.450.090 VMC Parking and Loading** for parking requirements.

[S] Front Setback (Primary Street).

- Minimum of twenty (20') feet from the lot line on the ground floors; and no minimum on upper floors.

[T] Side Setback (Side Street).

- Minimum of twenty (20') feet from the lot line on the ground floors; and no minimum on upper floors.

[U] Side Setback (Adjacent Lot).

- Minimum of five (5') feet from the lot line.

[V] Rear Setback (Adjacent Lot or Alley).

- Minimum of five (5') feet from the lot line.

[W] Access Points.

- Parking shall be accessed by way of a side street or an alley abutting the lot. If neither are present, parking may be accessed by way of a primary street. See **Title 11 Streets and Sidewalks** for additional requirements.

6. OVERLAY REQUIREMENTS.

6.1 GROUND FLOOR ACTIVATION:

Pursuant to this Chapter, any building type located within a zoning district subject to **Chapter 20.501 Active Ground Floor Use Overlay** shall be required to comply with the following requirements:

[X] Required Frontage Type.

The following table shows the allowable frontage types for this building type that apply to frontage on primary and side streets. Internal frontage is not regulated. See **Chapter 20.440 Frontage Types** of this code for additional frontage type requirements.

Frontage Type	*Allowable*
Awnings	**Yes**
Balconies	**No**
Bay Windows	**No**
Cafe	**Yes**
Common Yard	**No**
Courtyard	**No**
Gallery	**No**
Light Court	**No**
Porch	**No**
Stoop	**No**
Shopfront	**Yes**

[Y] Frontage Modulation Requirements.

– One (1) vertical modulation of minimum twelve (12") inches every fifty (50') feet of facade on all streets.

[Z] Ground Floor Use Activation.

– Fifty (50%) percent of ground floor frontage along primary streets must be Active Retail Uses per **Chapter VMC 20.430 Use Requirements**; or the side street when no primary street is present.

[AA] Minimum Ground Floor-to-Ceiling Height.

– Minimum of fourteen (14') feet (floor-to-ceiling) for all primary uses.

[AB] Increased Ground Floor Transparency.

– Minimum of forty (40%) percent windows or doors on all street types.

6.2 GROUND FLOOR READY:

Pursuant to this Chapter, any building type located within a zoning district subject to **Chapter 20.502 Active Ground Floor Use Ready Overlay** shall be required to comply with the following requirements:

[AC] Minimum Ground Floor-to-Ceiling Height.

– Minimum of twelve (12') feet (floor-to-ceiling) for all primary uses.

[AD] Increased Ground Floor Transparency.

– Minimum of forty (40%) percent windows or doors on all street types.

6.3 TRANSIT-BASED HEIGHT ALLOWANCE:

Pursuant to this Chapter and Washington State HB 1110, any building type located within a zoning district subject to the **Chapter 20.503 Station Areas Overlay** shall be eligible for the following transit-based height allowance.

[AE] Increased Maximum Height.

– No maximum.

6.4 OTHER OVERLAY REQUIREMENTS:

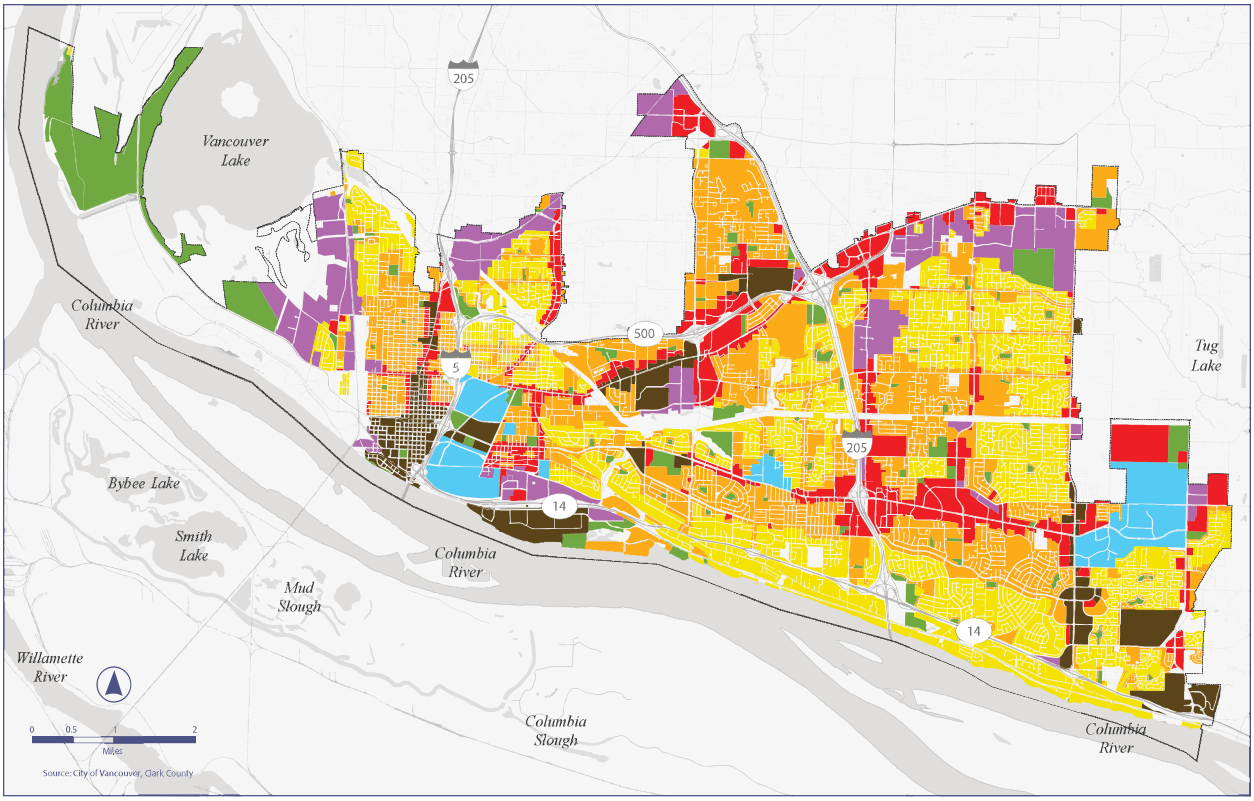
The following may also apply:

– See **Chapter 20.500 VMC Overlay Districts** of this code for other requirements that may apply to this district.

– See **Chapter 20.600 VMC Plan Districts** of this code for other requirements that may apply to this district.

– See **Chapter 20.700 VMC Environmental Regulations** of this code for other requirements that may apply to this district.

150 CIVIC / INSTITUTIONAL



Map of Allowable Zoning Districts

1. DEFINITION AND APPLICABILITY.

A Civic / Institutional Building (CIB) is a standalone building designed to accommodate various uses such as arts, culture, education, recreation, transportation, government, and public assembly. These buildings can have multiple floors with flexible design requirements to suit diverse functions. The main entrance should be easily accessible from the primary street, with parking located at the rear. Outdoor spaces, such as courtyards, plazas, or parks, are typically provided either in front of the building or within an accessible courtyard, enhancing public engagement and gathering opportunities.

The map and table on this page identify the allowable zoning district. Character images on this page are advisory only.

Low-Scale Neighborhood District (LS)	**Yes**
Medium-Scale Neighborhood District (MS)	**Yes**
Mixed-Use Neighborhood District (MX)	**Yes**
Regional Activity Center District (RA)	**Yes**
Institutional / Campus District (IC)	**Yes**
Industrial / Employment District (IE)	**Yes**
Heavy Industrial District (HI)	**No**
Manufactured Home District (MH)	**No**
Parks / Open Space District (PO)	**Yes**
Natural Areas District (NA)	**No**

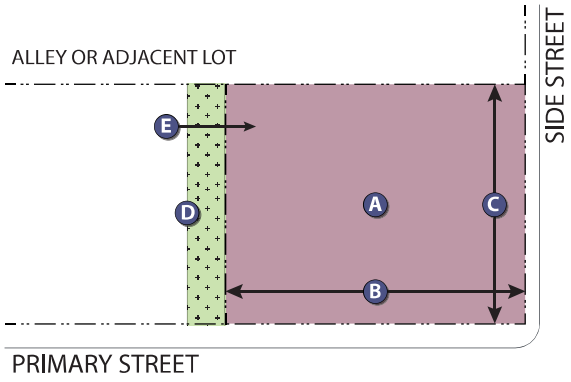
Table of Allowable Zoning district



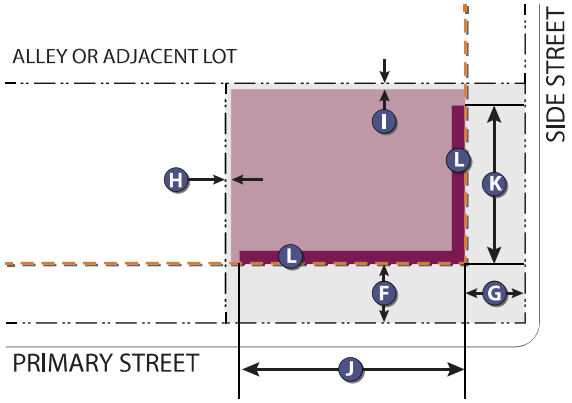
Character Image

150 CIB

150 CIVIC / INSTITUTIONAL



PROPERTY LINE
LOT AREA
OPEN SPACE



PROPERTY LINE
-LINE
BUILD-TO-LINE
BUILDING AREA

2. LOT DIMENSIONS AND COVERAGE.

[A] Minimum and Maximum Lot Size.
- Minimum: Not applicable.
- Maximum: Not applicable.

[B] Maximum Lot Width.
- Not applicable.

[C] Maximum Lot Depth.
- Not applicable.

[D] Minimum Open Space Area.
- Not applicable.

[E] Maximum Impervious Area.
- Not applicable.

3. BUILDING PLACEMENT AND BUILDOUT.

[F] Front Build-to-Line (Primary Street).
- Maximum of fifty (50') feet from the lot line.

[G] Side Build-to-Line (Side Street).
- Maximum of fifty (50') feet from the lot line.

[H] Side Setback Line (Adjacent Lot).
- Minimum of five (5') feet from the lot line.

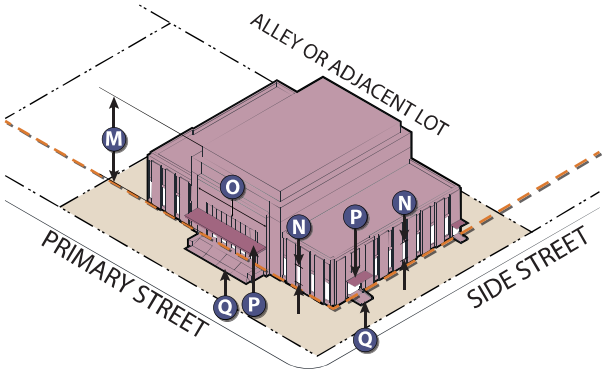
[I] Rear Setback Line (Adjacent Lot or Alley).
- Minimum of five (5') feet from the lot line.

[J] Front Build-Out (Primary Street).
- Minimum of fifty (50%) percent of the front build-to-line.

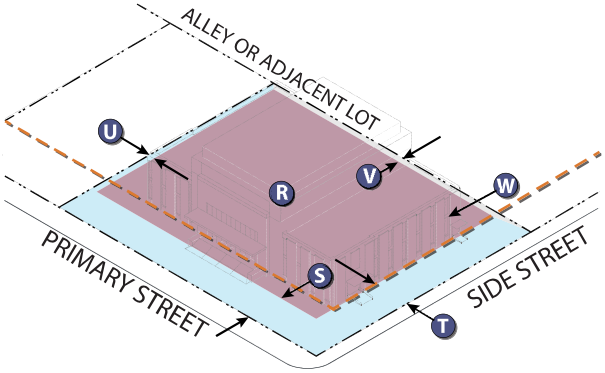
[K] Side Build-Out (Side Street).
- Minimum of fifty (50%) percent of the front build-to-line.

[L] Maximum Facade Length.
- Not applicable.

150 CIB



PROPERTY LINE
BUILD-TO-LINE
LOT AREA
BUILDING MASS



PROPERTY LINE
BUILD-TO-LINE
SETBACK AREA
PARKING AREA

4. BUILDING HEIGHT AND FRONTAGE.

[M] Minimum and Maximum Height.
- See **Chapter 20.410 Zoning district** height range for minimum and maximum height.

[N] Ground Floor Transparency.
- Primary Street. Minimum of forty (40%) percent transparent windows or doors.
- Side Street. Minimum of forty (40%) percent transparent windows or doors.

[O] Blank Wall Limitations (Any Public Street).
- No blank frontage walls greater than thirty (30') feet.

[P] Weather Protection.
- Required at all primary and side street entrances.
- Minimum of forty (40%) percent linear coverage on primary streets.
- Minimum vertical clearance of ten (10') feet.
- Maximum vertical clearance of twenty (20') feet.
- Minimum overhang of six (6') feet.

[Q] Entrances and Access Points.
- Not applicable.

5. PARKING AND ACCESS.

[R] Parking Ratios.
- See **Chapter 20.450.090 VMC Parking and Loading** for parking requirements.

[S] Front Setback (Primary Street).
- Minimum of twenty (20') feet from the lot line.

[T] Side Setback (Side Street).
- Minimum of twenty (20') feet from the lot line.

[U] Side Setback (Adjacent Lot).
- Minimum of five (5') feet from the lot line.

[V] Rear Setback (Adjacent Lot or Alley).
- Minimum of five (5') feet from the lot line.

[W] Access Points.
- Parking shall be accessed by way of a side street or an alley abutting the lot. If neither are present, parking may be accessed by way of a primary street. See **Title 11 Streets and Sidewalks** for additional requirements.

6. OVERLAY REQUIREMENTS.

6.1 GROUND FLOOR ACTIVATION:

Pursuant to this Chapter, any building type located within a zoning district subject to **Chapter 20.501 Active Ground Floor Use Overlay** shall be required to comply with the following requirements:

[X] Required Frontage Type.

The following table shows the allowable frontage types for this building type that apply to frontage on primary and side streets. Internal frontage is not regulated. See **Chapter 20.440 Frontage Types** of this code for additional frontage type requirements.

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Balconies	**No**
Bay Windows	**No**
Cafe	**Yes**
Common Yard	**No**
Courtyard	**No**
Gallery	**No**
Light Court	**No**
Porch	**No**
Stoop	**No**
Shopfront	**Yes**

[Y] Frontage Modulation Requirements.

– One (1) vertical modulation of minimum twelve (12") inches every fifty (50') feet of facade on all streets.

[Z] Ground Floor Use Activation.

Fifty (50%) percent of ground floor frontage along primary streets must be Active Retail Uses per **Chapter VMC 20.430 Use Requirements**; or the side street when no primary street is present.

[AA] Minimum Ground Floor-to-Ceiling Height.

– Minimum of fourteen (14') feet (floor-to-ceiling) for all primary uses.

[AB] Increased Ground Floor Transparency.

– Minimum of sixty (60%) percent windows or doors on all street types.

6.2 GROUND FLOOR READY:

Pursuant to this Chapter, any building type located within a zoning district subject to **Chapter 20.502 Active Ground Floor Use Ready Overlay** shall be required to comply with the following requirements:

[AC] Minimum Ground Floor-to-Ceiling Height.

– Minimum of twelve (12') feet (floor-to-ceiling) for all primary uses.

[AD] Increased Ground Floor Transparency.

– Minimum of sixty (60%) percent windows or doors on all street types.

6.3 TRANSIT-BASED HEIGHT ALLOWANCE:

Pursuant to this Chapter and Washington State HB 1110, any building type located within a zoning district subject to the **Chapter 20.503 Station Areas Overlay** shall be eligible for the following transit-based height allowance.

[AE] Increased Maximum Height.

– No maximum.

6.4 OTHER OVERLAY REQUIREMENTS:

The following may also apply:

– See **Chapter 20.500 VMC Overlay Districts** of this code for other requirements that may apply to this district.

– See **Chapter 20.600 VMC Plan Districts** of this code for other requirements that may apply to this district.

– See **Chapter 20.700 VMC Environmental Regulations** of this code for other requirements that may apply to this district.

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CHAPTER 20.430

Use Requirements

20.430.001 PURPOSE.

The purpose of this chapter is to introduce eight (8) primary use types regulated by the zoning district. Each primary use on a lot is classified as permitted, conditional, or prohibited, as outlined in the Primary Use Tables, and may be subject to specific standards. This chapter also outlines accessory and temporary uses, which may either support a primary use or exist independently on a lot, depending on the specific type of use.

20.430.002 APPLICABILITY.

This chapter shall be applicable to all permit applications on any lot or lots. Primary uses included in this chapter are subject to **Chapter 20.270 VMC Site Plan Review**, as applicable per standards or submittal requirements.

20.430.003 ESTABLISHMENT OF USE REQUIREMENTS.

This chapter includes the following Use requirements:

- 20.430.100 Primary Use Types and Standards.
- 20.430.200 Accessory Use Types and Standards.
- 20.430.300 Accessory Structures.
- 20.430.400 Temporary Use Types and Standards.

20.430.100 PRIMARY USE TYPES AND STANDARDS.

The primary use is defined as the principal or main activity conducted on a lot, which is the primary purpose for which the property is used. A primary use must comply with all applicable use permissions, standards, and zoning district requirements. All other uses on the lot, such as accessory or temporary uses, must be subordinate and clearly incidental to the designated primary use. The primary use types include the following:

20.430.101 Active Retail Uses (ACR).

20.430.102 Civic / Institutional Uses (CIN).

20.430.103 Industrial Uses (IND).

20.430.104 Infrastructure Uses (INF).

20.430.105 Office Uses (OFF).

20.430.106 Open Space Uses (OPN).

20.430.107 Passive Retail Uses (PAR).

20.430.108 Residential Uses (RES).

101 ACTIVE RETAIL

Definition.

Active retail uses include facilities and spaces dedicated to the sale of goods, merchandise, or services directly to consumers. These uses are typically located on ground floors in pedestrian-oriented areas and are designed to generate foot traffic and contribute to the economic vitality and vibrancy of the streetscape. Active retail Uses are permitted, conditional, and prohibited as follows:

	LS	MS	MX	RA	IC	IE	HI	MH	PO	NA	*Standards*	*Additional Approvals, Policies, or Submittals*
Active retail uses.												
1. Artisan and specialty goods production	●	●	●	●	●	●					✓	**Not Applicable.**
2. Eating and drinking establishments	●	●	●	●	●	●	●				✓	**Not Applicable.**
3. Personal Services	●	●	●	●	●	●					**Not Applicable.**	**Not Applicable.**
4. Sales-oriented	●	●	●	●	●	●					✓	✓

● Permitted Use ◐ Conditional Use ○ Prohibited Use

101 ACR

102 CIVIC / INSTITUTIONAL

Definition.

Civic / institutional uses include governmental, medical, educational, cultural, or religious functions. These uses are typically accessible to the public and contribute to the social and cultural infrastructure of the community. Civic / institutional uses are permitted, conditional, and prohibited as follows:

	LS	MS	MX	RA	IC	IE	HI	MH	PO	NA	*Standards*	*Additional Approvals, Policies, or Submittals*
Civic / institutional uses.												
1. Ambulance services			◐	●	●	●					**Not Applicable.**	**Not Applicable.**
2. Community centers	◐	◐	●	●	●	●			●		**Not Applicable.**	**Not Applicable.**
3. Cultural centers	●	●	●	●	●	●			●		**Not Applicable.**	**Not Applicable.**
4. Colleges	●	●	●	●	●	◐	◐				✓	**Not Applicable.**
5. Community recreation	●	●	●	●	●	●			●		✓	**Not Applicable.**
6. Day care (child care centers and institutional adult day care)	●	●	●	●	●	●					✓	✓
7. Detention and post-detention facilities				◐		◐	◐				**Not Applicable.**	**Not Applicable.**
8. Emergency services (except ambulance)	●	●	●	●	●	●					✓	**Not Applicable.**
9. Medical centers	◐	◐	●	●	●	●					**Not Applicable.**	**Not Applicable.**
10. Religious institutions	●	●	●	●	●	●					✓	✓
11. Schools (public and private)	●	●	●	●	●	●					✓	✓
12. Social / fraternal and clubs / lodges	●	●	●	●	●	●					**Not Applicable.**	**Not Applicable.**

● Permitted Use ◐ Conditional Use ○ Prohibited Use

102 CIN

103 INDUSTRIAL

Definition.

Industrial uses include production, manufacturing, processing, warehousing, distribution, or repair of goods, as well as related research and development. These uses are typically characterized by operations that may generate higher levels of noise, emissions, truck traffic, or other external impacts. Industrial uses are permitted, conditional, and prohibited as follows:

	LS	MS	MX	RA	IC	IE	HI	MH	PO	NA	*Standards*	*Additional Approvals, Policies, or Submittals*
Industrial uses.												
1. Bulk fossil fuel storage and handling facility							◐				✓	✓
2. Cleaner fuels storage and handling facility							◐				✓	✓
3. Employment Services					●	●					**Not Applicable.**	**Not Applicable.**
4. Energy plants			◐	◐	◐	◐	●				✓	**Not Applicable.**
5. Industrial services						●	●				**Not Applicable.**	**Not Applicable.**
6. Manufacturing and production			●	●	●	●	●				✓	✓
7. Organic materials management facilities	◐	◐	●	●	●	●	●				**Not Applicable.**	**Not Applicable.**
8. Recycling facilities							◐				**Not Applicable.**	**Not Applicable.**
9. Research and development			●	●	●	●	●				✓	✓
10. Small fossil fuel or cleaner fuel storage and distribution facilities							●				✓	✓
11. Solid Waste Handling Facilities							●				✓	✓
12. Truck stops						●	●					**Not Applicable.**
13. Warehouse / freight movement						●	●				✓	**Not Applicable.**
14. Wholesale sales					●	●					✓	**Not Applicable.**

● Permitted Use ◐ Conditional Use ○ Prohibited Use

103 IND

104 INFRASTRUCTURE

Definition.

Infrastructure uses include facilities and spaces essential for the movement of people and goods, as well as the delivery of critical services across the city. This includes transportation networks, utility systems, rail infrastructure, and communication facilities, all of which support urban functionality, connectivity, and growth. Infrastructure uses are permitted, conditional, and prohibited as follows:

	LS	MS	MX	RA	IC	IE	HI	MH	PO	NA	*Standards*	*Additional Approvals, Policies, or Submittals*
Infrastructure uses.												
1. Airports / airparks						●	●				✓	✓
2. Basic utilities	●	●	●	●	●	●			●	◐	**Not Applicable.**	✓
3. Data Centers	*Not Allowed in Any Zoning District.*										**Not Applicable.**	**Not Applicable.**
4. Heliports			◐	◐	◐	◐					**Not Applicable.**	**Not Applicable.**
5. Major utility facilities			◐	◐	◐	◐	◐		●	◐	**Not Applicable.**	✓
6. Park and ride facilities	◐	◐	◐	◐	●	●					✓	✓
7. Rail lines / utility corridors	●	●			●	●	●		◐	◐	✓	**Not Applicable.**
8. Railroad yards							●				**Not Applicable.**	**Not Applicable.**
9. Structured parking facilities (i.e., parking garages)		●	●	●	●	●	●				✓	**Not Applicable.**
10. Surface parking facilities (i.e., parking lots)		◐	◐	◐	◐	◐	◐		◐		**Not Applicable.**	
11. Transportation facilities	◐	◐	◐	●	●	●			◐		**Not Applicable.**	✓
12. Water-related or water-enjoyment (as defined by VMC 20.760 Shoreline Management)			◐	◐	◐				◐		✓	**Not Applicable.**
13. Wireless communication facilities			●	●	●	●	●				✓	✓

● Permitted Use ◐ Conditional Use ○ Prohibited Use

104 INF

105 OFFICE

Definition.

Office uses include spaces used for professional, administrative, business, or clerical activities, typically conducted indoors with minimal environmental or external impacts on surrounding areas. Office uses are permitted, conditional, and prohibited as follows:

	LS	MS	MX	RA	IC	IE	HI	MH	PO	NA	*Standards*	*Additional Approvals, Policies, or Submittals*
Office uses.												
1. Extended office	●	●	●	●	●	●	●				**Not Applicable.**	**Not Applicable.**
2. General office	●	●	●	●	●	●	●				✓	**Not Applicable.**
3. Medical office	●	●	●	●	●	●	●				**Not Applicable.**	**Not Applicable.**

● Permitted Use ◐ Conditional Use ○ Prohibited Use

105 OFF

106 OPEN SPACE

Definition.

Open space uses include parks and land preserved or developed for outdoor activities, ecological function, or community interaction. These spaces are regulated by their form, design elements, and relationship to surrounding structures, rather than specific activities alone. Open space uses are permitted, conditional, and prohibited as follows:

	LS	MS	MX	RA	IC	IE	HI	MH	PO	NA	*Standards*	*Additional Approvals, Policies, or Submittals*
Open space uses.												
1. Agriculture / horticulture / silviculture	●	●	●	●	●	●	●		●	●	✓	**Not Applicable.**
2. Cemeteries	●	●	●	●	●	●	●				✓	**Not Applicable.**
3. Environmental Management and Education									●	●	**Not Applicable.**	**Not Applicable.**
4. Fish hatcheries										◐	**Not Applicable.**	**Not Applicable.**
5. Motorized recreational activities							●				✓	**Not Applicable.**
6. Parks or Natural Area (urban)	●	●	●	●	●	●	●		●	●	**Not Applicable.**	**Not Applicable.**
7. Parks or Natural Area (regional)	●	●	●	●	●	●	●		●	●	**Not Applicable.**	**Not Applicable.**
8. Trails	●	●	●	●	●	●	●	●	●	●	**Not Applicable.**	**Not Applicable.**

● Permitted Use ◐ Conditional Use ○ Prohibited Use

106 OPN

107 PASSIVE RETAIL

Definition.

Passive retail uses include spaces that complement active retail uses. Secondary retail is not intended to act as the primary drivers of foot traffic or economic activity in an area. These uses often provide support or specialized goods and services that enhance the overall retail environment. Passive retail uses are permitted, conditional, and prohibited as follows:

	LS	MS	MX	RA	IC	IE	HI	MH	PO	NA	*Standards*	*Additional Approvals, Policies, or Submittals*
Passive retail uses.												
1. Animal kennel / shelters			◐	◐	◐	●	●				✓	**Not Applicable.**
2. Adult entertainment						◐	◐				✓	**Not Applicable.**
3. Auto salvage / repair						●	●				**Not Applicable.**	**Not Applicable.**
4. Bulk sales						●	●				**Not Applicable.**	**Not Applicable.**
5. Commercial and transient lodging (i.e., hotels, etc.)	◐	◐	●	●	●	●					✓	✓
6. Dog day care	◐	●	●	●	●	●	●				✓	**Not Applicable.**
7. Electric vehicle (EV) battery exchange station					●	●	●				**Not Applicable.**	**Not Applicable.**
8. Electric vehicle (EV) charging station (stand-alone)	●	●	●	●	●	●	●				**Not Applicable.**	**Not Applicable.**
9. Indoor entertainment			●	●	●	●					✓	✓
10. Major event entertainment				◐	◐						**Not Applicable.**	✓
11. Motor vehicle sales / rental						●	●				✓	**Not Applicable.**
12. Motor vehicle servicing / repair					●	●	●				✓	**Not Applicable.**
13. Outdoor sales					●	●	●				✓	**Not Applicable.**
14. Repair-oriented	●	●	●	●	●	●	●				**Not Applicable.**	**Not Applicable.**
15. Self-service storage			●	●		●					✓	✓
16. Vehicle fuel sales (i.e, gas stations)					●	●	●				✓	**Not Applicable.**

● Permitted Use ◐ Conditional Use ○ Prohibited Use

107 PAR

108 RESIDENTIAL

Definition.

Residential uses include facilities and spaces intended for long-term habitation by individuals or households and may include a range of housing types and densities, from single-family homes to multi-family developments intended to support a mix of lifestyles and household needs. Residential uses are permitted, conditional, and prohibited as follows:

	LS	MS	MX	RA	IC	IE	HI	MH	PO	NA	*Standards*	*Additional Approvals, Policies, or Submittals*
Residential uses.												
1. Cottage cluster dwellings	●	●	●								✓	✓
2. Group living	●	●	●	●	●						✓	**Not Applicable.**
3. Household living	●	●	●	●	●						✓	**Not Applicable.**
4. Manufactured home or home developments (all types)	●	●						●			✓	✓
4. Short-term rentals	●	●	●	●	●						✓	✓
6. Temporary shelter / housing (i.e., safe stays, transitional housing)	●	●	●	●	●						**Not Applicable.**	**Not Applicable.**

● Permitted Use ◐ Conditional Use ○ Prohibited Use

108 RES

20.430.100 PRIMARY USE TYPES AND STANDARDS.

20.430.101 Active Retail Uses

1. Artisan and specialty goods production.

A. Standards. The following apply:
1. **Public viewing and windows:** A public viewing or customer service space is required on all building types with windows or glass doors covering at least twenty-five (25%) percent of the front of the building face abutting the street or indoor lobby wall.
2. **Visibility of activities:** Activities except loading shall occur within the buildings; outdoor storage and repair is prohibited

B. Additional approvals, policies, or submittals. Not applicable.

2. Eating and drinking establishments.

A. Standards. The following apply:
1. **Drive Thru:** Drive-through eating and drinking establishments are only allowed in the MX district.

B. Additional approvals, policies, or submittals. Not applicable.

1. Personal services

A. Standards. Not applicable.

B. Additional approvals, policies, or submittals. Not applicable.

3. Sales-oriented.

A. Standards. The following apply:
1. **Marijuana and marijuana-related stores:** Marijuana and marijuana-related stores are subject to:
   - i. **Purpose.** The purpose of this chapter is to establish zoning regulations that provide for state licensed recreational and medical marijuana land uses consistent with state law under Title 69 RCW, and subject to requirements of Chapter 314-55 WAC, adding additional local standards to address potential public health, safety and welfare considerations (Ord. M-4169 § 3, 06/27/2016; Ord. M-4071, Added, 03/03/2014, Sec 3 – Effective 3/9/2014)
   - ii. **Distance Restrictions**. A marijuana retail, processing, or production business shall not be located on parcels located within one thousand feet (1000') of parcels containing any of the following uses, as officially defined in WAC 314-55-010. The distance shall be measured as the shortest straight line from property line to property line, as set forth in WAC 314-55-050(10).
     1. Elementary or secondary school, public or private;
     2. Playground, publicly managed;
     3. Recreation center or facility, providing a broad range of activities intended primarily for minors and managed by a public or charitable nonprofit entity;
     4. Child care facility, licensed by the Department of Early Learning providing child care regularly for less than twenty-four (24) hours;
     5. Public park, having facilities for active or passive recreation, exclusive of trails;
     6. Public transit center where several transit routes converge;
     7. Library; or
     8. Game arcade where admission is not restricted to persons age twenty-one (21) and older.
     9. Retail marijuana retail business shall not be located within three hundred (300') feet of other state-licensed marijuana retail business, as measured from property line to property line as specified in this chapter.
   - iii. **Prohibitions.**
     1. Retail, processing, and production businesses are prohibited in LS and MS districts.
     2. Marijuana businesses are not permitted as a home occupation shall not operate at a dwelling and shall not be located in a mobile structure.
     3. Retail marijuana business shall not sell marijuana, marijuana-infused products, or marijuana paraphernalia or otherwise be open for business before eight (8) am or after eleven (11:00) pm on any day.

20.410.200 LOT BUFFERS.

20.410.200.1 Purpose of this Section

The purpose of this Chapter is to balance new development in more intense districts with existing development and lower-intensity districts in terms of heights and build out. These lot buffers and are applicable to the side and rear property lines (and associated setbacks) for any lot or lots which utilizes a building type as part of this Chapter of the code.

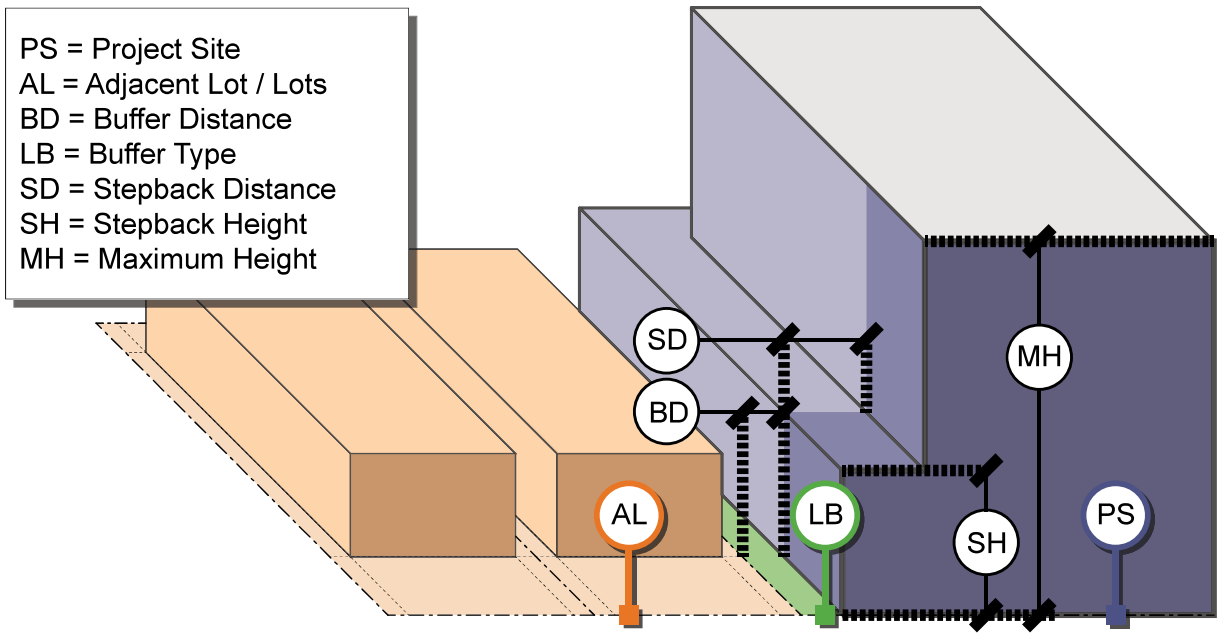
20.410.200.2 Landscape Requirements

All development subject to this Chapter must also meet **Chapter VMC Landscaping - Table 20.450.006.030-1 Landscaping and Screening Design Standards** per the Landscape Buffer (LB) identified for the lot.

20.410.200.3 Overview of Lot Buffers

The following diagram provides a brief overview of how lot buffers are intended to work for the development along with an associated way to measure and account for the buffer, stepback height limitations, and stepback distance associated. This diagram is purely an example for illustrative purposes.

Diagram 10.410.200.3-1: Lot Buffer Diagram



20.410.200.4 Lot Buffers By Base District

The following table provides a guide to lot buffers for all new development based on the zoning district of the project site (PS) or sites and the adjacent lot or lots (AL). Maximum height is always regulated by the zoning district established in **Chapter 20.410 VMC Zoning District.** Lot buffers indicating "none" are not applicable and must only meet the building placement and buildout requirements for the associated building type or types in **Chapter 20.420 VMC Building Types**. The following lot buffers are applicable:

Table 10.410.200.4-1: Lot Buffers by Zoning District

Project Site or Sites (PS)	Adjacent Lot or Lots (AL)									
	LS	MS	MX	RA	IC	IE	HI	MH	PO	NA
LS	None.							LB=L1	None.	
MS	LB=L2	None.						BU=10′ SH=35′ SD=20′ LB=L3	None.	
MX	BD=15′ SH=45′ SD=20′ LB=L3	BD=10′ SH=75′ SD=15′ LB=L2	None.					BU=10′ SH=35′ SD=20′ LB=L4	None.	
RA	BD=25′ SH=55′ SD=30′ LB=L4	BD=15′ SH=75′ SD=20′ LB=L3	None.						None.	
IC			None.						None.	
IE	BD=35′ SH=45′ SD=40′ LB=L5	BD=20′ SH=75′ SD=30′ LB=L4	BD=15′ SH=75′ SD=20′ LB=L3		None.			BD=25′ SH=35′ SD=30′ LB=L3	None.	
HI	BD=45′ SH=45′ SD=50′ LB=L5		BD=35′ SH=75′ SD=50′ LB=L4		None.				None.	
MH	None.									
PO	None.									
NA	None.									

Draft Bicycle Parking Standards

February 4, 2026

Bicycle Parking Standards

Purpose

The purpose of these standards is to promote bicycling as a mode of transportation, which enables healthy lifestyles, is affordable, and reduces greenhouse gas emissions, as an alternative mode of transportation. The standards set the necessary required bicycle parking facilities for a bicycle-friendly community. Sufficient bicycle parking is necessary to encourage more bicycle travel throughout the city by providing a safe, secure, and convenient place to park one's bicycle.

Number of Bicycle Parking Spaces

Minimum quantity required

Bicycle parking spaces shall be provided for uses as per Table xx. Bicycle parking spaces that count toward minimum long-term requirements may not be counted toward minimum short-term spaces, or vice versa.

Table xx: Minimum Quantity Requirements for Short- and Long-Term Bicycle Parking.

Use	Minimum Long-term Spaces	Minimum Short-term Spaces
Active Retail Uses		
Artisan and specialty goods production	1 per 12,000 sq. ft. of floor area	1 space per 4,000 sq. ft. of customer service/sales-oriented floor area
Eating and drinking establishments	1 space per 12,000 sq. ft. of floor area	1 space per 4,000 sq. ft. of floor area
Personal services	1 per 12,000 sq. ft. of floor area	1 space per 4,000 sq. ft. of floor area
Sales-oriented	1 per 12,000 sq. ft. of floor area	1 space per 4,000 sq. ft. of floor area
Civic / Institutional Uses		
Ambulance services	None	None

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Use	Minimum Long-term Spaces	Minimum Short-term Spaces
Community centers	1 per 4,000 sq. ft. of floor area	1 per 2,000 sq. ft. of floor area
Cultural centers	1 per 4,000 sq. ft. of floor area	1 per 2,000 sq. ft. of floor area
Colleges	1 space per 25,000 sq. ft. of floor area	1 space per 10,000 sq. ft. of floor area
Community recreation	1 per 4,000 sq. ft. of floor area	1 per 2,000 sq. ft. of floor area
Day care (child care centers and institutional adult day care)	1 space per 5 employees	Family day care home: None Institutional: 2 spaces
Detention and post-detention facilities	1 per 20,000 sq. ft. floor area	2 spaces
Emergency services (except ambulance	1 per 12,000 sq. ft. of floor area	2 spaces
Medical centers	1 per 12,000 sq. ft. of floor area	1 per 40,000 sq. ft of floor area
Religious institutions	1 space per 15,000 sq. ft. of floor area	1 space per 4,000 sq. ft. of floor area
Schools (public and private)	1 space per 5 employees	Elementary and middle school: 1 space per 50 studentsHigh school: 1 space per 40 students
Social / fraternal and clubs / lodges	1 per 12,000 sq. ft	1 per 4,000 sq. ft
Industrial uses		
Bulk fossil fuel storage and handling facility	1 per 40,000 sq. ft. floor area	2 spaces
Cleaner fuels storage and handling facility	1 per 40,000 sq. ft. floor area	2 spaces
Energy plants	1 per 40,000 sq. ft. floor area	2 spaces
Industrial services	1 per 20,000 sq. ft. floor area	2 spaces
Manufacturing and production	1 per 20,000 sq. ft. floor area	2 spaces

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Use	Minimum Long-term Spaces	Minimum Short-term Spaces
Organic materials management facilities	1 per 40,000 sq. ft. floor area	2 spaces
Recycling facilities	1 per 40,000 sq. ft. floor area	2 spaces
Research and development	1 per 20,000 sq. ft. floor area	2 spaces
Small fossil fuel or cleaner fuel storage and distribution facilities	1 per 40,000 sq. ft. floor area	2 spaces
Solid waste handling facilities	1 per 40,000 sq. ft. floor area	2 spaces
Truck stops	None	None
Warehouse / freight movement	1 per 40,000 sq. ft. floor area	2 spaces
Wholesale sales	1 per 30,000 sq. ft. floor area	2 spaces
Infrastructure uses		
Airports / airparks	None	None
Basic utilities	None	None
Data centers	1 per 40,000 sq. ft. floor area	2 spaces
Heliports	None	None
Major utility facilities	1 per 40,000 sq. ft. floor area	2 spaces
Park and ride facilities	1 per 40 vehicle spaces. If the park and ride lot provides parking for a rail transit station, bus transit center or passenger terminal: (a) Required long-term bicycle parking may be provided at the rail transit station, bus transit center or passenger terminal in lieu of at the parking location in order to	1 per 40 vehicle spaces

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Use	Minimum Long-term Spaces	Minimum Short-term Spaces
	improve convenient access to transit. (b) No additional long-term bicycle parking is needed if the rail transit station, bus transit center or passenger terminal already meets or exceeds the bicycle parking requirements above.	
Rail lines / utility corridors	None	None
Railroad yards	None	None
Structured parking facilities (i.e., parking garages)	1 per 40 vehicle spaces.	1 per 40 vehicle spaces.
Surface parking facilities (i.e., parking lots)	1 per 40 vehicle spaces.	1 per 40 vehicle spaces.
Transportation facilities	5% of projected a.m. peak period daily ridership	1.5% of projected a.m. peak period daily ridership
Water-related or water-enjoyment (as defined by VMC 20,760 Shoreline Management)	Marina: 1 per 40 boat slips Other: None	2 spaces
Wireless communication facilities	None	None
Office Uses		
Extended office	1 space per 4,000 sq. ft. of floor area	1 per 40,000 sq. ft. of floor area
General office	1 space per 4,000 sq. ft. of floor area	1 per 40,000 sq. ft. of floor area
Medical office	1 per 12,000 sq. ft. of floor area	1 per 40,000 sq. ft of floor area
Open Space Uses		

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Use	Minimum Long-term Spaces	Minimum Short-term Spaces
Agriculture / horticulture / silviculture	A number of spaces equal to 10% of total employees who work on-site	2 spaces
Cemeteries	None	2, or 1 per 10 acres, whichever is greater
Environmental management and education	A number of spaces equal to 10% of total employees who work on-site	1 per 40,000 sq. ft. of maintained area
Fish hatcheries	A number of spaces equal to 10% of total employees who work on-site	None
Motorized recreational activities	None	None
Parks or natural area (urban)	None	2, or 1 per 5 acres, whichever is greater
Parks or natural area (regional)	A number of spaces equal to 10% of total employees who work on-site	1 per 40,000 sq. ft. of maintained area, plus 2 per outdoor recreation facility provided at the park
Trails	None	2, or 1 per 10 acres, whichever is greater
Passive Retail Uses		
Animal kennel / shelters	1 per 12,000 sq. ft. of floor area	2 spaces
Adult entertainment	Refer to specific use, i.e., theater, book or video store	Refer to specific use, i.e., theater, book or video store
Auto salvage / repair	1 per 20,000 sq. ft. of floor area	2 spaces
Bulk sales	1 per 20,000 sq. ft. of floor area	2 spaces
Commercial and transient lodging (e.g., hotels)	1 space per 20 rooms	2 spaces

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Use	Minimum Long-term Spaces	Minimum Short-term Spaces
Dog day care	1 per 12,000 sq. ft. of floor area	2 spaces
Electric vehicle (EV) battery exchange station	None	None
Electric vehicle (EV) charging station (stand-alone)	None	None
Indoor entertainment	1 per 12,000 sq. ft	1 per 4,000 sq. ft
Major event entertainment	1 per 12,000 sq. ft	10, or 1 per 40 seats, whichever is greater
Motor vehicle sales / rental	1 per 20,000 sq. ft. of floor area	2 spaces
Motor vehicle servicing / repair	1 per 20,000 sq. ft. of floor area	2 spaces
Outdoor sales	1 per 20,000 sq. ft.	2 spaces
Repair-oriented	1 per 12,000 sq. ft. of floor area	1 space per 4,000 sq. ft. of customer service/sales-oriented floor area
Self-service storage	None	1 per 20,000 sq. ft. of floor area
Vehicle fuel sales (i.e., gas stations)	1 per 12,000 sq. ft. of floor area	1 space per 4,000 sq. ft. of customer service/sales-oriented floor area
Residential Uses		
Cottage cluster dwellings	More than 6 units on a parent parcel: 1 per unit 6 or fewer units on a parent parcel: None	More than 6 units on a parent parcel: 1 per 20 units 6 or fewer units on a parent parcel: None
Group living	0.2 per unit/suite/bedroom plus a number of spaces equal to 10% percent of total employees	1 per 20 units/suites/bedrooms

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Use	Minimum Long-term Spaces	Minimum Short-term Spaces
Household living	More than 6 units on a parent parcel: 1 per unit 6 or fewer units on a parent parcel: None	More than 6 units on a parent parcel: 1 per 20 units 6 or fewer units on a parent parcel: None
Manufactured home or home developments (all types)	More than 6 units on a parent parcel: 1 per unit 6 or fewer units on a parent parcel: None	More than 6 units on a parent parcel: 1 per 20 units 6 or fewer units on a parent parcel: None
Short-term rentals	More than 6 units on a parent parcel: 1 per unit 6 or fewer units on a parent parcel: None	More than 6 units on a parent parcel: 1 per 20 units 6 or fewer units on a parent parcel: None
Temporary shelter / housing (i.e., safe stays, transitional housing)	More than 6 units/beds on a parent parcel: 0.5 per unit/bed 6 or fewer units/beds on a parent parcel: None	More than 6 units/beds on a parent parcel: 1 per 20 units/beds 6 or fewer units on a parent parcel: None

Parking requirements for unlisted uses.

The planning official may rule that a use not specifically listed in Table xx below is a use similar to a listed use and that the same parking standards shall apply. If the applicant requests that the planning official's decision be rendered in writing, it shall constitute an interpretation, as governed by Chapter xx VMC. The planning official shall maintain a list of approved unlisted use bicycle parking requirements that have the same effect as an amendment to this chapter.

Choice of parking requirements.

When a building or use is planned or constructed in such a manner that a choice of bicycle parking requirements could be made, the use that requires the greater number of bicycle parking spaces shall govern.

Measurements.

The following measurements shall be used in calculating the total minimum number of bicycle parking spaces required in this chapter:

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1. *Fractions.* Fractional space requirements of up to 0.5 shall be rounded down to the next whole number and 0.5 or greater rounded up to the next whole number.

2. *Employees.* Where employees are specified for the purpose of determining the minimum vehicle parking spaces required, the employees counted are those who work on the premises during the largest shift at the peak season.

3. *Students.* When students are specified for the purpose of determining the minimum bicycle parking spaces required, the students counted are those who are on the campus during the peak period of the day during a typical school term.

4. *Space.* Unless otherwise noted, where gross square feet (GSF) are specified, the area measured shall be gross floor area under the roof measured from the faces of the structure, excluding only space devoted to covered off-street parking or loading.

Reductions in minimum required bicycle parking.

1. *Reductions in minimum required bicycle parking.*

    a. The planning official may reduce the minimum bicycle parking spaces required in Table xx up to ten (10%) percent in new developments that do not include Residential Uses by means of a Type I procedure, when an applicant for a development permit can demonstrate in a parking study prepared by a traffic consultant or in parking data from comparable sites that:

        i. The requested reduction in bicycle parking will not have an adverse impact on uses in the immediate vicinity.

        ii. The City shall not be responsible for providing bicycling parking for a development should a reduction in required bicycle parking under this section result in a deficit in bicycle parking that is not desirable to the owner of the property or use.

    b. A request to reduce the required minimum bicycle parking more than ten (10%) percent is subject to a Type II variance procedure.

    c. The planning official may reduce the minimum bicycle parking spaces required in Table xx up to fifty (50%) percent if the required conditions below are met. Reductions in parking minimums shall be cumulative and inclusive of reductions allowed under any provision of this title.

        i. Any residential developments where the owner certifies and provides evidence that at least fifty (50%) percent of dwelling units are rented or sold at levels affordable to households earning one-hundred (100%) percent area median income or lower in accordance with the U.S. Department of Housing and Urban Development for a minimum of ten (10) consecutive years from final occupancy.

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Parking for properties with multiple uses.

In the event several uses occupy a single structure or parcel of land, the total requirements for bicycle parking shall be the sum of the required parking for the individual primary uses. Bicycle parking for multiple uses may be clustered in one or several locations and shall meet all other requirements for bicycle parking.

Access

1. **Public Access**
    a. Short-term bicycle parking spaces must be publicly accessible.
    b. Long-term bicycle parking spaces must be in a secure location where access to bicycle parking space(s) is limited and not available to the general public.
2. **Access Pathway.** Bicycle parking spaces must be accessible via an access pathway that
    a. Is a minimum of thirty-two (32") inches wide,
    b. Connects to the right-of-way, and
    c. Does not have stairs, curbs, or other barriers where lifting a bike is necessary.
        i. Access pathways may include elevators.
3. **Surface.** Outdoor bicycle parking spaces and access pathways shall be surfaced with asphalt, concrete, pavers, or other permanent surface approved by the Planning Official.

Location

Short-term

1. Required short-term bicycle parking spaces must be located
    a. Within seventy-five (75') feet of and visible from the main public entrance(s) of the building (or use if no building) or
    b. In an area shared with other properties or uses on the same block and street frontage and within two-hundred (200') feet of the entrance of each building or use, or
    c. A combination thereof.
2. Short-term bicycle parking serving Open Space Uses may be distributed throughout the park to serve multiple access points and/or outdoor recreation facilities.
3. When there are multiple public entrances and more than four (4) short-term spaces required, bicycle parking must be distributed to the different entrances.
4. Short-term bicycle parking may be provided at locations not visible from the main public entrance(s) only if directional signage to the bicycle parking is provided at the main public entrance(s).
5. Bicycle parking areas in garages or surface parking lots must be protected from encroachment by vehicles with bollards, curbs, or other means.
6. On-street public bicycle parking that meets the standards of this section may be used to meet minimum number of short-term bicycle parking spaces.

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Long-term

1. Required long-term bicycle parking spaces for non-Residential Uses must be located:
    a. On-site within one-hundred (100') feet of an employee entrance, or
    b. In a shared bicycle parking facility within 300 feet of an employee entrance, or
    c. A combination of thereof,
2. Required long-term bicycle parking spaces for non-Residential Uses must be located:
    a. On-site and within 100 feet of a resident entrance of the building they serve, or
    b. In-unit (which may include in private garages, patios, and similar private spaces that are accessible only to that unit),
    c. A combination thereof.
3. Required long-term bicycle parking for Residential Uses that is served by in-unit spaces:
    a. For buildings with fewer than twenty (20) dwelling units or where all units have private garages, up to one-hundred (100%) percent of required long-term bicycle parking may be provided in-unit.
    b. For buildings with twenty (20) or more dwelling units and where not all units have a private garage, up to seventy-five (75%) percent of required long-term bicycle parking may be provided in-unit.
    c. **Dimensions**:
        i. Each horizontal space provided in-unit must:
            1. Have minimum dimensions of six (6') feet long by two (2') feet wide
            2. Have at least five (5') feet of clearance behind each space to allow room for bicycle maneuvering.
        ii. Each vertical / wall-mounted space must:
            1. Have minimum dimensions of three (3') feet deep by two (2') feet wide.
            2. Have a six-foot (6') height clearance.
            3. Have at least five (5') feet of clearance behind each space to allow room for bicycle maneuvering.
    d. Bicycle parking spaces must not block entrances/exits.
4. Long-term bicycle parking spaces that are outdoors must be covered. The cover must project out a minimum of two (2') feet beyond the bicycle parking spaces on the portion of the structure that is not enclosed by a wall.
5. **Acceptable shared facilities**

    Acceptable shared facilities for long-term bicycle parking (for Residential Uses or non-Residential Uses) may include, but are not limited to, the following:
    a. Designated indoor bicycle room with locking system;
    b. In an area enclosed by a fence with a locked gate to create a "bicycle cage."
        i. The fence shall be at a minimum eight feet high or be floor-to-ceiling height;
    c. Individual bicycle lockers with locking system;
    d. Designated bicycle space with racks inside an office area with locking system.
    e. Covered outdoor enclosures with a locking system, roof, and walls or fence.
        i. The fence shall be at a minimum eight feet high or be floor-to-ceiling height;

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ii. The cover must project out a minimum of 2 feet beyond the bicycle parking spaces on the portion of the structure that is not enclosed by a wall.

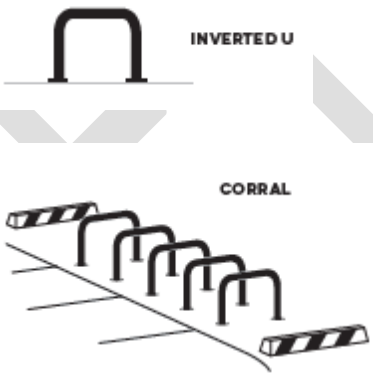
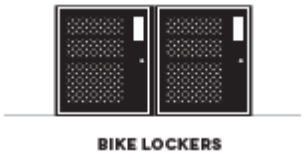
f. For Residential Uses, in-unit, private garage, patio or deck bicycle parking that meets the location standards outlined in section xx above.

Rack Design and Placement

1. Each bicycle parking space shall have facilities for locking or securing each bicycle in an upright position, except that no bicycle rack or locker is required for in-unit bicycle parking spaces.

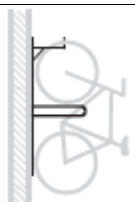
Rack Types

1. The following rack types are acceptable for both short- and long-term bicycle parking:

Inverted U Rack (also called hoop or staple rack) (may be single or fastened in a series to create a corral)	
Floor-level bicycle Lockers	
Racks that meet all of the following: 1. Allow locking of bicycle frame and at least one (1) wheel with U-lock when both wheels are left on the bicycle and are not suspended. 2. Accommodate a variety of bicycles and attachments. 3. If the rack is a horizontal rack, it must support the bicycle at two points, including the frame. 4. Is securely anchored with tamper-resistant hardware.	

2. The following rack types are also acceptable for required long-term bicycle parking, but only for a maximum of fifty (50%) percent of the required long-term bicycle parking spaces that require racks/lockers. These are not acceptable for short-term bicycle parking.

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Vertical racks	
Two-Tier or Double-Decker. May be stacked racks or lockers. All two-tier/double decker bicycle parking must have lift assist for upper spaces. Only the upper/non-floor level is subject to the maximum fifty (50%) limitation.	

3. The following rack types are not acceptable for short- or long-term bicycle parking:

Wave (also called undulating or serpentine)	
Bollard	
Schoolyard (also called comb, grid)	
Spiral	
Coathanger	
Swing Arm Secured	

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Wheelwell	

Bicycle Racks

1. Bicycle spaces served by horizontal / floor-mounted racks must:
    a. Have minimum dimensions of six (6') feet long by two (2') feet wide
        i. When more than twenty (20) long-term bicycle parking spaces are required, at least five (5%) percent of required long-term spaces must be large bicycle parking spaces – at least three (3') feet wide and ten (10') deep – that are served by a horizontal rack.
    b. Have at least five (5') feet of clearance behind each space to allow room for bicycle maneuvering.
    c. Be at least one (1') foot from a wall or other obstruction, not including the rack serving the space, along the sides/long edges of the bicycle parking space.
2. Bicycle spaces served by vertical / wall-mounted racks must:
    a. Have minimum dimensions of three (3') feet deep by two (2') feet wide.
    b. Have a six-foot (6') height clearance.
    c. Have at least five (5') feet of clearance behind each space to allow room for bicycle maneuvering.
3. All bicycle racks must:
    a. Not block pedestrian use of a walkway.
    b. Allow for the frame and at least one (1) wheel of a bicycle in a parking space to be secured with a standard U-lock.
    c. Have a minimum height of thirty-two (32") inches or be indicated or cordoned off by visible markers so that they are visible to pedestrians.
    d. Be securely anchored with theft resistant hardware in concrete.

Bicycle Lockers

1. Bicycle lockers must:
    a. Have a separate locking door for each bicycle space.
    b. Have at least five (5') feet of horizontal clearance leading up to the entrance of the locker to allow room for bicycle maneuvering.
    c. Be securely anchored with theft resistant hardware.
    d. Be floor-level, or have lift assist for the elevated bicycle lockers when lockers are stacked.

Additional Requirements

Lighting

1. The bicycle parking spaces—excluding in-unit spaces—and access pathways must be lighted to a minimum level of a half (0.5) foot candle.

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2. Such lighting shall be directed in a manner to prevent glare on nearby Residential Uses.
3. Bicycle parking for public parks that close at dusk are exempted from this requirement.

Electric Outlets

1. When more than twenty (20) long-term bicycle parking spaces are required:
    a. At least twenty (20%) percent of required long-term bicycle spaces that are located within a shared parking room or garage must have an electric outlet within five (5') feet of the space.
    b. All required long-term bicycle spaces that are located in-unit must have an electric outlet within five (5') feet of the space.
    c. At least twenty (20%) of the required large long-term bicycle spaces (as noted in Subsection B. 1 *Number of Bicycle Parking Spaces*) must have an electrical outlet within five (5') feet of the space.

Maintenance

1. The property owner of a site shall have a continuing obligation to properly maintain any bicycle parking facilities on their property, including privately purchased and installed bicycle racks in the public right-of-way. The City of Vancouver will maintain publicly provided bicycle parking facilities that are in the public right-of-way.

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Notice Requirements			Pre-app Requirements		Neighborhood Notice
Development	**Existing Code**	**Draft Code**	**Existing Code**	**Draft Code**	**Proposal**
Single-family home	Residential Building Permit/No notification	NO CHANGE Residential Building Permit/No notification	Not required	NO CHANGE Not required	None
Duplex	Residential Building Permit/No notification	NO CHANGE Residential Building Permit/No notification	Not required	NO CHANGE Not required	None
3-6 units	Type I Site Plan, no notification	Residential Building Permit/No notification per state law	Not required	NO CHANGE Not required	None
9 or < lot subdivision	Type II short plat, no posting, mailed notification to people within 500 feet of the site	Type II short plat, large format sign, mailed notification to occupant/owner within 300 feet of the site	Required	NO CHANGE Required	Neighborhoods may opt into pre-app notice and may attend pre-app meetings. Neighbors may ask questions at the pre-app as time allows. Applicant to send notice to neighborhood associations prior to land use submittal Type II and III applications include public comment period
10 or > lot subdivision	Type III Subdivision, small format sign, mailed notification to people within 500 feet of the site	Type III Subdivision, large format sign, mailed notification to occupant/owner within 300 feet of the site	Required	NO CHANGE Required	
7-19 units	Type I Site Plan, no notification	Type I Site Plan, large format sign posted on site	Not Required	Required	
20-200 units	Type II Site Plan, no posting, notification to people within 500 feet of the site	Type I Site Plan, large format sign posted on site	Required	NO CHANGE Required	
201 units or more	Type II Site Plan, no posting, notification to people within 500 feet of the site	Type II Site Plan, large format sign, mailed notification to occupant/owner within 300 feet of the site	Required	NO CHANGE Required	

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